# Round 1 vs Liberty LS

## 1AC

### Inherency

**Funding and Obama’s support for the American Centrifuge Project is strong and increasing now --- no loan gurantee coming**

Shesgreen ’13 – congressional correspondent for USA Today

(Deirdre, she has covered campaign finance, health care, and lobbying, and she is a two-time winner of the David Lynch Memorial Reporting Award for regional coverage of Congress, “Fate of Ohio centrifuge project murky in 2nd Obama term”, USA Today, 2-3-2013, Accessed 2-25-2013, http://www.usatoday.com/story/news/politics/2013/02/02/usec-centrifuge-plant-piketon-uranium/1881243/)

As the 113th Congress gets underway and President Obama begins a second term, some possible shifts in federal energy policy could ripple down to affect the American Centrifuge Plant in Piketon, Ohio. For starters, Energy Secretary Steven Chu announced Friday that he was stepping down. And there have been rumors that some of his deputies, who have championed the USEC project, might also be leaving the Department of Energy (DOE). At the same time, the president has emphasized in his new term a desire to reduce greenhouse gas emissions, which boosters of nuclear power say could be a boon to uranium-enrichment initiatives like the one in Piketon. **But those big-picture changes will not be make-or-break for USEC**, a Maryland-based global energy company and a major supplier of enriched uranium fuel. Sen. Sherrod Brown, D-Ohio, said he would make sure a new energy secretary gets "up to speed quickly" on the USEC project. "Whoever the secretary is will know we have bipartisan, strong support in the delegation and in the Congress overall." Sen. Rob Portman, R-Ohio, agreed. "This argument won't be any different" just because there's a new chief at DOE. Indeed, supporters and foes alike say that right now, the ACP's short-term prospects are good, but its **long-term fate remains uncertain** and **USEC's future** will probably hinge more on its **internal financial troubles** and the commercial market for its technology than on any new political reality in Washington. Let's start with the short term: USEC has said it will run out of money to keep the project afloat at the end of February. But Congress is likely to approve **one last batch** of federal funds for USEC in the coming months — at least $50 million, and possibly more, will be needed to complete a current research, development and demonstration program aimed at proving that USEC's uranium-enrichment technology is viable. "I think the commitment is deep from the White House and is deep in Congress and is ongoing," said Brown who, along with Portman, has championed the project. Portman questioned the president's support for the project, saying it might have had more to do with its location, in the critical battleground state of Ohio, than with Obama's dedication to the technology. Still, Portman said, fears he had that the White House might kill the project have faded. "I'm feeling relieved that we still have a lifeline," he said. In the U.S. House of Representatives, the Piketon site has a new booster in freshman Rep. Brad Wenstrup, R-Ohio. "I would really like to see this project move forward," Wenstrup said in an interview. "It's something that needs to be done as a matter of national defense." If successful, USEC officials say the plant will eventually produce enough fuel to power dozens of nuclear power plants around the country. In addition, supporters say it will bolster national security by ensuring the U.S. has a domestic source of enriched uranium. The strong support in Congress for additional federal dollars doesn't mean opponents have given up. The real fight, say critics of the centrifuge project, will come at the end of the year. That's when the research program — part of a cooperative agreement between USEC and the Department of Energy — will end. And USEC will renew its bid for a $2 billion federal loan guarantee, an application DOE officials put on hold in 2011 after glitches at the Piketon site raised concerns inside the department about the viability of USEC's uranium-enrichment technology. USEC used to be part of the DOE, and although Congress privatized it in 1988, USEC and the department still work closely together. Autumn Hanna, senior program director at Taxpayers for Common Sense, a fiscal watchdog group, said USEC's renewed bid for a loan guarantee will ignite fresh skepticism about the project, particularly since it's such a large amount of money. Hanna and other critics note USEC's common stock is trading below $1, and the energy company could be delisted from the New York Stock Exchange if it doesn't rectify that. "Taxpayers shouldn't be putting more money into USEC," she said. "DOE just can't be the lifeline." Rep. Edward Markey, D-Mass., who has led efforts to nix funding for USEC, echoed that argument and signaled he would press hard against the loan guarantee. "The value of the entire company is just over $70 million, it is still rated at below junk bond status, and it is in danger of being delisted from the stock exchange and becoming a penny stock," Markey said. "To continue to subsidize this failing company would be irresponsible." A DOE spokeswoman, Niketa Kumar, said in a statement that the Obama administration would advocate more money to finish the research program, but hinted the loan guarantee was no sure thing. She said the research phase was critical to addressing the "technical and financial risks associated with the ACP project." The energy department's agreement requires USEC to meet "a series of detailed technical milestones and performance metrics that provide significant taxpayer protections," Kumar noted. USEC officials said they would address such concerns in a strengthened loan application come December. The research and development program "will be successful . . . (and) will address any remaining technical issues about the technology," said Paul Jacobson, a spokesman for USEC. "We've been indicating as well . . . that we're working to strengthen our balance sheet." "We would want to put in a strong application, both from a technical and financial perspective," he added. USEC's most vocal supporters in Congress said they were hopeful the political and fiscal obstacles to the loan guarantee could be overcome. But they conceded they could not predict how the next phase would play out. "I think this is going to work for the public and . . . for taxpayers," Brown said. But "there are hurdles they have to jump over . . . (and) I can't evaluate eight months from now and know where we're going" to end up. Portman expressed concern that the Obama administration might be reluctant to "pull the trigger" on the loan guarantee. "It requires leadership from the administration that has been lacking," he said. "The arguments are compelling, and I'm optimistic that they will, in the end, make the right decision. But as folks in Piketon will remind you, time's a wasting."

**No DAs – DOE loan guarantees for uranium enrichment in the U.S. increasing now**

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

The DOE has supported other centrifuges. In 2010, it gave a conditional $2 billion loan guarantee to Areva, a conglomerate whose majority shareholder is the French government, to build centrifuges in Idaho. But that project is temporarily stalled because of a cash situation one executive called "growing pains." "Basically, we went in with an application that was based on a proven technology that's been in use in Europe for nearly three decades," said Sam Shakir, president of Areva Enrichment Services. "There was no question about the technology, its viability or its economics." That helped Areva sell $5 billion in preliminary orders for uranium, he said. Still, "The size of the market is large enough for multiple suppliers to be playing in."

**No perception links – Obama is already perceived to support the plan**

**USEC 08**

(“Presidential candidate Barack Obama writing to Ohio Governor Ted Strickland”, 9-2-2008, http://www.usec.com/support/administration/presidential-candidate-barack-obama-writing-ohio-governor-ted-strickland)

"Under my administration, energy programs that promote safe and environmentally-sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my **full support**. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high cost, foreign energy sources."

### Plan

**The United States Department of Energy should approve the United States Enrichment Corporation’s currently pending application for a $2 billion loan guarantee for the American Centrifuge Project.**

### Solvency

**USEC failure collapses domestic enrichment capability ---- Federal loan guarantee for USEC key to third party financing and credibility—no barriers**

**Schmidt ‘9 – Former U.S. Representative**

**(Jean Schmidt, speech from Congress, “Where are the Jobs?”, 7-29-2009, http://votesmart.org/public-statement/445368/where-are-the-jobs)**

The United States Enrichment Corporation, called USEC, is deploying American Centrifuge technology to provide the dependable, long-term, U.S.-owned and developed **nuclear fuel production capability** needed to support the country's nuclear power plants, nuclear submarines, and a robust nuclear deterrent. Mr. Speaker, we have dozens of nuclear power plants in this country that all require nuclear fuel. And we have a Navy who, as I speak, is sailing in every ocean across the globe. And we have weapons of mass destruction that will become a useless deterrent without fresh tritium. Without the American Centrifuge Plant, in 5 years' time, we will have **no ability** in the United States to enrich uranium to keep our lights on, our ships at sea, or a deterrent potential. In 5 years, we will be forced to purchase uranium from foreign suppliers as we do with most of our oil. I don't want to depend on foreigners for this kind of product. The American Centrifuge Plant holds great promise. Unfortunately, in order to meet this promise, USEC needed a loan guarantee from the **Federal Government**. Now, I want to repeat that. It needed a loan guarantee from the Federal Government. You see, USEC has already invested $1.5 billion and has offered another billion dollars of corporate support. It did this with the **expectation** **that the Department of Energy** would make available a $2 billion loan guarantee needed to finance the full-scale deployment of the American Centrifuge Plants. Now, I want to refer to this chart here. Why were they so confident in that? Well, you see on September 2, 2008, when President Obama was running for election, he wrote a letter to our Governor, Ted Strickland. This is the full letter so you can see it. I'm not taking it out of context. He said, Under my administration, energy programs that promote safe and environmentally sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my full support. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high-cost and foreign-energy sources. This is what this letter said. So you understand that USEC was very, very confident that they were going to get that loan guarantee. But instead, on Monday night, the Department of Energy really pulled the rug out from all of us. I got a phone call asking me to call the White House, and I learned Monday night that the Department of Energy was going to withdraw its promise and they were actually asking USEC to withdraw its application and to try it again in 18 months. I was actually told on the phone that if they did that, then the Department of Energy would give them $45 million, $30 million, and another $15 million if they would rescind this. And that kind of shocked me. The next day it also shocked the folks at USEC because, you see, they had this letter that the President had given to our Governor, Ted Strickland, that said those loan guarantees would be given. Mr. Speaker, the American Centrifuge Plant currently supports more than 5,700 jobs and will help create 2,300 more within a year of commencement of the loan-guarantee funding. That's 2,300 additional jobs to my district. Now, because the Department of Energy has contradicted a promise that our President made in September of last year to our Governor and to those men and women in this area of the State, those jobs are in jeopardy. And I was on the phone with one of my constituents earlier today. Pink slips are being given out at the USEC plant. The Department of Energy has told the media the reasons for their denial were threefold: the cost subsidy estimate, a new requirement for another $300 million of capital, and the questions of technology. Well, the first question offered by the DOE is a little laughable. It turns out that the government isn't really backing these loans. Instead, the Department of Energy is charging a risk-of-failure fee to each of the folks that agrees to back the loans. These fees are pulled together to eliminate any risk to the taxpayers that actually have been given a loan guarantee. They determined that the fee for this loan would be $800 million on a $2 billion loan. So USEC is supposed to come up with $800 million on a $2 billion loan. I don't know about you, but in my neck of the woods, we call that like loan sharking. The second reason for denying the guarantee is a new need to set aside an additional 300 million for contingencies. Well, I can think where you and I see that that is headed. After the risk premium is paid, apparently USEC still has to come up with more money to make the Department of Energy feel more comfortable about giving these loans. But the last question, I think, is the most surprising, because the last reason is one where they say they have got technical questions, and this is the one that is the most absurd of all, because, quite frankly, this technology is out there. France is using it, England is using it. Would it surprise you to know, Mr. Speaker, that Iran is using it? But what I found most disturbing is that the Department of Energy hired a technology expert, as required by law, and they went through the technology and wrote a long report, and in fact the guy ran back to give it to the Department of Energy on Tuesday. That was the day after the Department of Energy made their decision. They made that decision on Monday night. They made it without any regard for the report they were relying on for this very important project. It is not just a project, Mr. Speaker, that continues to help the folks in my district. And it is important to me, because, Mr. Speaker, this is my district, and these are my folks and these are my friends. I have become friends with these people. This is the part of my community that doesn't have a lot of job opportunities, and they welcomed this job opportunity. They embraced it. And I believe that the President believes in this project, as he stated on September 2, 2008. But I think there must be some sort of disconnect with the Department of Energy. There is a chart here, and I would like to go through the chart a little bit again so we can clearly understand what is going on. The issue: credit subsidy cost estimated by the DOE to be $800 million. Well, let me be a little clearer. The estimate was never provided in writing. The methods of calculation were never disclosed or explained. An $800 million subsidy cost is not reasonable. I think it is outrageous, given USEC's fully collateralized $1 billion parent guarantee, standard credit, and, yes, yield exposures of $24 million to $74 million based on credit ratings of C to BB-minus and assets recoveries of only 20 to 30 percent of the cost. The DOE calculation clearly ignores the value of $1.5 billion invested by USEC to date and another billion of non-project collateral offered by USEC, consisting primarily of natural and enriched uranium inventories. The second issue, an additional need for $300 million of additional capital. USEC offered a legally binding capital commitment, which DOE agreed met statutory and regulatory requirements. USEC's fully collateralized $1 billion parent guarantee designed to permit loan to commerce while USEC raised additional equity while fully protecting the taxpayers. USEC's financial adviser stated that with the loan guarantee, $100 million to $150 million of capital could be raised in the public market. USEC has commenced discussions with strategic suppliers to obtain vendor financing for the balance. And the final, the technical readiness of American Centrifuge Technology. The DOE LGPO concluded that ACT was not ready to move to commercial scale operations prior to receiving the independent engineer's written assessment. The independent engineer had only been working for 12 days when DOE acted. DOE was scheduled to review the classified independent engineer report on July 28, and the DOE representative traveled to Tennessee to do so, unaware of the LGPO's decision the night before. American Centrifuge is based on technology which DOE initially developed in the 1970s and the 1980s and subsequently operated it for 10 years. USEC-approved centrifuges have been operating in the Lead Cascade for over 225,000 hours. The DOE has acknowledged that USEC met the milestone under the 2002 agreement between DOE and USEC, which requires obtaining satisfactory reliability and performance data from Lead Cascade operations, the last requirement to be met besides obtaining financing prior to commencing commercial plant construction and operations. Mr. Speaker, I don't understand what is going on here, I don't think that this body understands what is going on here, and I am not even sure that the President even understands what is going on here with the Department of Energy. But I am very confused. More than that, I am very outraged because I believe that we have to have energy independence, but we also have to have security for this Nation. Energy independence depends upon a variety of sources of energy, including nuclear power, but you have to have the stuff to make that nuclear power. In 5 years, we will no longer be the people that are producing the stuff that it takes to make that nuclear power. That is why this project is so important, not just for the 2,000 jobs that will be lost.

**Unconditional plan is key—further delays or roadblocks means USEC would pull out of the project**

**USEC ‘12**

**(“Funding”, 2012, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)**

USEC needs **significant additional financing** in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the DOE Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant. In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, DOE proposed a two-year RD&D program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program **but has given USEC no assurance that a successful RD&D program will result in a loan guarantee**. Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays it has experienced will not adversely affect these efforts. If **conditions change** and deployment of the American Centrifuge Plant becomes no longer **probable or becomes delayed** significantly from USEC’s current expectations, USEC could expense up to the full amount of previously capitalized costs related to the American Centrifuge Plant of up to $1.1 billion. Events that could **impact USEC’s views** as to the probability of deployment or USEC’s projections include progress in meeting the technical milestones of the RD&D program, the status of continued DOE funding for the RD&D program, changes in USEC’s anticipated ownership of or role in the project, changes in the cost estimate and schedule for the project, and prospects for obtaining a loan guarantee and other financing needed to deploy the project.

**DOE key—without its backing key investors would pull out of the project**

**Duffy ’11 – investment expert at Motley Fool**

**(Aimee, “Will the Government Guarantee Your Uranium Stock?”, The Motley Fool, 10-7-2011, http://www.fool.com/investing/general/2011/10/07/will-the-government-guarantee-your-uranium-stock.aspx#lastVisibleParagraph)**

The U.S. Department of Energy can be such a tease sometimes -- just ask the uranium enrichment outfit USEC (NYSE: USU ) . The company has been in **hurry-up-and-wait mode** for more than two years now, eagerly anticipating a DOE decision on a $2 billion loan guarantee for its American Centrifuge project that has yet to materialize. The company has been **forced to negotiate extensions** **with its two main investors**, Toshiba and Babcock and Wilcox (NYSE: BWC ) , for the second time in two months. The companies have agreed to stay tied to the project, and their respective $100 million investments, until Oct. 31. A key process in the production of nuclear fuel for power plants, uranium enrichment increases the U235 isotope and decreases the U238 isotope in naturally occurring uranium. The U235 isotope is the only one that is fissionable, therefore the only one that can be used as nuclear fuel. USEC plans to use the American Centrifuge to separate the isotopes and sell the U235 to its customers. USEC desperately needs a conditional commitment from the DOE by the end of the month. The company provides more than 50% of enriched uranium in the United States but has issues with liquidity. The new centrifuge project is expected to provide 20% of the U.S. electricity supply but cannot go forward without help from the DOE. **Continued support from Toshiba and Babcock and Wilcox is also contingent on DOE commitment.** As it stands now, USEC has already directed certain suppliers to suspend work and has informed employees that layoffs may or may not be just around the bend.

**Fed action now key --- solves worker layoffs**

Koss ’12 – CQ Staff

(Geof Koss, “Tug of War Over Uranium Prompts Odd Alliances”, Congressional Quarterly, 3-3-2012, http://public.cq.com/docs/weeklyreport/weeklyreport-000004039687.html)

As a result, the Kentuckians’ rescue plan has hit a brick wall, raising questions not just about the Paducah jobs but also about the future of U.S. uranium enrichment. Should the Paducah plant close before its successor plant is completed in Ohio, the United States will lack an indigenous source of enriched uranium and be dependent on suppliers largely controlled by foreign governments. Critics say that could leave the U.S. unable to meet non-proliferation requirements that a key component of its nuclear weapons be generated from homegrown sources. Further complicating matters, the fate of the Ohio plant also is in doubt. Without **congressional approval** for $106 million in research funds by the end of March, layoffs at the plant may begin, says Paul Jacobson, a spokesman for USEC Inc., which runs both the Paducah and Ohio facilities. The predicament has sparked an intense and somewhat ironic debate in Congress, where a bipartisan bloc that includes deficit-focused, small-government conservatives such as Paul, as well as senior House and Senate leaders, is advocating federal intervention to save a company struggling to stay afloat. Many of those same lawmakers have attacked the Obama administration’s backing for similar intervention to assist emerging renewable-energy technologies. Opposing them is an odd coalition that includes a conservative think tank, Western lawmakers from mining states and anti-nuclear liberal Democrats. The administration in January threw a lifeline to USEC when it assumed $44 million of its liability for tailings, radioactive waste produced when uranium is milled, while also requesting $150 million in fiscal 2013 for research funding at the Ohio site. But the company is focused on impending March and May deadlines that Jacobson calls crucial. Within weeks, he says, “the United States could well find itself without any plan for indigenous uranium enrichment for the first time since the dawn of the atomic age.”

**Free market solutions mean USEC fails and no other commercial entity fills the void—only continued government intervention works**

Rothwell ‘9 – professor of economics at Stanford

(Geoffrey, “Market Power in Uranium Enrichment”, Science & Global Security, 17:132–154, 2009)

With the retirement of diffusion capacity during the next decade, the artiﬁcially high price of enrichment could fall. (It is “artiﬁcially” high due to entry barriers: Were there open markets in enrichment, new cheaper capacity would have forced the retirement of diffusion technology much sooner). Entry of new participants into the **enrichment market** is **constrained** by non-proliferation considerations, as well as by commercial interests. Enrichment technology is now being more closely guarded with the discovery of a Pakistani enrichment technology smuggling network, which stole centrifuge technology from Urenco in the 1970s, used that technology to develop nuclear weapons in Pakistan, then sold or traded the technology with several other countries, sparking a nuclear arms race with its neighbors and enabling nuclear weapons development in North Korea. Without market intervention, prices could fall to competitive levels. This implies there might be no economic proﬁt for **anyone but the Russians and Europeans**. Therefore, the ﬁnancial outlook for uranium enrichers has been bleak, prompting a Standard and Poor’s analyst to write: Standard & Poor’s Ratings Services afﬁrmed its “A-/A-2” long- and short-term corporate credit ratings on Europe-based uranium enrichment company Urenco Ltd. . . . The enrichment market is undergoing very drastic changes, as TENEX (Rosatom)—which controls roughly 50% of global enrichment capacity but only 24% market share among end-customers—is looking to increase its share of direct sales to end-customers. The extent to which this will affect Western enrichment suppliers—USEC Inc. (B-/Negative/–), Areva (not rated), and Urenco—over the medium term remains to be seen, but will be strongly inﬂuenced by ongoing political and trade negotiations . . . The other major industry change is an expected phase-out of the non-economical gaseous diffusion plants used by USEC and Areva . . . (These ratings were re-afﬁrmed on April 24, 2008.) 11 “A−” implies that Standard & Poor’s believes that (1) “economic situation can affect ﬁnance” (A) and (2) that the rating is “likely to be downgraded” (−); where A−, BB, BB−, B+, B−, etc., are lower and lower credit ratings for “non-investment” grade bonds. Since 2002, USEC has been forced to pay high bond rates on its rising debt, while trying to ﬁnance a new, First-of-a-Kind technology. This situation has been deteriorating; see Table 2. Therefore, assuring adequate diversity of enrichment capacity could be problematic **without a** more comprehensive **market intervention** (rather than continued subsidization, or not, by national governments). A Russian-European duopoly in enrichment might provide an adequate diversity of supply. But the U.S. Government must determine how many suppliers should be in the enrichment market to maintain market competition or whether any form of market regulation is necessary. The U.S. Government has been **subsidizing** the **USEC since its privatization**; it is unlikely that USEC will survive without a *continuous* infusion of federal capital *until* the ACP is ﬁnished. If USEC does survive, it might not be competitive enough to grow, if only because USEC has so little experience with operating and manufacturing centrifuge technology. **If USEC fails, the U.S**. Government **could be required to** nationalize **the** American Centrifuge Plant to provide services to defense programs (e.g., naval reactors), as well as pay for decommissioning the gaseous diffusion facilities and all other outstanding USEC liabilities. On the other hand, American electric utility demand can be supplied by Americans working at the Areva and Urenco plants in Idaho and New Mexico, and by the Russians through the extension of current contracts. Therefore, while it is not in the American electric utilities’ interest to support USEC’s high prices, it could be in their interest to support the existence of USEC as a hedge against dependence on one or two suppliers. Unregulated enrichment markets will not necessarily lead to a socially optimal diversity of enrichment suppliers: a long-run equilibrium where the industry is necessarily concentrated such that there is no proliferating entry, but is sufﬁciently diverse so that no one national group can dictate prices, contract terms, or non-proliferation policy. United States decision makers should determine (1) whether a Russian-European duopoly is in the United States’ national interest, given the dependence of the U.S. **nuclear navy** on Highly Enriched Uranium (or whether highly enriched uranium stockpiles would be adequate for the foreseeable future), (2) whether to continue to subsidize USEC, or re-nationalize it in the national interest of the United States to facilitate the implementation of non-proliferation policy, and (3) whether some form of enrichment market regulation should be encouraged to assure low-enriched uranium at reasonable prices, particularly for U.S. electric utilities.

### Deterrence

**Tritium requirements for the nuclear deterrent won’t be met now – only increasing tritium production solves**

GAO ’10

(“NUCLEAR WEAPONS National Nuclear Security Administration Needs to Ensure Continued Availability of Tritium for the Weapons Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

DOD is responsible for implementing the U.S. nuclear deterrent strategy, which includes establishing the military requirements associated with planning for the nuclear weapons stockpile. NNSA and DOD work together to produce the Nuclear Weapons Stockpile Memorandum. This memorandum outlines a proposed plan for the President to sign to guide U.S. nuclear stockpile activities. This plan specifies the size and composition of the stockpile and other information concerning adjustments to the stockpile for a projected multi-year period. While the exact requirements are classified, NNSA uses the detailed information included in the memorandum on the number of weapons to be included in the stockpile to determine the amount of tritium needed to maintain these weapons. In addition, NNSA maintains a reserve of additional tritium to meet requirements in the event of an extended delay in tritium production. Small quantities of tritium are also needed by the national laboratories and other entities for scientific research and development purposes. According to NNSA officials, NNSA is meeting current requirements through a combination of harvesting tritium obtained from dismantled nuclear warheads and producing lower-than-planned amounts of tritium through the irradiation of TPBARs in the Watts Bar 1 reactor. However, tritium in the stockpile as well as in NNSA’s tritium reserve continues to decay, making increased production of tritium critical to NNSA’s ability to continue meeting requirements. Although the number of nuclear weapons in the U.S. stockpile is decreasing, these reductions are unlikely to result in a significant decrease to tritium requirements. Specifically, the New Strategic Arms Reduction Treaty signed in April 2010, if ratified by the Senate, will reduce the number of deployed strategic nuclear warheads by 30 percent. However, it has not yet been determined whether some or all of these warheads will be maintained in reserve—where the warheads would continue to be loaded with tritium—or dismantled—where the tritium could be removed from the weapons. Moreover, even if some or all of the warheads reduced under the treaty were dismantled, tritium requirements are unlikely to decrease by a significant amount. While the specific reasons for this lack of decrease in tritium requirements are classified, NNSA officials we spoke with said that the additional tritium supply that would be available as a result of increased warhead dismantlements is unlikely to fill what they estimate will be a steady tritium demand in the future.

**The ACP key to domestic tritium in our nuclear arsenal**

**Holt and Nikitin ’12 –** specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

Tritium, produced in nuclear reactors, is an essential ingredient in U.S. nuclear warheads and must be regularly replenished as it radioactively decays. The need for a domestic fuel supplier for tritium production reactors has been cited as a justification for providing government assistance to USEC. USEC Inc. was established in 1998 through the public sale of a government corporation, the U.S. Enrichment Corporation, pursuant to the USEC Privatization Act (P.L. 104-134). The company enriches uranium in the fissile isotope U-235 (increasing the proportion of U-235 from the level found in natural uranium) for use as fuel by nuclear power plants. USEC leases an enrichment plant in Paducah, KY, from the Department of Energy (DOE). Built in the late 1950s, the Paducah plant uses an enrichment technology known as gaseous diffusion, in which uranium hexafluoride gas is pumped through permeable barriers to separate the major isotopes of uranium. As the isotopes are separated, U-235 is concentrated in a product stream, while the non-fissile isotope U-238 becomes more concentrated in a waste stream (or tails). USEC plans to replace the Paducah plant with a new plant at a DOE site near Piketon, OH, that would use advanced centrifuges to separate the isotopes, called the American Centrifuge Plant. The $150 million requested in the FY2013 Department of Energy budget justification is to support R&D activities for the American Centrifuge Plant. DOE currently produces tritium by irradiating lithium-6 in the Watts Bar 1 commercial reactor (in Tennessee) and may expand the program to the two-reactor Sequoyah nuclear plant (also in Tennessee) as well, both of which are owned and operated by the Tennessee Valley Authority (TVA). Because the tritium is to be used in nuclear weapons, the Watts Bar 1 and Sequoyah reactors **may not be allowed to use fuel from foreign sources** or even some domestic uranium. U-234 is necessary for the production of tritium. USEC Inc. is the current supplier of fuel for tritium production. Thus, if USEC were to cease enrichment operations, it has been argued, U.S. tritium production could be jeopardized because of a lack of alternative fuel from a solely domestic source.

**Foreign suppliers creates uncertainty and vulnerability in the arsenal**

Rowny ’12 – retired Lieutenant General

(Edward Rowny, was chief negotiator with the rank of ambassador in the START arms control negotiations with the Soviet Union and has served as an arms control adviser and negotiator for five presidents, Roll Call, 3-29-2012, http://www.rollcall.com/issues/57\_118/edward-rowny-safe-uranium-enrichment-should-be-us-priority-213505-1.html)

Oil may grab headlines, but nuclear power for civilian use is growing, as it should. It is efficient, extremely safe and friendly to the environment. As with oil, the U.S. would be wise to produce its own supply of enriched uranium, the fuel for nuclear power plants. Farming out the process to other nations — or to companies headquartered overseas — is risky and increases our vulnerabilities. The U.S. government should pay more attention than it has in recent years to the nation’s dwindling ability to enrich its own uranium. The consequences of doing otherwise could be dramatic. Our country could **find itself at the mercy** of foreigners who do not have our best interests at heart. Energy independence, a laudable aspiration for oil, is even more essential for nuclear power. Domestically produced supplies of enriched uranium are already running short. The U.S. once produced most of the world’s enriched uranium. Now we’re down to about a quarter of the world’s supply. For reasons of national security, we shouldn’t dip further. That’s why the president should be praised for requesting $150 million in next year’s National Nuclear Security Administration budget to keep uranium enrichment alive on our soil. In the meantime, Chu has asked Congress for the authority to reallocate his current budget resources for that purpose until next year’s budget is enacted. Without this cash infusion, American technology at a major facility in rural Ohio will face an uncertain future. We can’t afford the *uncertainty*. Military considerations also play a role here. Nuclear weapons, while thankfully on the decline, still exist and must be maintained and updated. International treaties mandate that tritium, a rare, radioactive isotope that’s a byproduct of enriched uranium use in nuclear reactors and is critical to the proper, safe functioning of nuclear weapons, must be made with U.S. technology. Unless U.S. technology is available to make the enriched uranium needed to produce tritium, our national security will be at risk.

**Foreign suppliers can’t and won’t provide the tech**

Holt and Nikitin ’12 – specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

The European consortium Urenco is one of USEC’s major competitors. Urenco recently began operating a centrifuge enrichment plant in New Mexico, which is expected to reach a capacity of 5.8 million separative work units (SWU) by 2015. The New Mexico plant is operated by Urenco subsidiary Louisiana Enrichment Service (LES), so named because the facility was originally planned for Louisiana. Construction of Urenco’s New Mexico plant was authorized by the 1992 Washington Agreement between the United States and the three members of the Urenco consortium: Germany, the Netherlands, and the United Kingdom. 2 Article III of the agreement, Peaceful Use, states that the New Mexico plant shall only be used for peaceful, non-explosive purposes. The special nuclear material produced by the plant, enriched uranium, as well as any special nuclear material produced in a reactor using the enriched uranium, such as plutonium, is also restricted to peaceful uses. Urenco has signed a contract with TVA to supply enrichment services from its New Mexico plant to the Watts Bar and Sequoyah reactors. This arrangement raised questions about whether the TVA plants could be used to make tritium for nuclear warheads while being fueled by enriched uranium from Urenco. A 2008 legal memorandum to NNSA concluded that the Washington Agreement did not preclude such use of the Urenco-produced nuclear fuel, because tritium is not defined as special nuclear material, but rather as byproduct material. A Joint Committee of the Urenco consortium, after being briefed on the issue at a 2005 meeting, did not object to the TVA contract. 3 A Urenco official said that although the company does not object to TVA tritium production with its enriched uranium, **current DOE policy would not approve the transfer**. 4 An NNSA official said U.S. treaty obligations prevent fuel enriched by Urenco from being used for tritium production: The answer in general for Urenco is that its enrichment technology has peaceful use restrictions, consistent with section 123(a)(3) of the Atomic Energy Act and our treaty with Euratom [an association of European countries that use nuclear energy], that prevent its deployment in support of nuclear weapons programs or for any military purpose.

**Perception of federal leadership key to effective nuclear deterrence**

Schneider ‘8 – chairman of the Defense Science Board

(Dr. William Jr., “Nuclear Deterrence Skills”, Report of the Defense Science Board Task Force, September 2008, http://www.defense.gov/npr/docs/dsb%20nuclear%20deterrence%20skills%20chiles.pdf)

As long as anyone in the world has or can acquire nuclear weapons, America must have nuclear **deterrence expertise** competent to avoid strategic surprise and respond to present and future challenges. There are many kinds of threats that demand national leadership, but no threat can put the nation’s existence at risk as quickly and as chillingly as nuclear weapons. To say this is not to dismiss the seriousness of other threats. It simply acknowledges that since the dawn of the nuclear age, security from nuclear attack has been in a class of its own, and major national decisions on nuclear deterrence issues have been reserved for the President of the United States. Nuclear deterrence expertise is **uniquely demanding**. It cannot be acquired overnight or on the fly. It resides in a highly classified environment mandated by law, it crosses a number of disciplines and skills, and it involves implicit as well as explicit knowledge. Nuclear weapons **expertise is** **necessary to design and build nuclear weapons, to plan and operate nuclear forces**, and to design defense against nuclear attack. It is also necessary to analyze and understand foreign nuclear weapons programs, devise nuclear policies and strategies, deal with allies who depend on the American nuclear umbrella, prevent and counter nuclear proliferation, defeat nuclear terrorism, and—in the event that a nuclear detonation takes place by accident or cold, hostile intent—cope with the catastrophic consequences. America’s nuclear deterrence and nuclear weapons expertise resides in what this study calls the “nuclear security enterprise.” This enterprise includes nuclear activities in the Department of Defense (DOD), Department of Energy, Intelligence Community (IC), and the Department of Homeland Security.

**The nuclear deterrent is critical to prevent nuclear war, terrorism, and allied prolif – best research and Neg authors are biased**

Blackwill ’13 – special advisor to the Air Force’s assistant Chief of Staff for strategic deterrence and nuclear integration

(James, “Nuclear Weapons Critics Suffer Cold War Brain Freeze; Deterrence Works, Argues Top Air Force Official”, AOL Defense, 2-20-2013, Accessed 2-25-2013, http://defense.aol.com/2013/02/20/nuclear-weapons-critics-suffer-cold-war-brain-freeze-deterrence/)

There is an unsettling paradox in much of the recent debate over nuclear weapons in this country. Some pundits, fixated on purging "Cold War thinking" from those of us with real-world responsibilities for nuclear deterrence, are themselves suffering from thoughts frozen in time. In the midst of this important debate, let me offer some examples of the new strategic concepts emerging from a new generation of deterrence thinkers. The conventional wisdom is that a world with fewer nuclear weapons is inherently a better world. What we are discovering is that less is not less, less is different. US policy has led in reducing nuclear weapons. At its peak in 1967, the US stockpile stood at a staggering 31,255 warheads. Just since 1991, we have disassembled more than 13,000 weapons, and in the past decade taken our stockpile – the total number of weapons -- down from 10,526 in 2001 to 5,113 in 2010. Our nuclear weapons and delivery platforms now number an order of magnitude less than during the Cold War, and this policy continues -- creating new conditions in the global nuclear balance. In this new nuclear environment, potential adversaries are reaching conclusions we did not expect, and **our allies** and partners **are more nervous** about it than we want them to be. This new world of several contending nuclear powers **behaves** **differently than the bi-polar world** that preceded it. Deterrence is no longer (if it ever really was) a rational actor systems model; it works as a mental model. It's more like the "**hot hand" rule in basketball** – players do not keep mental statistics on who has the highest percentage shot for a particular game situation; instead they carry a moving mental image of who at that moment is on a streak and feed the ball to that player instinctively. The same kind of thing happens in crisis and conflict. Behavioral scientists call this "fast, frugal heuristics," and are beginning to explore the empirical dimensions of this 21st century deterrence dynamic. There are some surprising findings and insights. First, just because no one has detonated a nuclear weapon in war since 1945, does not mean they are sitting idly by, with little purpose. Nuclear weapons are in fact "used" **every day** -- not to win a war, but to deter any adversary from thinking they could get away with starting one. As budget pressures rise, many call for not spending more on weapons we cannot use in the kinds of conflicts most likely to occur – presumably counter-terrorism or conventional warfare. But a nuclear war is the conflict we need to make sure remains the least likely to happen. Second, there is **much new research** on 21st century deterrence of rogue actors and terrorists. We now know that, during the 1991 Persian Gulf War, Saddam Hussein was persuaded that if he were to order use of chemical weapons against US troops, the US would have responded with tactical nuclear weapons. Hussein had extensive discussions with his generals – lectures really – and injected that assumption into all their war planning. Such thinking likely resides within the decision-making processes of other states that face a similar calculus. There is merit in reinforcing such fears among others who would harm their neighbors. It turns out that terrorists, even suicide bombers, harbor visceral fears of nuclear weapons, fears that can be exploited to deter them from acting should they ever get one. Islamic terrorists adhere to the Koran's proscriptions against poisoning the earth with radiological effects and creating mass casualties among the innocent. Cyber and psychological campaigns can broadcast messages across terrorists' own social networks to convey this narrative challenge to terrorists' intent. Terrorist cells also fear failure, so technical sabotage, misinformation and deception can magnify doubt about the prospects for a successful detonation. Third, US nuclear weapons serve as a powerful instrument of nonproliferation. Post-Cold War experience reveals that others, from Saddam's Iraq, to North Korea, Libya, Iran and others, pursue nuclear weapons as the centerpiece of an asymmetric counter to the United States' conventional military superiority. As every other nuclear power except the U.S. modernizes their nuclear weapons, and as the number of nuclear armed states continues to grow, our allies and partners who rely on our extended deterrent are increasingly motivated to consider obtaining their own nuclear arsenal. We must actively pursue a flexible strategy that allays such concerns among allies. Some assert that a reliable nuclear deterrent does not require the ability to retaliate immediately, only the assurance that U.S. nuclear forces would survive any attack. Aside from the fact that none of America's nuclear triad is on "hair-trigger" alert, the reality of fewer nuclear weapons is that we cannot rely solely on a super-survivable second strike nuclear force that deters only by threatening retaliation. Such a posture could readily be perceived as threatening our intent to strike first. We must have a resilient nuclear arsenal that deters a nuclear strike in the first place. No president would want to ask the American people to ride out a first strike and then trust him to order a retaliatory strike on behalf of the remaining fraction of our population. What the president needs is a nuclear force that would lead no nuclear armed state, faction or terrorist to conclude that it has less to lose by striking us first, even with just one or a few nuclear weapons. We must not give anyone cause to contemplate such a move. This is a very different form of deterrence than the Cold War. No longer can we rely on the mathematics and purely rational models of nuclear exchange developed in the 20th century. We must understand human perception and decision-making. For 21st century deterrence, the value of first-strike stability is now at least equally important as maintaining an assured retaliation capability. Those of us in the new generation of strategic thinkers have liberated our minds from Cold War thinking to make sure that today, nuclear weapons are never used.

**Nuclear terrorism causes extinction**

Ayson 10 - Professor of Strategic Studies and Director of the Centre for Strategic Studies: New Zealand at the Victoria University of Wellington (Robert, July. “After a Terrorist Nuclear Attack: Envisaging Catalytic Effects.” Studies in Conflict & Terrorism, Vol. 33, Issue 7. InformaWorld.)

But these two nuclear worlds—a non-state actor nuclear attack and a catastrophic interstate nuclear exchange—are not necessarily separable. It is just possible that some sort of terrorist attack, and especially an act of nuclear terrorism, could precipitate a chain of events leading to a massive exchange of nuclear weapons between two or more of the states that possess them. In this context, today’s and tomorrow’s terrorist groups might assume the place allotted during the early Cold War years to new state possessors of small nuclear arsenals who were seen as raising the risks of a catalytic nuclear war between the superpowers started by third parties. These risks were considered in the late 1950s and early 1960s as concerns grew about nuclear proliferation, the so-called n+1 problem. It may require a considerable amount of imagination to depict an especially plausible situation where an act of nuclear terrorism could lead to such a massive inter-state nuclear war. For example, in the event of a terrorist nuclear attack on the United States, it might well be wondered just how Russia and/or China could plausibly be brought into the picture, not least because they seem unlikely to be fingered as the most obvious state sponsors or encouragers of terrorist groups. They would seem far too responsible to be involved in supporting that sort of terrorist behavior that could just as easily threaten them as well. Some possibilities, however remote, do suggest themselves. For example, how might the United States react if it was thought or discovered that the fissile material used in the act of nuclear terrorism had come from Russian stocks,40 and if for some reason Moscow denied any responsibility for nuclear laxity? The correct attribution of that nuclear material to a particular country might not be a case of science fiction given the observation by Michael May et al. that while the debris resulting from a nuclear explosion would be “spread over a wide area in tiny fragments, its radioactivity makes it detectable, identifiable and collectable, and a wealth of information can be obtained from its analysis: the efficiency of the explosion, the materials used and, most important … some indication of where the nuclear material came from.”41 Alternatively, if the act of nuclear terrorism came as a complete surprise, and American officials refused to believe that a terrorist group was fully responsible (or responsible at all) suspicion would shift immediately to state possessors. Ruling out Western ally countries like the United Kingdom and France, and probably Israel and India as well, authorities in Washington would be left with a very short list consisting of North Korea, perhaps Iran if its program continues, and possibly Pakistan. But at what stage would Russia and China be definitely ruled out in this high stakes game of nuclear Cluedo? In particular, if the act of nuclear terrorism occurred against a backdrop of existing tension in Washington’s relations with Russia and/or China, and at a time when threats had already been traded between these major powers, would officials and political leaders not be tempted to assume the worst? Of course, the chances of this occurring would only seem to increase if the United States was already involved in some sort of limited armed conflict with Russia and/or China, or if they were confronting each other from a distance in a proxy war, as unlikely as these developments may seem at the present time. The reverse might well apply too: should a nuclear terrorist attack occur in Russia or China during a period of heightened tension or even limited conflict with the United States, could Moscow and Beijing resist the pressures that might rise domestically to consider the United States as a possible perpetrator or encourager of the attack? Washington’s early response to a terrorist nuclear attack on its own soil might also raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China. For example, in the noise and confusion during the immediate aftermath of the terrorist nuclear attack, the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment, when careful planning runs up against the friction of reality, it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow, although it must be admitted that any preemption would probably still meet with a devastating response. As part of its initial response to the act of nuclear terrorism (as discussed earlier) Washington might decide to order a significant conventional (or nuclear) retaliatory or disarming attack against the leadership of the terrorist group and/or states seen to support that group. Depending on the identity and especially the location of these targets, Russia and/or China might interpret such action as being far too close for their comfort, and potentially as an infringement on their spheres of influence and even on their sovereignty. One far-fetched but perhaps not impossible scenario might stem from a judgment in Washington that some of the main aiders and abetters of the terrorist action resided somewhere such as Chechnya, perhaps in connection with what Allison claims is the “Chechen insurgents’ … long-standing interest in all things nuclear.”42 American pressure on that part of the world would almost certainly raise alarms in Moscow that might require a degree of advanced consultation from Washington that the latter found itself unable or unwilling to provide. There is also the question of how other nuclear-armed states respond to the act of nuclear terrorism on another member of that special club. It could reasonably be expected that following a nuclear terrorist attack on the United States, bothRussia and China would extend immediate sympathy and support to Washington and would work alongside the United States in the Security Council. But there is just a chance, albeit a slim one, where the support of Russia and/or China is less automatic in some cases than in others. For example, what would happen if the United States wished to discuss its right to retaliate against groups based in their territory? If, for some reason, Washington found the responses of Russia and China deeply underwhelming, (neither “for us or against us”) might it also suspect that they secretly were in cahoots with the group, increasing (again perhaps ever so slightly) the chances of a major exchange. If the terrorist group had some connections to groups in Russia and China, or existed in areas of the world over which Russia and China held sway, and if Washington felt that Moscow or Beijing were placing a curiously modest level of pressure on them, what conclusions might it then draw about their culpability

**Weak credibility means allies proliferate --- nuke war**

Millot 94 – president of the Educational Entrepreneurs Fund

(Marc Dean, President of Education Entrepreneurs Fund, Washington Quarterly, “Facing the Emerging Reality of Regional Nuclear Adversaries,” 1994, lexis)

If the allies of the United States come to believe that it no longer shares their view of regional security, is no longer automatically committed to their defense, can no longer be counted as prudent, and may suffer from a paralytic fear of nuclear conflict, the burden of proof in any debate over national security in any allied capital will shift to those who argue for continuing to rely on U.S. security guarantees. Decisions to pursue national nuclear weapons programs may not be far behind. The lack of **credible** security assurances will push allies of the United States toward nuclear arsenals of their own to restore the military equilibrium upset by their local nuclear adversaries or by more general regional nuclear instabilities. These allies may well see a realization of their virtual nuclear arsenal as the only alternative to losing all influence over their own national security. This development, however, would lead down a worrisome path, with dangerous implications for regional stability and ultimately for the security of the United States itself. One lesson U.S. defense decision makers should take from the growing understanding of U.S.-Soviet crises is that nuclear stability is not automatic. By the end of the Cold War nuclear stability was practically an institution; in the beginning it was barely a concept. As historians report their findings on such events as the Cuban missile crisis, it is becoming apparent that the superpowers learned to create stability on the basis of trial and error. Reading the results of this research it is difficult not conclude that, particularly in the early days of U.S.-Soviet competition, luck played an uncomfortably significant role in avoidance of nuclear war. It is possible that the new nuclear powers will learn from the history of U.S.-Soviet nuclear crises, just as they have learned to take advantage of U.S. technological innovations in the development of their own nuclear weapons programs. Perhaps the relatively rapid development of a stable regional nuclear balance is feasible. On the other hand, U.S. leaders should be concerned that nations with widely varying values, thought processes, and cultures may go through the learning experience without their own good fortune. It is hard to know where **any nuclear war might end**, or what lessons onlookers will take away from it. It is doubtful that anyone is eager to run a real world experiment on the universality of the superpowers' nuclear logic. Indeed the vision of experimental failure on a massive scale has probably influenced U.S. decision makers to give prevention its privileged role in the national response to the proliferation threat. But now that regional adversaries of the United States are going nuclear, the experiment will begin if U.S. allies follow suit. As perhaps several of these experiments play themselves out, the odds increase that one will lead to nuclear war. When U.S. leaders come to recognize that these experiments are out of their hands, they will face the question of what to do with the remaining forward presence of their forces on allied territories. If they stay, the United States runs the risk of being sucked into nuclear wars that are not of its making against its will. If they leave, the United States will lose any hope of regional influence, but may at the same time precipitate a crisis that may itself increase the risk of nuclear conflict. Neither choice is appealing; both hold grave risks for U.S. national security. Preventing the need of future leaders to confront that choice should be the goal of U.S. policy.

**Nuclear primacy stabilizes nuclear conflict with Russia and China**

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 134-139)

Any practical scenario involving nuclear weapons looks highly unrealistic except in the context of a conflict with China, the most feared neighbor, which lost part of its territory during the time of Russia’s grandeur with the so-called unequal treaties. But even though Beijing is feared by lucid Russian officials and security experts, such a scenario appears remote. Russia would rather continue developing its anti-Western propaganda and trying to coerce its neighbors—a prospect that is troubling enough, particularly since many of those neighbors are NATO and/or EU members—but nuclear weapons can hardly be contemplated, even to coerce. In the south, Russian nuclear weapons can hardly be used as either a means to deter or a means of warfare. So, again, only a China scenario would make sense, particularly since with fewer nuclear capabilities, China would be much more tolerant of human losses. Moscow knows it. It also knows that deep cuts in nuclear forces after New Start would encourage China’s buildup. Finally, it is worth underlining in the event of future talks with Moscow that it is hard to understand its geostrategic picture as expressed in March 2011 by Military Sciences Academy President General Makhmud Gareyev: “Regarding security, Russia has never been in such a crunch as in the early twenty-first century since perhaps, 1612.”67 Forget 1941, and forget the Cold War, particularly after 1960, when both China and the United States were considered hostile. The delusion of the Russian side will be the most dangerous element to deal with in the coming years. In the 21st century, there is a potential nuclear triangle among the United States, Russia, and China that may be considerably more difficult to handle than the bipolar relationship that existed in the 20th century. Triangles are inherently unstable, particularly when the nations concerned are empowered with ballistic missiles and nuclear weapons.68 Each of the three powers has to make calculations regarding the evolution of the other two; two of the three may combine their forces against the third, and this kind of alliance may only be temporary; and in case of crisis, the **uncertainty** grows with the presence of a third actor. In George Orwell’s novel Nineteen Eighty-Four, the world is divided among “the Big Three,” all of them totalitarian. They combine but switch sides frequently. As Martin Wight recalls, “Triangles tend to be mobile figures of shifting alliances and negotiations.”69 In the case of the United States, Russia, and China, there would be only two dominant powers of different caliber (the United States and China) and a third force (Russia, which can no longer be called a great power). If triangles “are relationships of conflict” that “are resolved by war,”70 what can be expected from this particular triangle? For the time being, Washington has prioritized China and Russia in the 2010 NPR, frequently associating them with “strategic stability.” In the NPR, China and Russia are no longer presented as “contingencies” (even though both nations are still targeted in U.S. nuclear planning) but as partners with whom to discuss strategic stability. The Ballistic Missile Defense Review, for its part, has done its utmost to assure China and Russia of the absence of any U.S. plans to counter China’s or Russia’s deterrence capabilities. Rhetoric aside, how will the United States craft strategic stability with both Russia and China? The NPR offers no answer to this legitimate question. Thinking on the subject is not easy, particularly if government officials are pressed to reach public conclusions. It appears highly probable that strategic stability will be defined by both Russia and China—if they eventually agree to engage in such discussion 71—in wider terms than in terms of nuclear parity. In principle, the United States, which never equated “strategic” with “nuclear,” should have no problem accepting this. But difficulties would start just after this simple recognition. First, both Moscow and Beijing want to constrain advanced U.S. conventional capabilities, U.S. missile defenses, and alliances with the United States in their neighborhood. Washington can make some **gestures** (offer cooperation on missile defense to Moscow72 or reassure Beijing on the value of its nuclear deterrent73), but those **will hardly be enough**. Second, on the American side, it would only be natural to enlarge the concept as well and ask Moscow to clean up its ballistic weapon archipelago for good,74 while China might be asked to adhere to some rules in space and cyberspace. A year from now, the different definitions of strategic stability in the three nations are likely to endanger the optimistic scenario delineated in the NPR.75 On the Russian side, missile defense, Prompt Global Strike, and NATO’s presence in Russia’s periphery are going to remain contentious bilateral issues, while its own clandestine ballistic weapon activities are unlikely to be acknowledged. In addition, the primary source of instability in Moscow’s mind being its own decay, U.S. military and diplomatic superiority are going to be fought with all the available means, including influence, negotiations, intimidation, and espionage. The nostalgic empire perceives any secure neighbor as a threat, as if projecting fear were the only means of ensuring security. While the historical roots of this mind-set are well known, it clashes with stability as defined by most other countries (and certainly by Russia’s neighbors). For example, on the subject of missile defense, Moscow insists it is prepared to shield contiguous Eastern European states from missile threats: “Naturally, Russia should be in charge of the eastern sector encompassing the territories of the contiguous states and seas,” declared Russian Space Forces Commander Lt. Gen. Oleg Ostapenko on April 29 in Moscow.76 Would the Baltic states or Poland consider such a possibility? Unlikely. And Washington will not swallow any of this, either. As for China, stability is satisfactory as long as China’s status, meaning the “Middle Kingdom” under new guise, is restored. More than projecting fear, Beijing wants recognition of its superiority. The bottom line is “China is big” and deserves respect as such. Such was the motivation for Beijing’s totally disproportionate reaction to Tokyo’s decision to detain and charge the captain of a Chinese fishing trawler in September 2010. China needs to learn the measure of a great power, but it may never get there. It apparently enjoys looking like a bully. Beijing may therefore be exploiting the U.S. desire for partnership only to the extent that it buys it an additional decade of breathing room to become really big. Is it in the interest of the United States to endorse this line of thought and conduct? Hardly. In addition, the primary source of instability for China being the United States (in decline in China’s mind but still the big hegemon in China’s speeches), it is hard to imagine what kind of strategic stability can be crafted with Beijing. Sino-Russian relations have improved largely because both nations wish to constrain American power. The border dispute was resolved in 2004, some joint military exercises have been conducted, and China has benefited enormously from Russia’s willingness to export modern weapon systems (aircraft, submarines, cruise missiles, and air defense systems) and advanced technologies (notably in the field of uranium enrichment). In essence, China views the rapprochement as bringing more stability because it increases China’s power and influence. Russian policy is less clear and sometimes debated by Russian experts who worry about China’s military rise. In Central Asia, the two nations are in competition: Their only common goal is related to U.S. withdrawal. What will happen next? In the Middle East and in East Asia, there is some Sino-Russian coordination to constrain Western efforts toward sanctions on Iran and North Korea. From this perspective, both countries bear some responsibility in the advance of both Iran’s and North Korea’s ballistic and nuclear programs, even when technological cooperation between them and the two nuclear aspirants is set aside. With this in mind, how can strategic stability be crafted among the United States, China, and Russia? At the simplest level, strategic stability could mean securing the nuclear peace and preventing escalation in times of crisis. In principle, the Russians could be a satisfactory partner because of historic experience, competence, and a genuine desire to avoid worst-case scenarios. Less is known about the Chinese: Would they reject or favor deliberate escalation in wartime? One thing that is clear is that interest in this topic is growing in the PLA.77 Chinese writings continually emphasize the need to secure and maintain the political and military initiative, highlighting how difficult it is to regain once lost. This is probably the area where escalation with China is a concern. Russia used to state in its doctrine that it would not hesitate to resort to nuclear weapons when faced with possible defeat in a limited conventional conflict. The most recent Russian military doctrine states a more moderate position: The Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat.78 The contradiction between the declared Russian doctrine and Russia’s military exercises may provide a different insight, but in practice, nuclear escalation in a limited conventional conflict can be considered unlikely. China, on the contrary, repeatedly states a no-first-use policy in the Second Artillery’s publications. However, first, such a policy may be useful mainly in the diplomatic arena, and second, one wonders whether a probable conventional defeat against Taiwan, China’s most important territorial dispute linked to the legitimacy of the Chinese Communist Party, could be politically acceptable for Beijing. In other terms, on the ground the two nations might behave in ways that contradict their doctrines. This would be consistent with their patterns of behavior, Russia overplaying its hand and China underplaying it. In case of a U.S.-China confrontation over Taiwan, what would Russia do? The most likely answer is nothing. With no clear stake in the conflict, Moscow would not risk becoming a target of either Beijing or Washington. Some would argue, though, that Russia may have a stake in this conflict. A Chinese victory over Taiwan might be followed by the wish in Beijing to recover territories in the eastern part of Siberia. Would this possibility lead Russia to openly challenge China during such a conflict? Most probably not. But the United States may count on a neutral Russia, forgetting any strategic partnership with China. Any serious Russia-China confrontation, on the other hand, may raise questions in Washington about the possibility of intervening on the Russian side because of wider interests. The least that can be said is that Moscow does not facilitate thinking in the direction of such a scenario, which would imply an extraordinary level of rapprochement with Washington. But the reality is there and it is troubling: As President Kennedy understood at a very early stage, China is fundamentally more dangerous than Russia.79 This should be the perception in the West after decades of interaction. We can only imagine what China would be capable of doing if it perceived the United States having serious difficulties accessing the region, starting with the contested Senkaku Islands. From this viewpoint, Richard Nixon may have lost his bet. There is a widening divide between two categories of big nations: those convinced that the main challenge of the 21st century is to prevent major crises from emerging, fight nuclear and biological proliferation, and jointly manage the global commons, and those that continue to engage in power politics and competition. In the latter category, China is the most daring. Russia may continue to harass its neighbors, particularly if Moscow’s reading of the 2008 Georgian war is that it provides a telling example of the West’s lack of reaction, but it will probably pose no major challenge in the foreseeable future. In the former category, one finds European nations, America, and—a good surprise—increasingly India, which is progressively displaying the intent to rise as a responsible global power. These two worlds are hardly reconcilable, and they may collide. More substantial thinking on power politics may be required in the first group of nations, regardless of their preference for a more cooperative and stable world where most states increasingly share the same interests. Stability itself may require such thinking. If strategic engagement integrates a competitive dimension, it may work considerably better because it will be in tune with reality on the ground. A good example is the improvement of U.S.- Chinese relations in 2010, coinciding with a more sober view of China in the Obama administration.

**China and Russia would exploit weakness in our nuclear deterrent to gain power**

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 117-119)

With China now a major rising power, considerably more difficult challenges than those posed by regional powers are starting to appear on the horizon. If experience is any guide, a gradually more powerful China is likely to become not a more responsible stakeholder but rather an increasing challenge to an international order that, in the eyes of Beijing, is unduly protective of the West’s interests, including in Asia. The mood regarding Beijing has darkened after the Copenhagen Summit on climate change in December 2009, numerous cyberattacks, challenges to Internet freedom, ambiguous policy on Iran and North Korea,7 arms sales to Iran and to the Taliban, disregard for maritime law,8 and, finally, lack of common assessment on future challenges and future strategic stability. Beijing appears increasingly self-confident, arrogant, and nationalistic.9 With its imperial culture and its legacy of condescension, China sees itself as the only possible—and probably the only legitimate—successor to the United States on the international scene in the decades to come. In China’s view, it deserves to become number one; it only needs time to prove the point. Its neighbors have few doubts on the subject. And, instructed by experience, Washington itself had far fewer doubts in 2011 than it did in 2009, for good reason. Russia, a fading power, is a different matter of concern. Its rational choice should be to work with the West, with a potential nuclear-armed Islamic power on its southern flank, a collapsing demography, and a dynamic and greedy China in the southeast. But apart from reports written by some Russian experts popular in the West,10 there is no indication that Moscow has come to this conclusion. The 2010 Russian military doctrine still names NATO as the first danger to Moscow’s security, 20 years after the end of the Cold War. Concerning China, there may be fear and awe in Russian minds, but there is not a single word on the subject in Russia’s military doctrine. Whenever questions are raised about relations with China, Russian officials tend to answer that they have dramatically improved. Reluctance to engage in any serious security dialogue— not to mention any initiative—that could threaten bilateral relations with Beijing is obvious.11 When asked, for example, to share data with the United States on Chinese ballistic missile launches—a potential useful bilateral cooperation for both nations— Moscow refused in order to avoid hurting Russian-Chinese relations. According to an April 2010 BBC World Service survey, Russia ranks third in negative feelings toward the United States.12 The main threats coming from Russia are its difficulty in reconciling with the loss of its empire, its resentment toward the West for that reason, the corruption of its political elites, and its current inability to face real threats as opposed to imaginary ones. Big states seldom attempt to balance power, and even more seldom do they cooperate with each other. Most frequently, they simply seek to gain power of their own. The United States is probably a historical exception to this rule because it appeared on the world stage in order to limit the damage brought by its European allies rather than to enlarge its own world influence and power. History, revenge, **misconceptions**, and even suicidal moves can guide the policy of big powers: The 20th century has shown it in a devastating manner.13 An almost unthinkable series of absurdities in Vienna, Saint Petersburg, Berlin, and Paris set all of Europe ablaze as well as a large part of the rest of the world, after the assassination of the nephew of the Austrian emperor by a Serb nationalist. Once the machine had been set in motion, there was no way of holding it back. A lucid analysis of the policy pursued by both Russia and China does not provide a rosy picture for the future. If the challenges come closer, no one will be in a position to speak about any “strategic surprise.” Retrospectively, **the real surprise** for historians will be our blindness: The main elements of future crises are already present for everyone to see. In the case of **Russia**: continuous violation of the BWC, disregard of the CFE Treaty, a policy of fait accompli in both Abkhazia and South Ossetia, a wish to recover as much of its former empire as possible, endemic political corruption, and ambiguity vis-à-vis Iran.14 In the case of **China**: a will to gain at last the position it believes it deserves in the world (namely number one), deployment of more than 1,000 missiles on mainland China facing Taiwan, cyberattacks against America and Europe, competition with the United States in outer space, development of effective antiaccess capabilities, confrontation with neighbors on sea lanes and maritime law, and an unwillingness to implement sanctions against Iran and North Korea, even when Beijing agrees to vote for them. The triangular nuclear relationship among the United States, China, and Russia took a curious shape in 2010. At the very time when Washington took literally months to decide whether the NPR would use the phrase “sole purpose” or “primary purpose” to describe the objective of U.S. nuclear weapons (and finally settled for “fundamental purpose” in order to include a possible nuclear response to a biological attack), China quietly continued increasing and improving its ballistic and nuclear arsenal as well as its space and cyber capabilities, while in February 2010 Russia adopted an aggressive nuclear doctrine that worried its neighbors (who are also U.S. allies and often EU members).

**Deterrence between the U.S. China and Russia works – communication and nuclear learning are increasing – just a question of U.S. technical capability to maintain deterrence**

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 159-161)

In 1956, Paul Nitze made an interesting analogy between a nuclear world and a chessboard.1 He wrote that even though the atomic queens may never be brought into play, their position may still have a decisive bearing on which side can safely advance a limited-war bishop or a Cold War pawn. More than 50 years later, this may still be true. But while he had in mind mainly U.S. and Soviet atomic queens, with an advantage on the American side, the reality in the 21st century may be essentially about the **shadow of America’s adversaries’ atomic queens**. In the United States, expenditures related to the nuclear enterprise are under increasing scrutiny, making it difficult to modernize the nuclear arsenal.2 Today’s entire Air Force bomber fleet—nuclear and nonnuclear—is 90 percent smaller than it was in 1959, a decline justified in great part first by the deployment of ICBMs, the advent of precision-guided munitions, and the rise in the per-unit cost of combat aircraft, and second by the end of the Cold War. Still, all the remaining bombers are in need of costly upgrades, since the air-launched leg is apparently going to be retained for the foreseeable future.3 The remaining ICBMs are also aging rapidly, with underground silos in need of cost-prohibitive replacement. Among U.S. nuclear allies, the United Kingdom is far from having a clear nuclear policy for both political and financial reasons (in April 2011, for example, part of the UK coalition—LibDem—questioned the need for continuous submarine patrols at sea). Meanwhile in China, where the military budget has been unconstrained for 20 years, nuclear weapons are playing an increasing role. New air, sea, and ground systems are beginning to be deployed there, with great opacity denounced in the region and beyond. The future nuclear force that China has in mind is unknown. Even the number of new ICBMs, dual-capable aircraft, and nuclear submarines is anyone’s guess, though it is probable that the JL-2 will be made capable of carrying three warheads instead of one. At the same time, Beijing is developing space and cyberspace capabilities and testing them in disturbing ways. With significantly fewer financial resources than China, Russia also gives priority to its nuclear holdings because of perceived large conventional imbalances with both NATO and China. The New Start treaty has not led to any reductions in Russia, because its current holdings are already below the ceilings. In South Asia, Pakistan may well be the main strategic beneficiary of the 1998 nuclear tests, since Islamabad’s needs are much more limited than those of New Delhi. When American troops leave Afghanistan, China will have more freedom of maneuver to achieve its overriding regional objective: keeping India down. This has always been the basic tenet of the Sino-Pakistani relationship. Finally, the likelihood of additional nuclear players in the Middle East and in East Asia 20 years from now can hardly be discarded. Some official statements have now been made public. All of these factors will play a role in constraining the United States in the safe advance of what Paul Nitze called a limited-war bishop. At the same time, nuclear deterrence has receded in American minds as well as in European capitals. More urgent business—yesterday in the Balkans and Iraq, today in Afghanistan and Libya—is focusing intellectual and operational efforts. Paradoxically, a fortunate turn of events occurred with two serious nuclear incidents in 2006 and 2007 in the United States. In August 2006, nuclear fuses were mistakenly shipped to Taiwan, and a year later, in August 2007, six air-launched missiles armed with nuclear warheads were mistakenly flown from Minot Air Force Base to Barksdale Air Force Base. Both events led to the creation of Global Strike Command and to a reexamination of the nuclear enterprise. Since the revelations concerning the probable existence of additional clandestine military activities in Iran (beyond Qom) and the advancement in Pyongyang’s enrichment program, troubling questions have surfaced concerning Western intelligence, key challenges to international verification, and export control limits. In stimulating a renaissance of thought on nuclear deterrence, this reexamination should take into account the development of thinking in potentially adversarial nations. In many parts of the world, nuclear weapons are not seen as old-fashioned. The West will **not change this perception** by reducing its nuclear arsenals. Newcomers carefully follow the nuclear debates that are developing mostly in the West. They take part in them, they react to them, they read nuclear doctrines (including NATO’s new nuclear posture), and they occasionally learn from past nuclear crises. An important lesson of the Cold War stems from the high level of professionalism exhibited by those dealing with nuclear weapons on both sides. As General Larry Welch declared at the 2010 U.S. Strategic Command Deterrence Symposium in Omaha, referring to the Western and Eastern nuclear communities, “they kept peace” in part because each side recognized the competence on the other side and respected it.4 Deterrence greatly benefited from this competence and respect. It is worth noting that during the Cold War, such competence was not recognized in Mao and the Chinese. Nikita Khrushchev worried about Mao’s recklessness and his lack of understanding in nuclear matters. Things have changed a great deal in the last 40 years, but there is no doubt in the mind of this author that Beijing remains a risk-taking partner when compared with the USSR. This factor should be taken into account in the West as it already is in the East. Improving mutual understanding among potential nuclear adversaries is an important part of deterrence. Such is the purpose of a number of current bilateral strategic dialogues. Such dialogues with Russia and China have been disappointing so far. Russia, a revisionist state unlike the Soviet Union, is essentially trying to get Western military technology and is not really interested in any substantial dialogue on the most divisive issues—for example, missile defenses, a subject on which the same line of argument is presented over and over again, whatever the systems contemplated to protect Europe and America or the technical explanations provided by Washington to reassure Moscow. China, with increasingly sophisticated and well-read experts, appears reluctant to discuss with Washington its perceived conditions for strategic stability in the 21st century, a crucial topic for deterrence in both America and Europe. Track two meetings may provide different opportunities. The strategic community is now **more internationalized** than it used to be. American, European, Russian, and—increasingly—Asian experts exchange ideas on a daily basis. These meetings improve mutual understanding on key questions: ambitions, interests, sovereignty, stability, and regional crises, as well **as prevention of escalation**. Although they are not meant to replace official bilateral or multilateral meetings, they should be able to deal with part of the “thinking crisis”: With so many questions now open, shaping the intellectual framework of things to come on nuclear matters is not a minor business, especially since the real nuclear debate could well become less about nuclear abolition and more about whether there will even be any rules at all in the nuclear future.

**Nuclear primacy deters bioweapons attack**

Thayer 12, Bradley, professor of political science at Baylor University [“THAYER: Preserving our nuclear deterrence,” February 17th, <http://www.washingtontimes.com/news/2012/feb/17/preserving-our-nuclear-deterrence/>]

Finally, nuclear weapons deter the use of other weapons of mass destruction, such as biological weapons or chemical weapons, against the U.S. homeland, allies or U.S. military. Nuclear weapons aid Uncle Sam’s ability to coerce opponents as well for three reasons. First, in a crisis situation, nuclear weapons help persuade a challenger not to escalate to a higher level of violence or move up a rung on the escalation ladder. Second, although laden with risks, they also provide the possibility of attacking first to limit the damage the United States or its allies would receive. Whether the U.S. would do so is another matter. But possessing the capability provides the nation with coercive capabilities in crisis situations or war. Third, nuclear weapons give the United States the ability to threaten nuclear first-use to stop a conventional attack or limited nuclear attack and to signal the risk of escalating violence to a higher level.

**And, it prevents bioweapons transfer to non-state actors**

Malet and Rogers ’12 – assistant professor of political science at Colorado State and B.A. candidate at Colorado State

(David and Herman, also director of the Center for the Study of Homeland Security at Colorado State University, “Biological Weapons and Security Dilemmas”, Whitehead Journal of Diplomacy and International Relations,

If pathogens make poor weapons of war, why do states continue to pursue biological weapons programs? The continuation of biological weapons programs into the twenty-first century is attributable to several factors. First, as the Amerithrax investigations indicated, the United States and several developed states have ongoing biological programs producing “offensive” biological agents for the sake of biodefense. Potential rival states are similarly compelled to develop their own bioweapon programs to produce defenses against the capabilities of the established powers. Also, the technological advances accompanying the so-called “Revolution in Military Affairs,” coupled with the sheer scope of American defense spending, have produced conventional US forces so advanced that the only way to attempt to check them is through asymmetric means. As a former Indian military chief of staff explained, those planning to engage the United States militarily “should avoid doing so until and unless they possess nuclear weapons.”13 However, because of the difficulty in developing nuclear weapons, and the potentially easy acquisition of naturally-occurring pathogens, biological weapons provide an ideal alternative. In many cases, CBRN arsenals are the quickest way that states and non-state actors can legitimize their authority among constituents. It is little wonder that biological weapons are often referred to as the “poor man’s nuclear bomb.”14 And yet, states are still subject to deterrence through the same threats of massive retaliation issued at the height of the Cold War. One possible response by rogue states could be the clandestine transfer of CBRN material to non-state actors, a concern cited as significant enough to justify preemptive war against Iraq and continued engagement with flawed regimes in Pakistan 1 5 . The underlying assumption behind this threat is that terrorists want CBRN weapons and sympathetic states would be willing to share them either in support of their cause or so that non-state actors are blamed for attacks masterminded by governments that could maintain plausible deniability. This presumes that authoritarian regimes would trust actors outside of their direct control with sensitive material, and furthermore, trust them to follow their established foreign policy objectives. This strategy would probably leave such rogue states more vulnerable than empowered, and they are therefore unlikely to proliferate to non-state actors 1 6.

**Bioweapons will cause extinction**

Matheny ‘7

(Jason G. Matheny, Department of Health Policy and Management, Bloomberg

School of Public Health, Johns Hopkins University, “Reducing the Risk of Human Extinction”, Risk Analysis, Vol. 27, No. 5, 2007)

Of current extinction risks, the most severe may be bioterrorism. The knowledge needed to engineer a virus is modest compared to that needed to build a nuclear weapon; the necessary equipment and materials are increasingly accessible and because biological agents are self-replicating, a weapon can have an exponential effect on a population (Warrick, 2006; Williams, 2006). 5 Current U.S. biodefense efforts are funded at $5 billion per year to develop and stockpile new drugs and vaccines, monitor biological agents and emerging diseases, and strengthen the capacities of local health systems to respond to pandemics (Lam, Franco, & Shuler, 2006).

**U.S. leaders will cling to nuclear deterrence inevitably – only a question of how credible and effective it is**

Thompson ’11 – Chief Operating Officer of the non-profit Lexington Institute

(Loren, was Deputy Director of the Security Studies Program at Georgetown University and taught graduate-level courses in strategy, technology and media affairs at Georgetown. I have also taught at Harvard University's Kennedy School of Government, holds doctoral and masters degrees in government from Georgetown University and a bachelor of science degree in political science from Northeastern University, “Nuclear Paradox: Shrinking U.S. Arsenal Requires Huge New Expenditures”, Forbes, 6-13-2011, http://www.forbes.com/sites/beltway/2011/06/13/nuclear-paradox-shrinking-u-s-arsenal-requires-huge-new-expenditures/)

The anti-nuclear rhetoric coming out of the White House during Obama’s early days in office was so persistent that some senior military officers worried the new president was taking America in the direction of unilateral disarmament, even though the candidate had explicitly ruled out that possibility during the campaign. But the military need not have worried, because the way things are turning out, Barack Obama is likely to spend more money on the U.S. nuclear arsenal than any U.S. president since Ronald Reagan. In fact, if all the plans authorized on Obama’s watch come to fruition, hundreds of billions of dollars will eventually be spent on new nuclear capabilities and infrastructure by a president who has repeatedly endorsed the goal of a nuclear-free world. This may be the ultimate example of how gaining political power can **transform the beliefs of leaders** — not because Obama has abandoned his support of disarmament, but because of how being responsible for the nation’s security forces him to think in practical terms about the dangers of disarming. To understand the seeming divergence between the president’s convictions and his military plans, you have to grasp the perverse logic of U.S. nuclear strategy. U.S. military analysts figured out during the early days of the Cold War that no effective defense against a large-scale nuclear attack was likely to be feasible. The Russians were acquiring thousands of warheads, and the destructive potential of each one was so great that if even a small fraction managed to penetrate U.S. defenses, the nation would probably be wiped out. Defense Secretary Robert McNamara illustrated the problem in congressional testimony when he displayed a graph that indicated how destruction in the Soviet Union would level off after a relatively small portion of the U.S. nuclear arsenal had been expended, because there wasn’t much left to destroy. With both nations facing the possibility of nuclear obliteration, a new approach to national security clearly was needed. The concept that policymakers settled on was deterrence — the idea that enemies could be dissuaded from aggression by threatening horrible consequences. The key to effective nuclear deterrence was a secure retaliatory capability, meaning an arsenal that could ride out any surprise attack and then respond with such devastating effect that adversaries would find the prospect unacceptable. As long as enemies were not crazy or accident prone, the thinking went, a secure retaliatory force should be sufficient to deter nuclear attack. U.S. military planners spent the next 50 years revising and refining the requirements of deterrence, spelling out in great detail the performance characteristics required of U.S. nuclear forces to assure they were both survivable and credible. Survivability resulted mainly from having a trio (or “triad”) of well-protected nuclear systems — land-based missiles, submarine-based missiles and manned bombers — that were so different no enemy could conceivably destroy them all in a surprise attack. **Credibility**, which was crucial in a strategy based mainly on **influencing enemy psychology**, meant having targeting options that were believable and proportional to any provocation. The United States eventually ended up with over 30,000 warheads in its arsenal before the two superpowers accepted the impossibility of achieving meaningful superiority in a world of “mutual assured destruction.” Once that realization occurred, though, a gradual reduction in forces commenced that accelerated after the collapse of the Soviet Union. By the time President Obama took office, there were only about 5,000 warheads in the active strategic arsenal, and nobody talked much anymore about the danger of nuclear war. In fact, Obama’s 2010 Nuclear Posture Review displaced traditional deterrence objectives from the top of the strategic agenda, emphasizing instead the importance of halting nuclear proliferation and preventing nuclear terrorism. But the need for **nuclear deterrence still existed**, because **Russia retained thousands of warheads** and **China had at least hundreds**. In addition, new nuclear powers such as North Korea and Pakistan were emerging. It was the enduring need for deterrence that forced the Obama Administration to confront a paradox of nuclear strategy. The paradox is that the fewer weapons each side has the greater the danger of a surprise attack because at lower numbers it becomes easier for each country to disarm the other side. For instance, when the United States had hundreds of nuclear-capable bombers scattered around the world, there wasn’t much danger Russia could catch them all on the ground in a first strike. But now that there are only sixty located at a handful of sites, an enemy might be able to take out a sizable portion of the U.S. nuclear arsenal with a dozen well-placed warheads. The other part of the paradox is that if the enemy really thinks it can pull off a disarming surprise attack, then the very fact we have a retaliatory force is a powerful inducement to launching that attack — because what looks like a deterrent to us looks like a huge threat to them. After all, it is aimed at their cities, their factories, and their own retaliatory capabilities. So ironically, as the size of the U.S. strategic arsenal shrinks, the government needs to spend huge amounts making sure what’s left is still an effective deterrent. And unfortunately for President Obama, the arsenal he inherited hadn’t seen much in the way of modernization since the Cold War ended. The biggest part of the Obama nuclear buildup, if you’ll pardon the expression, is efforts to replace or improve all three types of launching systems in the current strategic arsenal. A fleet of 14 Trident ballistic missile submarines due to start retiring in 2027 will be replaced by 12 follow-on subs that will probably cost around $80 billion to design and build and hundreds of billions more to operate over their 40-year service lives. The president’s fiscal 2012 budget request includes a billion dollars to continue design work on the new class of subs. The 60 B-52 and B-2 bombers capable of delivering nuclear weapons must be upgraded in the near term and replaced over the long term; the Obama plan calls for spending $1 billion over the next five years on upgrading 16 nuclear-capable B-2s and $4 billion on developing a bomber that might one day replace it in the nuclear strike mission. And the 450 silo-based Minuteman missiles located in Montana, North Dakota and Wyoming will require additional life-extension measures to assure their survivability and reliability beyond 2030. Those are the nuclear-weapons expenditures most visible to the outside world, but there are a host of other outlays that will be required to keep the nation’s strategic posture viable. For instance, the administration noted when it released the Nuclear Posture Review that there would be a need to “make new investments in the U.S. command and control system to maximize presidential decision time in a nuclear crisis.” What this means is that communications links between commanders and nuclear forces must be strengthened so that the potential loss of control in a nuclear scenario does not force a launch decision before critical details about threats are in hand. The need to acquire as much information as possible before acting in a crisis situation also explains why the United States is currently orbiting a new generation of space-based infrared satellites that can detect missile launches and nuclear detonations within seconds after they occur. And then there is the nuclear complex where warhead components are manufactured, refurbished and dismantled. You wouldn’t think much spending is required to sustain a complex that hasn’t produced a single new warhead since 1991, but the system consumes a billion dollars per month and that figure is going up. In the absence of new production, old weapons must be **repaired and upgraded**, often using nuclear material recovered from weapons that are being retired. The retired weapons must be taken apart and their pieces re-used or rendered safe, an extremely complex procedure. The need to sustain such processes has led to major new construction projects at all of the industrial sites involved in nuclear weapons work. For example, a 350,000 square-foot uranium processing facility will be built at the Y-12 plant in Oak Ridge, Tennessee, and three different facilities will be built at the Savannah River plant in South Carolina to dispose of weapons-grade plutonium. Thus, the Obama nuclear plan will generate huge revenues for companies involved in nuclear work such as Babcock & Wilcox and General Dynamics, the probable builder of the submarine that replaces Trident. However, it isn’t likely that President Obama and his security team envisioned the full extent of budgetary outlays that would be required to sustain the nation’s nuclear forces as they drove toward the goal of a nuclear-free world. As things currently stand, the administration will be spending a good deal more money on nuclear weapons during Obama’s tenure than renewable energy, a prospect that can’t be pleasing to progressives. On the other hand, nuclear war remains by far the greatest military threat that the nation faces. Not only would it generate more destruction than any other form of conflict, but our methods for preventing it are weaker, relying mainly on psychology rather than tangible defenses. As the number of nuclear weapons declines it may become more feasible to build defenses that can stop an attack, but for the time being conservatives and liberals alike are stuck with the paradoxes of surviving in the nuclear age. In President Obama’s case, that means spending a great deal of money on items you wish didn’t exist at all.

**U.S. nuclear deterrence is key to NATO cohesion**

**Thranert 11**

[Oliver Thranert, Senior Fellow, “Nuclear Arms and Missle Defense in Transatlantic Security”, NATO’s Role in European Security – and Beyond”, European Security and the Future of Transatlantic Relations, 2011, http://www.iai.it/pdf/Quaderni/iairp\_01.pdf]

More than twenty years after the end of the Cold War, extended deterrence is still relevant for NATO, as has been pointed out by NATO secretary general, Anders Fogh Rasmussen, when he has described the stationing of US nuclear forces in Europe as an **essential part** of a **credible deterrent**.2 Likewise, the Obama administration’s Nuclear Posture Review argues that the presence of US nuclear weapons combined with NATO’s nuclear-sharing arrangements contribute to **alliance cohesion** and provide reassurance to allies and partners who feel exposed to regional threats.3 More recently, the NATO strategic concept reiterated that as long as nuclear weapons exist, NATO will remain a nuclear alliance. The allies continue to participate in collective defense planning on nuclear roles and basing of nuclear forces.4

**NATO solves Balkan wars and Greece-Turkey conflict**

BMI, 10-17

(Business Monitor International - Risk Watchdog, "Would The Eurozone’s Collapse Lead To War?," 10-17-12, www.riskwatchdog.com/2012/10/17/would-the-eurozone’s-collapse-lead-to-war/, accessed 10-21-12, mss)

Dissolution or neutralisation of NATO: Some European doomsayers forget that NATO still exists, and that the US still guarantees the security of Europe by basing tens of thousands of troops in Germany, the UK, and Italy. The existence of NATO means that even if the eurozone and EU were to collapse, any hypothetical march towards war would still have a powerful brake. Potential warring states would have to leave the Western alliance first, or conclude that NATO and the US military presence are meaningless or unreliable. This is certainly possible, given that NATO has been weakened by budget cuts in its member states, but would still require a major political gamble.¶ Peripheral European War Risks More Plausible¶ Nonetheless, in the event that the eurozone/EU collapses, we do see a rising risk of war on Europe’s periphery, specifically in the following areas: The Balkans: Although the region is at peace, the political status quo in Bosnia’s Serb Republic and northern Kosovo is considered unsatisfactory to many of the regions’ inhabitants. In addition, Western Macedonia almost experienced a separatist war in 2001. If the eurozone/EU collapses, the Balkan states would no longer have a policy anchor for converging towards Western European political, economic, and social norms. This could empower extremist politicians on all sides, potentially reigniting the wars of the 1990s. Greece-Turkey: If Greece were to leave the eurozone, and if the EU collapses, then both countries would suddenly find two major restraints on their geopolitical competition removed. The Aegean sea and Eastern Mediterranean would be **obvious flashpoints**, especially given that the latter has considerable oil and gas reserves. However, the land border could also become a major issue, especially if a weakened Greece perceived Turkey to be encouraging the flow of Middle Eastern and Asian migrants to its territory. Russia-Eastern Europe: A collapse of the eurozone/EU could present opportunities for Russia to reassert its influence in former Soviet satellite states in eastern Europe. Moscow could become more vociferous in opposing the US’s ballistic missile shield, or seek to cow the Baltic states into political submission, or push for the de jure separation of Moldova’s separatist region of Transdniestria.

**Balkan conflict spurs great power war**

Paris, 2 -- University of Colorado Political Science and International Affairs professor

(Roland Paris, Political Science Quarterly, Volume 117, Issue 3, Fall, Proquest)

Nevertheless, the phrase "powderkeg in the Balkans" would have carried historical significance for listeners who possessed even a casual knowledge of European history. Since the early part of the twentieth century, when instability in the Balkans drew in the great powers and provided the spark that ignited World War I, the region has been **widely known as a powderkeg**. In 1947, for instance, members of the International Court of Justice noted that the Balkans had been "so often described as the `powder-keg' of Europe."51 Today, the term continues to be attached to the region's politics, conjuring up memories of the origins of World War I.  The meaning of the powderkeg metaphor is straightforward: the Balkans **can explode at any time**, and the **resulting conflagration** can **spread to the rest of Europe;** preventing such an explosion is vital to the continent's, and perhaps even to American, security. When Clinton described Kosovo as a powderkeg, he warned that the Kosovo conflict might spill over not only to surrounding Balkan states, but **to Europe as a whole**; and he insinuated that the United States could be compelled to fight in such a pan-European conflict, just as it did in World Wars I and II. "

**Greece-Turkey conflict causes great power nuclear war**

Barber, 97 – writer for the Independent

(Tony, "Europe's coming war over Cyprus," Independent, 1-23-97, www.independent.co.uk/news/uk/europes-coming-war-over-cyprus-1284661.html, accessed 10-21-12, mss)

May 1998. Europe is getting twitchy. Twelve months of stop-start talks on ending the division of Cyprus have produced no results. Now the island's internationally recognised Greek Cypriot government wants the European Union to keep its promise and open talks on making Cyprus a full EU member. Germany and other countries argue that the EU would be mad to absorb a dispute as bitter and complicated as that in Cyprus. Just as EU foreign ministers sit down over lunch in Brussels to thrash out what to do, word arrives that four Greek Cypriots have been killed along the Green Line dividing government-held southern Cyprus from the Turkish-occupied north. The government, backed by Greece, retaliates by vowing to take delivery within a week of a batch of Russian S-300 anti- aircraft missiles ordered in January 1997. As a Russian-Greek naval convoy carrying the warheads and launchers edges towards the eastern Mediterranean, the Turkish armed forces swing into action. Troop reinforcements pour into northern Cyprus. Planes raid the Greek-built missile base near Paphos in south-western Cyprus. The Turkish navy prepares to blockade the island. Greece declares Turkey's actions a cause for war and, angry at lukewarm EU support, invokes the secret defence clause of a recently signed treaty with Russia. Fighting on Cyprus spreads to disputed Aegean islands on Turkey's coastline. The United States warns Russia not to get involved. President Alexander Lebed, with Chinese support, tells the US to mind its own business. All three powers go on nuclear alert. Like Cuba, another island involved in a missile dispute 36 years before, Cyprus has brought the world to **nuclear confrontation**. If the above scenario seems fantastic, bear in mind that much of it is already unfolding. First of all, the EU gave a cast-iron promise in 1995 to open accession talks with Cyprus, even though with hindsight some states regard the pledge as rash. "Anyone who wants to join the EU must know that the European Union cannot deal with the accession of new members that bring in additional external problems," Germany's foreign minister, Klaus Kinkel, said last Monday. This is to lock the stable door after the horse has bolted. Knowing that EU membership talks must start by about mid-1998, and encouraged by Greece, the Greek Cypriots feel they can play hard to get on a Cyprus settlement. Without major Turkish concessions, they will demand that southern Cyprus joins the EU on its own - a sure recipe for a crisis. Secondly, President Glafcos Clerides and Rauf Denktash, the Greek Cypriot and Turkish Cypriot leaders, may meet in spring to launch fresh peace talks. But even if such talks get under way - a big if - there is little reason to suppose they will be crowned with success. The diplomatic climate is too frosty, and both sides have a deeply entrenched belief that to blink first will be to lose. Thirdly, several clashes along the Green Line erupted last year, causing the deaths of four Greek Cypriots and one Turkish Cypriot. It was the most violent period on the island since the Turkish army's invasion in July 1974. Lastly, the Cyprus government says that the missiles it ordered from Russia will cost 200m Cyprus pounds (pounds 250m) and will arrive in 16 months - May 1998. According to a government spokesman, Yiannakis Cassoulides, the deal does not include a clause allowing Cyprus to cancel the order. Turkey says that its armed forces will attack the Greek Cypriots if they deploy the missiles, whose range enables them to destroy planes in mainland Turkish airspace. Turkey has also talked of imposing a naval blockade of Cyprus. According to one Nato diplomat with long experience of Turkey, these are not idle threats. "Turks can be incredibly stubborn in matters where they think the national interest is at stake. They've got to be taken seriously," the diplomat said. This week Turkish naval vessels are visiting northern Cyprus in a show of teeth-baring solidarity with the Turkish Cypriots. Turkish and Turkish Cypriot forces may also be combined for the first time at a new military base in the north. For its part, Greece's Socialist government is preparing a huge, 10-year modernisation of its armed forces that will cost 4,000bn drachmas (pounds 9.64bn), or almost pounds 1,000 for every man, woman and child in Greece. Greece has also tightened its military links with the Greek Cypriots, especially by creating a common defence space. In short, virtually all the ingredients for a bloody confrontation on Cyprus, sucking in Greece and Turkey, are present. The island is the world's most densely militarised confrontation zone. Like a dormant volcano that finally releases a torrent of fire and ash, Cyprus is poised to explode after 22 years of diplomatic stalemate and military stand-off. All outsiders, from the United States and the EU to the United Nations, recognise the dangers. Indeed, many see Greece and Turkey, whose mutual antagonism long predates their alliance in Nato, as the most likely contestants in Europe's next war. Some Western experts believe that conflict may break out over other Greek- Turkish tensions, notably the disputed Aegean islands. This issue brought Greece and Turkey close to war in January 1996.

**Perception of credible U.S. nuclear deterrent is key to Asian stability**

Medcalf ’13 – directs the international security program at the Lowy Institute in Sydney and is also a non-resident Senior Fellow with the Brookings Institution

(Rory, “A Nuclear Pivot to Asia?”, The Diplomat, 3-5-2013, http://thediplomat.com/flashpoints-blog/2013/03/05/a-nuclear-pivot-to-asia/)

The 2010 U.S. Nuclear Posture Review made sensible, logical steps towards a reduced reliance on nuclear weapons in America’s global posture, without critically damaging the confidence of allies protected by the U.S.’ so-called extended deterrence – America’s willingness to use force to protect them even from nuclear threats. An innovative set of extended deterrence dialogues with Japan and South Korea has helped in this regard.¶ But how will the further pursuit of Obama’s anti-nuclear vision interact with the worsening strategic dynamics in Asia in 2013 and beyond?¶ Japan and South Korea are unnerved by North Korea’s continued progress in its nuclear and missile programs. Japan’s strategic anxiety is deepened by the prospect of confrontation, perhaps even an armed clash, with China over disputed islands.¶ The full implications of sequestration on America’s conventional force posture in Indo-Pacific Asia remain far from clear. But they almost certainly **will add to the fears** of allies.¶ It is notable meanwhile that the White House’s response to the February 13th North Korean missile test included an explicit reassurance to Japan that it was covered by the U.S. extended nuclear deterrent. President Obama openly used the phrase nuclear umbrella, rather than the usual more euphemistic reference to something like “all means.” ¶ This is a grim reminder that, deep down, the security of Asia rests of American capability – and presumed willingness – to use nuclear threats or force in an extreme crisis. ¶ Does all of this mean that we can expect voices to gather in Seoul, Tokyo or even parts of the American debate advocating reemphasizing nuclear deterrence to keep the peace in Asia, even vis-à-vis China? ¶ I am not suggesting that there is any serious prospect of a physical nuclear pivot, for instance the redeployment of U.S. tactical nuclear weapons to Korea.¶ But the path to further limitations on the role of nuclear weapons in America’s Asia posture, such as an unequivocal no-first-use declaration or a willingness to drop down to nuclear parity with China’s small arsenal, is now even less clear than it was five years ago.¶ It may not amount to a nuclear pivot, but if America’s conventional superiority in Asia significantly declines, then the relative importance of its nuclear edge will rise – whether President Obama and disarmament visionaries like it or not.

**Asian instability causes nuclear war**

Landay ’00 – national security and intelligence correspondent

(Jonathan S. Landay, National Security and Intelligence Correspondent, “Top Administration Officials Warn Stakes for U.S. Are High in Asian Conflicts”, Knight Ridder/Tribune News Service, March 10, p. Lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

**Nuclear deterrence is key to global power projection**

Perry et al ’09 – CFR Scholars

(William Perry, Brent Scowcroft, and Charles Ferguson, Council on Foreign Relations Independent Task Force on Nuclear Weapons, “U.S. Nuclear Weapons Policy,” 2009, http://www.cfr.org/content/publications/attachments/Nuclear\_Weapons\_TFR62.pdf)

Consider a world in which the United States has the same global leadership responsibilities it now has, but does not have nuclear arms, though at least one adversary or potential adversary does. U.S. leaders would then constantly remain concerned about coercion from that state. The United States would not have the same power projection capabilities it currently enjoys. The Task Force believes that as long as the United States wants to maintain its global leadership, it will need enough nuclear arms to prevent nuclear blackmail from other nuclear-armed states. Determining what number and types of arms are adequate depends on geopolitical dynamics and, ultimately, on U.S. leadership in reducing nuclear dangers and addressing other states’ security concerns.

**Solves extinction**

**Barnett 11** (Thomas P.M, Former Senior Strategic Researcher and Professor in the Warfare Analysis & Research Department, Center for Naval Warfare Studies, U.S. Naval War College American military geostrategist and Chief Analyst at Wikistrat., worked as the Assistant for Strategic Futures in the Office of Force Transformation in the Department of Defense, “The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads,” March 7 <http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads>

It is worth first examining the larger picture: We live in a time of arguably the greatest structural change in the global order yet endured, with this historical moment's most amazing feature being its relative and **absolute lack of mass violence**. That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II. Let me be more blunt: As the guardian of globalization, the U.S. military has been the **greatest force for peace the world has ever known**. Had America been removed from the global dynamics that governed the 20th century, **the mass murder never would have ended**. Indeed, it's entirely conceivable there would now be no identifiable human civilization left, once nuclear weapons entered the killing equation. But the world did not keep sliding down that path of perpetual war. Instead, America stepped up and changed everything by ushering in our now-perpetual great-power peace. We introduced the international liberal trade order known as globalization and played loyal Leviathan over its spread. What resulted was the collapse of empires, an explosion of democracy, the persistent spread of human rights, the liberation of women, the doubling of life expectancy, a roughly 10-fold increase in adjusted global GDP and a profound and persistent reduction in battle deaths from state-based conflicts. That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as [the Facebook revolutions](http://www.worldpoliticsreview.com/articles/8089/the-realist-prism-politics-vs-social-media-in-the-arab-uprising) erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these calculations suggest a 90 percent absolute drop and a **99 percent** relative **drop in** deaths due to **war**. We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both **encourage and accommodate**. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms, **deeply embedded in the geometry** to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

## 2AC

### Deterrence

#### Even if they win squo supplies are fine, tritium requirements will spike in the future – more production now is key

Weitz ’12 – senior fellow and director of the Center for Political-Military Affairs at Hudson Institute

(Richard, “U.S. NUCLEAR WEAPONS STOCKPILE MANAGEMENT: AN UPDATE”, Second Line Of Defense, 6-24-2012, http://www.sldinfo.com/u-s-nuclear-weapons-stockpile-management-an-update/)

It was stated that the NNSA is moving toward non-destructive surveillance and sustainment of the entire stockpile. Currently, a small number of warheads of each type are removed from the stockpile each year for disassembly and testing. As part of this testing for most warhead types, one or more warheads may be destroyed.¶ The goal would be to inspect all stockpile warheads nondestructively every 15 years and resolve any identified problems. These “15-year touches” would also handle all the replacement of Limited Life Components (LLCs) such as tritium reservoirs, neutron generators, and radioisotope thermoelectric generators (nuclear batteries), eliminating the need to replace LLCs at other times.¶ This, in turn, would require increasing LLC lifetimes (e.g. by increasing the fill of tritium reservoirs to counteract the tritium lost to radioactive decay during the longer time between replacements).¶ A second reason for increasing the fill of the tritium reservoirs is to enhance the warhead reliability. (Tritium-deuterium fusion boosts the yield of the primary, so increasing the amount of tritium provides additional margin to ensure that the primary will have the minimum yield needed to initiate the secondary explosion.)

#### North Korea doesn’t disprove deterrence – low level provocations are not indicative of its effectiveness

Santoro ’13 – senior fellow for Nonproliferation and Disarmament at the Pacific Forum CSIS.

(David, “Cool heads deter North Korea”, Asia Times, 3-1-2013, http://www.atimes.com/atimes/Korea/KOR-01-010313.html)

North Korea's successful launch of a long-range rocket, its third nuclear test, and threats to follow up with even "stronger steps" and the "final destruction" of South Korea are raising serious questions among America's Northeast Asian allies. So is China's growing assertiveness over the Senkaku/Diaoyu Islands in the East China Sea. The most fundamental question is this: is US extended deterrence failing? ¶ The short answer is no. US extended deterrence, which underpins America's alliances with South Korea and Japan, is working well. Its boundaries, however, are being dangerously tested, which demands urgent improvement of alliance coordination and cooperation. ¶ Extended deterrence (ED) is a by-product of deterrence. Deterrence means preventing aggression or coercion against¶ one's vital interests by threatening to defeat or punish an adversary; although it has been mainly conducted with nuclear threats, non-nuclear capabilities have played a greater role over time, particularly missile defense, counterforce assets, and advanced conventional weaponry. ED simply means providing the same level of protection to an ally, with the same deterrent threats. To work, therefore, ED requires the United States to deter its allies' adversaries and to assure its allies that it has the capabilities and intentions to do so. That is why ED is said to have both deterrence and assurance missions. ¶ Successful deterrence of adversaries can only be measured in the negative: the absence of aggression against US allies' vital interests suggests that deterrence works. Successful assurance of allies is more difficult to measure because it depends on numerous variables. A key indicator of success, however, is allies' readiness to forego certain capabilities, notably nuclear weapons, and rely instead on their US ally to provide them. ¶ Some argue that North Korea's nuclear and missile developments means that deterrence of Pyongyang is failing. They point to the North Korean provocations of 2010, notably the sinking of the Cheonan, a South Korean corvette, and the shelling of Yeonpyeong Island, as proof. ¶ This is misleading and a mistake. Since the Korean Armistice Agreement that ended the fighting on the Peninsula in 1953, North Korea has been deterred from conducting another invasion of the South. ED has been so successful that an invasion appears inconceivable today. Similarly, leaders in Pyongyang know that launching a massive, let alone nuclear, strike campaign on Seoul or Tokyo would be suicidal. Again, ED has kept them in check. ¶ Granted, ED has not prevented the provocations of 2010 (and others before that), but it is a mistake to expect it to prevent low-level attacks. Remember, ED is meant to prevent aggression against allies' vital interests. Of course, as its nuclear and missile capabilities improve, there is a risk that Pyongyang feels increasingly confident that it can launch low-level attacks and control escalation. ¶ This is worrisome because escalation control is never guaranteed and misunderstandings, miscalculations, and mistakes are always possible. The good news, however, is that even this dynamic suggests that ED works. Although its boundaries are being tested, it still deters major conflicts that challenge US allies' vital interests.

### T – Uranium Enrichment Not Energy Production

#### We meet – nuclear fuel cycle counts as energy production, including electricity generation

International Trade Association ’12

(“The Nuclear Fuel Cycle”, http://trade.gov/mas/ian/nuclear/tg\_ian\_003164.asp)

The nuclear fuel cycle is the series of industrial processes which involve the production of uranium 235 for use in nuclear energy power reactors. Uranium 238 (uranium) is a relatively common element that is found throughout the world, and is mined in a number of countries. But before uranium can be used as fuel for a nuclear reactor, it must first go through a number of processes known as “enrichment.”¶ The various activities associated with the production of electricity from nuclear reactions are referred to collectively as the nuclear fuel cycle. The nuclear fuel cycle starts with the mining of uranium and ends with the disposal of nuclear waste (this is called an open fuel cycle). If the fuel is reprocessed after use, this is called a closed fuel cycle (note: even reprocessing produces a small amount of nuclear waste which cannot be re-used and must be disposed of).

#### Massive number of Generation-III reactor designs that could be their own separate topics—not even the NRC can keep up

Union of Concerned Scientists ‘7

(“Nuclear Power in a Warming World: Assessing the Risks, Addressing the Challenges”, 2007, http://www.ucsusa.org/assets/documents/nuclear\_power/nuclear-power-in-a-warming-world.pdf)

Until recently, designers of new U.S. reactors have focused on evolutionary refinements that aim to make plants safer and less costly to build. The NRC has certified four evolutionary designs: the General Electric (GE) Advanced Boiling Water Reactor (ABWR) and the Westinghouse System-80+, AP600, and AP1000 pressurized-water reactors (PWRs). The first three reactors are sometimes referred to as Generation III, and the AP1000 as Generation III+ (see Table 1, p. 58). 114 Although GE has sold ABWRs abroad, no U.S. company has ordered any of these reactors because of their high cost. 115 The ABWR and System-80+ are very similar to existing plants, while the AP600 was designed to significantly reduce capital costs “by eliminating equipment which is subject to regulation.” 116 This means, in part, that the plant was designed to reduce the number of safetyrelated systems, structures, and components (SSCs)— those needed to mitigate design-basis accidents. 117 Such equipment must meet a much higher standard than commercial off-the-shelf equipment, and may raise its cost by a factor of 10. 118 To reduce the number of safety-related SSCs, the AP600 uses more dual-purpose systems, such as the one that provides water to steam generators during both normal operation and accidents. The AP600 also employs “passive” safety features (e.g., natural convection cooling, a reliance on gravity rather than motordriven pumps). Because concrete and steel account for over 95 percent of the capital cost of today’s reactors, Westinghouse made it a priority to reduce the size of safety-related SSCs such as the containment vessel. Westinghouse claims that this reactor reduces the probability of accidents because it has fewer active safety systems, which can be unreliable. To enhance the effectiveness of the AP600’s passive safety features, Westinghouse limited the power rating of the reactor to 600 MWe. The net result is a higher projected cost for electricity from the reactor than from the ABWR and System-80+, even though the AP600 has a lower projected capital cost. As a result, the AP600 has not proved attractive to U.S. utilities. In response, Westinghouse developed the AP1000— a scaled-up version of the AP600 with a power rating nearly twice as high (more than 1,100 MWe)—to reduce the projected cost of electricity through economies of scale. Several U.S. utilities have indicated interest in building this reactor. Designs under NRC Review As of October 2007, four other Generation III+ designs were in the NRC certification pipeline, although only one had formally begun the licensing process. 119 The others are under pre-application review, which the NRC typically uses to identify major safety and technical issues and determine what research would be needed to resolve them. 120 The one design now under certification review is GE’s 1,500 MWe Economic Simplified Boiling Water Reactor (ESBWR). Like the AP1000, it uses passive safety features and a higher power rating than U.S. plants operating today to reduce its capital cost per installed kilowatt. The three reactor designs in pre-application review are the U.S. Advanced Pressurized-Water Reactor (APWR) developed by Mitsubishi; the Evolutionary Power Reactor (EPR) developed by the French company Areva; and the Pebble Bed Modular Reactor (PBMR) developed by the South African national electric utility Eskom. The 1,700 MWe U.S. APWR is a large evolutionary variant of today’s pressurized-water reactors. Like the ABWR, it offers some incremental improvements over its Generation III counterparts, but it does not have novel features. In contrast, the EPR stands apart from other Generation III+ PWR designs. This design, a joint FrenchGerman project known in Europe as the European Power Reactor, has considerably greater safety margins than designs developed to meet only NRC standards, because it fulfills more stringent safety criteria developed jointly by France and Germany. For instance, the reactor has a double-walled containment structure, whereas the NRC requires only a single-walled one. The EPR also has systems intended to stabilize and contain the reactor core in the event that it overheats, melts, and breaches the reactor vessel. Areva plans to apply for NRC design certification in late 2007. The PBMR is distinctly different from today’s commercial light-water reactors. It uses helium gas as a coolant, a graphite moderator, and fuel consisting of very small uranium-oxide spheres coated with a corrosion-resistant material and embedded in tennis-ball-sized graphite “pebbles.” These pebbles travel from the top to the bottom of the reactor vessel as the reactor operates. Each module has a low power rating (about 150 MWe), so a typical power station would require about a dozen PBMR modules. The PBMR represents another attempt to reduce capital costs through a design intended to be safer. PBMR promoters bill the reactor as “inherently safe,” arguing that the reactor’s low power density and the hightemperature integrity of its fuel would prevent significant fuel damage, even in an accident in which the reactor lost all coolant. (If the fuel retains its integrity, there is no radioactive release.) The U.S. utility Exelon submitted the PBMR design to the NRC for pre-application review in 2000, arguing that the reactor was so safe it did not require a pressureresisting containment vessel—only a less costly “confinement” building. However, because the NRC did not have enough technical information, it had not been able to assess whether the proposed confinement building was acceptable when Exelon terminated the review in 2002. In 2004, the Pebble Bed Modular Reactor Co. (PBMR Ltd.), a consortium that includes British Nuclear Fuels and Eskom, informed the NRC that it wanted to resume the pre-application review, and intends to apply for design certification in 2007. 121 In July 2006 Eskom submitted several white papers to the NRC as part of the pre-application review process. Designs Not Yet under Review In addition to the designs under active review, the NRC has had preliminary discussions with vendors and other interested parties about three other reactor designs. The IRIS (International Reactor Innovative and Secure) design, a pressurized-water reactor with a relatively low power rating of 325 MWe, is being developed by an international consortium headed by Westinghouse. Westinghouse submitted the IRIS design to the NRC for pre-application review, but that review became inactive when the company told the NRC that it did not intend to apply for design certification until 2010. The second design is Toshiba’s 4S (Super Safe, Small, and Simple) reactor, which could also be classified as a Generation IV design (see Box 8, p. 59). This liquid sodium-cooled fast reactor would provide 10 MWe of power and have a core lifetime of 30 years. The reactor is intended for use in remote regions and is designed to operate without routine maintenance. To minimize the need for security personnel, the reactor would sit inside a sealed vault 30 meters underground. Toshiba offered to provide a free 4S reactor to the town of Galena, Alaska, as a demonstration project if the company received a license from the NRC. Although the town voted in December 2004 to accept Toshiba’s proposal, and officials from Galena and Toshiba met with the NRC in February 2005, Toshiba has not yet initiated an NRC pre-application review. Fast reactors are typically fueled with either highly enriched uranium or plutonium. The limited number of public documents describing the Galena proposal are vague or inconsistent regarding the type of fuel that would be used, but the most recent documents indicate that the fuel would consist of 17–19 percent-enriched uranium. 122 The third project is a 2006 proposal by General Atomics to build a test high-temperature gas-cooled reactor at the University of Texas–Permian Basin. General Atomics originally initiated a pre-application review of its full-scale Gas Turbine Modular Helium Reactor (GT-MHR) in 2001, but told the NRC in 2005 that it intended to terminate those discussions. Its proposal for a test reactor would require a less extensive approval process than that for a full-scale power reactor. The large number of reactor designs potentially seeking certification—some well outside the experience base of most NRC staff—and uncertainties about which proposals are serious present significant challenges to the NRC. It is difficult for the agency to justify developing the expertise to evaluate unfamiliar reactor concepts when it is unclear whether they are viable.

#### And, there will always be new reactors for the Aff to pick—DOE Generation IV research proves

Union of Concerned Scientists ‘7

(“Nuclear Power in a Warming World: Assessing the Risks, Addressing the Challenges”, 2007, http://www.ucsusa.org/assets/documents/nuclear\_power/nuclear-power-in-a-warming-world.pdf)

In addition to the Generation III and III+ designs of commercial reactor vendors, the Department of Energy is sponsoring R&D on advanced reactor systems at national laboratories and universities. This program—known as Generation IV—is nominally pursuing five systems. Two are thermal reactors: the Very High Temperature Reactor (VHTR) and the Supercritical-Water-Cooled Reactor (SCWR). 125 Three are fast reactors, which would use plutonium-based fuels: the Gas-cooled Fast Reactor (GFR), the Lead-cooled Fast Reactor (LFR), and the Sodiumcooled Fast Reactor (SFR). 126 The goals of the Generation IV program are ambitious: Generation IV . . . systems will provide sustainable energy generation . . . will minimize and manage their nuclear waste . . . will have a clear life-cycle cost advantage . . . will have a level of financial risk comparable to other energy projects . . . will excel in safety and reliability will have a very low likelihood and degree of . . . core damage . . . will eliminate the need for offsite emergency response . . . will increase the assurance that they are . . . the least desirable route for diversion or theft of weapons-usable materials and provide increased physical protection against acts of terrorism. 127

#### Counter-interpretation—energy production is the production of electricity or combustible or nuclear fuels

NASA ‘11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Production—The production of electricity, combustible fuels, nuclear and thermonuclear fuels, and heating and cooling by renewable resources.

#### Has a brightline limit—it excludes “tech of the week” Affs; those are energy conversion, which is distinct from production

NASA ’11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Conversion – The change of a working substance or natural power into a more useable form of energy such as electricity or mechanical motion. NASA Thesaurus, Washington, DC: National Aeronautics and Space Administration.

**Best debate—our interpretation opens the best and most real world discussions on nuclear power because each stage of the fuel cycle has different consequences. This turn any marginal limit they create**

**MIT ’11**

(“The Future of Nuclear Power”, Chapter 4 – Fuel Cycles, 2011, <http://web.mit.edu/nuclearpower/pdf/nuclearpower-ch4-9.pdf>)

The description of a possible global growth scenario for nuclear power with 1000 or so GWe deployed worldwide **must begin with some specification of the nuclear fuel cycles** that will be in operation. **The nuclear fuel cycle refers to all activities that occur in the production of nuclear energy**. It is important to emphasize that producing nuclear energy requires more than a nuclear reactor steam supply system and the associated turbine-generator equipment required to produce electricity from the heat created by nuclear fission. **The process includes ore mining,** enrichment**, fuel fabrication, waste management and disposal, and finally decontamination and decommissioning of facilities**. All steps in the process must be specified, because each involves different technical, economic, safety, and environmental consequences. A vast number of different fuel cycles appear in the literature, and many have been utilized to one degree or another. We review the operating characteristics of a number of these fuel cycles, summarized in Appendix 4. In this report, our concern is not with the description of the technical details of each fuel cycle. Rather, we stress the importance of aligning the different fuel cycle options with the global growth scenario criteria that we have specified in the last section: cost, safety, nonproliferation, and waste. This is by no means an easy task, because objective quantitative measures are not obvious, there are great uncertainties, and it is difficult to harmonize technical and institutional features. Moreover, different fuel cycles will meet the four different objectives differently, and therefore the selection of one over the other will inevitably be a matter of judgment. All too often, advocates of a particular reactor type or fuel cycle are selective in emphasizing criteria that have led them to propose a particular candidate. We believe that detailed and thorough analysis is needed to properly evaluate the many fuel cycle alternatives. We do not believe that a new technical configuration exists that meets all the criteria we have set forth, e.g. there is not a technical ‘silver bullet’ that will satisfy each of the criteria. Accordingly, the choice of the best technical path requires a judgment balancing the characteristics of a particular fuel cycle against how well it meets the criteria we have adopted. Our analysis separates fuel cycles into two classes: “open” and “closed.” In the open or once-through fuel cycle, the spent fuel discharged from the reactor is treated as waste. See Figure 4.1. In the closed fuel cycle today, the spent fuel discharged from the reactor is reprocessed, and the products are partitioned into uranium (U) and plutonium (Pu) suitable for fabrication into oxide fuel or mixed oxide fuel (MOX) for recycle back into a reactor. See Figure 4.2. The rest of the spent fuel is treated as high-level waste (HLW). In the future, closed fuel cycles could include use of a dedicated reactor that would be used to transmute selected isotopes that have been separated from spent fuel. See Figure 4.3. The dedicated reactor also may be used as a breeder to produce new fissile fuel by neutron absorption at a rate that exceeds the consumption of fissile fuel by the neutron chain reaction.2 In such fuel cycles the waste stream will contain less actinides,3 which will significantly reduce the long-term radioactivity of the nuclear waste.4

### Keystone

#### Economics trump—competition won’t escalate

**IISS**, International institute for Strategic Studies, **11/28**/12, Russia in the Arctic: Economic Interests Trump Military Ambitions, www.realclearworld.com/articles/2012/11/28/russia\_in\_the\_arctic\_economic\_interests\_trump\_military\_ambitions\_100373-2.html

A recent mission by a Russian nuclear submarine to the floor of the Arctic Ocean has threatened to reignite the media narrative that regional disputes over the right to unlock the economic potential of the Arctic could result in military confrontation. **But it is their mutual economic interests** that mean that the five Arctic coastal **states are motivated to pursue legal and diplomatic avenues** to achieve their aspirations, and **have no desire to jeopardise the status quo.** During the Russian operation, known as Arktika-2012, geological material was collected from one of the two underwater mountain ranges that extend from the Russian landmass towards the North Pole. Russia wants to prove that the Lomonosov and Mendeleev ridges are extensions of Russia's continental shelf and part of the Eurasian plate, which, according to the current legal framework, would allow Russia exclusive rights to any potential future resources under the seabed. The details of the project were intended to remain secret, but in November 2012 several news stories about the submarine appeared, citing a Russian defence ministry source. Despite efforts to build good regional relations among Arctic countries, Russia's neighbours do have concerns about its increasing military presence in the Arctic and its sometimes assertive, anti-Western rhetoric. However, considered in the wider context of Russia's post-Cold War military re-development, its Arctic positioning is not as confrontational as it may seem. The Arctic is a key part of Russia's reassertion of what it sees as its rightful place in international affairs, and it has far greater territory, presence and capability in the Arctic than its neighbours. Rich in hydrocarbons, the region was highlighted in Moscow's Arctic policy of 2008 as the country's primary source of energy for the twenty-first century: approximately 15% of the country's GDP and 25% of its exports come from there, while 80% of the gas in the Arctic lies within Russia's exclusive economic zone (EEZ). There are major on-shore gas installations, and plans to further develop off-shore drilling, though these have met with some logistical difficulties with international partners. Along with hydrocarbons, maritime transport is a major economic development priority. The Northern Sea Route, the new shipping route most likely to become commercially viable in the coming decades as the summer ice recedes, and promises to connect Europe and Asia, runs through Russia's territorial waters or EEZ. However, the lack of infrastructure along the route will hold back the development of commercial shipping. Arktika-2012 The planting of a titanium Russian flag on the floor of the Arctic Ocean during a previous mission, Arktika-2007, created a powerful image, but it had no legal significance. It did, however, pique international interest in the Arctic and encouraged a media narrative about competition over the region's territory and resources. The objective of Russia's latest mission, Arktika-2012, was to prove that its landmass extends to the North Pole by drilling into the sea floor to collect rock samples for scientific analysis. In September, the Kalitka, a Losharik-class nuclear-powered auxiliary submarine, was used to guide the Kapitan Dranitsyn and Dickson ice breakers in drilling three boreholes at two different sites on the Mendeleev ridge, collecting over 500kg of rock samples. This was the first known mission for the Kalitka. Equipped with space-station-grade air and water regeneration systems, the submarine can remain submerged for months. During this operation, it remained 2.5-3 kilometres below the surface for 20 days. (Though the battery-powered civilian Mir stations used in the Arktika-2007 expedition can also operate at such depths, they can only stay submerged for 72 hours.) It was mounted to the underside of a larger nuclear-powered auxiliary submarine (the Orenburg, a redesigned Kalmar or Delta III stretch) to transport it to the drilling site and was supported by the larger boat during the operation. Continental-shelf claims and maritime borders In collecting the geological samples, Russia was responding to a request by the United Nations Commission on the Limits of the Continental Shelf (CLCS) that it submit supporting evidence for its claim to a broad continental shelf that extends beyond its landmass under the Arctic Ocean. The five Arctic coastal states - Russia, Canada, the United States, Norway and Denmark - in 2008 issued a joint statement, known as the Ilulissat Declaration, committing to settling territorial claims diplomatically, using existing legal mechanisms. The primary legal body for maritime border delimitation in the Arctic is the UN Convention on the Law of the Sea (UNCLOS), which rules that maritime countries' EEZs extend 200 nautical miles from their shore. The CLCS covers continental-shelf claims beyond that zone, up to a maximum of 350nm. hould it be determined that the claimed portion of the ocean floor has the same geological makeup as the Russian continental landmass, then the CLCS will rule that it is an extension of Russia's continental shelf, granting Russia sovereign rights to resources under the seabed up to 350nm from its shoreline. In a submission to CLCS in 2001, Russia claimed the Lomonosov and Mendeleev ridges, as well as the seabed below the North Pole. If this claim is verified, Russia's continental shelf would be extended by 1.2 million square kilometres, and give Russia exclusive rights to the resources below the seabed. Russia's Ministry of Natural Resources and Environment tested the samples and found that they did match the make-up of its landmass. Its next submission to CLCS will likely be ready by the end of 2013, to be submitted in 2014. (The CLCS's ruling will be final and binding.) Following Russia's lead, all Arctic countries are preparing to submit claims to the CLCS: Norway's is already complete, while the United States is going ahead with its preparations even though it has not yet ratified UNCLOS and is, therefore, not a party to its adjudication. There is considerable support for acceding to UNCLOS within the US State Department and Department of Defense, and the claim is being put together in anticipation of eventual ratification. Further sources of friction between Arctic nations on the issue of maritime border delimitation include bilateral disagreements between the US and Canada, and between Denmark and Canada, and a trilateral dispute between Russia, Canada and Denmark. The 2,000km-long Lomonosov ridge, meanwhile, is particularly contentious: Canada claims that the ridge is an underwater extension of Ellesmere Island, while Denmark argues that it is an extension of Greenland's landmass. The US, in turn, has stated that Lomonosov is an oceanic ridge and thus cannot be an extension of any country's continental shelf. However, joint efforts to map the seabed in more detail are under way. In 2011, the US and Canada concluded a five-year mapping operation of their continental shelf, and Canada and Denmark conducted a seismic exploration in 2007. In September 2012, Russian President Vladimir Putin called for the creation of a joint scientific council with Canada to allow potentially overlapping continental-shelf claims to be discussed, and Canada responded positively. In addition to the joint surveys, scientists and officials from Arctic nations have met annually since 2007 to discuss issues related to their continental shelves, which may overlap. Of the known oil and gas deposits in the region, 97% lie within the Arctic states' EEZs, meaning there is not much competition between states for access to them. Most of these deposits may not be recoverable in the near term, due to the difficulties of hydrocarbon extraction in remote, harsh and ecologically sensitive environments. But in making maximal continental-shelf claims, Arctic states are hedging that there may be new discoveries or technological developments that will make these deposits more accessible in future. The area that the Russian Federation is claiming is not thought to be rich in hydrocarbons, but does include the North Pole, which has symbolic value. Receive email alerts International Institute for Strategic Studies Arctic Russia Cooperation likely to produce best results Though the CLCS will rule on the extent of the continental shelf in the Arctic, it will not draw the boundaries within the area designated as continental shelf. It is for the countries concerned to come to an agreement on the division of that continental shelf, and the outer boundaries of their national claims, as Russia and Norway did over their Barents Sea border in 2010. However, the CLCS requires that conflicting claims be resolved before it makes its recommendation on the boundary between international oceanic space and national jurisdiction. Differences of opinion among Arctic states over the extent of their shelves could be resolved by discussing CLCS claims before they are submitted, reaching mutually agreeable findings and submitting parallel or joint applications. Each country submits its data to the CLCS confidentially, and its meetings are held in private. UNCLOS scholars believe that Russia has been in communication with Canada and possibly Denmark on the division of their respective claims to the Lomonosov ridge, but there is no information in the public domain about these negotiations. Potential joint submissions are likewise not being prepared openly. Military activity in the Arctic Apart from its economic potential, the strategic importance of the Arctic is not lost on any regional state and all of them have increased the number and complexity of their military exercises there. After a long period of stagnation, Russia is devoting considerable resources to rebuilding and streamlining its military forces. Military exercises have increased for all of the Russian military, including the Northern Fleet, which is based on Russia's northwest coast, inside the Arctic Circle, and is the main locus of its sea-based nuclear deterrent. Its air assets include long-range bombers and maritime reconnaissance aircraft. On the ground, its capabilities include naval infantry and an army brigade on the Kola Peninsula. In 2009, Russia announced its plans to develop further specialised forces to protect its Arctic territory. Russia expressed its unease about the further militarisation of the region in 2009, when Norway moved its armed forces' headquarters to Reitan, in the north of the country. It considered Cold Response - a 15-country exercise that took place in northern Norway and Sweden in March 2012 and involved 16,300 troops - a provocation, and reacted with an exercise involving its 200th motor rifle brigade from Murmansk, including T-80 tanks with gas-turbine engines suited for the Arctic climate. However, Russia has also undertaken joint exercises with both Norway and the US. Confidence-building measures such as these, as well as forums to openly address security matters, have been considered constructive. Moscow's 2008 Arctic policy placed its emphasis not on a military build-up but on maritime law enforcement duties. It also focused on enforcing shipping and fishing regulations, and providing search-and-rescue capabilities. Russia's northern border includes almost 40,000km of coastline, which is becoming more exposed as summer sea ice retreats and economic activity increases. Though Russia has a coastal border guard, only a few of its ships are suitable for Arctic operations, and its ability to monitor its coast and EEZ, and enforce regulations, is limited. As with other Arctic countries, meeting its constabulary requirements is a more immediate and pressing challenge than rebuilding military structures to tackle comparatively notional security threats. Mutual economic interest Despite the signs of heightened military activity in the region, the greatest stabilising factor in the region is mutual economic interest, and the **points of friction** around border delimitation and military activity **are unlikely to override this.** Russia, in particular, is eager to open up the Northern Sea Route for trade purposes, as it perceives great potential for commerce along its otherwise remote northern coast and the possibility of imposing transit fees for shipping through the route. Russia's relations with NATO and the US will have a major impact on levels of cooperation or mistrust in the Arctic. Rebuilding its decaying infrastructure and managing the Northern Sea Route that can connect Europe and Asia will advance Russia's strategic goals in the region more effectively than an unnecessary military build-up.

#### Plan not sufficient to trigger the link – nothing for environmentalists to backlash to

EIA ’11

(“Over 90% of uranium purchased by U.S. commercial nuclear reactors is from outside the U.S.”, 7-11-2011, http://www.eia.gov/todayinenergy/detail.cfm?id=2150#)

Owners and operators of U.S. commercial nuclear power reactors purchased nearly 47 million pounds of uranium from U.S. and foreign suppliers during 2010; 92% of this total was of foreign origin.¶ Historically, U.S. owners and operators have purchased the majority of their uranium from foreign sources. Russia, Canada, Australia, Kazakhstan, and Namibia represent the top five countries of origin for U.S. uranium, and together account for 85% of total U.S. uranium purchases in 2010. Owners and operators of U.S. commercial nuclear power plants purchased uranium from a total of 14 different countries in 2010.¶ Preparing uranium for use as fuel in nuclear reactors involves a complex process of mining, refinement, and enrichment. EIA's 2010 Uranium Marketing Annual Report presents data on purchases and sales of uranium contracts and market requirements, enrichment services, and other information pertaining to feed, loaded uranium, and inventories.

### Politics

#### No risk of cyber war

**Clark ’12** (MA candidate – Intelligence Studies @ American Military University, senior analyst – Chenega Federal Systems, 4/28/’12

(Paul, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack,” American Military University)

The Department of Homeland Security worries that our critical infrastructure and key resources (CIKR) may be exposed, both directly and indirectly, to multiple threats because of CIKR reliance on the global cyber infrastructure, an infrastructure that is under routine cyberattack by a “spectrum of malicious actors” (National Infrastructure Protection Plan 2009). CIKR in the extremely large and complex U.S. economy spans multiple sectors including agricultural, finance and banking, dams and water resources, public health and emergency services, military and defense, transportation and shipping, and energy (National Infrastructure Protection Plan 2009). The disruption and destruction of public and private infrastructure is part of warfare, without this infrastructure conflict cannot be sustained (Geers 2011). Cyber-attacks are desirable because they are considered to be a relatively “low cost and long range” weapon (Lewis 2010), but prior to the creation of Stuxnet, the first cyber-weapon, the ability to disrupt and destroy critical infrastructure through cyber-attack was theoretical. The movement of an offensive cyber-weapon from conceptual to actual has forced the United States to question whether offensive cyber-attacks are a significant threat that are able to disrupt or destroy CIKR to the level that national security is seriously degraded. It is important to understand the risk posed to national security by cyber-attacks to ensure that government responses are appropriate to the threat and balance security with privacy and civil liberty concerns. The risk posed to CIKR from cyber-attack can be evaluated by measuring the threat from cyber-attack against the vulnerability of a CIKR target and the consequences of CIKR disruption. As the only known cyber-weapon, Stuxnet has been **thoroughly analyzed** and **used as a model** for predicting future cyber-weapons. The U.S. electrical grid, a key component in the CIKR energy sector, is a target that has been analyzed for vulnerabilities and the consequences of disruption predicted – the electrical grid has been used in multiple attack scenarios including a classified scenario provided to the U.S. Congress in 2012 (Rohde 2012). Stuxnet will serve as the weapon and the U.S. electrical grid will serve as the target in this risk analysis that concludes that there is a low risk of disruption or destruction of critical infrastructure from a an offensive cyber-weapon because of the complexity of the attack path, the limited capability of non-state adversaries to develop cyber-weapons, and the existence of multiple methods of mitigating the cyber-attacks. To evaluate the threat posed by a Stuxnet-like cyber-weapon, the complexity of the weapon, the available attack vectors for the weapon, and the resilience of the weapon must be understood. The complexity – how difficult and expensive it was to create the weapon – identifies the relative cost and availability of the weapon; inexpensive and simple to build will be more prevalent than expensive and difficult to build. Attack vectors are the available methods of attack; the larger the number, the more severe the threat. For example, attack vectors for a cyberweapon may be email attachments, peer-to-peer applications, websites, and infected USB devices or compact discs. Finally, the resilience of the weapon determines its availability and affects its usefulness. A useful weapon is one that is resistant to disruption (resilient) and is therefore available and reliable. These concepts are seen in the AK-47 assault rifle – a simple, inexpensive, reliable and effective weapon – and carry over to information technology structures (Weitz 2012). The evaluation of Stuxnet identified malware that is “unusually complex and large” and required code written in multiple languages (Chen 2010) in order to complete a variety of specific functions contained in a “vast array” of components – **it is one of the most complex threats ever analyzed by Symantec** (Falliere, Murchu and Chien 2011). To be successful, Stuxnet required a **high** **level of technical knowledge across multiple disciplines**, a laboratory with the target equipment configured for testing, and a foreign intelligence capability to collect information on the target network and attack vectors (Kerr, Rollins and Theohary 2010). The malware also needed careful monitoring and maintenance because it could be easily disrupted; as a result Stuxnet was developed with a high degree of configurability and was upgraded multiple times in less than one year (Falliere, Murchu and Chien 2011). Once introduced into the network, the cyber-weapon then had to utilize four known vulnerabilities and four unknown vulnerabilities, known as zero-day exploits, in order to install itself and propagate across the target network (Falliere, Murchu and Chien 2011). Zero-day exploits are **incredibly difficult to find** and fewer than twelve out of the 12,000,000 pieces of malware discovered each year utilize zero-day exploits

and this rarity makes them valuable, zero-days can fetch $50,000 to $500,000 each on the black market (Zetter 2011). The use of four rare exploits in a single piece of malware is “unprecedented” (Chen 2010). Along with the use of four unpublished exploits, Stuxnet also used the “first ever” programmable logic controller rootkit, a Windows rootkit, antivirus evasion techniques, intricate process injection routines, and other complex interfaces (Falliere, Murchu and Chien 2011) all **wrapped up in “layers of encryption** like Russian nesting dolls” (Zetter 2011) – including custom encryption algorithms (Karnouskos 2011). As the malware spread across the now-infected network it had to utilize additional vulnerabilities in proprietary Siemens industrial control software (ICS) and hardware used to control the equipment it was designed to sabotage. Some of these ICS vulnerabilities were published but some were unknown and **required such a high degree of inside knowledge** that there was speculation that a Siemens employee had been involved in the malware design (Kerr, Rollins and Theohary 2010). The unprecedented technical complexity of the Stuxnet cyber-weapon, along with the extensive technical and financial resources and foreign intelligence capabilities required for its development and deployment, indicates that the malware was likely developed by a nation-state (Kerr, Rollins and Theohary 2010). Stuxnet had very limited attack vectors. When a computer system is connected to the public Internet a host of attack vectors are available to the cyber-attacker (Institute for Security Technology Studies 2002). Web browser and browser plug-in vulnerabilities, cross-site scripting attacks, compromised email attachments, peer-to-peer applications, operating system and other application vulnerabilities are all vectors for the introduction of malware into an Internetconnected computer system. **Networks that are not connected to the public internet are “air gapped**,” a technical colloquialism to identify a physical separation between networks. Physical separation from the public Internet is a common safeguard **for sensitive networks** including classified U.S. government networks. If the target network is air gapped, infection can only occur through physical means – an infected disk or USB device that **must be physically introduced** into a possibly access controlled environment and connected to the air gapped network. The first step of the Stuxnet cyber-attack was to initially infect the target networks, a difficult task given the probable disconnected and well secured nature of the Iranian nuclear facilities. Stuxnet was introduced via a USB device to the target network, a method that suggests that the attackers were familiar with the configuration of the network and knew it was not connected to the public Internet (Chen 2010). This assessment is supported by two rare features in Stuxnet – having all necessary functionality for industrial sabotage fully embedded in the malware executable along with the ability to self-propagate and upgrade through a peer-to-peer method (Falliere, Murchu and Chien 2011). Developing an understanding of the target network configuration was a significant and daunting task based on Symantec’s assessment that Stuxnet repeatedly targeted a total of five different organizations over nearly one year (Falliere, Murchu and Chien 2011) with physical introduction via USB drive being the only available attack vector. The final factor in assessing the threat of a cyber-weapon is the resilience of the weapon. There are two primary factors that make Stuxnet non-resilient: the complexity of the weapon and the complexity of the target. Stuxnet was highly customized for sabotaging specific industrial systems (Karnouskos 2011) and needed a large number of very complex components and routines in order to increase its chance of success (Falliere, Murchu and Chien 2011). The malware required eight vulnerabilities in the Windows operating system to succeed and therefore would have failed if those vulnerabilities had been properly patched; four of the eight vulnerabilities were known to Microsoft and subject to elimination (Falliere, Murchu and Chien 2011). Stuxnet also required that two drivers be installed and required two stolen security certificates for installation (Falliere, Murchu and Chien 2011); driver installation would have failed if the stolen certificates had been revoked and marked as invalid. Finally, the configuration of systems is ever-changing as components are upgraded or replaced. There is no guarantee that the network that was mapped for vulnerabilities had not changed in the months, or years, it took to craft Stuxnet and successfully infect the target network. Had specific components of the target hardware changed – the targeted Siemens software or programmable logic controller – the attack would have failed. Threats are less of a threat when identified; this is why zero-day exploits are so valuable. Stuxnet went to great lengths to hide its existence from the target and utilized multiple rootkits, data manipulation routines, and virus avoidance techniques to stay undetected. The malware’s actions occurred only in memory to avoid leaving traces on disk, it masked its activities by running under legal programs, employed layers of encryption and code obfuscation, and uninstalled itself after a set period of time, all efforts to avoid detection because its authors knew that detection meant failure. As a result of the complexity of the malware, the changeable nature of the target network, and the chance of discovery, Stuxnet is not a resilient system. It is a fragile weapon that required an investment of time and money to constantly monitor, reconfigure, test and deploy over the course of a year. There is concern, with Stuxnet developed and available publicly, that the world is on the brink of a storm of highly sophisticated Stuxnet-derived cyber-weapons which can be used by hackers, organized criminals and terrorists (Chen 2010). As former counterterrorism advisor Richard Clarke describes it, there is concern that the technical brilliance of the United States “has created millions of potential monsters all over the world” (Rosenbaum 2012). Hyperbole aside, technical knowledge spreads. The techniques behind cyber-attacks are “constantly evolving and making use of lessons learned over time” (Institute for Security Technology Studies 2002) and the publication of the Stuxnet code may make it easier to copy the weapon (Kerr, Rollins and Theohary 2010). **However**, this is something of a zero-sum game because **knowledge works both ways** and cyber-security techniques are also evolving, and “understanding attack techniques more clearly is the first step toward increasing security” (Institute for Security Technology Studies 2002). Vulnerabilities are discovered and patched, intrusion detection and malware signatures are expanded and updated, and monitoring and analysis processes and methodologies are expanded and honed. Once the element of surprise is lost, weapons and tactics are less useful, this is the core of the argument that “uniquely surprising” **stratagems like Stuxnet are single-use**, like Pearl Harbor and the Trojan Horse, the “very success [of these attacks] precludes their repetition” (Mueller 2012). This paradigm has already been seen in the “son of Stuxnet” malware – named Duqu by its discoverers – that is based on the same modular code platform that created Stuxnet (Ragan 2011). With the techniques used by Stuxnet now known, other variants such as Duqu are being discovered and countered by security researchers (Laboratory of Cryptography and System Security 2011). It is obvious that the effort required to create, deploy, and maintain Stuxnet and its variants is massive and it is not clear that the rewards are worth the risk and effort. Given the location of initial infection and the number of infected systems in Iran (Falliere, Murchu and Chien 2011) it is believed that Iranian nuclear facilities were the target of the Stuxnet weapon. A significant amount of money and effort was invested in creating Stuxnet but yet the expected result – assuming that this was an attack that expected to damage production – was minimal at best. Iran claimed that Stuxnet caused only minor damage, probably at the Natanz enrichment facility, the Russian contractor Atomstroyeksport reported that no damage had occurred at the Bushehr facility, and an unidentified “senior diplomat” suggested that Iran was forced to shut down its centrifuge facility “for a few days” (Kerr, Rollins and Theohary 2010). Even the most optimistic estimates believe that Iran’s nuclear enrichment program was only delayed by months, or perhaps years (Rosenbaum 2012). The actual damage done by Stuxnet is not clear (Kerr, Rollins and Theohary 2010) and the primary damage appears to be to a higher number than average replacement of centrifuges at the Iran enrichment facility (Zetter 2011). Different targets may produce different results. The Iranian nuclear facility was a difficult target with limited attack vectors because of its isolation from the public Internet and restricted access to its facilities. What is the probability of a successful attack against the U.S. electrical grid and what are the potential consequences should this critical infrastructure be disrupted or destroyed? An attack against the electrical grid is a reasonable threat scenario since power systems are “a high priority target for military and insurgents” and there has been a trend towards utilizing commercial software and integrating utilities into the public Internet that has “increased vulnerability across the board” (Lewis 2010). Yet the increased vulnerabilities are mitigated by an increased detection and deterrent capability that has been “honed over many years of practical application” now that power systems are using standard, rather than proprietary and specialized, applications and components (Leita and Dacier 2012). The security of the electrical grid is also enhanced by increased awareness after a smart-grid hacking demonstration in 2009 and the identification of the Stuxnet malware in 2010; as a result the public and private sector are working together in an “unprecedented effort” to establish robust security guidelines and cyber security measures (Gohn and Wheelock 2010).

#### Aff turns hegemony

Perry et al ’09 – CFR Scholars

(William Perry, Brent Scowcroft, and Charles Ferguson, Council on Foreign Relations Independent Task Force on Nuclear Weapons, “U.S. Nuclear Weapons Policy,” 2009, http://www.cfr.org/content/publications/attachments/Nuclear\_Weapons\_TFR62.pdf)

Consider a world in which the United States has the same global leadership responsibilities it now has, but does not have nuclear arms, though at least one adversary or potential adversary does. U.S. leaders would then constantly remain concerned about coercion from that state. The United States would not have the same power projection capabilities it currently enjoys. The Task Force believes that as long as the United States wants to maintain its global leadership, it will need enough nuclear arms to prevent nuclear blackmail from other nuclear-armed states. Determining what number and types of arms are adequate depends on geopolitical dynamics and, ultimately, on U.S. leadership in reducing nuclear dangers and addressing other states’ security concerns.

#### Immigrants will be employed in jobs that waste their potential.

Bárbara **Castelletti**, economist at the OECD Development Centre, **et al.**, Jeff Dayton-Johnson, head of the OECD development Centre, and Ángel Melguizo, economist at the OECD Development Centre, “Migration in Latin America: Answering old questions with new data,” 3/19/**2010**, http://www.voxeu.org/index.php?q=node/4764

Most research on migration assumes that workers are employed in activities that correspond to their skill level. In practice workers may be employed in sectors characterised by skill requirements different from their educational or training background. In particular, **migrants may be overqualified for the work they do**. As Mattoo et al. (2005) show, this is the case for Mexicans, Central Americans and Andean university-educated migrants working in the US. **Despite their tertiary degrees, these groups rarely hold highly skilled jobs**. Worse, they may even be at the **lower rungs of the skill ladder**; 44% of tertiary-educated Mexicans migrants in the US are working in unskilled jobs. **This equilibrium represents a lose-lose-lose situation**. The home country loses human capital (brain drain), the host country and the migrant him/herself are not fully employed (brain waste), and the low skilled workers in host countries (both earlier migrants and natives) can be pushed out of the market (given that they compete with these higher-educated workers for jobs).

To illustrate this phenomenon for South-South flows, we follow OECD (2007) and compare the education level (primary, secondary and tertiary) of migrants in Argentina, Costa Rica and Venezuela with their category of job qualification (low, intermediate and high skilled). Figure 3 shows the share of over-qualified migrants and native workers, residing in different countries, and the comparison between foreign-born and natives.

Over-qualification rates vary sharply among countries, ranging from 5% in Costa Rica and Venezuela to 14% in Argentina. While lower than in the US, Canada and Spain where the over-qualification rates are above 15%, these results point to a high degree of over-qualification among immigrants compared to the native-born in Latin American countries. While there are possible omitted variables, it is likely that some part of the brain waste observed is because of the non-recognition of foreign qualifications or excessive requalification requirements for foreigners.

#### Won’t pass – no bill or consensus.

Alonso 3/6

(Basilisa, “President Obama and Congress are still far apart on immigration reform”, Hispanic News Service, 3-6-2013, http://www.voxxi.com/obama-congress-apart-immigration-reform/)

President Barack Obama and Congress have yet to address seriously, let alone find much common ground, on major differences in shaping comprehensive immigration reform legislation this year. They remain ideologically and politically far apart on a myriad of issues, most prominently border enforcement, a path to citizenship and family reunification.¶ The latest move by the Administration is the probationary release of several hundred immigrants from detention centers over the country who are awaiting disposition of their deportation orders. White House press secretary Jay Carney says they are ”low-risk, non-criminal detainees” being shifted to a less-expensive form of monitoring to ensure detention levels stay within ICE’s overall budget.¶ More than 400,000 immigrants are held annually in 250 federal immigration prisons. House Judiciary Committee chairman Robert Goodlatte (R- Virginia) calls it “abhorrent that President Obama is releasing criminals into our communities.” He adds that achieving an overhaul of immigration laws would have better odds if Congress, rather than the President, takes the lead.¶ President Obama’s leaked immigration bill¶ The buoyancy from the president’s Feb. 12 State of the Union immigration reform message turned flat five days later, when USA Today obtained a copy and revealed it. The leaked proposal included his intended roadmap to citizenship for nearly 11 million undocumented immigrants who meet stringent requirements in order to qualify. Although the White House has not confirmed the report, qualifying immigrants would be granted renewable “lawful prospective immigrant” visas.¶ Much like the Deferred Action for Childhood Arrival (DACA) program, the plan would allow currently undocumented immigrants to live and work here temporarily within a four-year timeframe. After that, the visa could be renewed. Immigrants would have to pass criminal background checks, submit biometrics and pay any back taxes and fees due. The current non-refundable fee is $685 to take the citizenship test is $685.¶ Applicants would then have a minimum eight-year wait before they could apply for a green card, which grants permanent residency. Some persons already in deportation proceedings would be allowed to apply. The New York Times reported that none of the 11 million undocumented immigrants currently in the country would be granted permanent resident status or a green card before the earlier of two dates: either eight years after the bill is enacted or 30 days after visas have been awarded to everyone who applied legally before they did.¶ During the State of the Union address the President entreated, “Let’s get this done. Send me a comprehensive immigration reform bill in the next few months, and I will sign it right away.” The bipartisan exuberance that filled the House chamber has visibly retracted. Senator John McCain (R-Ariz.) told NBC’s Meet the Press that if the president proposes the leaked plan as legislation it would fail. “Leaks don’t happen in Washington by accident,” he added.¶ U.S. Rep. Paul Ryan (R-Wisc.,) who had earlier praised Obama’s State of the Union immigration rhetoric, said on ABC’s This Week that by leaking his proposal the president was “looking for a partisan advantage and not a bipartisan solution.”¶

#### No comprehensive bill – it’ll be watered down

Politico 3-5-13. dyn.politico.com/printstory.cfm?uuid=12207C2F-7F94-479F-959C-F539B631CDF1

“More likely that we deal with one bill at a time, more likely that the Senate slams them all together,” said Oklahoma Rep. James Lankford, chairman of the Republican Policy Committee, who is involved with immigration strategy. “They do so few bills over there, they’re going to do one big giant, we may do a few small [bills] and see what we work on in conference together.”¶ Still, as Washington is a-twitter about immigration reform, and President Barack Obama is corralling support on Capitol Hill, the GOP leadership is staring at a daunting statistic: More than 140 Republicans represent districts with nearly no Hispanics. So many of them look at immigration reform through a parochial lens, not as a national political imperative like the party bigwigs.¶ The uptick in private action tells a more hopeful story for reform than was previously understood. Of course, passing any immigration reform bills is a political risk because if the House is seen even temporarily as moving minor proposals while the Senate moves a massive bill, that action could be seen as insufficient.¶ For instance, the piecemeal approach could risk putting some House Republicans crosswise with national party apparatus — who see comprehensive immigration reform as a pathway toward maintaining power in Washington.¶ “I don’t like how some people on our side who are pushing a comprehensive plan who say, ‘The reason we have to do this if because we’re not getting enough of the Hispanic vote at the presidential level,’” said Rep. Tom Rooney (R-Fla.) . “For me, policy should be driven because of policy, not politics, and I know that’s wishful thinking.”¶ Ryan’s office did not answer an email about the private conversations. Gowdy told reporters he would talk about anything except immigration.¶ The desire to avoid comprehensive movement on immigration is so widespread, so geographically diverse, that it’s hard to ignore and might be impossible for leadership to circumvent.¶ Rep. Reid Ribble (R-Wis.) said he is “hopeful … that rather than trying to do a major comprehensive reform, we will try and do it sequentially.”¶ “Everyone agrees on certain things,” Ribble said.¶ Rooney said Republicans would “lose a group of people right off the bat” if they try to cobble together a comprehensive bill.

#### Obama pushing gun control- it’s controversial

The Hill 2-15-13 http://thehill.com/homenews/administration/283563-obama-pushes-gun-control-in-personal-speech-in-chicago

President Obama on Friday underlined his call for Congress to allow a vote on gun control by traveling to Chicago, his hometown and the city with the second-highest murder rate in the country.¶ “Too many of our children are being taken away from us,” Obama said in an intensely personal speech delivered in his old neighborhood that focused on the concerns of the urban poor.¶ Obama discussed the hardships of being raised by a single mom and the importance of fatherhood, and his speech included nods to gun control and other proposals from his State of the Union address meant to help the poor move up to middle-class lives.¶ Speaking in Hyde Park, where a 17-year-old was recently gunned down just days after performing at his inauguration, Obama said that no law or set of laws “can prevent every senseless act of violence in this country.”¶ And he emphasized putting forth as much focus on the social aspects of communities, saying that this is “not just a gun issue.”¶ “When a child opens fire on another child, there is a hole in that child’s heart that government can’t fill, only community and parents and teachers and clergy can fill that hole,” he said, speaking before students, faculty and community leaders. “There are entire neighborhoods where young people, they don’t see an example of somebody succeeding. For a lot of young boys and young men in particular, they don’t see an example of fathers or grandfathers, uncles who are in a position to support families and be held up and respected.”¶ Obama acknowledged the obstacles before him in pushing for gun-control, which is seen in dramatically different lights in different parts of the country.¶ “The experience of gun ownership is different in urban areas than it is in rural areas,” Obama said. “But these proposals deserve a vote in Congress. They deserve a vote.¶ “We all share a responsibility as citizens to fix it,” he added.¶ Obama’s proposals include expanded background checks and bans on certain semi-automatic weapons and high-capacity clips. He made an impassioned plea for a vote the dramatic conclusion of his State of the Union address, which was attended by many victims of gun violence, including the parents of the teenager slain in Chicago a week after performing at his inauguration.

#### PC theory is wrong- winners win

Hirsh, 2-7 – National Journal chief correspondent, citing various political scientists

[Michael, former Newsweek senior correspondent, "There’s No Such Thing as Political Capital," National Journal, 2-9-13, www.nationaljournal.com/magazine/there-s-no-such-thing-as-political-capital-20130207, accessed 2-8-13, mss]

**There’s No Such Thing as Political Capital**

The idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get itwrong. On Tuesday, in his State of the Union address, President Obama will do what every president does this time of year. For about 60 minutes, he will lay out a sprawling and ambitious wish list highlighted by gun control and immigration reform, climate change and debt reduction. In response, the pundits will do what they always do this time of year: They will talk about how unrealistic most of the proposals are, discussions often informed by sagacious reckonings of how much “political capital” Obama possesses to push his program through. Most of **this** talk **will have no bearing on what actually happens** over the next four years. Consider this: Three months ago, just before the November election, if someone had talked seriously about Obama having enough political capital to oversee passage of both immigration reform and gun-control legislation at the beginning of his second term—even after winning the election by 4 percentage points and 5 million votes (the actual final tally)—this person would have been called crazy and stripped of his pundit’s license. (It doesn’t exist, but it ought to.) In his first term, in a starkly polarized country, the president had been so frustrated by GOP resistance that he finally issued a limited executive order last August permitting immigrants who entered the country illegally as children to work without fear of deportation for at least two years. Obama didn’t dare to even bring up gun control, a Democratic “third rail” that has cost the party elections and that actually might have been even less popular on the right than the president’s health care law. And yet, for reasons that have very little to do with Obama’s personal prestige or popularity—variously put in terms of a “mandate” or “political capital”—chances are fair that both will now happen. What changed? In the case of gun control, of course, it wasn’t the election. It was the horror of the 20 first-graders who were slaughtered in Newtown, Conn., in mid-December. The sickening reality of little girls and boys riddled with bullets from a high-capacity assault weapon seemed to precipitate a sudden tipping point in the national conscience. One thing changed after another. Wayne LaPierre of the National Rifle Association marginalized himself with poorly chosen comments soon after the massacre. The pro-gun lobby, once a phalanx of opposition, began to fissure into reasonables and crazies. Former Rep. Gabrielle Giffords, D-Ariz., who was shot in the head two years ago and is still struggling to speak and walk, started a PAC with her husband to appeal to the moderate middle of gun owners. Then she gave riveting and poignant testimony to the Senate, challenging lawmakers: “Be bold.” As a result, momentum has appeared to build around some kind of a plan to curtail sales of the most dangerous weapons and ammunition and the way people are permitted to buy them. It’s impossible to say now whether such a bill will pass and, if it does, whether it will make anything more than cosmetic changes to gun laws. But one thing is clear: The **political tectonics** have **shift**ed **dramatically in very little time**. Whole new possibilities exist now that didn’t a few weeks ago. Meanwhile, the Republican members of the Senate’s so-called Gang of Eight are pushing hard for a new spirit of compromise on immigration reform, a sharp change after an election year in which the GOP standard-bearer declared he would make life so miserable for the 11 million illegal immigrants in the U.S. that they would “self-deport.” But this turnaround has very little to do with Obama’s personal influence—his political mandate, as it were. It has almost entirely to do with just two numbers: 71 and 27. That’s 71 percent for Obama, 27 percent for Mitt Romney, the breakdown of the Hispanic vote in the 2012 presidential election. Obama drove home his advantage by giving a speech on immigration reform on Jan. 29 at a Hispanic-dominated high school in Nevada, a swing state he won by a surprising 8 percentage points in November. But the movement on immigration has mainly come out of the Republican Party’s recent introspection, and the realization by its more thoughtful members, such as Sen. Marco Rubio of Florida and Gov. Bobby Jindal of Louisiana, that without such a shift the party may be facing demographic death in a country where the 2010 census showed, for the first time, that white births have fallen into the minority. It’s got nothing to do with Obama’s political capital or, indeed, Obama at all. The point is not that “political capital” is a meaningless term. Often it is a synonym for “mandate” or “momentum” in the aftermath of a decisive election—and just about every politician ever elected has tried to claim more of a mandate than he actually has. Certainly, Obama can say that because he was elected and Romney wasn’t, he has a better claim on the country’s mood and direction. Many pundits still defend political capital as a useful metaphor at least. “It’s an unquantifiable but meaningful concept,” says Norman Ornstein of the American Enterprise Institute. “You can’t really look at a president and say he’s got 37 ounces of political capital. But the fact is, it’s a concept that matters, if you have popularity and some momentum on your side.” The real problem is that the idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get it wrong. “Presidents usually over-estimate it,” says George Edwards, a presidential scholar at Texas A&M University. “The best kind of political capital—some sense of an electoral mandate to do something—is very rare. It almost never happens. In 1964, maybe. And to some degree in 1980.” For that reason, **political capital** is a concept that **misleads** far more than it enlightens. **It is** **distortionary**. It conveys the idea that we know more than we really do about the ever-elusive concept of political power, and it discounts the way unforeseen events can suddenly change everything. Instead, it suggests, erroneously, that a political figure has a concrete amount of political capital to invest, just as someone might have real investment capital—that a particular leader can bank his gains, and the size of his account determines what he can do at any given moment in history. Naturally, any president has practical and electoral limits. Does he have a majority in both chambers of Congress and a cohesive coalition behind him? Obama has neither at present. And unless a surge in the economy—at the moment, still stuck—or some other great victory gives him more momentum, it is inevitable that the closer Obama gets to the 2014 election, the less he will be able to get done. Going into the midterms, Republicans will increasingly avoid any concessions that make him (and the Democrats) stronger. But the abrupt emergence of the immigration and gun-control issues illustrates how suddenly shifts in mood can occur and how political interests can align in new ways just as suddenly. Indeed, the pseudo-concept of political capital masks a larger truth about Washington that is kindergarten simple: You just don’t know what you can do until you try. Or as Ornstein himself once wrote years ago, “**Winning wins.”** In theory, and in practice, depending on Obama’s handling of any particular issue, even in a polarized time, he could still deliver on a lot of his second-term goals, depending on his skill and the breaks. Unforeseen catalysts can appear, like Newtown. Epiphanies can dawn, such as when many Republican Party leaders suddenly woke up in panic to the huge disparity in the Hispanic vote. Some **political scientists** **who study** the elusive calculus of **how to pass legislation** and run successful presidencies **say** that **political capital is**, at best, **an empty concept**, and that **almost nothing in** the **academic literature** successfully quantifies or even defines it. “It can refer to a very abstract thing, like a president’s popularity, but there’s no mechanism there. That makes it kind of useless,” says Richard Bensel, a government professor at Cornell University. Even Ornstein concedes that the calculus is far more complex than the term suggests. **Winning** on one issue often **changes the** **calculation** for the next issue; there is never any known amount of capital. “The idea here is, if an issue comes up where **the conventional wisdom is that president is not going to get what he wants**, and [they]he gets it, then each time that happens, it changes the calculus of the **other actors**” Ornstein says. “If they think he’s going to win, they may **change positions to get on the winning side**. **It’s a bandwagon effect**.” ALL THE WAY WITH LBJ Sometimes, a clever practitioner of power can get more done just because [they’re]he’s aggressive and knows the hallways of Congress well. Texas A&M’s Edwards is right to say that the outcome of the 1964 election, Lyndon Johnson’s landslide victory over Barry Goldwater, was one of the few that conveyed a mandate. But one of the main reasons for that mandate (in addition to Goldwater’s ineptitude as a candidate) was President Johnson’s masterful use of power leading up to that election, and his ability to get far more done than anyone thought possible, given his limited political capital. In the newest volume in his exhaustive study of LBJ, The Passage of Power, historian Robert Caro recalls Johnson getting cautionary advice after he assumed the presidency from the assassinated John F. Kennedy in late 1963. Don’t focus on a long-stalled civil-rights bill, advisers told him, because it might jeopardize Southern lawmakers’ support for a tax cut and appropriations bills the president needed. “One of the wise, practical people around the table [said that] the presidency has only a certain amount of coinage to expend, and you oughtn’t to expend it on this,” Caro writes. (Coinage, of course, was what political capital was called in those days.) Johnson replied, “Well, what the hell’s the presidency for?” Johnson didn’t worry about coinage, and he got the Civil Rights Act enacted, along with much else: Medicare, a tax cut, antipoverty programs. He appeared to understand not just the ways of Congress but also the way to maximize the momentum he possessed in the lingering mood of national grief and determination by picking the right issues, as Caro records. “Momentum is not a mysterious mistress,” LBJ said. “It is a controllable fact of political life.” Johnson had the skill and wherewithal to realize that, at that moment of history, he could have unlimited coinage if he handled the politics right. He did. (At least until Vietnam, that is.)

[Matt note: gender paraphrased]

#### Link shields itself – Obama will back away from the plan if Congress presses him

Herz ’12 – professor of law and co-director of the Floersheimer Center for Constitutional Democracy

(Michael E., “Political Oversight of Agency Decisionmaking”, Administrative Law JOTWELL, 1-23-2012)

Mendelson begins with two important but often overlooked points. First, we know remarkably little about the content and scope of presidential oversight of rulemaking. Second, there’s presidential oversight and there’s presidential oversight; that is, some presidential influence is almost indisputably appropriate and enhances the legitimacy of agency decisionmaking, and some (e.g. leaning on the agency to ignore scientific fact or to do something inconsistent with statutory constraints) is not. Although presidents have long exerted significant influence on agency rulemaking, and although that influence has been regularized and concentrated in OIRA for three decades, it remains quite invisible. The OIRA review process is fairly opaque (though less so than it once was), influence by other parts of the White House even more so, and official explanations of agency action almost always are silent about political considerations. As a result, the democratic responsiveness and accountability that, in theory, presidential oversight provides goes unrealized. Presidents take credit when it suits them, but keep their distance from controversy. (Although Mendelson does not make the connection explicit, her account resonates with critiques by supporters of a nondelegation doctrine with teeth who are dismayed by Congress’s desire to take credit but not blame.)

#### It’s massively popular, even AFTER the sequester – it still has massive support in Congress

Lewis ’13 – reporter for the Westville Reporter

(Frank, “Good news comes in bunches for USEC”, Westville Reporter, Energy Central, 3-6-2013, <http://www.energycentral.com/news/en/27816039/Good-news-comes-in-bunches-for-USEC>, DOA: 3-8-2013)

The good news continues to roll in for the funding of the research, development, and demonstration (RD&D) program at the American Centrifuge Project (ACP) in Piketon. News from Capitol Hill is that $150 million is included in the House Continuing Resolution (CR) to fund the USEC RD&D process which is a joint effort by USEC and the U.S. Department of Energy.¶ Section 1402 of the CR reads -- "In addition to amounts otherwise made available by this division, $150,000,000 is appropriated for 'Department of Energy, Atomic Energy Defense Activities, National Nuclear Security Administration, Defense Nuclear Nonproliferation' for domestic uranium enrichment research, development, and demonstration."¶ "Obviously we have been working to complete the funding for the RD&D program, which is an important program for demonstrating the technology, and laying the groundwork for commercialization," Paul Jacobson, Vice President of Communications for USEC told the Daily Times Tuesday. "I think the inclusion of the funds reflects a continued bi-partisan support in Congress and from the administration as well, for the national and energy security merits of this project. I think it's important to underscore that this proposed funding is to support the centrifuge project, and the national goals that the decision makers in Washington have decided are important to support. So obviously it is good news but there is a way to go with action in the House and action in the Senate, but it certainly is encouraging."

#### The link to politics happens if you DON’T do the Aff

Jennetta ’12 – publisher of Fuel Cycle Weekly

(Andrea Jennetta, “DOE Calls in the experts”, Fuel Cycle Weekly, Vol.10, No.414 3-3-11, http://fuelcycle.blogspot.com/2011/03/doe-calls-in-experts.html)

The only reason to mention his (and BWEC’s) credentials is to make the point that when it comes to USEC and the ACP loan guarantee application, the Energy Department really needs to be prepared. Regardless of the final outcome of the evaluation, everyone—EVERYONE—will be criticized.¶ With a “yes” decision, DOE is saying there are enough positive vectors in terms of USEC’s enrichment order book and ability to execute, despite financial weakness and questionable technology.¶ With a “no” decision, DOE is saying there are justifiable doubts about USEC’s finances and technology, and that granting the loan guarantee is too risky for U.S. taxpayers.

### K

#### No prior questions – our justification for the 1AC is true

Owen ‘2 – reader of political theory

(David Owen, Reader of Political Theory at the Univ. of Southampton, Millennium Vol 31 No 3 2002 p. 655-7)

Commenting on the ‘philosophical turn’ in IR, Wæver remarks that ‘[a] frenzy for words like “epistemology” and “ontology” often signals this philosophical turn’, although he goes on to comment that these terms are often used loosely.4 However, loosely deployed or not, it is clear that debates concerning ontology and epistemology play a central role in the contemporary IR theory wars. In one respect, this is unsurprising since it is a characteristic feature of the social sciences that periods of disciplinary disorientation involve recourse to reflection on the philosophical commitments of different theoretical approaches, and there is no doubt that such reflection can play a valuable role in making explicit the commitments that characterise (and help individuate) diverse theoretical positions. Yet, such a philosophical turn is not without its dangers and I will briefly mention three before turning to consider a confusion that has, I will suggest, helped to promote the IR theory wars by motivating this philosophical turn. The first danger with the philosophical turn is that it has an inbuilt tendency to prioritise issues of ontology and epistemology over explanatory and/or interpretive power as if the latter two were merely a simple function of the former. But while the explanatory and/or interpretive power of a theoretical account is not wholly independent of its ontological and/or epistemological commitments (otherwise criticism of these features would not be a criticism that had any value), it is by no means clear that it is, in contrast, wholly dependent on these philosophical commitments. Thus, for example, one need not be sympathetic to rational choice theory to recognise that it can provide powerful accounts of certain kinds of problems, such as the tragedy of the commons in which dilemmas of collective action are foregrounded. It may, of course, be the case that the advocates of rational choice theory cannot give a good account of why this type of theory is powerful in accounting for this class of problems (i.e., how it is that the relevant actors come to exhibit features in these circumstances that approximate the assumptions of rational choice theory) and, if this is the case, it is a philosophical weakness—but this does not undermine the point that, for a certain class of problems, rational choice theory may provide the best account available to us. In other words, while the critical judgement of theoretical accounts in terms of their ontological and/or epistemological sophistication is one kind of critical judgement, it is not the only or even necessarily the most important kind. The second danger run by the philosophical turn is that because prioritisation **of ontology** and epistemologypromotes theory-construction from philosophical first principles, it cultivates **a** theory-driven rather than problem-driven approach to IR. Paraphrasing Ian Shapiro, the point can be put like this: since it is the case that there is always a plurality of possible true descriptions of a given action, event or phenomenon, the challenge is to decide which is the most apt in terms of getting a perspicuous grip on the action, event or phenomenon in question given the purposes of the inquiry; yet, from this standpoint, ‘theory-driven work is part of a reductionist program’ in that it ‘dictates always opting for the description that calls for the explanation that flows from the preferred model or theory’.5 The justification offered for this strategy rests on the mistaken belief that it is necessary for social science because general explanations are required to characterise the classes of phenomena studied in similar terms. However, as Shapiro points out, this is to misunderstand the enterprise of science since ‘whether there are general **explanations** for classes of phenomena **is a question** for social-scientific inquiry, not to be prejudged before conducting that inquiry’.6 Moreover, this strategy easily slips into the promotion of the pursuit of generality over that of empirical validity. The third danger is that the preceding two combine to encourage the formation of a particular image of disciplinary debate in IR—what might be called (only slightly tongue in cheek) ‘the Highlander view’—namely, an image of warring theoretical approaches with each, despite occasional temporary tactical alliances, dedicated to the strategic achievement of sovereignty over the disciplinary field. It encourages this view because the turn to, and prioritisation of, ontology and epistemology stimulates the idea that there can only be one theoretical approach which gets things right, namely, the theoretical approach that gets its ontology and epistemology right. This image feeds back into IR exacerbating the first and second dangers, and so a potentially vicious circle arises.

#### Extinction first – always VTL

Bernstein ‘2

(Richard J., Vera List Prof. Phil. – New School for Social Research, “Radical Evil: A Philosophical Interrogation”, p. 188-192)

There is a basic value inherent in **organic** being, a basic affirmation, "The Yes' of Life" (IR 81). 15 "The self-affirmation of being becomes emphatic in the opposition of life to death. Life is the explicit confrontation of being with not-being. . . . The 'yes' of all striving is here sharpened by the active `no' to not-being" (IR 81-2). Furthermore — and this is the crucial point for Jonas — this affirmation of life that is in all organic being has a binding obligatory force upon human beings. This blindly self-enacting "yes" gains obligating force in the seeing freedom of man, who as the supreme outcome of nature's purposive labor is no longer its automatic executor but, with the power obtained from knowledge, can become its destroyer as well. He must adopt the "yes" into his will and impose the "no" to not-being on his power. But precisely this transition from willing to obligation is the critical point of moral theory at which attempts at laying a foundation for it come so easily to grief. Why does now, in man, that become a duty which hitherto "being" itself took care of through all individual willings? (IR 82). We discover here the transition from is to "ought" — from the self-affirmation of life to the binding obligation of human beings to preserve life not only for the present but also for the future. But why do we need a new ethics? The subtitle of The Imperative of Responsibility — In Search of an Ethics for the Technological Age — indicates why we need a new ethics. Modern technology has transformed the nature and consequences of human action so radically that the underlying premises of traditional ethics are no longer valid. For the first time in history human beings possess the knowledge and the power to destroy life on this planet, including human life. Not only is there the new possibility of total nuclear disaster; there are the even more invidious and threatening possibilities that result from the unconstrained use of technologies that can destroy the environment required for life. The major transformation brought about by modern technology is that the consequences of our actions frequently exceed by far anything we can envision. Jonas was one of the first philosophers to warn us about the unprecedented ethical and political problems that arise with the rapid development of biotechnology. He claimed that this was happening at a time when there was an "ethical vacuum," when there did not seem to be any effective ethical principles to limit ot guide our ethical decisions. In the name of scientific and technological "progress," there is a relentless pressure to adopt a stance where virtually anything is permissible, includ-ing transforming the genetic structure of human beings, as long as it is "freely chosen." We need, Jonas argued, a new categorical imperative that might be formulated as follows: "Act so that the effects of your action are compatible with the permanence of genuine human life"; or expressed negatively: "Act so that the effects of your action are not destructive of the future possibility of such a life"; or simply: "Do not compromise **the conditions for** an indefinite continuation of humanity on earth**"; or again turned positive:** "In your present choices, include the future wholeness of Man among the objects of your will."

#### Affirming the theory of the Aff is critical to prevent nuclear war

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear ¶ Deterrence ¶ in the 21st ¶ Century¶ Lessons from the Cold War ¶ for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, ¶ pg 9-11)

One of its most important tasks is to keep humanity within the boundaries of acceptable historical experiences. 3 Sixty-seven years after 1945, most would consider a nuclear attack to be beyond those boundaries. The variety of nuclear actors, the proliferation of cruise and ballistic missiles, thermonuclear weapons, and radical ideologies have transformed the nuclear scene to a considerable extent since the end of World War II. Whether thinking on nuclear weapons has followed a similarly impressive path, particularly since the dissolution of the USSR, is questionable. There are numerous analyses and studies, but they do not match the quality and pertinence of those of the Cold War vintage. While nuclear deterrence attracted an abundance of intellectual attention during the Cold War, since the 1950s there has been a decline in thinking on this subject even as the risk of nuclear use has been rising. The absolute necessity of preventing extreme violence among states (as opposed to nonstate actors) has receded in our minds, even though it is prominent in our speeches. Humanity does not learn much from events that do not happen. In a way, the very success of the deterrence enterprise during the Cold War undermined its principal gain: Since no nuclear exchange took place, the notion of nuclear weapons as a threat to our survival lost a good deal of force and a sense of urgency. Ideas have consequences. So does a lack of them. During the Cold War, a mixture of deterrence, containment, conventional capabilities, and arms control seemed successful in preventing a nuclear exchange with the Soviets. Luck may have played a part as well. 4 Today’s nuclear dangers seem to pale in comparison with those of the Cold War. They pale even when compared with those of the 1990s, when Russia was weak, with a considerable and poorly guarded nuclear stockpile and nuclear scientists and military officials reduced to poverty. At the time, a substantial effort was launched to secure Russia’s weapons, nuclear materials, and scientists. New problems are arising now: nuclear terrorism; radical Islamists challenging the Islamabad government; the ability of nonstate actors to bring India and Pakistan to the brink of war; asymmetric nuclear threats coming from Iran and North Korea; 5 Pakistan’s, Iran’s, and North Korea’s nuclear and missile proliferation nexus; and China increasingly asserting its military achievements—including its nuclear, ballistic missile, cyber, and space achievements. 6 While many in the West tend to see nuclear weapons as instruments of the past, other actors view them as weapons of the future. There are obvious gaps in Western thinking and some disregard for those gaps. However unpleasant, it is imperative to address these. To start with, consider the following reasons why another look at nuclear deterrence is important in the 21st century. The first is obvious: In an era of extraordinary uncertainty, turmoil, and upheavals, it is good to keep a clear mind about the most dangerous strategic situations contemporary leaders may face. There is little doubt that a nuclear crisis—or, worse, a nuclear attack—whether effected by a nation-state or a nonstate actor, would be a critical situation. It should be considered unlikely, but as long as it appears even remotely possible, the difficult choices that would be required from governments ought to be understood for what they are, particularly in democratic societies. Such choices are “deeply baffling even to the ablest minds,” as Bernard and Fawn Brodie wrote in From Crossbow to H-Bomb. 7 The “unthinkable” 8 may have become less unlikely in practice since reckless actors are entering the nuclear arena, but it is becoming increasingly unlikely in Western minds at a time when even the political capacity of tolerating military casualties is questionable. Foreign policy, notably Western foreign policy, continues to be made under the shadow of a nuclear strategy that is almost forgotten or that is becoming empty. The consequence is that our ability to face a nuclear attack effectively may be slipping through our fingers. If this is true, what the strategic planning community can contribute toward preventing this loss (or preparing to deal with it, if necessary) is to revitalize nuclear thinking. This does not call for any specific doctrine but for a top-quality intellectual debate on the concepts, old and new; on the crises, old and new; and on the actors, whether they played a part on the nuclear scene in the past or are only just now entering it, sometimes with masks on their faces.

#### Sustainability is irrelevant – nothing creates sustainable politics and the alternative is naivety

Wilkinson ’11 – former research fellow at the Cato Institute

(Will Wilkinson, Canadian-American writer, “Neoliberalism: Everything fails apart”, The Economist, 7-18-2011, http://www.economist.com/blogs/democracyinamerica/2011/07/neoliberalism)

(Note: The italicized portions are quotes of another author)

I think we're supposed to understand "elite" as roughly synonymous with "neoliberal" here. "Neoliberalism" has become something of a term of abuse on the left, though its denotation remains vague. It is something of which Mr Yglesias and I, despite our considerable ideological differences, are regularly accused. This newspaper is even denounced from time to time as a neoliberal rag. Anyway, as a sort of neoliberal (a neoclassical liberal), let me say that from my point of view the problem with jobs programmes, as compared to textbook monetary policy, is not that they increase the power of labour relative to capital. It's that they do little to sustainably increase demand for labour. And nothing reduces the power of labour relative to capital more than low demand for labour. But I digress.¶ Mr Farrell notes that Mr Yglesias is a better leftist than Mr Henwood gives him credit for, but thinks Mr Henwood is "on to something significant" in his complaints about Yglesian left-leaning neoliberalism.¶ *Neo-liberals tend to favor a combination of market mechanisms and technocratic solutions to solve social problems. But these kinds of solutions tend to discount politics – and in particular political collective action, which requires strong collective actors such as trade unions. This means that vaguely-leftish versions of neo-liberalism often have weak theories of politics, and in particular of the politics of collective action. I see Doug and others as arguing that successful political change requires large scale organized collective action, and that this in turn requires the correction of major power imbalances (e.g. between labor and capital). They're also arguing that neo-liberal policies at best tend not to help correct these imbalances, and they seem to me to have a pretty good case. Even if left-leaning neo-liberals are right to claim that technocratic solutions and market mechanisms can work to relieve disparities etc, it's hard for me to see how left-leaning neo-liberalism can generate any self-sustaining politics.*¶ The implied premise here seems to be that labour-union social democracy is an ideology that generates self-sustaining politics. But Mr Yglesias pops up in the comments to say:¶ *[T]he self-assurance that there's some non-neoliberal miracle formula for political sustainability seems refuted by the fact that the pre-neoliberal paradigm in the United States was not, in fact, politically sustainable*.¶ He goes on sensibly to note that the history of the decline in American unionisation, and the political heft of organised labour, does not seem to be some kind of right-wing or neoliberal plot:¶ *US labor union density peaked in the mid-1950s so it's hard to see Reagan specifically as the cause of unions' decline. I think it's more plausible to say that the policy environment has grown more hostile to unions as a result of unions' decline*.¶ I think he's right. None of this is to say that neoliberalism is especially self-reinforcing or stable. Mr Yglesias concedes that the unsustainability of neoliberalism "is a problem". I think this is a mistake. Mr Yglesias would do better to argue that no ideology generates a self-sustaining politics.¶ The global economy's path of development, the future of technology, the evolution of culture and the changes it causes in social norms of work and consumption, not to mention the lines along which political coalitions coalesce, are essentially unpredictable. If you think your political theory generates a "self-sustaining politics", you're kidding yourself. ¶ Liberal and social-democratic political theory both are marked by a peculiar hopeful naivete about the possibility of one day arriving at some sort of ideal self-equilibrating politico-economic system. But it's never going to happen. Until the heat of all creation is spread evenly over the whole cold void, everything always will be unbalanced. Here in the hot human world, it's certain that sooner or later someone will invent or say something that will make comrades enemies and enemies friends. All we can do is our best for now. If sound technocratic, monetary policy (or neoliberalism, whatever that comes to) is the best we can do for now, it doesn't matter that it generates no long-run self-sustaining political constituency. Nothing does. So, for now, we should try to sustain it.¶ You're going to die, but that's no reason to stop eating.

#### Neoliberalism is net good – promotes growth and betters quality of life on average, even if there are some examples of failure

Sumner ’10 – professor of economics at Bentley University

(Scott, “The Unacknowledged Success of Neoliberalism”, Library of Economics and Liberty, 7-5-2010, http://www.econlib.org/library/Columns/y2010/Sumnerneoliberalism.html)

The neoliberal revolution combines the free markets of classical liberalism with the income transfers of modern liberalism. Although this somewhat oversimplifies a complex reality, it broadly describes the policy changes that have transformed the world economy since 1975. Markets in almost every country are much freer than in 1980; the government owns a smaller share of industry; and the top MTRs on personal and corporate income are sharply lower. The United States, starting from a less-socialist position, has been affected less than some other countries. But even in the United States there have been neoliberal reforms in four major areas: deregulation of prices and market access, sharply lower MTRs on high-income people, freer trade, and welfare reform. Many other countries saw even greater neoliberal policy reforms, as once-numerous state-owned enterprises were mostly privatized.¶ ¶ There is an unfortunate tendency to associate the term "neoliberal" with right-wing political views. In fact, the quite liberal social democracies of northern Europe have been among the most aggressive neoliberal reformers. Indeed, according to the Heritage Foundation's Index of Economic Freedom, Denmark is the freest economy in the world in the average of the eight categories unrelated to size of government.1 The Nordic countries2 have begun to privatize many activities that government still performs in the United States. These include passenger rail, airports, air-traffic control, highways, postal services, fire departments, water systems, and public schools, among many others. These countries do have much larger and more comprehensive income-transfer programs than the United States has, but are not otherwise particularly socialist.¶ ¶ So why is the left so skeptical of the neoliberal revolution? And why does the right tend to overlook it, except for the obvious cases, such as the collapse of communism? Many on the left are skeptical about how much freer markets have actually achieved. Part of this skepticism reflects the slowdown in worldwide growth since 1973. Because almost all countries instituted at least some reforms, and yet growth slowed in most countries, there is a tendency to assume that the reforms failed. Others point to well-publicized fiascos in electricity and banking deregulation and assume that these represent the broader reality. On the right, many American economists focus on the failure of Reaganomics to reduce the size of government, as well as on increased regulation in areas such as health, safety, and the environment, while the so-called "economic regulations" were trimmed back.¶ ¶ Paul Krugman, one of the most forceful advocates of the view that neoliberal reforms in the United States caused economic growth to slow, wrote:¶ ¶ Basically, US postwar economic history falls into two parts: an era of high taxes on the rich and extensive regulation, during which living standards experienced extraordinary growth; and an era of low taxes on the rich and deregulation, during which living standards for most Americans rose fitfully at best.3¶ ¶ Because economic growth slowed almost everywhere after 1973, however, we need to look at relative economic performance in order to identify the effect of neoliberal policy reforms. The following data show per capita income in terms of purchasing power parity [PPP].4 All data are from the World Bank and are expressed as a ratio to U.S. per capita income:¶ ¶ Note that four countries gained significantly on the United States, two were roughly stable (Australia and Japan) and the rest regressed. The four that gained were Chile, Britain, Hong Kong and Singapore. Of course, many poor countries also gained on the United States, but that's to be expected. As we will see, the relative performance of each of these economies is consistent with the view that neoliberal policies promote economic growth.¶

## 1AR

### Politics

#### US/Indian relations are resilient

**Mancuso 8** (Mario, Undersecretary of Commerce, “The Future of the U.S.-India High Technology Relationship”, 6-2, http://www.bis.doc.gov/news/2008/mancuso06052008.htm)

**The** **strength** **of today’s U.S. and India relationship is real**, and underscores what visionary governments can accomplish for their people by acknowledging change and seizing opportunities.   **Shared interests and values**, **and** **improved economic and trade relations**, **have transformed the U.S.-India** bilateral **relationship into a "strategic partnership.**"  And **while tender points remain, the DNA of our partnership is** **more** differentiated, healthy, and **resilient** **than ever before**. Of the many dialogues that nurture our bilateral economic relationship, few have been as vibrant or had as much impact as the U.S.-India High Technology Cooperation Group (HTCG)

#### Agriculture export resilient --- hit record high

IANS 2/22/13 “US expects record agricultural export,” http://en-maktoob.news.yahoo.com/us-expects-record-agricultural-export-071042314.html

The US outlook for agricultural exports in 2013 will remain strong and hit a record high **although drought persisted** in many parts of the country, projected Joseph Glauber, chief economist of US Department of Agriculture (USDA). US agricultural exports for fiscal year (FY) 2013 ending Sep 30 was expected at $142 billion, down $3 billion from the November 2012 forecast, but $6.2 billion above FY 2012 levels and a record in nominal terms after adjusting for inflation, said Glauber Thursday at USDA 89th annual Agricultural Outlook Forum. China was believed to edge out Canada again as the number one market for US agricultural exports, although exports to China may shrink to be $22 billion, down $1.4 billion from last year's record, reported Xinhua. China was an important US agricultural export market that had grown

on average **almost 20 percent annually** since FY 2005, said Glauber. Soybeans and cotton had dominated US agricultural exports to China, accounting for as much as 75 percent in recent years.

#### Famine doesn’t cause war ---- it makes people too hungry to fight

**Barnett in ’00** (Jon, Australian Research Council fellow and Senior Lecturer in Development Studies @ Melbourne U. School of Social and Environmental Enquiry, Review of International Studies, “Destabilizing the environment-conflict Thesis”, 26:271-288, Cambridge Journals Online)

Considerable attention has been paid to the links between population, the environment and conflict. The standard argument is that population growth will overextend the natural resources of the immediate environs, leading to deprivation which, it is assumed, will lead to conflict and instability either directly through competition for scarce resources, or indirectly through the generation of ‘environmental refugees’. For example, according to Myers: ‘so great are the stresses generated by too many people making too many demands on their natural-resource stocks and their institutional support systems, that the pressures often create first-rate breeding grounds for conflict’.37 The ways in which population growth leads to environmental degradation are reasonably well known. However, the particular ways in which this leads to conflict are difficult to prove. In the absence of proof there is a negative style of argumentation, and there are blanket assertions and abrogations; for example: ‘the relationship is rarely causative in a direct fashion’, but ‘we may surmise that conflict would not arise so readily, nor would it prove so acute, if the associated factor of population growth were occurring at a more manageable rate’.38 It is possible though, that rather than inducing warfare, overpopulation and famine reduce the capacity of a people to wage war

. Indeed, it is less the case that famines in Africa in recent decades have produced ‘first rate breeding grounds for conflict’; the more important, pressing, and avoidable product is widespread malnutrition and large loss of life.

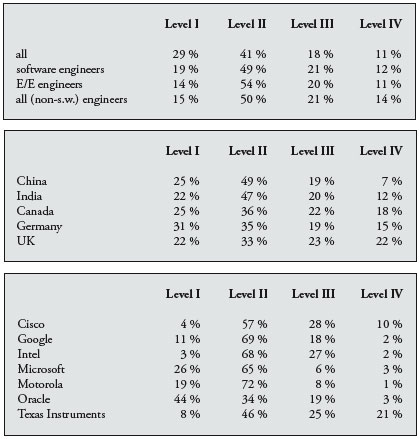
#### Their ev is wrong – statistical data proves the vast majority of skilled immigrants are not a source of innovation.

Norman **Matloff**, prof. of computer science at UC Davis, “H-1Bs: Still Not the Best and the Brightest,” May **2008**, http://www.cis.org/articles/2008/back508.html

The results first show, once again, that rather few of the foreign workers are at Level IV, the level of **real expertise** whose description is associated with innovation. Most are in fact in Levels I and II, whose DOL definitions are for apprentice-like positions with only “limited exercise of judgment,” clearly not jobs for innovators.

Second, this pattern also holds individually for the most common job titles.

Third, the East-vs.-West pattern observed earlier for the TM data also holds for levels of expertise, with Asians typically being hired into non-innovative jobs while more Europeans are in the types of positions that could involve innovation.

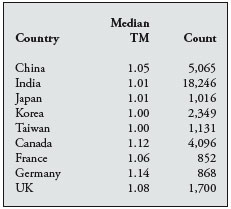
The last table is striking. Most of the big firms hire almost no workers at all at Level IV. Since it is these very firms that are arguing they need foreign workers in order to innovate, there appears to be a **striking disconnect** between what they say and do.

**Their studies are flawed – US still leads in STEM.**

Norman **Matloff**, prof. of computer science at UC Davis, “H-1Bs: Still Not the Best and the Brightest,” May **2008**, http://www.cis.org/articles/2008/back508.html

The lobbyists love to claim that the industry resorts to hiring foreign workers because Americans are weak in math and science. Various international comparisons of math/science test scores at the K-12 level are offered as “evidence.” The claims are specious — after all, both major sources of foreign tech workers, India and China, refuse to participate in those tests, and India continues to be plagued with a high illiteracy rate. Serious educational research, including an earlier Arizona State university report4 and a recent major study by the Urban Institute5 show clearly that mainstream American kids are doing fine in STEM.

Nevertheless, the “Asian mystique” persists. The image is that our tech industry owes its success to armies of mathematical geniuses arriving to U.S. graduate schools from Asia. Once again, though, the data do not support this perception. Here is a comparison of TM values for foreign workers from the major Asian countries and their counterparts in Europe and Canada:



#### Won’t pass

AFP 3-2-13. www.globalpost.com/dispatch/news/afp/130302/us-mexico-border-obstacle-immigration-reform

Immigration reform is one of President Barack Obama's priorities for his second term, and for a wide-reaching package to pass, lawmakers need to be convinced that the border with Mexico is secure.¶ But that is no easy sell.¶ Apprehensions of undocumented aliens at the frontier have dropped 50 percent since 2008, going to 365,000 people last year, which the Obama administration cites as evidence that border security measures work.¶ And deportations of aliens without residency permits, particularly those with criminal records -- a key government goal -- stand at about 400,000 a year.¶ But the investigative arm of Congress, the Government Accountability Office (GAO), dampened the government's optimism last week.¶ A report submitted to the House of Representatives said the number of apprehensions at the US-Mexico border "provides some useful information but does not position the department to be able to report on how effective its efforts are at securing the border."¶ "The Border Patrol is in the process of developing goals and measures; however, it has not yet set target timeframes and milestones for completing its efforts," it added.¶ Marc Rosenblum, an immigration policy expert with the Congressional Research Service, said that "the size and diversity of the US border mean that no single, quantitative, off-the-shelf indicator accurately and reliably provides a metric or a 'score' for border enforcement."¶ Another report found that southern US cities, in particular El Paso, Texas just across the border from drug violence-plagued Ciudad Juarez, are the safest in the country, with constantly dropping rates of all kinds of crime. That study was based on FBI figures.¶ So far, the Republicans, who control the House, have been adamant that they will not approve major immigration reform until they are convinced the border is secure.

#### High skilled reform won’t pass – union opposition.

Witman 3-6. [Luke, "Talks on immigration reform progressing, but hurdles remain" Examiner -- www.examiner.com/article/talks-on-immigration-reform-progressing-but-major-hurdles-remain]

However, despite the shared commitment from Republican and Democratic lawmakers to push forward a bipartisan immigration reform bill, a number of major roadblocks still stand in the way of this actually happening. Earlier today, Ariz. Sen. John McCain stated that the single biggest hurdle Senate Republicans have encountered thus far is working with labor unions on the establishment of viable visa programs both for highly skilled STEM workers and lower skilled agriculture workers. McCain admitted that coming to a compromise with unions could be impossible.

Won’t pass – House backlash to Obama releasing immigrant detainees

IHT 2-28-13 (International Herald Tribune, “Release of immigrants linked to automatic cuts,” Lexis)

U.S. immigration officials have released hundreds of detainees from detention centers around the United States in recent days in an unusual effort to save money as automatic budget cuts loom in Washington, officials said. The government has not dropped the deportation cases against the immigrants. The detainees have been freed on supervised release while their cases continue in court, officials said Tuesday. But the decision angered many Republicans, including Representative Robert W. Goodlatte of Virginia, who said the releases were a political gambit by the Obama administration that undermined negotiations over immigration reform

and jeopardized public safety. ''It's abhorrent that President Obama is releasing criminals into our communities to promote his political agenda on sequestration,'' said Mr. Goodlatte, who, as chairman of the Judiciary Committee, is running the House hearings on immigration reform. ''By releasing criminal immigrants onto the streets, the administration is needlessly endangering American lives.''

#### Plan builds massive PC – large groups of bipartisan senators have asked for the plan – Obama first move is key

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Both sides say they want the project to move forward. Both support short-term "bridge" funding to keep the project going until the financing can be worked out. Both say the other side has to make the first move.¶ The stakes are high: It's an election year, and Ohio is a swing state. USEC estimates the project at its peak will generate 3,158 jobs in Ohio, and 4,284 elsewhere. Pike County, home to the centrifuges, has a 13% unemployment rate — the highest in Ohio. The median household income is about $40,000. The average job at USEC pays $77,316.¶ Centrifuge parts are stacked up in Piketon. "It's as shovel-ready as they come," says spokeswoman Angela Duduit.¶ Indeed, the project has enjoyed bipartisan support. A USA TODAY review of DOE records shows that no fewer than 46 members of Congress — 32 Republicans and 14 Democrats — have pressured the Obama administration to approve the loan guarantee for USEC. "Quick action is paramount," said one bipartisan letter. "It is imperative that this application move forward now," said another.¶ The congressional support comes from states such as Ohio, Pennsylvania, Tennessee, Kentucky, West Virginia, Missouri, Alabama, Indiana, Maryland, North Carolina and South Carolina— an almost exact overlay of the states that would benefit from the 7,442 jobs the company says would be created.

#### Key GOP leaders want the plan – builds PC – and they don’t care about Solyndra

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Republican House Speaker John Boehner, who as a member of the Ohio delegation has personally pleaded with Obama to green-light the project, hasn't given that signal. "The speaker believes the president should keep his word to the people of Ohio," said Boehner spokesman Michael Steel.¶ The fallout from Solyndra has some in Congress doing some soul searching about their involvement in those decisions.¶ "A cloud, a big black cloud came over after Solyndra," said Rep. Mike Simpson, R-Idaho, at a recent congressional hearing. He admitted that he put "undue influence" on DOE to approve a $2 billion conditional loan guarantee for Areva and said members of the Ohio delegation were doing the same thing.

# Round 3 vs Vanderbilt WS

## 1AC

### Inherency

**Funding and Obama’s support for the American Centrifuge Project is strong and increasing now --- no loan gurantee coming**

Shesgreen ’13 – congressional correspondent for USA Today

(Deirdre, she has covered campaign finance, health care, and lobbying, and she is a two-time winner of the David Lynch Memorial Reporting Award for regional coverage of Congress, “Fate of Ohio centrifuge project murky in 2nd Obama term”, USA Today, 2-3-2013, Accessed 2-25-2013, http://www.usatoday.com/story/news/politics/2013/02/02/usec-centrifuge-plant-piketon-uranium/1881243/)

As the 113th Congress gets underway and President Obama begins a second term, some possible shifts in federal energy policy could ripple down to affect the American Centrifuge Plant in Piketon, Ohio. For starters, Energy Secretary Steven Chu announced Friday that he was stepping down. And there have been rumors that some of his deputies, who have championed the USEC project, might also be leaving the Department of Energy (DOE). At the same time, the president has emphasized in his new term a desire to reduce greenhouse gas emissions, which boosters of nuclear power say could be a boon to uranium-enrichment initiatives like the one in Piketon. **But those big-picture changes will not be make-or-break for USEC**, a Maryland-based global energy company and a major supplier of enriched uranium fuel. Sen. Sherrod Brown, D-Ohio, said he would make sure a new energy secretary gets "up to speed quickly" on the USEC project. "Whoever the secretary is will know we have bipartisan, strong support in the delegation and in the Congress overall." Sen. Rob Portman, R-Ohio, agreed. "This argument won't be any different" just because there's a new chief at DOE. Indeed, supporters and foes alike say that right now, the ACP's short-term prospects are good, but its **long-term fate remains uncertain** and **USEC's future** will probably hinge more on its **internal financial troubles** and the commercial market for its technology than on any new political reality in Washington. Let's start with the short term: USEC has said it will run out of money to keep the project afloat at the end of February. But Congress is likely to approve **one last batch** of federal funds for USEC in the coming months — at least $50 million, and possibly more, will be needed to complete a current research, development and demonstration program aimed at proving that USEC's uranium-enrichment technology is viable. "I think the commitment is deep from the White House and is deep in Congress and is ongoing," said Brown who, along with Portman, has championed the project. Portman questioned the president's support for the project, saying it might have had more to do with its location, in the critical battleground state of Ohio, than with Obama's dedication to the technology. Still, Portman said, fears he had that the White House might kill the project have faded. "I'm feeling relieved that we still have a lifeline," he said. In the U.S. House of Representatives, the Piketon site has a new booster in freshman Rep. Brad Wenstrup, R-Ohio. "I would really like to see this project move forward," Wenstrup said in an interview. "It's something that needs to be done as a matter of national defense." If successful, USEC officials say the plant will eventually produce enough fuel to power dozens of nuclear power plants around the country. In addition, supporters say it will bolster national security by ensuring the U.S. has a domestic source of enriched uranium. The strong support in Congress for additional federal dollars doesn't mean opponents have given up. The real fight, say critics of the centrifuge project, will come at the end of the year. That's when the research program — part of a cooperative agreement between USEC and the Department of Energy — will end. And USEC will renew its bid for a $2 billion federal loan guarantee, an application DOE officials put on hold in 2011 after glitches at the Piketon site raised concerns inside the department about the viability of USEC's uranium-enrichment technology. USEC used to be part of the DOE, and although Congress privatized it in 1988, USEC and the department still work closely together. Autumn Hanna, senior program director at Taxpayers for Common Sense, a fiscal watchdog group, said USEC's renewed bid for a loan guarantee will ignite fresh skepticism about the project, particularly since it's such a large amount of money. Hanna and other critics note USEC's common stock is trading below $1, and the energy company could be delisted from the New York Stock Exchange if it doesn't rectify that. "Taxpayers shouldn't be putting more money into USEC," she said. "DOE just can't be the lifeline." Rep. Edward Markey, D-Mass., who has led efforts to nix funding for USEC, echoed that argument and signaled he would press hard against the loan guarantee. "The value of the entire company is just over $70 million, it is still rated at below junk bond status, and it is in danger of being delisted from the stock exchange and becoming a penny stock," Markey said. "To continue to subsidize this failing company would be irresponsible." A DOE spokeswoman, Niketa Kumar, said in a statement that the Obama administration would advocate more money to finish the research program, but hinted the loan guarantee was no sure thing. She said the research phase was critical to addressing the "technical and financial risks associated with the ACP project." The energy department's agreement requires USEC to meet "a series of detailed technical milestones and performance metrics that provide significant taxpayer protections," Kumar noted. USEC officials said they would address such concerns in a strengthened loan application come December. The research and development program "will be successful . . . (and) will address any remaining technical issues about the technology," said Paul Jacobson, a spokesman for USEC. "We've been indicating as well . . . that we're working to strengthen our balance sheet." "We would want to put in a strong application, both from a technical and financial perspective," he added. USEC's most vocal supporters in Congress said they were hopeful the political and fiscal obstacles to the loan guarantee could be overcome. But they conceded they could not predict how the next phase would play out. "I think this is going to work for the public and . . . for taxpayers," Brown said. But "there are hurdles they have to jump over . . . (and) I can't evaluate eight months from now and know where we're going" to end up. Portman expressed concern that the Obama administration might be reluctant to "pull the trigger" on the loan guarantee. "It requires leadership from the administration that has been lacking," he said. "The arguments are compelling, and I'm optimistic that they will, in the end, make the right decision. But as folks in Piketon will remind you, time's a wasting."

**No DAs – DOE loan guarantees for uranium enrichment in the U.S. increasing now**

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

The DOE has supported other centrifuges. In 2010, it gave a conditional $2 billion loan guarantee to Areva, a conglomerate whose majority shareholder is the French government, to build centrifuges in Idaho. But that project is temporarily stalled because of a cash situation one executive called "growing pains." "Basically, we went in with an application that was based on a proven technology that's been in use in Europe for nearly three decades," said Sam Shakir, president of Areva Enrichment Services. "There was no question about the technology, its viability or its economics." That helped Areva sell $5 billion in preliminary orders for uranium, he said. Still, "The size of the market is large enough for multiple suppliers to be playing in."

**No perception links – Obama is already perceived to support the plan**

**USEC 08**

(“Presidential candidate Barack Obama writing to Ohio Governor Ted Strickland”, 9-2-2008, http://www.usec.com/support/administration/presidential-candidate-barack-obama-writing-ohio-governor-ted-strickland)

"Under my administration, energy programs that promote safe and environmentally-sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my **full support**. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high cost, foreign energy sources."

### Plan

**The United States Department of Energy should approve the United States Enrichment Corporation’s currently pending application for a $2 billion loan guarantee for the American Centrifuge Project.**

### Solvency

**USEC failure collapses domestic enrichment capability ---- Federal loan guarantee for USEC key to third party financing and credibility—no barriers**

**Schmidt ‘9 – Former U.S. Representative**

**(Jean Schmidt, speech from Congress, “Where are the Jobs?”, 7-29-2009, http://votesmart.org/public-statement/445368/where-are-the-jobs)**

The United States Enrichment Corporation, called USEC, is deploying American Centrifuge technology to provide the dependable, long-term, U.S.-owned and developed **nuclear fuel production capability** needed to support the country's nuclear power plants, nuclear submarines, and a robust nuclear deterrent. Mr. Speaker, we have dozens of nuclear power plants in this country that all require nuclear fuel. And we have a Navy who, as I speak, is sailing in every ocean across the globe. And we have weapons of mass destruction that will become a useless deterrent without fresh tritium. Without the American Centrifuge Plant, in 5 years' time, we will have **no ability** in the United States to enrich uranium to keep our lights on, our ships at sea, or a deterrent potential. In 5 years, we will be forced to purchase uranium from foreign suppliers as we do with most of our oil. I don't want to depend on foreigners for this kind of product. The American Centrifuge Plant holds great promise. Unfortunately, in order to meet this promise, USEC needed a loan guarantee from the **Federal Government**. Now, I want to repeat that. It needed a loan guarantee from the Federal Government. You see, USEC has already invested $1.5 billion and has offered another billion dollars of corporate support. It did this with the **expectation** **that the Department of Energy** would make available a $2 billion loan guarantee needed to finance the full-scale deployment of the American Centrifuge Plants. Now, I want to refer to this chart here. Why were they so confident in that? Well, you see on September 2, 2008, when President Obama was running for election, he wrote a letter to our Governor, Ted Strickland. This is the full letter so you can see it. I'm not taking it out of context. He said, Under my administration, energy programs that promote safe and environmentally sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my full support. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high-cost and foreign-energy sources. This is what this letter said. So you understand that USEC was very, very confident that they were going to get that loan guarantee. But instead, on Monday night, the Department of Energy really pulled the rug out from all of us. I got a phone call asking me to call the White House, and I learned Monday night that the Department of Energy was going to withdraw its promise and they were actually asking USEC to withdraw its application and to try it again in 18 months. I was actually told on the phone that if they did that, then the Department of Energy would give them $45 million, $30 million, and another $15 million if they would rescind this. And that kind of shocked me. The next day it also shocked the folks at USEC because, you see, they had this letter that the President had given to our Governor, Ted Strickland, that said those loan guarantees would be given. Mr. Speaker, the American Centrifuge Plant currently supports more than 5,700 jobs and will help create 2,300 more within a year of commencement of the loan-guarantee funding. That's 2,300 additional jobs to my district. Now, because the Department of Energy has contradicted a promise that our President made in September of last year to our Governor and to those men and women in this area of the State, those jobs are in jeopardy. And I was on the phone with one of my constituents earlier today. Pink slips are being given out at the USEC plant. The Department of Energy has told the media the reasons for their denial were threefold: the cost subsidy estimate, a new requirement for another $300 million of capital, and the questions of technology. Well, the first question offered by the DOE is a little laughable. It turns out that the government isn't really backing these loans. Instead, the Department of Energy is charging a risk-of-failure fee to each of the folks that agrees to back the loans. These fees are pulled together to eliminate any risk to the taxpayers that actually have been given a loan guarantee. They determined that the fee for this loan would be $800 million on a $2 billion loan. So USEC is supposed to come up with $800 million on a $2 billion loan. I don't know about you, but in my neck of the woods, we call that like loan sharking. The second reason for denying the guarantee is a new need to set aside an additional 300 million for contingencies. Well, I can think where you and I see that that is headed. After the risk premium is paid, apparently USEC still has to come up with more money to make the Department of Energy feel more comfortable about giving these loans. But the last question, I think, is the most surprising, because the last reason is one where they say they have got technical questions, and this is the one that is the most absurd of all, because, quite frankly, this technology is out there. France is using it, England is using it. Would it surprise you to know, Mr. Speaker, that Iran is using it? But what I found most disturbing is that the Department of Energy hired a technology expert, as required by law, and they went through the technology and wrote a long report, and in fact the guy ran back to give it to the Department of Energy on Tuesday. That was the day after the Department of Energy made their decision. They made that decision on Monday night. They made it without any regard for the report they were relying on for this very important project. It is not just a project, Mr. Speaker, that continues to help the folks in my district. And it is important to me, because, Mr. Speaker, this is my district, and these are my folks and these are my friends. I have become friends with these people. This is the part of my community that doesn't have a lot of job opportunities, and they welcomed this job opportunity. They embraced it. And I believe that the President believes in this project, as he stated on September 2, 2008. But I think there must be some sort of disconnect with the Department of Energy. There is a chart here, and I would like to go through the chart a little bit again so we can clearly understand what is going on. The issue: credit subsidy cost estimated by the DOE to be $800 million. Well, let me be a little clearer. The estimate was never provided in writing. The methods of calculation were never disclosed or explained. An $800 million subsidy cost is not reasonable. I think it is outrageous, given USEC's fully collateralized $1 billion parent guarantee, standard credit, and, yes, yield exposures of $24 million to $74 million based on credit ratings of C to BB-minus and assets recoveries of only 20 to 30 percent of the cost. The DOE calculation clearly ignores the value of $1.5 billion invested by USEC to date and another billion of non-project collateral offered by USEC, consisting primarily of natural and enriched uranium inventories. The second issue, an additional need for $300 million of additional capital. USEC offered a legally binding capital commitment, which DOE agreed met statutory and regulatory requirements. USEC's fully collateralized $1 billion parent guarantee designed to permit loan to commerce while USEC raised additional equity while fully protecting the taxpayers. USEC's financial adviser stated that with the loan guarantee, $100 million to $150 million of capital could be raised in the public market. USEC has commenced discussions with strategic suppliers to obtain vendor financing for the balance. And the final, the technical readiness of American Centrifuge Technology. The DOE LGPO concluded that ACT was not ready to move to commercial scale operations prior to receiving the independent engineer's written assessment. The independent engineer had only been working for 12 days when DOE acted. DOE was scheduled to review the classified independent engineer report on July 28, and the DOE representative traveled to Tennessee to do so, unaware of the LGPO's decision the night before. American Centrifuge is based on technology which DOE initially developed in the 1970s and the 1980s and subsequently operated it for 10 years. USEC-approved centrifuges have been operating in the Lead Cascade for over 225,000 hours. The DOE has acknowledged that USEC met the milestone under the 2002 agreement between DOE and USEC, which requires obtaining satisfactory reliability and performance data from Lead Cascade operations, the last requirement to be met besides obtaining financing prior to commencing commercial plant construction and operations. Mr. Speaker, I don't understand what is going on here, I don't think that this body understands what is going on here, and I am not even sure that the President even understands what is going on here with the Department of Energy. But I am very confused. More than that, I am very outraged because I believe that we have to have energy independence, but we also have to have security for this Nation. Energy independence depends upon a variety of sources of energy, including nuclear power, but you have to have the stuff to make that nuclear power. In 5 years, we will no longer be the people that are producing the stuff that it takes to make that nuclear power. That is why this project is so important, not just for the 2,000 jobs that will be lost.

**Unconditional plan is key—further delays or roadblocks means USEC would pull out of the project**

**USEC ‘12**

**(“Funding”, 2012, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)**

USEC needs **significant additional financing** in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the DOE Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant. In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, DOE proposed a two-year RD&D program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program **but has given USEC no assurance that a successful RD&D program will result in a loan guarantee**. Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays it has experienced will not adversely affect these efforts. If **conditions change** and deployment of the American Centrifuge Plant becomes no longer **probable or becomes delayed** significantly from USEC’s current expectations, USEC could expense up to the full amount of previously capitalized costs related to the American Centrifuge Plant of up to $1.1 billion. Events that could **impact USEC’s views** as to the probability of deployment or USEC’s projections include progress in meeting the technical milestones of the RD&D program, the status of continued DOE funding for the RD&D program, changes in USEC’s anticipated ownership of or role in the project, changes in the cost estimate and schedule for the project, and prospects for obtaining a loan guarantee and other financing needed to deploy the project.

**DOE key—without its backing key investors would pull out of the project**

**Duffy ’11 – investment expert at Motley Fool**

**(Aimee, “Will the Government Guarantee Your Uranium Stock?”, The Motley Fool, 10-7-2011, http://www.fool.com/investing/general/2011/10/07/will-the-government-guarantee-your-uranium-stock.aspx#lastVisibleParagraph)**

The U.S. Department of Energy can be such a tease sometimes -- just ask the uranium enrichment outfit USEC (NYSE: USU ) . The company has been in **hurry-up-and-wait mode** for more than two years now, eagerly anticipating a DOE decision on a $2 billion loan guarantee for its American Centrifuge project that has yet to materialize. The company has been **forced to negotiate extensions** **with its two main investors**, Toshiba and Babcock and Wilcox (NYSE: BWC ) , for the second time in two months. The companies have agreed to stay tied to the project, and their respective $100 million investments, until Oct. 31. A key process in the production of nuclear fuel for power plants, uranium enrichment increases the U235 isotope and decreases the U238 isotope in naturally occurring uranium. The U235 isotope is the only one that is fissionable, therefore the only one that can be used as nuclear fuel. USEC plans to use the American Centrifuge to separate the isotopes and sell the U235 to its customers. USEC desperately needs a conditional commitment from the DOE by the end of the month. The company provides more than 50% of enriched uranium in the United States but has issues with liquidity. The new centrifuge project is expected to provide 20% of the U.S. electricity supply but cannot go forward without help from the DOE. **Continued support from Toshiba and Babcock and Wilcox is also contingent on DOE commitment.** As it stands now, USEC has already directed certain suppliers to suspend work and has informed employees that layoffs may or may not be just around the bend.

**Fed action now key --- solves worker layoffs**

Koss ’12 – CQ Staff

(Geof Koss, “Tug of War Over Uranium Prompts Odd Alliances”, Congressional Quarterly, 3-3-2012, http://public.cq.com/docs/weeklyreport/weeklyreport-000004039687.html)

As a result, the Kentuckians’ rescue plan has hit a brick wall, raising questions not just about the Paducah jobs but also about the future of U.S. uranium enrichment. Should the Paducah plant close before its successor plant is completed in Ohio, the United States will lack an indigenous source of enriched uranium and be dependent on suppliers largely controlled by foreign governments. Critics say that could leave the U.S. unable to meet non-proliferation requirements that a key component of its nuclear weapons be generated from homegrown sources. Further complicating matters, the fate of the Ohio plant also is in doubt. Without **congressional approval** for $106 million in research funds by the end of March, layoffs at the plant may begin, says Paul Jacobson, a spokesman for USEC Inc., which runs both the Paducah and Ohio facilities. The predicament has sparked an intense and somewhat ironic debate in Congress, where a bipartisan bloc that includes deficit-focused, small-government conservatives such as Paul, as well as senior House and Senate leaders, is advocating federal intervention to save a company struggling to stay afloat. Many of those same lawmakers have attacked the Obama administration’s backing for similar intervention to assist emerging renewable-energy technologies. Opposing them is an odd coalition that includes a conservative think tank, Western lawmakers from mining states and anti-nuclear liberal Democrats. The administration in January threw a lifeline to USEC when it assumed $44 million of its liability for tailings, radioactive waste produced when uranium is milled, while also requesting $150 million in fiscal 2013 for research funding at the Ohio site. But the company is focused on impending March and May deadlines that Jacobson calls crucial. Within weeks, he says, “the United States could well find itself without any plan for indigenous uranium enrichment for the first time since the dawn of the atomic age.”

**Free market solutions mean USEC fails and no other commercial entity fills the void—only continued government intervention works**

Rothwell ‘9 – professor of economics at Stanford

(Geoffrey, “Market Power in Uranium Enrichment”, Science & Global Security, 17:132–154, 2009)

With the retirement of diffusion capacity during the next decade, the artiﬁcially high price of enrichment could fall. (It is “artiﬁcially” high due to entry barriers: Were there open markets in enrichment, new cheaper capacity would have forced the retirement of diffusion technology much sooner). Entry of new participants into the **enrichment market** is **constrained** by non-proliferation considerations, as well as by commercial interests. Enrichment technology is now being more closely guarded with the discovery of a Pakistani enrichment technology smuggling network, which stole centrifuge technology from Urenco in the 1970s, used that technology to develop nuclear weapons in Pakistan, then sold or traded the technology with several other countries, sparking a nuclear arms race with its neighbors and enabling nuclear weapons development in North Korea. Without market intervention, prices could fall to competitive levels. This implies there might be no economic proﬁt for **anyone but the Russians and Europeans**. Therefore, the ﬁnancial outlook for uranium enrichers has been bleak, prompting a Standard and Poor’s analyst to write: Standard & Poor’s Ratings Services afﬁrmed its “A-/A-2” long- and short-term corporate credit ratings on Europe-based uranium enrichment company Urenco Ltd. . . . The enrichment market is undergoing very drastic changes, as TENEX (Rosatom)—which controls roughly 50% of global enrichment capacity but only 24% market share among end-customers—is looking to increase its share of direct sales to end-customers. The extent to which this will affect Western enrichment suppliers—USEC Inc. (B-/Negative/–), Areva (not rated), and Urenco—over the medium term remains to be seen, but will be strongly inﬂuenced by ongoing political and trade negotiations . . . The other major industry change is an expected phase-out of the non-economical gaseous diffusion plants used by USEC and Areva . . . (These ratings were re-afﬁrmed on April 24, 2008.) 11 “A−” implies that Standard & Poor’s believes that (1) “economic situation can affect ﬁnance” (A) and (2) that the rating is “likely to be downgraded” (−); where A−, BB, BB−, B+, B−, etc., are lower and lower credit ratings for “non-investment” grade bonds. Since 2002, USEC has been forced to pay high bond rates on its rising debt, while trying to ﬁnance a new, First-of-a-Kind technology. This situation has been deteriorating; see Table 2. Therefore, assuring adequate diversity of enrichment capacity could be problematic **without a** more comprehensive **market intervention** (rather than continued subsidization, or not, by national governments). A Russian-European duopoly in enrichment might provide an adequate diversity of supply. But the U.S. Government must determine how many suppliers should be in the enrichment market to maintain market competition or whether any form of market regulation is necessary. The U.S. Government has been **subsidizing** the **USEC since its privatization**; it is unlikely that USEC will survive without a *continuous* infusion of federal capital *until* the ACP is ﬁnished. If USEC does survive, it might not be competitive enough to grow, if only because USEC has so little experience with operating and manufacturing centrifuge technology. **If USEC fails, the U.S**. Government **could be required to** nationalize **the** American Centrifuge Plant to provide services to defense programs (e.g., naval reactors), as well as pay for decommissioning the gaseous diffusion facilities and all other outstanding USEC liabilities. On the other hand, American electric utility demand can be supplied by Americans working at the Areva and Urenco plants in Idaho and New Mexico, and by the Russians through the extension of current contracts. Therefore, while it is not in the American electric utilities’ interest to support USEC’s high prices, it could be in their interest to support the existence of USEC as a hedge against dependence on one or two suppliers. Unregulated enrichment markets will not necessarily lead to a socially optimal diversity of enrichment suppliers: a long-run equilibrium where the industry is necessarily concentrated such that there is no proliferating entry, but is sufﬁciently diverse so that no one national group can dictate prices, contract terms, or non-proliferation policy. United States decision makers should determine (1) whether a Russian-European duopoly is in the United States’ national interest, given the dependence of the U.S. **nuclear navy** on Highly Enriched Uranium (or whether highly enriched uranium stockpiles would be adequate for the foreseeable future), (2) whether to continue to subsidize USEC, or re-nationalize it in the national interest of the United States to facilitate the implementation of non-proliferation policy, and (3) whether some form of enrichment market regulation should be encouraged to assure low-enriched uranium at reasonable prices, particularly for U.S. electric utilities.

### Deterrence

**Tritium requirements for the nuclear deterrent won’t be met now – only increasing tritium production solves**

GAO ’10

(“NUCLEAR WEAPONS National Nuclear Security Administration Needs to Ensure Continued Availability of Tritium for the Weapons Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

DOD is responsible for implementing the U.S. nuclear deterrent strategy, which includes establishing the military requirements associated with planning for the nuclear weapons stockpile. NNSA and DOD work together to produce the Nuclear Weapons Stockpile Memorandum. This memorandum outlines a proposed plan for the President to sign to guide U.S. nuclear stockpile activities. This plan specifies the size and composition of the stockpile and other information concerning adjustments to the stockpile for a projected multi-year period. While the exact requirements are classified, NNSA uses the detailed information included in the memorandum on the number of weapons to be included in the stockpile to determine the amount of tritium needed to maintain these weapons. In addition, NNSA maintains a reserve of additional tritium to meet requirements in the event of an extended delay in tritium production. Small quantities of tritium are also needed by the national laboratories and other entities for scientific research and development purposes. According to NNSA officials, NNSA is meeting current requirements through a combination of harvesting tritium obtained from dismantled nuclear warheads and producing lower-than-planned amounts of tritium through the irradiation of TPBARs in the Watts Bar 1 reactor. However, tritium in the stockpile as well as in NNSA’s tritium reserve continues to decay, making increased production of tritium critical to NNSA’s ability to continue meeting requirements. Although the number of nuclear weapons in the U.S. stockpile is decreasing, these reductions are unlikely to result in a significant decrease to tritium requirements. Specifically, the New Strategic Arms Reduction Treaty signed in April 2010, if ratified by the Senate, will reduce the number of deployed strategic nuclear warheads by 30 percent. However, it has not yet been determined whether some or all of these warheads will be maintained in reserve—where the warheads would continue to be loaded with tritium—or dismantled—where the tritium could be removed from the weapons. Moreover, even if some or all of the warheads reduced under the treaty were dismantled, tritium requirements are unlikely to decrease by a significant amount. While the specific reasons for this lack of decrease in tritium requirements are classified, NNSA officials we spoke with said that the additional tritium supply that would be available as a result of increased warhead dismantlements is unlikely to fill what they estimate will be a steady tritium demand in the future.

**The ACP key to domestic tritium in our nuclear arsenal**

**Holt and Nikitin ’12 –** specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

Tritium, produced in nuclear reactors, is an essential ingredient in U.S. nuclear warheads and must be regularly replenished as it radioactively decays. The need for a domestic fuel supplier for tritium production reactors has been cited as a justification for providing government assistance to USEC. USEC Inc. was established in 1998 through the public sale of a government corporation, the U.S. Enrichment Corporation, pursuant to the USEC Privatization Act (P.L. 104-134). The company enriches uranium in the fissile isotope U-235 (increasing the proportion of U-235 from the level found in natural uranium) for use as fuel by nuclear power plants. USEC leases an enrichment plant in Paducah, KY, from the Department of Energy (DOE). Built in the late 1950s, the Paducah plant uses an enrichment technology known as gaseous diffusion, in which uranium hexafluoride gas is pumped through permeable barriers to separate the major isotopes of uranium. As the isotopes are separated, U-235 is concentrated in a product stream, while the non-fissile isotope U-238 becomes more concentrated in a waste stream (or tails). USEC plans to replace the Paducah plant with a new plant at a DOE site near Piketon, OH, that would use advanced centrifuges to separate the isotopes, called the American Centrifuge Plant. The $150 million requested in the FY2013 Department of Energy budget justification is to support R&D activities for the American Centrifuge Plant. DOE currently produces tritium by irradiating lithium-6 in the Watts Bar 1 commercial reactor (in Tennessee) and may expand the program to the two-reactor Sequoyah nuclear plant (also in Tennessee) as well, both of which are owned and operated by the Tennessee Valley Authority (TVA). Because the tritium is to be used in nuclear weapons, the Watts Bar 1 and Sequoyah reactors **may not be allowed to use fuel from foreign sources** or even some domestic uranium. U-234 is necessary for the production of tritium. USEC Inc. is the current supplier of fuel for tritium production. Thus, if USEC were to cease enrichment operations, it has been argued, U.S. tritium production could be jeopardized because of a lack of alternative fuel from a solely domestic source.

**Foreign suppliers creates uncertainty and vulnerability in the arsenal**

Rowny ’12 – retired Lieutenant General

(Edward Rowny, was chief negotiator with the rank of ambassador in the START arms control negotiations with the Soviet Union and has served as an arms control adviser and negotiator for five presidents, Roll Call, 3-29-2012, http://www.rollcall.com/issues/57\_118/edward-rowny-safe-uranium-enrichment-should-be-us-priority-213505-1.html)

Oil may grab headlines, but nuclear power for civilian use is growing, as it should. It is efficient, extremely safe and friendly to the environment. As with oil, the U.S. would be wise to produce its own supply of enriched uranium, the fuel for nuclear power plants. Farming out the process to other nations — or to companies headquartered overseas — is risky and increases our vulnerabilities. The U.S. government should pay more attention than it has in recent years to the nation’s dwindling ability to enrich its own uranium. The consequences of doing otherwise could be dramatic. Our country could **find itself at the mercy** of foreigners who do not have our best interests at heart. Energy independence, a laudable aspiration for oil, is even more essential for nuclear power. Domestically produced supplies of enriched uranium are already running short. The U.S. once produced most of the world’s enriched uranium. Now we’re down to about a quarter of the world’s supply. For reasons of national security, we shouldn’t dip further. That’s why the president should be praised for requesting $150 million in next year’s National Nuclear Security Administration budget to keep uranium enrichment alive on our soil. In the meantime, Chu has asked Congress for the authority to reallocate his current budget resources for that purpose until next year’s budget is enacted. Without this cash infusion, American technology at a major facility in rural Ohio will face an uncertain future. We can’t afford the *uncertainty*. Military considerations also play a role here. Nuclear weapons, while thankfully on the decline, still exist and must be maintained and updated. International treaties mandate that tritium, a rare, radioactive isotope that’s a byproduct of enriched uranium use in nuclear reactors and is critical to the proper, safe functioning of nuclear weapons, must be made with U.S. technology. Unless U.S. technology is available to make the enriched uranium needed to produce tritium, our national security will be at risk.

**Foreign suppliers can’t and won’t provide the tech**

Holt and Nikitin ’12 – specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

The European consortium Urenco is one of USEC’s major competitors. Urenco recently began operating a centrifuge enrichment plant in New Mexico, which is expected to reach a capacity of 5.8 million separative work units (SWU) by 2015. The New Mexico plant is operated by Urenco subsidiary Louisiana Enrichment Service (LES), so named because the facility was originally planned for Louisiana. Construction of Urenco’s New Mexico plant was authorized by the 1992 Washington Agreement between the United States and the three members of the Urenco consortium: Germany, the Netherlands, and the United Kingdom. 2 Article III of the agreement, Peaceful Use, states that the New Mexico plant shall only be used for peaceful, non-explosive purposes. The special nuclear material produced by the plant, enriched uranium, as well as any special nuclear material produced in a reactor using the enriched uranium, such as plutonium, is also restricted to peaceful uses. Urenco has signed a contract with TVA to supply enrichment services from its New Mexico plant to the Watts Bar and Sequoyah reactors. This arrangement raised questions about whether the TVA plants could be used to make tritium for nuclear warheads while being fueled by enriched uranium from Urenco. A 2008 legal memorandum to NNSA concluded that the Washington Agreement did not preclude such use of the Urenco-produced nuclear fuel, because tritium is not defined as special nuclear material, but rather as byproduct material. A Joint Committee of the Urenco consortium, after being briefed on the issue at a 2005 meeting, did not object to the TVA contract. 3 A Urenco official said that although the company does not object to TVA tritium production with its enriched uranium, **current DOE policy would not approve the transfer**. 4 An NNSA official said U.S. treaty obligations prevent fuel enriched by Urenco from being used for tritium production: The answer in general for Urenco is that its enrichment technology has peaceful use restrictions, consistent with section 123(a)(3) of the Atomic Energy Act and our treaty with Euratom [an association of European countries that use nuclear energy], that prevent its deployment in support of nuclear weapons programs or for any military purpose.

**Perception of federal leadership key to effective nuclear deterrence**

Schneider ‘8 – chairman of the Defense Science Board

(Dr. William Jr., “Nuclear Deterrence Skills”, Report of the Defense Science Board Task Force, September 2008, http://www.defense.gov/npr/docs/dsb%20nuclear%20deterrence%20skills%20chiles.pdf)

As long as anyone in the world has or can acquire nuclear weapons, America must have nuclear **deterrence expertise** competent to avoid strategic surprise and respond to present and future challenges. There are many kinds of threats that demand national leadership, but no threat can put the nation’s existence at risk as quickly and as chillingly as nuclear weapons. To say this is not to dismiss the seriousness of other threats. It simply acknowledges that since the dawn of the nuclear age, security from nuclear attack has been in a class of its own, and major national decisions on nuclear deterrence issues have been reserved for the President of the United States. Nuclear deterrence expertise is **uniquely demanding**. It cannot be acquired overnight or on the fly. It resides in a highly classified environment mandated by law, it crosses a number of disciplines and skills, and it involves implicit as well as explicit knowledge. Nuclear weapons **expertise is** **necessary to design and build nuclear weapons, to plan and operate nuclear forces**, and to design defense against nuclear attack. It is also necessary to analyze and understand foreign nuclear weapons programs, devise nuclear policies and strategies, deal with allies who depend on the American nuclear umbrella, prevent and counter nuclear proliferation, defeat nuclear terrorism, and—in the event that a nuclear detonation takes place by accident or cold, hostile intent—cope with the catastrophic consequences. America’s nuclear deterrence and nuclear weapons expertise resides in what this study calls the “nuclear security enterprise.” This enterprise includes nuclear activities in the Department of Defense (DOD), Department of Energy, Intelligence Community (IC), and the Department of Homeland Security.

**The nuclear deterrent is critical to prevent nuclear war, terrorism, and allied prolif – best research and Neg authors are biased**

Blackwill ’13 – special advisor to the Air Force’s assistant Chief of Staff for strategic deterrence and nuclear integration

(James, “Nuclear Weapons Critics Suffer Cold War Brain Freeze; Deterrence Works, Argues Top Air Force Official”, AOL Defense, 2-20-2013, Accessed 2-25-2013, http://defense.aol.com/2013/02/20/nuclear-weapons-critics-suffer-cold-war-brain-freeze-deterrence/)

There is an unsettling paradox in much of the recent debate over nuclear weapons in this country. Some pundits, fixated on purging "Cold War thinking" from those of us with real-world responsibilities for nuclear deterrence, are themselves suffering from thoughts frozen in time. In the midst of this important debate, let me offer some examples of the new strategic concepts emerging from a new generation of deterrence thinkers. The conventional wisdom is that a world with fewer nuclear weapons is inherently a better world. What we are discovering is that less is not less, less is different. US policy has led in reducing nuclear weapons. At its peak in 1967, the US stockpile stood at a staggering 31,255 warheads. Just since 1991, we have disassembled more than 13,000 weapons, and in the past decade taken our stockpile – the total number of weapons -- down from 10,526 in 2001 to 5,113 in 2010. Our nuclear weapons and delivery platforms now number an order of magnitude less than during the Cold War, and this policy continues -- creating new conditions in the global nuclear balance. In this new nuclear environment, potential adversaries are reaching conclusions we did not expect, and **our allies** and partners **are more nervous** about it than we want them to be. This new world of several contending nuclear powers **behaves** **differently than the bi-polar world** that preceded it. Deterrence is no longer (if it ever really was) a rational actor systems model; it works as a mental model. It's more like the "**hot hand" rule in basketball** – players do not keep mental statistics on who has the highest percentage shot for a particular game situation; instead they carry a moving mental image of who at that moment is on a streak and feed the ball to that player instinctively. The same kind of thing happens in crisis and conflict. Behavioral scientists call this "fast, frugal heuristics," and are beginning to explore the empirical dimensions of this 21st century deterrence dynamic. There are some surprising findings and insights. First, just because no one has detonated a nuclear weapon in war since 1945, does not mean they are sitting idly by, with little purpose. Nuclear weapons are in fact "used" **every day** -- not to win a war, but to deter any adversary from thinking they could get away with starting one. As budget pressures rise, many call for not spending more on weapons we cannot use in the kinds of conflicts most likely to occur – presumably counter-terrorism or conventional warfare. But a nuclear war is the conflict we need to make sure remains the least likely to happen. Second, there is **much new research** on 21st century deterrence of rogue actors and terrorists. We now know that, during the 1991 Persian Gulf War, Saddam Hussein was persuaded that if he were to order use of chemical weapons against US troops, the US would have responded with tactical nuclear weapons. Hussein had extensive discussions with his generals – lectures really – and injected that assumption into all their war planning. Such thinking likely resides within the decision-making processes of other states that face a similar calculus. There is merit in reinforcing such fears among others who would harm their neighbors. It turns out that terrorists, even suicide bombers, harbor visceral fears of nuclear weapons, fears that can be exploited to deter them from acting should they ever get one. Islamic terrorists adhere to the Koran's proscriptions against poisoning the earth with radiological effects and creating mass casualties among the innocent. Cyber and psychological campaigns can broadcast messages across terrorists' own social networks to convey this narrative challenge to terrorists' intent. Terrorist cells also fear failure, so technical sabotage, misinformation and deception can magnify doubt about the prospects for a successful detonation. Third, US nuclear weapons serve as a powerful instrument of nonproliferation. Post-Cold War experience reveals that others, from Saddam's Iraq, to North Korea, Libya, Iran and others, pursue nuclear weapons as the centerpiece of an asymmetric counter to the United States' conventional military superiority. As every other nuclear power except the U.S. modernizes their nuclear weapons, and as the number of nuclear armed states continues to grow, our allies and partners who rely on our extended deterrent are increasingly motivated to consider obtaining their own nuclear arsenal. We must actively pursue a flexible strategy that allays such concerns among allies. Some assert that a reliable nuclear deterrent does not require the ability to retaliate immediately, only the assurance that U.S. nuclear forces would survive any attack. Aside from the fact that none of America's nuclear triad is on "hair-trigger" alert, the reality of fewer nuclear weapons is that we cannot rely solely on a super-survivable second strike nuclear force that deters only by threatening retaliation. Such a posture could readily be perceived as threatening our intent to strike first. We must have a resilient nuclear arsenal that deters a nuclear strike in the first place. No president would want to ask the American people to ride out a first strike and then trust him to order a retaliatory strike on behalf of the remaining fraction of our population. What the president needs is a nuclear force that would lead no nuclear armed state, faction or terrorist to conclude that it has less to lose by striking us first, even with just one or a few nuclear weapons. We must not give anyone cause to contemplate such a move. This is a very different form of deterrence than the Cold War. No longer can we rely on the mathematics and purely rational models of nuclear exchange developed in the 20th century. We must understand human perception and decision-making. For 21st century deterrence, the value of first-strike stability is now at least equally important as maintaining an assured retaliation capability. Those of us in the new generation of strategic thinkers have liberated our minds from Cold War thinking to make sure that today, nuclear weapons are never used.

**Nuclear terrorism causes extinction**

Ayson 10 - Professor of Strategic Studies and Director of the Centre for Strategic Studies: New Zealand at the Victoria University of Wellington (Robert, July. “After a Terrorist Nuclear Attack: Envisaging Catalytic Effects.” Studies in Conflict & Terrorism, Vol. 33, Issue 7. InformaWorld.)

But these two nuclear worlds—a non-state actor nuclear attack and a catastrophic interstate nuclear exchange—are not necessarily separable. It is just possible that some sort of terrorist attack, and especially an act of nuclear terrorism, could precipitate a chain of events leading to a massive exchange of nuclear weapons between two or more of the states that possess them. In this context, today’s and tomorrow’s terrorist groups might assume the place allotted during the early Cold War years to new state possessors of small nuclear arsenals who were seen as raising the risks of a catalytic nuclear war between the superpowers started by third parties. These risks were considered in the late 1950s and early 1960s as concerns grew about nuclear proliferation, the so-called n+1 problem. It may require a considerable amount of imagination to depict an especially plausible situation where an act of nuclear terrorism could lead to such a massive inter-state nuclear war. For example, in the event of a terrorist nuclear attack on the United States, it might well be wondered just how Russia and/or China could plausibly be brought into the picture, not least because they seem unlikely to be fingered as the most obvious state sponsors or encouragers of terrorist groups. They would seem far too responsible to be involved in supporting that sort of terrorist behavior that could just as easily threaten them as well. Some possibilities, however remote, do suggest themselves. For example, how might the United States react if it was thought or discovered that the fissile material used in the act of nuclear terrorism had come from Russian stocks,40 and if for some reason Moscow denied any responsibility for nuclear laxity? The correct attribution of that nuclear material to a particular country might not be a case of science fiction given the observation by Michael May et al. that while the debris resulting from a nuclear explosion would be “spread over a wide area in tiny fragments, its radioactivity makes it detectable, identifiable and collectable, and a wealth of information can be obtained from its analysis: the efficiency of the explosion, the materials used and, most important … some indication of where the nuclear material came from.”41 Alternatively, if the act of nuclear terrorism came as a complete surprise, and American officials refused to believe that a terrorist group was fully responsible (or responsible at all) suspicion would shift immediately to state possessors. Ruling out Western ally countries like the United Kingdom and France, and probably Israel and India as well, authorities in Washington would be left with a very short list consisting of North Korea, perhaps Iran if its program continues, and possibly Pakistan. But at what stage would Russia and China be definitely ruled out in this high stakes game of nuclear Cluedo? In particular, if the act of nuclear terrorism occurred against a backdrop of existing tension in Washington’s relations with Russia and/or China, and at a time when threats had already been traded between these major powers, would officials and political leaders not be tempted to assume the worst? Of course, the chances of this occurring would only seem to increase if the United States was already involved in some sort of limited armed conflict with Russia and/or China, or if they were confronting each other from a distance in a proxy war, as unlikely as these developments may seem at the present time. The reverse might well apply too: should a nuclear terrorist attack occur in Russia or China during a period of heightened tension or even limited conflict with the United States, could Moscow and Beijing resist the pressures that might rise domestically to consider the United States as a possible perpetrator or encourager of the attack? Washington’s early response to a terrorist nuclear attack on its own soil might also raise the possibility of an unwanted (and nuclear aided) confrontation with Russia and/or China. For example, in the noise and confusion during the immediate aftermath of the terrorist nuclear attack, the U.S. president might be expected to place the country’s armed forces, including its nuclear arsenal, on a higher stage of alert. In such a tense environment, when careful planning runs up against the friction of reality, it is just possible that Moscow and/or China might mistakenly read this as a sign of U.S. intentions to use force (and possibly nuclear force) against them. In that situation, the temptations to preempt such actions might grow, although it must be admitted that any preemption would probably still meet with a devastating response. As part of its initial response to the act of nuclear terrorism (as discussed earlier) Washington might decide to order a significant conventional (or nuclear) retaliatory or disarming attack against the leadership of the terrorist group and/or states seen to support that group. Depending on the identity and especially the location of these targets, Russia and/or China might interpret such action as being far too close for their comfort, and potentially as an infringement on their spheres of influence and even on their sovereignty. One far-fetched but perhaps not impossible scenario might stem from a judgment in Washington that some of the main aiders and abetters of the terrorist action resided somewhere such as Chechnya, perhaps in connection with what Allison claims is the “Chechen insurgents’ … long-standing interest in all things nuclear.”42 American pressure on that part of the world would almost certainly raise alarms in Moscow that might require a degree of advanced consultation from Washington that the latter found itself unable or unwilling to provide. There is also the question of how other nuclear-armed states respond to the act of nuclear terrorism on another member of that special club. It could reasonably be expected that following a nuclear terrorist attack on the United States, bothRussia and China would extend immediate sympathy and support to Washington and would work alongside the United States in the Security Council. But there is just a chance, albeit a slim one, where the support of Russia and/or China is less automatic in some cases than in others. For example, what would happen if the United States wished to discuss its right to retaliate against groups based in their territory? If, for some reason, Washington found the responses of Russia and China deeply underwhelming, (neither “for us or against us”) might it also suspect that they secretly were in cahoots with the group, increasing (again perhaps ever so slightly) the chances of a major exchange. If the terrorist group had some connections to groups in Russia and China, or existed in areas of the world over which Russia and China held sway, and if Washington felt that Moscow or Beijing were placing a curiously modest level of pressure on them, what conclusions might it then draw about their culpability

**Weak credibility means allies proliferate --- nuke war**

Millot 94 – president of the Educational Entrepreneurs Fund

(Marc Dean, President of Education Entrepreneurs Fund, Washington Quarterly, “Facing the Emerging Reality of Regional Nuclear Adversaries,” 1994, lexis)

If the allies of the United States come to believe that it no longer shares their view of regional security, is no longer automatically committed to their defense, can no longer be counted as prudent, and may suffer from a paralytic fear of nuclear conflict, the burden of proof in any debate over national security in any allied capital will shift to those who argue for continuing to rely on U.S. security guarantees. Decisions to pursue national nuclear weapons programs may not be far behind. The lack of **credible** security assurances will push allies of the United States toward nuclear arsenals of their own to restore the military equilibrium upset by their local nuclear adversaries or by more general regional nuclear instabilities. These allies may well see a realization of their virtual nuclear arsenal as the only alternative to losing all influence over their own national security. This development, however, would lead down a worrisome path, with dangerous implications for regional stability and ultimately for the security of the United States itself. One lesson U.S. defense decision makers should take from the growing understanding of U.S.-Soviet crises is that nuclear stability is not automatic. By the end of the Cold War nuclear stability was practically an institution; in the beginning it was barely a concept. As historians report their findings on such events as the Cuban missile crisis, it is becoming apparent that the superpowers learned to create stability on the basis of trial and error. Reading the results of this research it is difficult not conclude that, particularly in the early days of U.S.-Soviet competition, luck played an uncomfortably significant role in avoidance of nuclear war. It is possible that the new nuclear powers will learn from the history of U.S.-Soviet nuclear crises, just as they have learned to take advantage of U.S. technological innovations in the development of their own nuclear weapons programs. Perhaps the relatively rapid development of a stable regional nuclear balance is feasible. On the other hand, U.S. leaders should be concerned that nations with widely varying values, thought processes, and cultures may go through the learning experience without their own good fortune. It is hard to know where **any nuclear war might end**, or what lessons onlookers will take away from it. It is doubtful that anyone is eager to run a real world experiment on the universality of the superpowers' nuclear logic. Indeed the vision of experimental failure on a massive scale has probably influenced U.S. decision makers to give prevention its privileged role in the national response to the proliferation threat. But now that regional adversaries of the United States are going nuclear, the experiment will begin if U.S. allies follow suit. As perhaps several of these experiments play themselves out, the odds increase that one will lead to nuclear war. When U.S. leaders come to recognize that these experiments are out of their hands, they will face the question of what to do with the remaining forward presence of their forces on allied territories. If they stay, the United States runs the risk of being sucked into nuclear wars that are not of its making against its will. If they leave, the United States will lose any hope of regional influence, but may at the same time precipitate a crisis that may itself increase the risk of nuclear conflict. Neither choice is appealing; both hold grave risks for U.S. national security. Preventing the need of future leaders to confront that choice should be the goal of U.S. policy.

**Nuclear primacy stabilizes nuclear conflict with Russia and China**

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 134-139)

Any practical scenario involving nuclear weapons looks highly unrealistic except in the context of a conflict with China, the most feared neighbor, which lost part of its territory during the time of Russia’s grandeur with the so-called unequal treaties. But even though Beijing is feared by lucid Russian officials and security experts, such a scenario appears remote. Russia would rather continue developing its anti-Western propaganda and trying to coerce its neighbors—a prospect that is troubling enough, particularly since many of those neighbors are NATO and/or EU members—but nuclear weapons can hardly be contemplated, even to coerce. In the south, Russian nuclear weapons can hardly be used as either a means to deter or a means of warfare. So, again, only a China scenario would make sense, particularly since with fewer nuclear capabilities, China would be much more tolerant of human losses. Moscow knows it. It also knows that deep cuts in nuclear forces after New Start would encourage China’s buildup. Finally, it is worth underlining in the event of future talks with Moscow that it is hard to understand its geostrategic picture as expressed in March 2011 by Military Sciences Academy President General Makhmud Gareyev: “Regarding security, Russia has never been in such a crunch as in the early twenty-first century since perhaps, 1612.”67 Forget 1941, and forget the Cold War, particularly after 1960, when both China and the United States were considered hostile. The delusion of the Russian side will be the most dangerous element to deal with in the coming years. In the 21st century, there is a potential nuclear triangle among the United States, Russia, and China that may be considerably more difficult to handle than the bipolar relationship that existed in the 20th century. Triangles are inherently unstable, particularly when the nations concerned are empowered with ballistic missiles and nuclear weapons.68 Each of the three powers has to make calculations regarding the evolution of the other two; two of the three may combine their forces against the third, and this kind of alliance may only be temporary; and in case of crisis, the **uncertainty** grows with the presence of a third actor. In George Orwell’s novel Nineteen Eighty-Four, the world is divided among “the Big Three,” all of them totalitarian. They combine but switch sides frequently. As Martin Wight recalls, “Triangles tend to be mobile figures of shifting alliances and negotiations.”69 In the case of the United States, Russia, and China, there would be only two dominant powers of different caliber (the United States and China) and a third force (Russia, which can no longer be called a great power). If triangles “are relationships of conflict” that “are resolved by war,”70 what can be expected from this particular triangle? For the time being, Washington has prioritized China and Russia in the 2010 NPR, frequently associating them with “strategic stability.” In the NPR, China and Russia are no longer presented as “contingencies” (even though both nations are still targeted in U.S. nuclear planning) but as partners with whom to discuss strategic stability. The Ballistic Missile Defense Review, for its part, has done its utmost to assure China and Russia of the absence of any U.S. plans to counter China’s or Russia’s deterrence capabilities. Rhetoric aside, how will the United States craft strategic stability with both Russia and China? The NPR offers no answer to this legitimate question. Thinking on the subject is not easy, particularly if government officials are pressed to reach public conclusions. It appears highly probable that strategic stability will be defined by both Russia and China—if they eventually agree to engage in such discussion 71—in wider terms than in terms of nuclear parity. In principle, the United States, which never equated “strategic” with “nuclear,” should have no problem accepting this. But difficulties would start just after this simple recognition. First, both Moscow and Beijing want to constrain advanced U.S. conventional capabilities, U.S. missile defenses, and alliances with the United States in their neighborhood. Washington can make some **gestures** (offer cooperation on missile defense to Moscow72 or reassure Beijing on the value of its nuclear deterrent73), but those **will hardly be enough**. Second, on the American side, it would only be natural to enlarge the concept as well and ask Moscow to clean up its ballistic weapon archipelago for good,74 while China might be asked to adhere to some rules in space and cyberspace. A year from now, the different definitions of strategic stability in the three nations are likely to endanger the optimistic scenario delineated in the NPR.75 On the Russian side, missile defense, Prompt Global Strike, and NATO’s presence in Russia’s periphery are going to remain contentious bilateral issues, while its own clandestine ballistic weapon activities are unlikely to be acknowledged. In addition, the primary source of instability in Moscow’s mind being its own decay, U.S. military and diplomatic superiority are going to be fought with all the available means, including influence, negotiations, intimidation, and espionage. The nostalgic empire perceives any secure neighbor as a threat, as if projecting fear were the only means of ensuring security. While the historical roots of this mind-set are well known, it clashes with stability as defined by most other countries (and certainly by Russia’s neighbors). For example, on the subject of missile defense, Moscow insists it is prepared to shield contiguous Eastern European states from missile threats: “Naturally, Russia should be in charge of the eastern sector encompassing the territories of the contiguous states and seas,” declared Russian Space Forces Commander Lt. Gen. Oleg Ostapenko on April 29 in Moscow.76 Would the Baltic states or Poland consider such a possibility? Unlikely. And Washington will not swallow any of this, either. As for China, stability is satisfactory as long as China’s status, meaning the “Middle Kingdom” under new guise, is restored. More than projecting fear, Beijing wants recognition of its superiority. The bottom line is “China is big” and deserves respect as such. Such was the motivation for Beijing’s totally disproportionate reaction to Tokyo’s decision to detain and charge the captain of a Chinese fishing trawler in September 2010. China needs to learn the measure of a great power, but it may never get there. It apparently enjoys looking like a bully. Beijing may therefore be exploiting the U.S. desire for partnership only to the extent that it buys it an additional decade of breathing room to become really big. Is it in the interest of the United States to endorse this line of thought and conduct? Hardly. In addition, the primary source of instability for China being the United States (in decline in China’s mind but still the big hegemon in China’s speeches), it is hard to imagine what kind of strategic stability can be crafted with Beijing. Sino-Russian relations have improved largely because both nations wish to constrain American power. The border dispute was resolved in 2004, some joint military exercises have been conducted, and China has benefited enormously from Russia’s willingness to export modern weapon systems (aircraft, submarines, cruise missiles, and air defense systems) and advanced technologies (notably in the field of uranium enrichment). In essence, China views the rapprochement as bringing more stability because it increases China’s power and influence. Russian policy is less clear and sometimes debated by Russian experts who worry about China’s military rise. In Central Asia, the two nations are in competition: Their only common goal is related to U.S. withdrawal. What will happen next? In the Middle East and in East Asia, there is some Sino-Russian coordination to constrain Western efforts toward sanctions on Iran and North Korea. From this perspective, both countries bear some responsibility in the advance of both Iran’s and North Korea’s ballistic and nuclear programs, even when technological cooperation between them and the two nuclear aspirants is set aside. With this in mind, how can strategic stability be crafted among the United States, China, and Russia? At the simplest level, strategic stability could mean securing the nuclear peace and preventing escalation in times of crisis. In principle, the Russians could be a satisfactory partner because of historic experience, competence, and a genuine desire to avoid worst-case scenarios. Less is known about the Chinese: Would they reject or favor deliberate escalation in wartime? One thing that is clear is that interest in this topic is growing in the PLA.77 Chinese writings continually emphasize the need to secure and maintain the political and military initiative, highlighting how difficult it is to regain once lost. This is probably the area where escalation with China is a concern. Russia used to state in its doctrine that it would not hesitate to resort to nuclear weapons when faced with possible defeat in a limited conventional conflict. The most recent Russian military doctrine states a more moderate position: The Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat.78 The contradiction between the declared Russian doctrine and Russia’s military exercises may provide a different insight, but in practice, nuclear escalation in a limited conventional conflict can be considered unlikely. China, on the contrary, repeatedly states a no-first-use policy in the Second Artillery’s publications. However, first, such a policy may be useful mainly in the diplomatic arena, and second, one wonders whether a probable conventional defeat against Taiwan, China’s most important territorial dispute linked to the legitimacy of the Chinese Communist Party, could be politically acceptable for Beijing. In other terms, on the ground the two nations might behave in ways that contradict their doctrines. This would be consistent with their patterns of behavior, Russia overplaying its hand and China underplaying it. In case of a U.S.-China confrontation over Taiwan, what would Russia do? The most likely answer is nothing. With no clear stake in the conflict, Moscow would not risk becoming a target of either Beijing or Washington. Some would argue, though, that Russia may have a stake in this conflict. A Chinese victory over Taiwan might be followed by the wish in Beijing to recover territories in the eastern part of Siberia. Would this possibility lead Russia to openly challenge China during such a conflict? Most probably not. But the United States may count on a neutral Russia, forgetting any strategic partnership with China. Any serious Russia-China confrontation, on the other hand, may raise questions in Washington about the possibility of intervening on the Russian side because of wider interests. The least that can be said is that Moscow does not facilitate thinking in the direction of such a scenario, which would imply an extraordinary level of rapprochement with Washington. But the reality is there and it is troubling: As President Kennedy understood at a very early stage, China is fundamentally more dangerous than Russia.79 This should be the perception in the West after decades of interaction. We can only imagine what China would be capable of doing if it perceived the United States having serious difficulties accessing the region, starting with the contested Senkaku Islands. From this viewpoint, Richard Nixon may have lost his bet. There is a widening divide between two categories of big nations: those convinced that the main challenge of the 21st century is to prevent major crises from emerging, fight nuclear and biological proliferation, and jointly manage the global commons, and those that continue to engage in power politics and competition. In the latter category, China is the most daring. Russia may continue to harass its neighbors, particularly if Moscow’s reading of the 2008 Georgian war is that it provides a telling example of the West’s lack of reaction, but it will probably pose no major challenge in the foreseeable future. In the former category, one finds European nations, America, and—a good surprise—increasingly India, which is progressively displaying the intent to rise as a responsible global power. These two worlds are hardly reconcilable, and they may collide. More substantial thinking on power politics may be required in the first group of nations, regardless of their preference for a more cooperative and stable world where most states increasingly share the same interests. Stability itself may require such thinking. If strategic engagement integrates a competitive dimension, it may work considerably better because it will be in tune with reality on the ground. A good example is the improvement of U.S.- Chinese relations in 2010, coinciding with a more sober view of China in the Obama administration.

**China and Russia would exploit weakness in our nuclear deterrent to gain power**

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 117-119)

With China now a major rising power, considerably more difficult challenges than those posed by regional powers are starting to appear on the horizon. If experience is any guide, a gradually more powerful China is likely to become not a more responsible stakeholder but rather an increasing challenge to an international order that, in the eyes of Beijing, is unduly protective of the West’s interests, including in Asia. The mood regarding Beijing has darkened after the Copenhagen Summit on climate change in December 2009, numerous cyberattacks, challenges to Internet freedom, ambiguous policy on Iran and North Korea,7 arms sales to Iran and to the Taliban, disregard for maritime law,8 and, finally, lack of common assessment on future challenges and future strategic stability. Beijing appears increasingly self-confident, arrogant, and nationalistic.9 With its imperial culture and its legacy of condescension, China sees itself as the only possible—and probably the only legitimate—successor to the United States on the international scene in the decades to come. In China’s view, it deserves to become number one; it only needs time to prove the point. Its neighbors have few doubts on the subject. And, instructed by experience, Washington itself had far fewer doubts in 2011 than it did in 2009, for good reason. Russia, a fading power, is a different matter of concern. Its rational choice should be to work with the West, with a potential nuclear-armed Islamic power on its southern flank, a collapsing demography, and a dynamic and greedy China in the southeast. But apart from reports written by some Russian experts popular in the West,10 there is no indication that Moscow has come to this conclusion. The 2010 Russian military doctrine still names NATO as the first danger to Moscow’s security, 20 years after the end of the Cold War. Concerning China, there may be fear and awe in Russian minds, but there is not a single word on the subject in Russia’s military doctrine. Whenever questions are raised about relations with China, Russian officials tend to answer that they have dramatically improved. Reluctance to engage in any serious security dialogue— not to mention any initiative—that could threaten bilateral relations with Beijing is obvious.11 When asked, for example, to share data with the United States on Chinese ballistic missile launches—a potential useful bilateral cooperation for both nations— Moscow refused in order to avoid hurting Russian-Chinese relations. According to an April 2010 BBC World Service survey, Russia ranks third in negative feelings toward the United States.12 The main threats coming from Russia are its difficulty in reconciling with the loss of its empire, its resentment toward the West for that reason, the corruption of its political elites, and its current inability to face real threats as opposed to imaginary ones. Big states seldom attempt to balance power, and even more seldom do they cooperate with each other. Most frequently, they simply seek to gain power of their own. The United States is probably a historical exception to this rule because it appeared on the world stage in order to limit the damage brought by its European allies rather than to enlarge its own world influence and power. History, revenge, **misconceptions**, and even suicidal moves can guide the policy of big powers: The 20th century has shown it in a devastating manner.13 An almost unthinkable series of absurdities in Vienna, Saint Petersburg, Berlin, and Paris set all of Europe ablaze as well as a large part of the rest of the world, after the assassination of the nephew of the Austrian emperor by a Serb nationalist. Once the machine had been set in motion, there was no way of holding it back. A lucid analysis of the policy pursued by both Russia and China does not provide a rosy picture for the future. If the challenges come closer, no one will be in a position to speak about any “strategic surprise.” Retrospectively, **the real surprise** for historians will be our blindness: The main elements of future crises are already present for everyone to see. In the case of **Russia**: continuous violation of the BWC, disregard of the CFE Treaty, a policy of fait accompli in both Abkhazia and South Ossetia, a wish to recover as much of its former empire as possible, endemic political corruption, and ambiguity vis-à-vis Iran.14 In the case of **China**: a will to gain at last the position it believes it deserves in the world (namely number one), deployment of more than 1,000 missiles on mainland China facing Taiwan, cyberattacks against America and Europe, competition with the United States in outer space, development of effective antiaccess capabilities, confrontation with neighbors on sea lanes and maritime law, and an unwillingness to implement sanctions against Iran and North Korea, even when Beijing agrees to vote for them. The triangular nuclear relationship among the United States, China, and Russia took a curious shape in 2010. At the very time when Washington took literally months to decide whether the NPR would use the phrase “sole purpose” or “primary purpose” to describe the objective of U.S. nuclear weapons (and finally settled for “fundamental purpose” in order to include a possible nuclear response to a biological attack), China quietly continued increasing and improving its ballistic and nuclear arsenal as well as its space and cyber capabilities, while in February 2010 Russia adopted an aggressive nuclear doctrine that worried its neighbors (who are also U.S. allies and often EU members).

**Deterrence between the U.S. China and Russia works – communication and nuclear learning are increasing – just a question of U.S. technical capability to maintain deterrence**

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 159-161)

In 1956, Paul Nitze made an interesting analogy between a nuclear world and a chessboard.1 He wrote that even though the atomic queens may never be brought into play, their position may still have a decisive bearing on which side can safely advance a limited-war bishop or a Cold War pawn. More than 50 years later, this may still be true. But while he had in mind mainly U.S. and Soviet atomic queens, with an advantage on the American side, the reality in the 21st century may be essentially about the **shadow of America’s adversaries’ atomic queens**. In the United States, expenditures related to the nuclear enterprise are under increasing scrutiny, making it difficult to modernize the nuclear arsenal.2 Today’s entire Air Force bomber fleet—nuclear and nonnuclear—is 90 percent smaller than it was in 1959, a decline justified in great part first by the deployment of ICBMs, the advent of precision-guided munitions, and the rise in the per-unit cost of combat aircraft, and second by the end of the Cold War. Still, all the remaining bombers are in need of costly upgrades, since the air-launched leg is apparently going to be retained for the foreseeable future.3 The remaining ICBMs are also aging rapidly, with underground silos in need of cost-prohibitive replacement. Among U.S. nuclear allies, the United Kingdom is far from having a clear nuclear policy for both political and financial reasons (in April 2011, for example, part of the UK coalition—LibDem—questioned the need for continuous submarine patrols at sea). Meanwhile in China, where the military budget has been unconstrained for 20 years, nuclear weapons are playing an increasing role. New air, sea, and ground systems are beginning to be deployed there, with great opacity denounced in the region and beyond. The future nuclear force that China has in mind is unknown. Even the number of new ICBMs, dual-capable aircraft, and nuclear submarines is anyone’s guess, though it is probable that the JL-2 will be made capable of carrying three warheads instead of one. At the same time, Beijing is developing space and cyberspace capabilities and testing them in disturbing ways. With significantly fewer financial resources than China, Russia also gives priority to its nuclear holdings because of perceived large conventional imbalances with both NATO and China. The New Start treaty has not led to any reductions in Russia, because its current holdings are already below the ceilings. In South Asia, Pakistan may well be the main strategic beneficiary of the 1998 nuclear tests, since Islamabad’s needs are much more limited than those of New Delhi. When American troops leave Afghanistan, China will have more freedom of maneuver to achieve its overriding regional objective: keeping India down. This has always been the basic tenet of the Sino-Pakistani relationship. Finally, the likelihood of additional nuclear players in the Middle East and in East Asia 20 years from now can hardly be discarded. Some official statements have now been made public. All of these factors will play a role in constraining the United States in the safe advance of what Paul Nitze called a limited-war bishop. At the same time, nuclear deterrence has receded in American minds as well as in European capitals. More urgent business—yesterday in the Balkans and Iraq, today in Afghanistan and Libya—is focusing intellectual and operational efforts. Paradoxically, a fortunate turn of events occurred with two serious nuclear incidents in 2006 and 2007 in the United States. In August 2006, nuclear fuses were mistakenly shipped to Taiwan, and a year later, in August 2007, six air-launched missiles armed with nuclear warheads were mistakenly flown from Minot Air Force Base to Barksdale Air Force Base. Both events led to the creation of Global Strike Command and to a reexamination of the nuclear enterprise. Since the revelations concerning the probable existence of additional clandestine military activities in Iran (beyond Qom) and the advancement in Pyongyang’s enrichment program, troubling questions have surfaced concerning Western intelligence, key challenges to international verification, and export control limits. In stimulating a renaissance of thought on nuclear deterrence, this reexamination should take into account the development of thinking in potentially adversarial nations. In many parts of the world, nuclear weapons are not seen as old-fashioned. The West will **not change this perception** by reducing its nuclear arsenals. Newcomers carefully follow the nuclear debates that are developing mostly in the West. They take part in them, they react to them, they read nuclear doctrines (including NATO’s new nuclear posture), and they occasionally learn from past nuclear crises. An important lesson of the Cold War stems from the high level of professionalism exhibited by those dealing with nuclear weapons on both sides. As General Larry Welch declared at the 2010 U.S. Strategic Command Deterrence Symposium in Omaha, referring to the Western and Eastern nuclear communities, “they kept peace” in part because each side recognized the competence on the other side and respected it.4 Deterrence greatly benefited from this competence and respect. It is worth noting that during the Cold War, such competence was not recognized in Mao and the Chinese. Nikita Khrushchev worried about Mao’s recklessness and his lack of understanding in nuclear matters. Things have changed a great deal in the last 40 years, but there is no doubt in the mind of this author that Beijing remains a risk-taking partner when compared with the USSR. This factor should be taken into account in the West as it already is in the East. Improving mutual understanding among potential nuclear adversaries is an important part of deterrence. Such is the purpose of a number of current bilateral strategic dialogues. Such dialogues with Russia and China have been disappointing so far. Russia, a revisionist state unlike the Soviet Union, is essentially trying to get Western military technology and is not really interested in any substantial dialogue on the most divisive issues—for example, missile defenses, a subject on which the same line of argument is presented over and over again, whatever the systems contemplated to protect Europe and America or the technical explanations provided by Washington to reassure Moscow. China, with increasingly sophisticated and well-read experts, appears reluctant to discuss with Washington its perceived conditions for strategic stability in the 21st century, a crucial topic for deterrence in both America and Europe. Track two meetings may provide different opportunities. The strategic community is now **more internationalized** than it used to be. American, European, Russian, and—increasingly—Asian experts exchange ideas on a daily basis. These meetings improve mutual understanding on key questions: ambitions, interests, sovereignty, stability, and regional crises, as well **as prevention of escalation**. Although they are not meant to replace official bilateral or multilateral meetings, they should be able to deal with part of the “thinking crisis”: With so many questions now open, shaping the intellectual framework of things to come on nuclear matters is not a minor business, especially since the real nuclear debate could well become less about nuclear abolition and more about whether there will even be any rules at all in the nuclear future.

**Nuclear primacy deters bioweapons attack**

Thayer 12, Bradley, professor of political science at Baylor University [“THAYER: Preserving our nuclear deterrence,” February 17th, <http://www.washingtontimes.com/news/2012/feb/17/preserving-our-nuclear-deterrence/>]

Finally, nuclear weapons deter the use of other weapons of mass destruction, such as biological weapons or chemical weapons, against the U.S. homeland, allies or U.S. military. Nuclear weapons aid Uncle Sam’s ability to coerce opponents as well for three reasons. First, in a crisis situation, nuclear weapons help persuade a challenger not to escalate to a higher level of violence or move up a rung on the escalation ladder. Second, although laden with risks, they also provide the possibility of attacking first to limit the damage the United States or its allies would receive. Whether the U.S. would do so is another matter. But possessing the capability provides the nation with coercive capabilities in crisis situations or war. Third, nuclear weapons give the United States the ability to threaten nuclear first-use to stop a conventional attack or limited nuclear attack and to signal the risk of escalating violence to a higher level.

**And, it prevents bioweapons transfer to non-state actors**

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(David and Herman, also director of the Center for the Study of Homeland Security at Colorado State University, “Biological Weapons and Security Dilemmas”, Whitehead Journal of Diplomacy and International Relations,

If pathogens make poor weapons of war, why do states continue to pursue biological weapons programs? The continuation of biological weapons programs into the twenty-first century is attributable to several factors. First, as the Amerithrax investigations indicated, the United States and several developed states have ongoing biological programs producing “offensive” biological agents for the sake of biodefense. Potential rival states are similarly compelled to develop their own bioweapon programs to produce defenses against the capabilities of the established powers. Also, the technological advances accompanying the so-called “Revolution in Military Affairs,” coupled with the sheer scope of American defense spending, have produced conventional US forces so advanced that the only way to attempt to check them is through asymmetric means. As a former Indian military chief of staff explained, those planning to engage the United States militarily “should avoid doing so until and unless they possess nuclear weapons.”13 However, because of the difficulty in developing nuclear weapons, and the potentially easy acquisition of naturally-occurring pathogens, biological weapons provide an ideal alternative. In many cases, CBRN arsenals are the quickest way that states and non-state actors can legitimize their authority among constituents. It is little wonder that biological weapons are often referred to as the “poor man’s nuclear bomb.”14 And yet, states are still subject to deterrence through the same threats of massive retaliation issued at the height of the Cold War. One possible response by rogue states could be the clandestine transfer of CBRN material to non-state actors, a concern cited as significant enough to justify preemptive war against Iraq and continued engagement with flawed regimes in Pakistan 1 5 . The underlying assumption behind this threat is that terrorists want CBRN weapons and sympathetic states would be willing to share them either in support of their cause or so that non-state actors are blamed for attacks masterminded by governments that could maintain plausible deniability. This presumes that authoritarian regimes would trust actors outside of their direct control with sensitive material, and furthermore, trust them to follow their established foreign policy objectives. This strategy would probably leave such rogue states more vulnerable than empowered, and they are therefore unlikely to proliferate to non-state actors 1 6.

**Bioweapons will cause extinction**

Matheny ‘7

(Jason G. Matheny, Department of Health Policy and Management, Bloomberg

School of Public Health, Johns Hopkins University, “Reducing the Risk of Human Extinction”, Risk Analysis, Vol. 27, No. 5, 2007)

Of current extinction risks, the most severe may be bioterrorism. The knowledge needed to engineer a virus is modest compared to that needed to build a nuclear weapon; the necessary equipment and materials are increasingly accessible and because biological agents are self-replicating, a weapon can have an exponential effect on a population (Warrick, 2006; Williams, 2006). 5 Current U.S. biodefense efforts are funded at $5 billion per year to develop and stockpile new drugs and vaccines, monitor biological agents and emerging diseases, and strengthen the capacities of local health systems to respond to pandemics (Lam, Franco, & Shuler, 2006).

**U.S. leaders will cling to nuclear deterrence inevitably – only a question of how credible and effective it is**

Thompson ’11 – Chief Operating Officer of the non-profit Lexington Institute

(Loren, was Deputy Director of the Security Studies Program at Georgetown University and taught graduate-level courses in strategy, technology and media affairs at Georgetown. I have also taught at Harvard University's Kennedy School of Government, holds doctoral and masters degrees in government from Georgetown University and a bachelor of science degree in political science from Northeastern University, “Nuclear Paradox: Shrinking U.S. Arsenal Requires Huge New Expenditures”, Forbes, 6-13-2011, http://www.forbes.com/sites/beltway/2011/06/13/nuclear-paradox-shrinking-u-s-arsenal-requires-huge-new-expenditures/)

The anti-nuclear rhetoric coming out of the White House during Obama’s early days in office was so persistent that some senior military officers worried the new president was taking America in the direction of unilateral disarmament, even though the candidate had explicitly ruled out that possibility during the campaign. But the military need not have worried, because the way things are turning out, Barack Obama is likely to spend more money on the U.S. nuclear arsenal than any U.S. president since Ronald Reagan. In fact, if all the plans authorized on Obama’s watch come to fruition, hundreds of billions of dollars will eventually be spent on new nuclear capabilities and infrastructure by a president who has repeatedly endorsed the goal of a nuclear-free world. This may be the ultimate example of how gaining political power can **transform the beliefs of leaders** — not because Obama has abandoned his support of disarmament, but because of how being responsible for the nation’s security forces him to think in practical terms about the dangers of disarming. To understand the seeming divergence between the president’s convictions and his military plans, you have to grasp the perverse logic of U.S. nuclear strategy. U.S. military analysts figured out during the early days of the Cold War that no effective defense against a large-scale nuclear attack was likely to be feasible. The Russians were acquiring thousands of warheads, and the destructive potential of each one was so great that if even a small fraction managed to penetrate U.S. defenses, the nation would probably be wiped out. Defense Secretary Robert McNamara illustrated the problem in congressional testimony when he displayed a graph that indicated how destruction in the Soviet Union would level off after a relatively small portion of the U.S. nuclear arsenal had been expended, because there wasn’t much left to destroy. With both nations facing the possibility of nuclear obliteration, a new approach to national security clearly was needed. The concept that policymakers settled on was deterrence — the idea that enemies could be dissuaded from aggression by threatening horrible consequences. The key to effective nuclear deterrence was a secure retaliatory capability, meaning an arsenal that could ride out any surprise attack and then respond with such devastating effect that adversaries would find the prospect unacceptable. As long as enemies were not crazy or accident prone, the thinking went, a secure retaliatory force should be sufficient to deter nuclear attack. U.S. military planners spent the next 50 years revising and refining the requirements of deterrence, spelling out in great detail the performance characteristics required of U.S. nuclear forces to assure they were both survivable and credible. Survivability resulted mainly from having a trio (or “triad”) of well-protected nuclear systems — land-based missiles, submarine-based missiles and manned bombers — that were so different no enemy could conceivably destroy them all in a surprise attack. **Credibility**, which was crucial in a strategy based mainly on **influencing enemy psychology**, meant having targeting options that were believable and proportional to any provocation. The United States eventually ended up with over 30,000 warheads in its arsenal before the two superpowers accepted the impossibility of achieving meaningful superiority in a world of “mutual assured destruction.” Once that realization occurred, though, a gradual reduction in forces commenced that accelerated after the collapse of the Soviet Union. By the time President Obama took office, there were only about 5,000 warheads in the active strategic arsenal, and nobody talked much anymore about the danger of nuclear war. In fact, Obama’s 2010 Nuclear Posture Review displaced traditional deterrence objectives from the top of the strategic agenda, emphasizing instead the importance of halting nuclear proliferation and preventing nuclear terrorism. But the need for **nuclear deterrence still existed**, because **Russia retained thousands of warheads** and **China had at least hundreds**. In addition, new nuclear powers such as North Korea and Pakistan were emerging. It was the enduring need for deterrence that forced the Obama Administration to confront a paradox of nuclear strategy. The paradox is that the fewer weapons each side has the greater the danger of a surprise attack because at lower numbers it becomes easier for each country to disarm the other side. For instance, when the United States had hundreds of nuclear-capable bombers scattered around the world, there wasn’t much danger Russia could catch them all on the ground in a first strike. But now that there are only sixty located at a handful of sites, an enemy might be able to take out a sizable portion of the U.S. nuclear arsenal with a dozen well-placed warheads. The other part of the paradox is that if the enemy really thinks it can pull off a disarming surprise attack, then the very fact we have a retaliatory force is a powerful inducement to launching that attack — because what looks like a deterrent to us looks like a huge threat to them. After all, it is aimed at their cities, their factories, and their own retaliatory capabilities. So ironically, as the size of the U.S. strategic arsenal shrinks, the government needs to spend huge amounts making sure what’s left is still an effective deterrent. And unfortunately for President Obama, the arsenal he inherited hadn’t seen much in the way of modernization since the Cold War ended. The biggest part of the Obama nuclear buildup, if you’ll pardon the expression, is efforts to replace or improve all three types of launching systems in the current strategic arsenal. A fleet of 14 Trident ballistic missile submarines due to start retiring in 2027 will be replaced by 12 follow-on subs that will probably cost around $80 billion to design and build and hundreds of billions more to operate over their 40-year service lives. The president’s fiscal 2012 budget request includes a billion dollars to continue design work on the new class of subs. The 60 B-52 and B-2 bombers capable of delivering nuclear weapons must be upgraded in the near term and replaced over the long term; the Obama plan calls for spending $1 billion over the next five years on upgrading 16 nuclear-capable B-2s and $4 billion on developing a bomber that might one day replace it in the nuclear strike mission. And the 450 silo-based Minuteman missiles located in Montana, North Dakota and Wyoming will require additional life-extension measures to assure their survivability and reliability beyond 2030. Those are the nuclear-weapons expenditures most visible to the outside world, but there are a host of other outlays that will be required to keep the nation’s strategic posture viable. For instance, the administration noted when it released the Nuclear Posture Review that there would be a need to “make new investments in the U.S. command and control system to maximize presidential decision time in a nuclear crisis.” What this means is that communications links between commanders and nuclear forces must be strengthened so that the potential loss of control in a nuclear scenario does not force a launch decision before critical details about threats are in hand. The need to acquire as much information as possible before acting in a crisis situation also explains why the United States is currently orbiting a new generation of space-based infrared satellites that can detect missile launches and nuclear detonations within seconds after they occur. And then there is the nuclear complex where warhead components are manufactured, refurbished and dismantled. You wouldn’t think much spending is required to sustain a complex that hasn’t produced a single new warhead since 1991, but the system consumes a billion dollars per month and that figure is going up. In the absence of new production, old weapons must be **repaired and upgraded**, often using nuclear material recovered from weapons that are being retired. The retired weapons must be taken apart and their pieces re-used or rendered safe, an extremely complex procedure. The need to sustain such processes has led to major new construction projects at all of the industrial sites involved in nuclear weapons work. For example, a 350,000 square-foot uranium processing facility will be built at the Y-12 plant in Oak Ridge, Tennessee, and three different facilities will be built at the Savannah River plant in South Carolina to dispose of weapons-grade plutonium. Thus, the Obama nuclear plan will generate huge revenues for companies involved in nuclear work such as Babcock & Wilcox and General Dynamics, the probable builder of the submarine that replaces Trident. However, it isn’t likely that President Obama and his security team envisioned the full extent of budgetary outlays that would be required to sustain the nation’s nuclear forces as they drove toward the goal of a nuclear-free world. As things currently stand, the administration will be spending a good deal more money on nuclear weapons during Obama’s tenure than renewable energy, a prospect that can’t be pleasing to progressives. On the other hand, nuclear war remains by far the greatest military threat that the nation faces. Not only would it generate more destruction than any other form of conflict, but our methods for preventing it are weaker, relying mainly on psychology rather than tangible defenses. As the number of nuclear weapons declines it may become more feasible to build defenses that can stop an attack, but for the time being conservatives and liberals alike are stuck with the paradoxes of surviving in the nuclear age. In President Obama’s case, that means spending a great deal of money on items you wish didn’t exist at all.

**U.S. nuclear deterrence is key to NATO cohesion**

**Thranert 11**

[Oliver Thranert, Senior Fellow, “Nuclear Arms and Missle Defense in Transatlantic Security”, NATO’s Role in European Security – and Beyond”, European Security and the Future of Transatlantic Relations, 2011, http://www.iai.it/pdf/Quaderni/iairp\_01.pdf]

More than twenty years after the end of the Cold War, extended deterrence is still relevant for NATO, as has been pointed out by NATO secretary general, Anders Fogh Rasmussen, when he has described the stationing of US nuclear forces in Europe as an **essential part** of a **credible deterrent**.2 Likewise, the Obama administration’s Nuclear Posture Review argues that the presence of US nuclear weapons combined with NATO’s nuclear-sharing arrangements contribute to **alliance cohesion** and provide reassurance to allies and partners who feel exposed to regional threats.3 More recently, the NATO strategic concept reiterated that as long as nuclear weapons exist, NATO will remain a nuclear alliance. The allies continue to participate in collective defense planning on nuclear roles and basing of nuclear forces.4

**NATO solves Balkan wars and Greece-Turkey conflict**

BMI, 10-17

(Business Monitor International - Risk Watchdog, "Would The Eurozone’s Collapse Lead To War?," 10-17-12, www.riskwatchdog.com/2012/10/17/would-the-eurozone’s-collapse-lead-to-war/, accessed 10-21-12, mss)

Dissolution or neutralisation of NATO: Some European doomsayers forget that NATO still exists, and that the US still guarantees the security of Europe by basing tens of thousands of troops in Germany, the UK, and Italy. The existence of NATO means that even if the eurozone and EU were to collapse, any hypothetical march towards war would still have a powerful brake. Potential warring states would have to leave the Western alliance first, or conclude that NATO and the US military presence are meaningless or unreliable. This is certainly possible, given that NATO has been weakened by budget cuts in its member states, but would still require a major political gamble.¶ Peripheral European War Risks More Plausible¶ Nonetheless, in the event that the eurozone/EU collapses, we do see a rising risk of war on Europe’s periphery, specifically in the following areas: The Balkans: Although the region is at peace, the political status quo in Bosnia’s Serb Republic and northern Kosovo is considered unsatisfactory to many of the regions’ inhabitants. In addition, Western Macedonia almost experienced a separatist war in 2001. If the eurozone/EU collapses, the Balkan states would no longer have a policy anchor for converging towards Western European political, economic, and social norms. This could empower extremist politicians on all sides, potentially reigniting the wars of the 1990s. Greece-Turkey: If Greece were to leave the eurozone, and if the EU collapses, then both countries would suddenly find two major restraints on their geopolitical competition removed. The Aegean sea and Eastern Mediterranean would be **obvious flashpoints**, especially given that the latter has considerable oil and gas reserves. However, the land border could also become a major issue, especially if a weakened Greece perceived Turkey to be encouraging the flow of Middle Eastern and Asian migrants to its territory. Russia-Eastern Europe: A collapse of the eurozone/EU could present opportunities for Russia to reassert its influence in former Soviet satellite states in eastern Europe. Moscow could become more vociferous in opposing the US’s ballistic missile shield, or seek to cow the Baltic states into political submission, or push for the de jure separation of Moldova’s separatist region of Transdniestria.

**Balkan conflict spurs great power war**

Paris, 2 -- University of Colorado Political Science and International Affairs professor

(Roland Paris, Political Science Quarterly, Volume 117, Issue 3, Fall, Proquest)

Nevertheless, the phrase "powderkeg in the Balkans" would have carried historical significance for listeners who possessed even a casual knowledge of European history. Since the early part of the twentieth century, when instability in the Balkans drew in the great powers and provided the spark that ignited World War I, the region has been **widely known as a powderkeg**. In 1947, for instance, members of the International Court of Justice noted that the Balkans had been "so often described as the `powder-keg' of Europe."51 Today, the term continues to be attached to the region's politics, conjuring up memories of the origins of World War I.  The meaning of the powderkeg metaphor is straightforward: the Balkans **can explode at any time**, and the **resulting conflagration** can **spread to the rest of Europe;** preventing such an explosion is vital to the continent's, and perhaps even to American, security. When Clinton described Kosovo as a powderkeg, he warned that the Kosovo conflict might spill over not only to surrounding Balkan states, but **to Europe as a whole**; and he insinuated that the United States could be compelled to fight in such a pan-European conflict, just as it did in World Wars I and II. "

**Greece-Turkey conflict causes great power nuclear war**

Barber, 97 – writer for the Independent

(Tony, "Europe's coming war over Cyprus," Independent, 1-23-97, www.independent.co.uk/news/uk/europes-coming-war-over-cyprus-1284661.html, accessed 10-21-12, mss)

May 1998. Europe is getting twitchy. Twelve months of stop-start talks on ending the division of Cyprus have produced no results. Now the island's internationally recognised Greek Cypriot government wants the European Union to keep its promise and open talks on making Cyprus a full EU member. Germany and other countries argue that the EU would be mad to absorb a dispute as bitter and complicated as that in Cyprus. Just as EU foreign ministers sit down over lunch in Brussels to thrash out what to do, word arrives that four Greek Cypriots have been killed along the Green Line dividing government-held southern Cyprus from the Turkish-occupied north. The government, backed by Greece, retaliates by vowing to take delivery within a week of a batch of Russian S-300 anti- aircraft missiles ordered in January 1997. As a Russian-Greek naval convoy carrying the warheads and launchers edges towards the eastern Mediterranean, the Turkish armed forces swing into action. Troop reinforcements pour into northern Cyprus. Planes raid the Greek-built missile base near Paphos in south-western Cyprus. The Turkish navy prepares to blockade the island. Greece declares Turkey's actions a cause for war and, angry at lukewarm EU support, invokes the secret defence clause of a recently signed treaty with Russia. Fighting on Cyprus spreads to disputed Aegean islands on Turkey's coastline. The United States warns Russia not to get involved. President Alexander Lebed, with Chinese support, tells the US to mind its own business. All three powers go on nuclear alert. Like Cuba, another island involved in a missile dispute 36 years before, Cyprus has brought the world to **nuclear confrontation**. If the above scenario seems fantastic, bear in mind that much of it is already unfolding. First of all, the EU gave a cast-iron promise in 1995 to open accession talks with Cyprus, even though with hindsight some states regard the pledge as rash. "Anyone who wants to join the EU must know that the European Union cannot deal with the accession of new members that bring in additional external problems," Germany's foreign minister, Klaus Kinkel, said last Monday. This is to lock the stable door after the horse has bolted. Knowing that EU membership talks must start by about mid-1998, and encouraged by Greece, the Greek Cypriots feel they can play hard to get on a Cyprus settlement. Without major Turkish concessions, they will demand that southern Cyprus joins the EU on its own - a sure recipe for a crisis. Secondly, President Glafcos Clerides and Rauf Denktash, the Greek Cypriot and Turkish Cypriot leaders, may meet in spring to launch fresh peace talks. But even if such talks get under way - a big if - there is little reason to suppose they will be crowned with success. The diplomatic climate is too frosty, and both sides have a deeply entrenched belief that to blink first will be to lose. Thirdly, several clashes along the Green Line erupted last year, causing the deaths of four Greek Cypriots and one Turkish Cypriot. It was the most violent period on the island since the Turkish army's invasion in July 1974. Lastly, the Cyprus government says that the missiles it ordered from Russia will cost 200m Cyprus pounds (pounds 250m) and will arrive in 16 months - May 1998. According to a government spokesman, Yiannakis Cassoulides, the deal does not include a clause allowing Cyprus to cancel the order. Turkey says that its armed forces will attack the Greek Cypriots if they deploy the missiles, whose range enables them to destroy planes in mainland Turkish airspace. Turkey has also talked of imposing a naval blockade of Cyprus. According to one Nato diplomat with long experience of Turkey, these are not idle threats. "Turks can be incredibly stubborn in matters where they think the national interest is at stake. They've got to be taken seriously," the diplomat said. This week Turkish naval vessels are visiting northern Cyprus in a show of teeth-baring solidarity with the Turkish Cypriots. Turkish and Turkish Cypriot forces may also be combined for the first time at a new military base in the north. For its part, Greece's Socialist government is preparing a huge, 10-year modernisation of its armed forces that will cost 4,000bn drachmas (pounds 9.64bn), or almost pounds 1,000 for every man, woman and child in Greece. Greece has also tightened its military links with the Greek Cypriots, especially by creating a common defence space. In short, virtually all the ingredients for a bloody confrontation on Cyprus, sucking in Greece and Turkey, are present. The island is the world's most densely militarised confrontation zone. Like a dormant volcano that finally releases a torrent of fire and ash, Cyprus is poised to explode after 22 years of diplomatic stalemate and military stand-off. All outsiders, from the United States and the EU to the United Nations, recognise the dangers. Indeed, many see Greece and Turkey, whose mutual antagonism long predates their alliance in Nato, as the most likely contestants in Europe's next war. Some Western experts believe that conflict may break out over other Greek- Turkish tensions, notably the disputed Aegean islands. This issue brought Greece and Turkey close to war in January 1996.

**Perception of credible U.S. nuclear deterrent is key to Asian stability**

Medcalf ’13 – directs the international security program at the Lowy Institute in Sydney and is also a non-resident Senior Fellow with the Brookings Institution

(Rory, “A Nuclear Pivot to Asia?”, The Diplomat, 3-5-2013, http://thediplomat.com/flashpoints-blog/2013/03/05/a-nuclear-pivot-to-asia/)

The 2010 U.S. Nuclear Posture Review made sensible, logical steps towards a reduced reliance on nuclear weapons in America’s global posture, without critically damaging the confidence of allies protected by the U.S.’ so-called extended deterrence – America’s willingness to use force to protect them even from nuclear threats. An innovative set of extended deterrence dialogues with Japan and South Korea has helped in this regard.¶ But how will the further pursuit of Obama’s anti-nuclear vision interact with the worsening strategic dynamics in Asia in 2013 and beyond?¶ Japan and South Korea are unnerved by North Korea’s continued progress in its nuclear and missile programs. Japan’s strategic anxiety is deepened by the prospect of confrontation, perhaps even an armed clash, with China over disputed islands.¶ The full implications of sequestration on America’s conventional force posture in Indo-Pacific Asia remain far from clear. But they almost certainly **will add to the fears** of allies.¶ It is notable meanwhile that the White House’s response to the February 13th North Korean missile test included an explicit reassurance to Japan that it was covered by the U.S. extended nuclear deterrent. President Obama openly used the phrase nuclear umbrella, rather than the usual more euphemistic reference to something like “all means.” ¶ This is a grim reminder that, deep down, the security of Asia rests of American capability – and presumed willingness – to use nuclear threats or force in an extreme crisis. ¶ Does all of this mean that we can expect voices to gather in Seoul, Tokyo or even parts of the American debate advocating reemphasizing nuclear deterrence to keep the peace in Asia, even vis-à-vis China? ¶ I am not suggesting that there is any serious prospect of a physical nuclear pivot, for instance the redeployment of U.S. tactical nuclear weapons to Korea.¶ But the path to further limitations on the role of nuclear weapons in America’s Asia posture, such as an unequivocal no-first-use declaration or a willingness to drop down to nuclear parity with China’s small arsenal, is now even less clear than it was five years ago.¶ It may not amount to a nuclear pivot, but if America’s conventional superiority in Asia significantly declines, then the relative importance of its nuclear edge will rise – whether President Obama and disarmament visionaries like it or not.

**Asian instability causes nuclear war**

Landay ’00 – national security and intelligence correspondent

(Jonathan S. Landay, National Security and Intelligence Correspondent, “Top Administration Officials Warn Stakes for U.S. Are High in Asian Conflicts”, Knight Ridder/Tribune News Service, March 10, p. Lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

**Nuclear deterrence is key to global power projection**

Perry et al ’09 – CFR Scholars

(William Perry, Brent Scowcroft, and Charles Ferguson, Council on Foreign Relations Independent Task Force on Nuclear Weapons, “U.S. Nuclear Weapons Policy,” 2009, http://www.cfr.org/content/publications/attachments/Nuclear\_Weapons\_TFR62.pdf)

Consider a world in which the United States has the same global leadership responsibilities it now has, but does not have nuclear arms, though at least one adversary or potential adversary does. U.S. leaders would then constantly remain concerned about coercion from that state. The United States would not have the same power projection capabilities it currently enjoys. The Task Force believes that as long as the United States wants to maintain its global leadership, it will need enough nuclear arms to prevent nuclear blackmail from other nuclear-armed states. Determining what number and types of arms are adequate depends on geopolitical dynamics and, ultimately, on U.S. leadership in reducing nuclear dangers and addressing other states’ security concerns.

**Solves extinction**

**Barnett 11** (Thomas P.M, Former Senior Strategic Researcher and Professor in the Warfare Analysis & Research Department, Center for Naval Warfare Studies, U.S. Naval War College American military geostrategist and Chief Analyst at Wikistrat., worked as the Assistant for Strategic Futures in the Office of Force Transformation in the Department of Defense, “The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads,” March 7 <http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads>

It is worth first examining the larger picture: We live in a time of arguably the greatest structural change in the global order yet endured, with this historical moment's most amazing feature being its relative and **absolute lack of mass violence**. That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II. Let me be more blunt: As the guardian of globalization, the U.S. military has been the **greatest force for peace the world has ever known**. Had America been removed from the global dynamics that governed the 20th century, **the mass murder never would have ended**. Indeed, it's entirely conceivable there would now be no identifiable human civilization left, once nuclear weapons entered the killing equation. But the world did not keep sliding down that path of perpetual war. Instead, America stepped up and changed everything by ushering in our now-perpetual great-power peace. We introduced the international liberal trade order known as globalization and played loyal Leviathan over its spread. What resulted was the collapse of empires, an explosion of democracy, the persistent spread of human rights, the liberation of women, the doubling of life expectancy, a roughly 10-fold increase in adjusted global GDP and a profound and persistent reduction in battle deaths from state-based conflicts. That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as [the Facebook revolutions](http://www.worldpoliticsreview.com/articles/8089/the-realist-prism-politics-vs-social-media-in-the-arab-uprising) erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these calculations suggest a 90 percent absolute drop and a **99 percent** relative **drop in** deaths due to **war**. We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both **encourage and accommodate**. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms, **deeply embedded in the geometry** to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

## 2AC

### Deterrence

#### Even if they win squo supplies are fine, tritium requirements will spike in the future – more production now is key

Weitz ’12 – senior fellow and director of the Center for Political-Military Affairs at Hudson Institute

(Richard, “U.S. NUCLEAR WEAPONS STOCKPILE MANAGEMENT: AN UPDATE”, Second Line Of Defense, 6-24-2012, http://www.sldinfo.com/u-s-nuclear-weapons-stockpile-management-an-update/)

It was stated that the NNSA is moving toward non-destructive surveillance and sustainment of the entire stockpile. Currently, a small number of warheads of each type are removed from the stockpile each year for disassembly and testing. As part of this testing for most warhead types, one or more warheads may be destroyed.¶ The goal would be to inspect all stockpile warheads nondestructively every 15 years and resolve any identified problems. These “15-year touches” would also handle all the replacement of Limited Life Components (LLCs) such as tritium reservoirs, neutron generators, and radioisotope thermoelectric generators (nuclear batteries), eliminating the need to replace LLCs at other times.¶ This, in turn, would require increasing LLC lifetimes (e.g. by increasing the fill of tritium reservoirs to counteract the tritium lost to radioactive decay during the longer time between replacements).¶ A second reason for increasing the fill of the tritium reservoirs is to enhance the warhead reliability. (Tritium-deuterium fusion boosts the yield of the primary, so increasing the amount of tritium provides additional margin to ensure that the primary will have the minimum yield needed to initiate the secondary explosion.)

#### NNSA’s current plans won’t solve – tritium supplies are in trouble

GAO ’10

(“NUCLEAR WEAPONS¶ National Nuclear ¶ Security ¶ Administration Needs ¶ to Ensure Continued ¶ Availability of Tritium ¶ for the Weapons ¶ Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

NNSA’s inability to overcome the technical challenges and meet its ¶ original tritium production goals has raised serious questions about the ¶ agency’s ability to provide a reliable source of tritium to maintain the ¶ nation’s nuclear weapons stockpile in the future. While NNSA has taken ¶ steps to attempt to solve the tritium permeation problem, it is unlikely that ¶ anything less than a complete redesign of the TPBARs will solve the ¶ problem. Unfortunately, existing supplies of tritium in the stockpile and ¶ the tritium reserve are unlikely to fulfill requirements for the time a ¶ complete redesign would take. It is also not clear that a redesign would ¶ solve the problem since NNSA does not fully understand the reasons ¶ behind tritium permeation. Therefore, NNSA and TVA are working ¶ together to not only increase the number of TPBARs being irradiated in ¶ the Watts Bar 1 reactor but also to increase the number of reactors being ¶ used for the program. Increasing the number of TPBARs irradiated will ¶ also require substantial and costly modifications to TVA facilities to ensure ¶ that tritium emissions comply with applicable nuclear safety and ¶ environmental regulations. Because such modifications to the operation of ¶ TVA’s reactors must be approved by NRC, it is important that NNSA and ¶ TVA coordinate their efforts closely with the regulatory agency. In ¶ addition, it is critical that DOD—the ultimate customer of NNSA’s tritium ¶ production program—is also kept informed of the challenges facing the ¶ program and the impact of these challenges on current and future ¶ availability of tritium for the nuclear weapons stockpile.

#### NNSA will have to deplete its emergency reserves soon

GAO ’10

(“NUCLEAR WEAPONS¶ National Nuclear ¶ Security ¶ Administration Needs ¶ to Ensure Continued ¶ Availability of Tritium ¶ for the Weapons ¶ Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

NNSA currently meets the nuclear weapons stockpile requirements for ¶ tritium, but its ability to do so in the future is in doubt. NNSA officials told us ¶ that they will be able to meet future requirements through a combination of ¶ harvesting tritium obtained from dismantled nuclear warheads and irradiating ¶ TPBARs. Although the number of nuclear weapons in the U.S. stockpile is ¶ decreasing, these reductions are unlikely to result in a significant decrease of ¶ tritium requirements and will not eliminate the need for a reliable source of ¶ new tritium because of the need to periodically replenish it in the remaining ¶ nuclear weapons stockpile due to tritium’s decay. While NNSA has not, to ¶ date, been required to use tritium from a reserve that it maintains, use of this ¶ reserve in the relatively near future may be necessary if NNSA is unable to ¶ increase tritium production beyond its current level.

### Prizes CP

#### Congress would preempt

Hochberg et al 8

(ON PETITION FOR A WRIT OF CERTIORARI TO THE¶ UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT¶ USEC INC. and¶ UNITED STATES ENRICHMENT CORPORATION,¶ Petitioners,¶ v.¶ EURODIF S.A.; AREVA NC; AREVA NC, INC.;¶ AD HOC UTILITIES GROUP; and¶ UNITED STATES OF AMERICA,¶ Respondents.¶ SHELDON E. HOCHBERG¶ Counsel of Record¶ ERIC C. EMERSON¶ CHARLES G. COLE¶ MICHAEL A. VATIS¶ JOHN P. NOLAN¶ STEPTOE & JOHNSON LLP¶ 1330 Connecticut Avenue, N.W.¶ Washington, D.C. 20036¶ (202) 429-3000¶ Attorneys for Petitioners¶ USEC Inc. and United States¶ Enrichment Corporation, 2008, http://www.scotusblog.com/wp-content/uploads/2008/04/07-1078\_cert\_rep.pdf)

Similarly, Respondents suggest that the Government¶ could step in and supply the needs of the U.S. military if¶ USEC is forced out of business. Eurodif Br. at 21-22;¶ AHUG Br. at 26-27. But such a nationalization of USEC’s¶ operations would fly in the face of Congressional policy¶ reflected in the USEC Privatization Act, Pub. L. No.¶ 104-134, 110 Stat. 1321-35 (1996), that the production of¶ enriched uranium should be placed in the private sector.¶ Moreover, the Government could not take over USEC’s¶ operations solely to maintain production of fuel for the¶ military without also reinserting itself in the commercial¶ enrichment market.

### K

#### No prior questions – our justification for the 1AC is true

Owen ‘2 – reader of political theory

(David Owen, Reader of Political Theory at the Univ. of Southampton, Millennium Vol 31 No 3 2002 p. 655-7)

Commenting on the ‘philosophical turn’ in IR, Wæver remarks that ‘[a] frenzy for words like “epistemology” and “ontology” often signals this philosophical turn’, although he goes on to comment that these terms are often used loosely.4 However, loosely deployed or not, it is clear that debates concerning ontology and epistemology play a central role in the contemporary IR theory wars. In one respect, this is unsurprising since it is a characteristic feature of the social sciences that periods of disciplinary disorientation involve recourse to reflection on the philosophical commitments of different theoretical approaches, and there is no doubt that such reflection can play a valuable role in making explicit the commitments that characterise (and help individuate) diverse theoretical positions. Yet, such a philosophical turn is not without its dangers and I will briefly mention three before turning to consider a confusion that has, I will suggest, helped to promote the IR theory wars by motivating this philosophical turn. The first danger with the philosophical turn is that it has an inbuilt tendency to prioritise issues of ontology and epistemology over explanatory and/or interpretive power as if the latter two were merely a simple function of the former. But while the explanatory and/or interpretive power of a theoretical account is not wholly independent of its ontological and/or epistemological commitments (otherwise criticism of these features would not be a criticism that had any value), it is by no means clear that it is, in contrast, wholly dependent on these philosophical commitments. Thus, for example, one need not be sympathetic to rational choice theory to recognise that it can provide powerful accounts of certain kinds of problems, such as the tragedy of the commons in which dilemmas of collective action are foregrounded. It may, of course, be the case that the advocates of rational choice theory cannot give a good account of why this type of theory is powerful in accounting for this class of problems (i.e., how it is that the relevant actors come to exhibit features in these circumstances that approximate the assumptions of rational choice theory) and, if this is the case, it is a philosophical weakness—but this does not undermine the point that, for a certain class of problems, rational choice theory may provide the best account available to us. In other words, while the critical judgement of theoretical accounts in terms of their ontological and/or epistemological sophistication is one kind of critical judgement, it is not the only or even necessarily the most important kind. The second danger run by the philosophical turn is that because prioritisation **of ontology** and epistemologypromotes theory-construction from philosophical first principles, it cultivates **a** theory-driven rather than problem-driven approach to IR. Paraphrasing Ian Shapiro, the point can be put like this: since it is the case that there is always a plurality of possible true descriptions of a given action, event or phenomenon, the challenge is to decide which is the most apt in terms of getting a perspicuous grip on the action, event or phenomenon in question given the purposes of the inquiry; yet, from this standpoint, ‘theory-driven work is part of a reductionist program’ in that it ‘dictates always opting for the description that calls for the explanation that flows from the preferred model or theory’.5 The justification offered for this strategy rests on the mistaken belief that it is necessary for social science because general explanations are required to characterise the classes of phenomena studied in similar terms. However, as Shapiro points out, this is to misunderstand the enterprise of science since ‘whether there are general **explanations** for classes of phenomena **is a question** for social-scientific inquiry, not to be prejudged before conducting that inquiry’.6 Moreover, this strategy easily slips into the promotion of the pursuit of generality over that of empirical validity. The third danger is that the preceding two combine to encourage the formation of a particular image of disciplinary debate in IR—what might be called (only slightly tongue in cheek) ‘the Highlander view’—namely, an image of warring theoretical approaches with each, despite occasional temporary tactical alliances, dedicated to the strategic achievement of sovereignty over the disciplinary field. It encourages this view because the turn to, and prioritisation of, ontology and epistemology stimulates the idea that there can only be one theoretical approach which gets things right, namely, the theoretical approach that gets its ontology and epistemology right. This image feeds back into IR exacerbating the first and second dangers, and so a potentially vicious circle arises.

#### Extinction first – always VTL

Bernstein ‘2

(Richard J., Vera List Prof. Phil. – New School for Social Research, “Radical Evil: A Philosophical Interrogation”, p. 188-192)

There is a basic value inherent in **organic** being, a basic affirmation, "The Yes' of Life" (IR 81). 15 "The self-affirmation of being becomes emphatic in the opposition of life to death. Life is the explicit confrontation of being with not-being. . . . The 'yes' of all striving is here sharpened by the active `no' to not-being" (IR 81-2). Furthermore — and this is the crucial point for Jonas — this affirmation of life that is in all organic being has a binding obligatory force upon human beings. This blindly self-enacting "yes" gains obligating force in the seeing freedom of man, who as the supreme outcome of nature's purposive labor is no longer its automatic executor but, with the power obtained from knowledge, can become its destroyer as well. He must adopt the "yes" into his will and impose the "no" to not-being on his power. But precisely this transition from willing to obligation is the critical point of moral theory at which attempts at laying a foundation for it come so easily to grief. Why does now, in man, that become a duty which hitherto "being" itself took care of through all individual willings? (IR 82). We discover here the transition from is to "ought" — from the self-affirmation of life to the binding obligation of human beings to preserve life not only for the present but also for the future. But why do we need a new ethics? The subtitle of The Imperative of Responsibility — In Search of an Ethics for the Technological Age — indicates why we need a new ethics. Modern technology has transformed the nature and consequences of human action so radically that the underlying premises of traditional ethics are no longer valid. For the first time in history human beings possess the knowledge and the power to destroy life on this planet, including human life. Not only is there the new possibility of total nuclear disaster; there are the even more invidious and threatening possibilities that result from the unconstrained use of technologies that can destroy the environment required for life. The major transformation brought about by modern technology is that the consequences of our actions frequently exceed by far anything we can envision. Jonas was one of the first philosophers to warn us about the unprecedented ethical and political problems that arise with the rapid development of biotechnology. He claimed that this was happening at a time when there was an "ethical vacuum," when there did not seem to be any effective ethical principles to limit ot guide our ethical decisions. In the name of scientific and technological "progress," there is a relentless pressure to adopt a stance where virtually anything is permissible, includ-ing transforming the genetic structure of human beings, as long as it is "freely chosen." We need, Jonas argued, a new categorical imperative that might be formulated as follows: "Act so that the effects of your action are compatible with the permanence of genuine human life"; or expressed negatively: "Act so that the effects of your action are not destructive of the future possibility of such a life"; or simply: "Do not compromise **the conditions for** an indefinite continuation of humanity on earth**"; or again turned positive:** "In your present choices, include the future wholeness of Man among the objects of your will."

#### Affirming the theory of the Aff is critical to prevent nuclear war

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear ¶ Deterrence ¶ in the 21st ¶ Century¶ Lessons from the Cold War ¶ for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, ¶ pg 9-11)

One of its most important tasks is to keep humanity within the boundaries of acceptable historical experiences. 3 Sixty-seven years after 1945, most would consider a nuclear attack to be beyond those boundaries. The variety of nuclear actors, the proliferation of cruise and ballistic missiles, thermonuclear weapons, and radical ideologies have transformed the nuclear scene to a considerable extent since the end of World War II. Whether thinking on nuclear weapons has followed a similarly impressive path, particularly since the dissolution of the USSR, is questionable. There are numerous analyses and studies, but they do not match the quality and pertinence of those of the Cold War vintage. While nuclear deterrence attracted an abundance of intellectual attention during the Cold War, since the 1950s there has been a decline in thinking on this subject even as the risk of nuclear use has been rising. The absolute necessity of preventing extreme violence among states (as opposed to nonstate actors) has receded in our minds, even though it is prominent in our speeches. Humanity does not learn much from events that do not happen. In a way, the very success of the deterrence enterprise during the Cold War undermined its principal gain: Since no nuclear exchange took place, the notion of nuclear weapons as a threat to our survival lost a good deal of force and a sense of urgency. Ideas have consequences. So does a lack of them. During the Cold War, a mixture of deterrence, containment, conventional capabilities, and arms control seemed successful in preventing a nuclear exchange with the Soviets. Luck may have played a part as well. 4 Today’s nuclear dangers seem to pale in comparison with those of the Cold War. They pale even when compared with those of the 1990s, when Russia was weak, with a considerable and poorly guarded nuclear stockpile and nuclear scientists and military officials reduced to poverty. At the time, a substantial effort was launched to secure Russia’s weapons, nuclear materials, and scientists. New problems are arising now: nuclear terrorism; radical Islamists challenging the Islamabad government; the ability of nonstate actors to bring India and Pakistan to the brink of war; asymmetric nuclear threats coming from Iran and North Korea; 5 Pakistan’s, Iran’s, and North Korea’s nuclear and missile proliferation nexus; and China increasingly asserting its military achievements—including its nuclear, ballistic missile, cyber, and space achievements. 6 While many in the West tend to see nuclear weapons as instruments of the past, other actors view them as weapons of the future. There are obvious gaps in Western thinking and some disregard for those gaps. However unpleasant, it is imperative to address these. To start with, consider the following reasons why another look at nuclear deterrence is important in the 21st century. The first is obvious: In an era of extraordinary uncertainty, turmoil, and upheavals, it is good to keep a clear mind about the most dangerous strategic situations contemporary leaders may face. There is little doubt that a nuclear crisis—or, worse, a nuclear attack—whether effected by a nation-state or a nonstate actor, would be a critical situation. It should be considered unlikely, but as long as it appears even remotely possible, the difficult choices that would be required from governments ought to be understood for what they are, particularly in democratic societies. Such choices are “deeply baffling even to the ablest minds,” as Bernard and Fawn Brodie wrote in From Crossbow to H-Bomb. 7 The “unthinkable” 8 may have become less unlikely in practice since reckless actors are entering the nuclear arena, but it is becoming increasingly unlikely in Western minds at a time when even the political capacity of tolerating military casualties is questionable. Foreign policy, notably Western foreign policy, continues to be made under the shadow of a nuclear strategy that is almost forgotten or that is becoming empty. The consequence is that our ability to face a nuclear attack effectively may be slipping through our fingers. If this is true, what the strategic planning community can contribute toward preventing this loss (or preparing to deal with it, if necessary) is to revitalize nuclear thinking. This does not call for any specific doctrine but for a top-quality intellectual debate on the concepts, old and new; on the crises, old and new; and on the actors, whether they played a part on the nuclear scene in the past or are only just now entering it, sometimes with masks on their faces.

#### A stable system of deterrence prevents nuclear war – it create a stable ontological context for interaction and expectations

Lupovici 8 (Amir, Post-Doctoral Fellow Munk Centre for International Studies, Why the Cold War Practices of Deterrence are Still Prevalent: Physical Security, Ontological Security and Strategic Discourse, [http://www.cpsa-acsp.ca/ papers-2008/Lupovici.pdf](http://www.cpsa-acsp.ca/papers-2008/Lupovici.pdf), AD: 9/22/10) jl

Since deterrence can become part of the actors’ identity, it is also involved in the actors’ will to achieve ontological security, securing the actors’ identity and routines. As McSweeney explains, ontological security is “the acquisition of confidence in the routines of daily life—the essential predictability of interaction through which we feel confident in knowing what is going on and that we have the practical skill to go on in this context.” These routines become part of the social structure that **enables and constrains** the **actors’ possibilities** (McSweeney, 1999: 50-1, 154-5; Wendt, 1999: 131, 229-30). Thus, through the emergence of the deterrence norm and the construction of deterrence identities, the actors create an intersubjective context and intersubjective understandings that in turn affect their interests and routines. In this context, deterrence strategy and deterrence practices are better understood by the actors, and therefore the continuous avoidance of violence is more easily achieved. Furthermore, within such a context of deterrence relations, rationality is (re)defined, clarifying the appropriate practices for a rational actor, and this, in turn, reproduces this context and the actors’ identities. Therefore, the internalization of deterrence ideas helps to explain how actors may create more cooperative practices and **break away** from the spiral of hostility that is forced and maintained by the identities that are attached to the **security dilemma**, and which lead to mutual perception of the other as an aggressive enemy. As Wendt for example suggests, in situations where states are **restrained from** using **violence**—such as MAD (mutual assured destruction)—states not only avoid violence, but “ironically, may be willing to **trust each other** enough to take on collective identity”. In such cases if actors believe that others have no desire to engulf them, then it will be easier to trust them and to identify with their own needs (Wendt, 1999: 358-9). In this respect, the norm of deterrence, the trust that is being built between the opponents, and the (mutual) constitution of their role identities may all lead to the creation of long term influences that preserve the practices of deterrence as well as the avoidance of violence. Since a basic level of trust is needed to attain ontological security,21 the existence of it may further strengthen the practices of deterrence and the actors’ identities of deterrer and deterred actors. In this respect, I argue that for the reasons mentioned earlier, the practices of deterrence should be understood as providing both physical and ontological security, thus refuting that there is necessarily tension between them. Exactly for this reason I argue that Rasmussen’s (2002: 331-2) assertion—according to which MAD was about enhancing ontological over physical security—is only partly correct. Certainly, MAD should be understood as providing ontological security; but it also allowed for physical security, since, compared to previous strategies and doctrines, it was all about decreasing the physical **threat of nuclear weapons**. Furthermore, the ability to increase one dimension of security helped to enhance the other, since it strengthened the actors’ identities and created more stable expectations of **avoiding violence**.

#### These studies show the basic assumption of nuclear deterrence is correct

**Rauchhaus 09**

(Rauchhaus, Robert. “Evaluating the Nuclear Peace Hypothesis: A Quantitative Approach,” Journal of Conflict Resolution, 2/5/09 jcr.sagepub.com/cgi/content/abstract/53/2/258>)

Although the Cold War was often fierce, especially in the developing world where it frequently played out, it never managed to escalate to World War III. Indeed, with the benefit of hindsight, this has prompted some to argue that Cold War is better thought of as the “Long Peace” (Gaddis 1986; Gaddis 1987; Kegley 1991).1 Despite the worries of some, the collapse of the Soviet Union and the end of bipolarity has not, or at least has not yet, undermined the Long Peace. At present, **we remain in the longest period of great power peace since the advent of the modern state system**. Despite the mutation of violence into other forms, we can point to World War II as a watershed event that was followed by a sixty year decline in battle deaths from interstate war (Human Security Report 2005; Lacina, Gleditsch, and Russett 2006).2 What is responsible for the Long Peace over the last six decades? The three main approaches to international relations (IR) have each offered answers to this question.3 The most widely cited explanation is that of neo-liberals. Building on Kant’s Perpetual Peace (1795), modern liberals point to democracy (Maoz and Russett 1993), trade (Keohane and Nye 1977), and international organizations (Keohane 1984) as key causes of peace. As a related approach, constructivism also views democracy, trade, and international organizations as important factors, but it parts company with neo-liberalism by attributing the root cause of the Long Peace to evolving norms and the social construction of identity (Katzenstein 1996; Wendt 1992; Wendt 1999).4 Neo-realism, in contrast, is fundamentally at odds with both approaches and rejects the importance of the Kantian Tripod and evolving norms. Instead, the Long Peace is generally attributed to absence of multi-polarity and the presence of nuclear weapons (Waltz 1979; Waltz 1990). 5 In recent years, neo-liberal explanations of the Long Peace have received the most rigorous empirical scrutiny.6 Realist explanations including the distribution of power, system polarity, and alliance systems have also received considerable attention.7 Surprisingly, the nuclear peace hypothesis—one of the central tenants of realist explanations for the Long Peace— has received relatively little quantitative scrutiny. Scholars have employed case studies, counter- factual analysis, and formalized their arguments with game theory, but to date Geller (1990) and Aral and Beardsley (2007) remain two of the only studies to quantitatively evaluate the effects of nuclear weapons. Although both of these studies make important contributions to our understanding of nuclear deterrence, more work needs to be done. The central purpose of this paper is to offer an empirical answer to the question: do nuclear weapons reduce the probability of war? To answer this question, this project borrows heavily from the last 15 years of work on the democratic peace. Building on the dataset and research design by Oneal, Russett, and Berbaum (2003), this paper quantitatively evaluates the nuclear peace hypothesis. Dyad year data from the full population of cases from the 1885-1992 period is modified to include information on nuclear states. The results presented below indicate that the impact of nuclear weapons is more complicated than is conventionally appreciated. Both proliferation optimists (Waltz 1981) and pessimists (Sagan 1994) will find confirmation of some of their key claims. **When a nuclear asymmetry exists between two states, there is a greater chance of militarized disputes and war. In contrast, when there is symmetry and both states possess nuclear weapons, then the odds of war precipitously drop**.

### DA – Coercion

#### Turn—focus on autonomy trades off with broader conceptions of freedom

**Gaylin and Jennings ‘96**

(William, psychoanalytic medicine professor at Columbia, president of Hastings Center and Bruce, director of Center for Humans and Nature, The Perversion of Autonomy: the proper uses of coercion and constraints in a liberal society. Page 9. New York, NY, The Free Press, 1996)

A too-rigid defense of autonomy will interfere with more sophisticated concepts of freedom. It is hard to imagine a paranoid schizophrenic living in the streets of New York, or a drug addict, as being a "free agent." When logical analysis leads to conclusions that affront the common sense of a vast majority of knowledgeable people, their common sense must be respected. What must be examined is the "logic" underlying the contradicting analysis. Examples such as these are not quirks or marginal instances of ex­treme views. They generally represent what is becoming the vision of America: a vision of the autonomous self in a voluntary society. How has autonomy come to triumph in this way? A definitive and thor­ough historical explanation of this development has not yet emerged, although aspects of the problem that we have found help­ful and suggestive can be found in works by David Riesman, Robert Bellah and colleagues, and E. J. Dionne, among others.3 In any case, the task we have set ourselves in this book is less to explain the cul­ture of autonomy than to take its moral pulse and to diagnose its un­derlying blind spots and misconceptions. Nor will we attempt to document or demonstrate the pervasiveness of autonomy in some empirical or social scientific way. We offer instead an interpretation based on observation and examples drawn from the world of every­day life which will be, we hope, familiar to most readers.

#### Ethics of Consequences is key to political responsibility and freedom.

**Williams 2005**

(Michael, Professor of International Politics at the University of Wales—Aberystwyth, The Realist Tradition and the Limits of International Relations, p. 174-176)

A commitment to an ethic of consequences reflects a deeper ethic of criticism, of ‘self-clarification’, and thus of reflection upon the values adopted by an individual or a collectivity. It is part of an attempt to make critical evaluation an intrinsic element of responsibility. Responsibility to this more fundamental ethic gives the ethic of consequences meaning. Consequentialism and responsibility are here drawn into what Schluchter, in terms that will be familiar to anyone conversant with constructivism in International Relations, has called a ‘reflexive principle’. In the wilful Realist vision, scepticism and consequentialism are linked in an attempt to construct not just a more substantial vision of political responsibility, but also the kinds of actors who might adopt it, and the kinds of social structures that might support it. A consequentialist ethic is not simply a choice adopted by actors: it is a means of trying to foster particular kinds of self-critical individuals and societies, and in so doing to encourage a means by which one can justify and foster a politics of responsibility. The ethic of responsibility in wilful Realism thus involves a commitment to both autonomy and limitation, to freedom and restraint, to an acceptance of limits and the criticism of limits. Responsibility clearly involves prudence and an accounting for current structures and their historical evolution; but it is not limited to this, for it seeks ultimately the creation of responsible subjects within a philosophy of limits. Seen in this light, the Realist commitment to objectivity appears quite differently. Objectivity in terms of consequentialist analysis does not simply take the actor or action as given, it is a political practice — an attempt to foster a responsible self, undertaken by an analyst with a commitment to objectivity which is itself based in a desire to foster a politics of responsibility. Objectivity in the sense of coming to terms with the ‘reality’ of contextual conditions and likely outcomes of action is not only necessary for success, it is **vital for self-reflection**, for sustained engagement with the practical and ethical adequacy of one’s views. The blithe, self-serving, and uncritical stances of abstract moralism or rationalist objectivism avoid self-criticism by refusing to engage with the intractability of the world ‘as it is’. **Reducing the world** to an expression of their theoretical models, political platforms, or ideological programmes, they fail to engage with this reality, and thus avoid the process of self-reflection at the heart of responsibility. By contrast, Realist objectivity takes an engagement with this intractable ‘object’ that is not reducible to one’s wishes or will as a necessary condition of ethical engagement, self-reflection, and self-creation.7 Objectivity is not a naïve naturalism in the sense of scientific laws or rationalist calculation; it is a necessary engagement with a world that eludes one’s will. A recognition of the limits imposed by ‘reality’ is a condition for a recognition of one’s own limits — that **the world is not simply an extension of one’s own will.** But it is also a challenge to use that intractability as a source of possibility, as providing a set of openings within which a suitably chastened and yet paradoxically energised will to action can responsibly be pursued. In the wilful Realist tradition, the essential opacity of both the self and the world are taken as limiting principles. Limits upon understanding provide chastening parameters for claims about the world and actions within it. But they also provide challenging and creative openings within which diverse forms of life can be developed: the limited unity of the self and the political order is the **precondition for freedom**. The ultimate opacity of the world is not to be despaired of: it is a condition of possibility for the wilful, creative construction of selves and social orders which embrace the diverse human potentialities which this lack of essential or intrinsic order makes possible.8 But it is also to be aware of the less salutary possibilities this involves. Indeterminacy is not synonymous with absolute freedom — it is both a condition of, and imperative toward, responsibility.

### DA – South Korea

#### Aff controls the Korea impact

Santoro ’13 – senior fellow for Nonproliferation and Disarmament at the Pacific Forum CSIS.

(David, “Cool heads deter North Korea”, Asia Times, 3-1-2013, http://www.atimes.com/atimes/Korea/KOR-01-010313.html)

North Korea's successful launch of a long-range rocket, its third nuclear test, and threats to follow up with even "stronger steps" and the "final destruction" of South Korea are raising serious questions among America's Northeast Asian allies. So is China's growing assertiveness over the Senkaku/Diaoyu Islands in the East China Sea. The most fundamental question is this: is US extended deterrence failing? ¶ The short answer is no. US extended deterrence, which underpins America's alliances with South Korea and Japan, is working well. Its boundaries, however, are being dangerously tested, which demands urgent improvement of alliance coordination and cooperation. ¶ Extended deterrence (ED) is a by-product of deterrence. Deterrence means preventing aggression or coercion against¶ one's vital interests by threatening to defeat or punish an adversary; although it has been mainly conducted with nuclear threats, non-nuclear capabilities have played a greater role over time, particularly missile defense, counterforce assets, and advanced conventional weaponry. ED simply means providing the same level of protection to an ally, with the same deterrent threats. To work, therefore, ED requires the United States to deter its allies' adversaries and to assure its allies that it has the capabilities and intentions to do so. That is why ED is said to have both deterrence and assurance missions. ¶ Successful deterrence of adversaries can only be measured in the negative: the absence of aggression against US allies' vital interests suggests that deterrence works. Successful assurance of allies is more difficult to measure because it depends on numerous variables. A key indicator of success, however, is allies' readiness to forego certain capabilities, notably nuclear weapons, and rely instead on their US ally to provide them. ¶ Some argue that North Korea's nuclear and missile developments means that deterrence of Pyongyang is failing. They point to the North Korean provocations of 2010, notably the sinking of the Cheonan, a South Korean corvette, and the shelling of Yeonpyeong Island, as proof. ¶ This is misleading and a mistake. Since the Korean Armistice Agreement that ended the fighting on the Peninsula in 1953, North Korea has been deterred from conducting another invasion of the South. ED has been so successful that an invasion appears inconceivable today. Similarly, leaders in Pyongyang know that launching a massive, let alone nuclear, strike campaign on Seoul or Tokyo would be suicidal. Again, ED has kept them in check. ¶ Granted, ED has not prevented the provocations of 2010 (and others before that), but it is a mistake to expect it to prevent low-level attacks. Remember, ED is meant to prevent aggression against allies' vital interests. Of course, as its nuclear and missile capabilities improve, there is a risk that Pyongyang feels increasingly confident that it can launch low-level attacks and control escalation. ¶ This is worrisome because escalation control is never guaranteed and misunderstandings, miscalculations, and mistakes are always possible. The good news, however, is that even this dynamic suggests that ED works. Although its boundaries are being tested, it still deters major conflicts that challenge US allies' vital interests.

#### Also Iran

Carpenter 12/4/12 (Ted Galen, Mideast Flashpoints,“The pernicious myth that Iran can’t be deterred”)

There are several problems with that thesis. First, Ahmadinejad is hardly the most powerful figure in the Iranian political system. That’s why the all-too-frequent comparisons of Ahmadinejad to Adolf Hitler are especially absurd. The real power in Iran is held by the Ayatollah Ali Khamenei and his inner circle of senior clerics. And members of that leadership elite have publicly rebuked Ahmadinejad for devoting too much time and energy to the issue of the 12th Imam. Second, the return of the Mahdi in the midst of an apocalypse is scarcely a unique religious myth. Most major religions have an “end of the world” mystic scenario involving a savior. Christianity, for example, has the Book of Revelations, with the appearance of the four horsemen of the Apocalypse, Armageddon, and the second coming of Jesus Christ. Given the influence of Christianity among American political leaders, foreign critics could make the case that the United States cannot be trusted with nuclear weapons, because a devout Christian leader who believed Revelations would be tempted to bring about Armageddon. The reality is that leaders in any political system usually prefer to enjoy the riches and other perks of this life rather than seek to bring about prematurely the speculative benefits of a next life. There is no credible evidence that the Iranian leadership deviates from that norm. And those leaders certainly know that a nuclear attack on Israel, the United States, or Washington’s NATO allies would trigger a devastating counter-attack that would end their rule and obliterate Iran as a functioning society. It is appropriate to demand that hawks produce evidence - not just allegations - that deterrence is inapplicable because Iranian leaders are suicidal. But one will search in vain for such evidence in the thirty-three years that the clerical regime has held power. There is, in fact, an abundance of counter-evidence. Meir Dagan, the former head of Israel’s Mossad intelligence agency, has stated that he considers Iran’s leaders - including Ahmadinejad - “very rational”. Tehran’s behavior over the years confirms that assessment. During the early stages of the Iraq-Iran war in the 1980s, the Ayatollah Khomeini said that he would “never make peace” with Saddam Hussein. But when the war dragged on for years and the correlation of forces turned against Iran, the country’s military leaders persuaded Khomeini and the clerical elite to conclude a compromise peace. That’s hardly the behavior of an irrational, suicidal political system. Indeed, there is strong evidence that Iranian leaders understand that there are red lines that they dare not cross. One of the specters that Western hawks create is that Iran would transfer nuclear weapons to non-state terrorist groups. But Iran has had chemical weapons in its arsenal since the days of the Shah. There is not a shred of evidence that Tehran has passed on such weapons to any of its political clients, including Hezbollah and Hamas. Given the visceral hatred those organizations harbor toward Israel, it is nearly certain that they would have used chemical weapons against Israeli targets if Iran had ever put them in their hands. Again, it certainly appears that deterrence neutralized any temptation Tehran might have had to engage in reckless conduct. A more rational fear than the notion that Iran would commit suicide by launching a nuclear attack against adversaries who have vast nuclear arsenals, or even that Iran would court a similar fate by supplying terrorist groups with nukes, is the thesis that Tehran would exploit a nuclear shield to then bully its neighbors. But even that fear is greatly exaggerated. As Cato Institute scholar Justin Logan points out in the April issue of The American Conservative, Iran’s conventional forces are weak and the country’s power projection capabilities are meager. A nuclear Iran likely would be capable of deterring a US attack on its homeland - attacks that the United States has a habit of launching against non-nuclear adversaries like Serbia, Iraq and Libya - but such a capability would not translate into Iranian domination of the Middle East. That nightmare scenario is only a little less overwrought than the other theories about the “Iranian threat.” A counter-proliferation war against Iran is profoundly ill-advised. At a minimum it would create even more instability in the Middle East. At worst, it could trigger a regional conflagration. That would be an unspeakable tragedy, and it is certainly not a risk that should be undertaken because of faulty - if not ludicrous - assumptions that the logic of deterrence would not apply to Iran.

#### No link—Obama won’t push for no-ENR pledges

**Lugar 12**

Richard G. Lugar, former member of the Senate Foreign Relations Committee and coauthor of the Nunn-Lugar Cooperative Threat Reduction program, 2/21/12, Obama's Nuclear Misstep, nationalinterest.org/commentary/obamas-nuclear-mistake-6548

However, the United States and the United Arab Emirates took an important joint step forward when they concluded a nuclear pact that, for the first time, contained a commitment from the receiving country that it would neither enrich nor reprocess on its territory. This 123 agreement became known as "the Gold Standard."

My hope was that this agreement, done entirely outside of the requirements of existing law and in a bipartisan manner across the Bush and Obama administrations, would form a new basis for U.S. nuclear trade and internationalize the sound decision made by the UAE and the United States. Such a model could become a bulwark against further countries engaging in enrichment and reprocessing. Thus, it also could have meant fewer places for potential proliferators to gain access to such technology and materials.

Instead of making it a requirement for all new agreements, however, the administration announced in a recent letter to me that it has opted for a "case-by-case" approach with regard to the Gold Standard in new 123 agreements. I fear **this means there will be few cases in which we shall see its return**.

#### South Korea’s given up on pyroprocessing in the new agreement—no impact

NTI 12

[“U.S. Reluctant to Permit South Korean Fuel Reprocessing, Envoy Says”, NTI, 3-8-2012, http://www.nti.org/gsn/article/south-korea-not-expecting-us-permit-fuel-reprocessing-envoy-says/]

The United States remains reluctant to permit South Korea to recycle used atomic fuel due to "deep-rooted" fears the reprocessing technology might be turned to military use, an unidentified South Korean diplomat told the Yonhap News Agency on Thursday (see GSN, Dec. 12, 2011). Resistance on the part of U.S. officials to allowing Seoul to use pyroprocessing technology is the result of persistent "distrust" over South Korea's secret nuclear weapons program in the early 1970s, said the source who is taking part in bilateral negotiations on the matter. Faced with strong opposition from Washington, the South abandoned the weapons effort and joined the Nuclear Nonproliferation Treaty in 1975. Seoul and Washington are negotiating a bilateral civilian atomic cooperation accord to take the place of an existing deal due to expire in 2014. The two allies have conducted five sessions of official talks for the updated agreement. "In spite of our repeated willingness for nonproliferation during the talks, U.S. negotiators remain reluctant to recognize our technology due to the deep-rooted mistrust over the short-lived nuclear program under the Park Jung-hee government," the South Korean diplomat said. South Korea has decided to cease lobbying for pyroprocessing rights and to instead seek treaty provisions regarding sales of atomic energy reactors, the envoy said. "Little progress was made on the issue of whether the revised accord would include the pyroprocessing technology," he said.

### DA – Funding

#### No impact

**Dickson 9** – Director of Science Development online (David, “The limits of science diplomacy”, http://www.scidev.net/en/editorials/the-limits-of-science-diplomacy.html)

**Using science for diplomatic purposes has obvious attractions and several benefits. But there are limits** to what it can achieve. The scientific community has a deserved reputation for its international perspective — scientists often ignore national boundaries and interests when it comes to exchanging ideas or collaborating on global problems. So it is not surprising that science attracts the interest of politicians keen to open channels of communication with other states. Signing agreements on scientific and technological cooperation is often the first step for countries wanting to forge closer working relationships. More significantly, scientists have formed key links behind-the-scenes when more overt dialogue has been impossible. At the height of the Cold War, for example, scientific organisations provided a conduit for discussing nuclear weapons control. Only so much science can do Recently, the Obama administration has given this field a new push, in its desire to pursue "soft diplomacy" in regions such as the Middle East. Scientific agreements have been at the forefront of the administration's activities in countries such as Iraq and Pakistan. But — as emerged from a meeting entitled New Frontiers in Science Diplomacy, held in London this week (1–2 June) — **using science for diplomatic purposes is not as straightforward as it seems.** Some scientific collaboration clearly demonstrates what countries can achieve by working together. For example, a new synchrotron under construction in Jordan is rapidly becoming a symbol of the potential for teamwork in the Middle East. But whether scientific cooperation can become a precursor for political collaboration is less evident. For example, despite hopes that the Middle East synchrotron would help bring peace to the region, several countries have been reluctant to support it until the Palestine problem is resolved. Indeed, one speaker at the London meeting (organised by the UK's Royal Society and the American Association for the Advancement of Science) even suggested that the changes scientific innovations bring inevitably lead to turbulence and upheaval. In such a context, viewing science as a driver for peace may be wishful thinking. Conflicting ethos Perhaps the most contentious area discussed at the meeting was how science diplomacy can frame developed countries' efforts to help build scientific capacity in the developing world. There is little to quarrel with in collaborative efforts that are put forward with a genuine desire for partnership. Indeed, partnership — whether between individuals, institutions or countries — is the new buzzword in the "science for development" community. But true partnership requires transparent relations between partners who are prepared to meet as equals. And that goes against diplomats' implicit role: to promote and defend their own countries' interests. John Beddington, the British government's chief scientific adviser, may have been a bit harsh when he told the meeting that a diplomat is someone who is "sent abroad to lie for his country". But he touched a raw nerve. Worlds apart yet co-dependent The truth is that science and politics make an uneasy alliance. Both need the other. Politicians need science to achieve their goals, whether social, economic or — unfortunately — military; scientists need political support to fund their research. But they also occupy different universes. Politics is, at root, about exercising power by one means or another. Science is — or should be — about pursuing robust knowledge that can be put to useful purposes. A strategy for promoting science diplomacy that respects these differences deserves support. Particularly so if it focuses on ways to leverage political and financial backing for science's more humanitarian goals, such as tackling climate change or reducing world poverty. **But a commitment to science diplomacy that ignores the differences — acting for example as if science can substitute politics** (or perhaps more worryingly, vice versa**), is dangerous**. The Obama administration's commitment to "soft power" is already faltering. It faces challenges ranging from North Korea's nuclear weapons test to domestic opposition to limits on oil consumption. **A taste of reality may be no bad thing.**

#### Secretary override solves the link

Hogan 12 – Deputy Assistant Secretary for Energy Efficiency, Office of Technology Development, Energy Efficiency and Renewable Energy (Kathleen B., 02/08, “Department of Energy,” PDF)

In the 2012 Consolidated Appropriations Act, Congress provided $65 million for allocation to WAP grantees - a funding level that is less than one-third of the amount recently provided through appropriations for the Program. Congress also provided the Secretary of Energy with the authority in PY 2012 to use a methodology other than the formula established in regulation to distribute the available funding. The Secretary is exercising this authority. The PY 2012 allocation is intended to create WA? funding in PY 2012 comparable to funding levels prior to the American Recovery and Reinvestment Act of 2009 (ARRA). The allocation uses a results oriented strategy that considers remaining fund balances grantees may have from the ARRA and prior year DOE Appropriations to distribute the Fiscal Year (FY) 2012 WAP Appropriations.

### DA – Politics

#### No risk of cyber war – and deterrence turns it

**Clark ’12** (MA candidate – Intelligence Studies @ American Military University, senior analyst – Chenega Federal Systems, 4/28/’12

(Paul, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack,” American Military University)

The Department of Homeland Security worries that our critical infrastructure and key resources (CIKR) may be exposed, both directly and indirectly, to multiple threats because of CIKR reliance on the global cyber infrastructure, an infrastructure that is under routine cyberattack by a “spectrum of malicious actors” (National Infrastructure Protection Plan 2009). CIKR in the extremely large and complex U.S. economy spans multiple sectors including agricultural, finance and banking, dams and water resources, public health and emergency services, military and defense, transportation and shipping, and energy (National Infrastructure Protection Plan 2009). The disruption and destruction of public and private infrastructure is part of warfare, without this infrastructure conflict cannot be sustained (Geers 2011). Cyber-attacks are desirable because they are considered to be a relatively “low cost and long range” weapon (Lewis 2010), but prior to the creation of Stuxnet, the first cyber-weapon, the ability to disrupt and destroy critical infrastructure through cyber-attack was theoretical. The movement of an offensive cyber-weapon from conceptual to actual has forced the United States to question whether offensive cyber-attacks are a significant threat that are able to disrupt or destroy CIKR to the level that national security is seriously degraded. It is important to understand the risk posed to national security by cyber-attacks to ensure that government responses are appropriate to the threat and balance security with privacy and civil liberty concerns. The risk posed to CIKR from cyber-attack can be evaluated by measuring the threat from cyber-attack against the vulnerability of a CIKR target and the consequences of CIKR disruption. As the only known cyber-weapon, Stuxnet has been **thoroughly analyzed** and **used as a model** for predicting future cyber-weapons. The U.S. electrical grid, a key component in the CIKR energy sector, is a target that has been analyzed for vulnerabilities and the consequences of disruption predicted – the electrical grid has been used in multiple attack scenarios including a classified scenario provided to the U.S. Congress in 2012 (Rohde 2012). Stuxnet will serve as the weapon and the U.S. electrical grid will serve as the target in this risk analysis that concludes that there is a low risk of disruption or destruction of critical infrastructure from a an offensive cyber-weapon because of the complexity of the attack path, the limited capability of non-state adversaries to develop cyber-weapons, and the existence of multiple methods of mitigating the cyber-attacks. To evaluate the threat posed by a Stuxnet-like cyber-weapon, the complexity of the weapon, the available attack vectors for the weapon, and the resilience of the weapon must be understood. The complexity – how difficult and expensive it was to create the weapon – identifies the relative cost and availability of the weapon; inexpensive and simple to build will be more prevalent than expensive and difficult to build. Attack vectors are the available methods of attack; the larger the number, the more severe the threat. For example, attack vectors for a cyberweapon may be email attachments, peer-to-peer applications, websites, and infected USB devices or compact discs. Finally, the resilience of the weapon determines its availability and affects its usefulness. A useful weapon is one that is resistant to disruption (resilient) and is therefore available and reliable. These concepts are seen in the AK-47 assault rifle – a simple, inexpensive, reliable and effective weapon – and carry over to information technology structures (Weitz 2012). The evaluation of Stuxnet identified malware that is “unusually complex and large” and required code written in multiple languages (Chen 2010) in order to complete a variety of specific functions contained in a “vast array” of components – **it is one of the most complex threats ever analyzed by Symantec** (Falliere, Murchu and Chien 2011). To be successful, Stuxnet required a **high** **level of technical knowledge across multiple disciplines**, a laboratory with the target equipment configured for testing, and a foreign intelligence capability to collect information on the target network and attack vectors (Kerr, Rollins and Theohary 2010). The malware also needed careful monitoring and maintenance because it could be easily disrupted; as a result Stuxnet was developed with a high degree of configurability and was upgraded multiple times in less than one year (Falliere, Murchu and Chien 2011). Once introduced into the network, the cyber-weapon then had to utilize four known vulnerabilities and four unknown vulnerabilities, known as zero-day exploits, in order to install itself and propagate across the target network (Falliere, Murchu and Chien 2011). Zero-day exploits are **incredibly difficult to find** and fewer than twelve out of the 12,000,000 pieces of malware discovered each year utilize zero-day exploits and this rarity makes them valuable, zero-days can fetch $50,000 to $500,000 each on the black market (Zetter 2011). The use of four rare exploits in a single piece of malware is “unprecedented” (Chen 2010). Along with the use of four unpublished exploits, Stuxnet also used the “first ever” programmable logic controller rootkit, a Windows rootkit, antivirus evasion techniques, intricate process injection routines, and other complex interfaces (Falliere, Murchu and Chien 2011) all **wrapped up in “layers of encryption** like Russian nesting dolls” (Zetter 2011) – including custom encryption algorithms (Karnouskos 2011). As the malware spread across the now-infected network it had to utilize additional vulnerabilities in proprietary Siemens industrial control software (ICS) and hardware used to control the equipment it was designed to sabotage. Some of these ICS vulnerabilities were published but some were unknown and **required such a high degree of inside knowledge** that there was speculation that a Siemens employee had been involved in the malware design (Kerr, Rollins and Theohary 2010). The unprecedented technical complexity of the Stuxnet cyber-weapon, along with the extensive technical and financial resources and foreign intelligence capabilities required for its development and deployment, indicates that the malware was likely developed by a nation-state (Kerr, Rollins and Theohary 2010). Stuxnet had very limited attack vectors. When a computer system is connected to the public Internet a host of attack vectors are available to the cyber-attacker (Institute for Security Technology Studies 2002). Web browser and browser plug-in vulnerabilities, cross-site scripting attacks, compromised email attachments, peer-to-peer applications, operating system and other application vulnerabilities are all vectors for the introduction of malware into an Internetconnected computer system. **Networks that are not connected to the public internet are “air gapped**,” a technical colloquialism to identify a physical separation between networks. Physical separation from the public Internet is a common safeguard **for sensitive networks** including classified U.S. government networks. If the target network is air gapped, infection can only occur through physical means – an infected disk or USB device that **must be physically introduced** into a possibly access controlled environment and connected to the air gapped network. The first step of the Stuxnet cyber-attack was to initially infect the target networks, a difficult task given the probable disconnected and well secured nature of the Iranian nuclear facilities. Stuxnet was introduced via a USB device to the target network, a method that suggests that the attackers were familiar with the configuration of the network and knew it was not connected to the public Internet (Chen 2010). This assessment is supported by two rare features in Stuxnet – having all necessary functionality for industrial sabotage fully embedded in the malware executable along with the ability to self-propagate and upgrade through a peer-to-peer method (Falliere, Murchu and Chien 2011). Developing an understanding of the target network configuration was a significant and daunting task based on Symantec’s assessment that Stuxnet repeatedly targeted a total of five different organizations over nearly one year (Falliere, Murchu and Chien 2011) with physical introduction via USB drive being the only available attack vector. The final factor in assessing the threat of a cyber-weapon is the resilience of the weapon. There are two primary factors that make Stuxnet non-resilient: the complexity of the weapon and the complexity of the target. Stuxnet was highly customized for sabotaging specific industrial systems (Karnouskos 2011) and needed a large number of very complex components and routines in order to increase its chance of success (Falliere, Murchu and Chien 2011). The malware required eight vulnerabilities in the Windows operating system to succeed and therefore would have failed if those vulnerabilities had been properly patched; four of the eight vulnerabilities were known to Microsoft and subject to elimination (Falliere, Murchu and Chien 2011). Stuxnet also required that two drivers be installed and required two stolen security certificates for installation (Falliere, Murchu and Chien 2011); driver installation would have failed if the stolen certificates had been revoked and marked as invalid. Finally, the configuration of systems is ever-changing as components are upgraded or replaced. There is no guarantee that the network that was mapped for vulnerabilities had not changed in the months, or years, it took to craft Stuxnet and successfully infect the target network. Had specific components of the target hardware changed – the targeted Siemens software or programmable logic controller – the attack would have failed. Threats are less of a threat when identified; this is why zero-day exploits are so valuable. Stuxnet went to great lengths to hide its existence from the target and utilized multiple rootkits, data manipulation routines, and virus avoidance techniques to stay undetected. The malware’s actions occurred only in memory to avoid leaving traces on disk, it masked its activities by running under legal programs, employed layers of encryption and code obfuscation, and uninstalled itself after a set period of time, all efforts to avoid detection because its authors knew that detection meant failure. As a result of the complexity of the malware, the changeable nature of the target network, and the chance of discovery, Stuxnet is not a resilient system. It is a fragile weapon that required an investment of time and money to constantly monitor, reconfigure, test and deploy over the course of a year. There is concern, with Stuxnet developed and available publicly, that the world is on the brink of a storm of highly sophisticated Stuxnet-derived cyber-weapons which can be used by hackers, organized criminals and terrorists (Chen 2010). As former counterterrorism advisor Richard Clarke describes it, there is concern that the technical brilliance of the United States “has created millions of potential monsters all over the world” (Rosenbaum 2012). Hyperbole aside, technical knowledge spreads. The techniques behind cyber-attacks are “constantly evolving and making use of lessons learned over time” (Institute for Security Technology Studies 2002) and the publication of the Stuxnet code may make it easier to copy the weapon (Kerr, Rollins and Theohary 2010). **However**, this is something of a zero-sum game because **knowledge works both ways** and cyber-security techniques are also evolving, and “understanding attack techniques more clearly is the first step toward increasing security” (Institute for Security Technology Studies 2002). Vulnerabilities are discovered and patched, intrusion detection and malware signatures are expanded and updated, and monitoring and analysis processes and methodologies are expanded and honed. Once the element of surprise is lost, weapons and tactics are less useful, this is the core of the argument that “uniquely surprising” **stratagems like Stuxnet are single-use**, like Pearl Harbor and the Trojan Horse, the “very success [of these attacks] precludes their repetition” (Mueller 2012). This paradigm has already been seen in the “son of Stuxnet” malware – named Duqu by its discoverers – that is based on the same modular code platform that created Stuxnet (Ragan 2011). With the techniques used by Stuxnet now known, other variants such as Duqu are being discovered and countered by security researchers (Laboratory of Cryptography and System Security 2011). It is obvious that the effort required to create, deploy, and maintain Stuxnet and its variants is massive and it is not clear that the rewards are worth the risk and effort. Given the location of initial infection and the number of infected systems in Iran (Falliere, Murchu and Chien 2011) it is believed that Iranian nuclear facilities were the target of the Stuxnet weapon. A significant amount of money and effort was invested in creating Stuxnet but yet the expected result – assuming that this was an attack that expected to damage production – was minimal at best. Iran claimed that Stuxnet caused only minor damage, probably at the Natanz enrichment facility, the Russian contractor Atomstroyeksport reported that no damage had occurred at the Bushehr facility, and an unidentified “senior diplomat” suggested that Iran was forced to shut down its centrifuge facility “for a few days” (Kerr, Rollins and Theohary 2010). Even the most optimistic estimates believe that Iran’s nuclear enrichment program was only delayed by months, or perhaps years (Rosenbaum 2012). The actual damage done by Stuxnet is not clear (Kerr, Rollins and Theohary 2010) and the primary damage appears to be to a higher number than average replacement of centrifuges at the Iran enrichment facility (Zetter 2011). Different targets may produce different results. The Iranian nuclear facility was a difficult target with limited attack vectors because of its isolation from the public Internet and restricted access to its facilities. What is the probability of a successful attack against the U.S. electrical grid and what are the potential consequences should this critical infrastructure be disrupted or destroyed? An attack against the electrical grid is a reasonable threat scenario since power systems are “a high priority target for military and insurgents” and there has been a trend towards utilizing commercial software and integrating utilities into the public Internet that has “increased vulnerability across the board” (Lewis 2010). Yet the increased vulnerabilities are mitigated by an increased detection and deterrent capability that has been “honed over many years of practical application” now that power systems are using standard, rather than proprietary and specialized, applications and components (Leita and Dacier 2012). The security of the electrical grid is also enhanced by increased awareness after a smart-grid hacking demonstration in 2009 and the identification of the Stuxnet malware in 2010; as a result the public and private sector are working together in an “unprecedented effort” to establish robust security guidelines and cyber security measures (Gohn and Wheelock 2010).

#### Immigrants will be employed in jobs that waste their potential.

Bárbara **Castelletti**, economist at the OECD Development Centre, **et al.**, Jeff Dayton-Johnson, head of the OECD development Centre, and Ángel Melguizo, economist at the OECD Development Centre, “Migration in Latin America: Answering old questions with new data,” 3/19/**2010**, http://www.voxeu.org/index.php?q=node/4764

Most research on migration assumes that workers are employed in activities that correspond to their skill level. In practice workers may be employed in sectors characterised by skill requirements different from their educational or training background. In particular, **migrants may be overqualified for the work they do**. As Mattoo et al. (2005) show, this is the case for Mexicans, Central Americans and Andean university-educated migrants working in the US. **Despite their tertiary degrees, these groups rarely hold highly skilled jobs**. Worse, they may even be at the **lower rungs of the skill ladder**; 44% of tertiary-educated Mexicans migrants in the US are working in unskilled jobs. **This equilibrium represents a lose-lose-lose situation**. The home country loses human capital (brain drain), the host country and the migrant him/herself are not fully employed (brain waste), and the low skilled workers in host countries (both earlier migrants and natives) can be pushed out of the market (given that they compete with these higher-educated workers for jobs).

To illustrate this phenomenon for South-South flows, we follow OECD (2007) and compare the education level (primary, secondary and tertiary) of migrants in Argentina, Costa Rica and Venezuela with their category of job qualification (low, intermediate and high skilled). Figure 3 shows the share of over-qualified migrants and native workers, residing in different countries, and the comparison between foreign-born and natives.

Over-qualification rates vary sharply among countries, ranging from 5% in Costa Rica and Venezuela to 14% in Argentina. While lower than in the US, Canada and Spain where the over-qualification rates are above 15%, these results point to a high degree of over-qualification among immigrants compared to the native-born in Latin American countries. While there are possible omitted variables, it is likely that some part of the brain waste observed is because of the non-recognition of foreign qualifications or excessive requalification requirements for foreigners.

#### Won’t pass – no bill or consensus.

Alonso 3/6

(Basilisa, “President Obama and Congress are still far apart on immigration reform”, Hispanic News Service, 3-6-2013, http://www.voxxi.com/obama-congress-apart-immigration-reform/)

President Barack Obama and Congress have yet to address seriously, let alone find much common ground, on major differences in shaping comprehensive immigration reform legislation this year. They remain ideologically and politically far apart on a myriad of issues, most prominently border enforcement, a path to citizenship and family reunification.¶ The latest move by the Administration is the probationary release of several hundred immigrants from detention centers over the country who are awaiting disposition of their deportation orders. White House press secretary Jay Carney says they are ”low-risk, non-criminal detainees” being shifted to a less-expensive form of monitoring to ensure detention levels stay within ICE’s overall budget.¶ More than 400,000 immigrants are held annually in 250 federal immigration prisons. House Judiciary Committee chairman Robert Goodlatte (R- Virginia) calls it “abhorrent that President Obama is releasing criminals into our communities.” He adds that achieving an overhaul of immigration laws would have better odds if Congress, rather than the President, takes the lead.¶

President Obama’s leaked immigration bill¶ The buoyancy from the president’s Feb. 12 State of the Union immigration reform message turned flat five days later, when USA Today obtained a copy and revealed it. The leaked proposal included his intended roadmap to citizenship for nearly 11 million undocumented immigrants who meet stringent requirements in order to qualify. Although the White House has not confirmed the report, qualifying immigrants would be granted renewable “lawful prospective immigrant” visas.¶ Much like the Deferred Action for Childhood Arrival (DACA) program, the plan would allow currently undocumented immigrants to live and work here temporarily within a four-year timeframe. After that, the visa could be renewed. Immigrants would have to pass criminal background checks, submit biometrics and pay any back taxes and fees due. The current non-refundable fee is $685 to take the citizenship test is $685.¶ Applicants would then have a minimum eight-year wait before they could apply for a green card, which grants permanent residency. Some persons already in deportation proceedings would be allowed to apply. The New York Times reported that none of the 11 million undocumented immigrants currently in the country would be granted permanent resident status or a green card before the earlier of two dates: either eight years after the bill is enacted or 30 days after visas have been awarded to everyone who applied legally before they did.¶ During the State of the Union address the President entreated, “Let’s get this done. Send me a comprehensive immigration reform bill in the next few months, and I will sign it right away.” The bipartisan exuberance that filled the House chamber has visibly retracted. Senator John McCain (R-Ariz.) told NBC’s Meet the Press that if the president proposes the leaked plan as legislation it would fail. “Leaks don’t happen in Washington by accident,” he added.¶ U.S. Rep. Paul Ryan (R-Wisc.,) who had earlier praised Obama’s State of the Union immigration rhetoric, said on ABC’s This Week that by leaking his proposal the president was “looking for a partisan advantage and not a bipartisan solution.”¶

#### Immigration will be watered down

Politico 3-5-13. dyn.politico.com/printstory.cfm?uuid=12207C2F-7F94-479F-959C-F539B631CDF1

“More likely that we deal with one bill at a time, more likely that the Senate slams them all together,” said Oklahoma Rep. James Lankford, chairman of the Republican Policy Committee, who is involved with immigration strategy. “They do so few bills over there, they’re going to do one big giant, we may do a few small [bills] and see what we work on in conference together.”¶ Still, as Washington is a-twitter about immigration reform, and President Barack Obama is corralling support on Capitol Hill, the GOP leadership is staring at a daunting statistic: More than 140 Republicans represent districts with nearly no Hispanics. So many of them look at immigration reform through a parochial lens, not as a national political imperative like the party bigwigs.¶ The uptick in private action tells a more hopeful story for reform than was previously understood. Of course, passing any immigration reform bills is a political risk because if the House is seen even temporarily as moving minor proposals while the Senate moves a massive bill, that action could be seen as insufficient.¶ For instance, the piecemeal approach could risk putting some House Republicans crosswise with national party apparatus — who see comprehensive immigration reform as a pathway toward maintaining power in Washington.¶ “I don’t like how some people on our side who are pushing a comprehensive plan who say, ‘The reason we have to do this if because we’re not getting enough of the Hispanic vote at the presidential level,’” said Rep. Tom Rooney (R-Fla.) . “For me, policy should be driven because of policy, not politics, and I know that’s wishful thinking.”¶ Ryan’s office did not answer an email about the private conversations. Gowdy told reporters he would talk about anything except immigration.¶ The desire to avoid comprehensive movement on immigration is so widespread, so geographically diverse, that it’s hard to ignore and might be impossible for leadership to circumvent.¶ Rep. Reid Ribble (R-Wis.) said he is “hopeful … that rather than trying to do a major comprehensive reform, we will try and do it sequentially.”¶ “Everyone agrees on certain things,” Ribble said.¶ Rooney said Republicans would “lose a group of people right off the bat” if they try to cobble together a comprehensive bill.

#### Guns thump

The Hill 2-15-13 http://thehill.com/homenews/administration/283563-obama-pushes-gun-control-in-personal-speech-in-chicago

President Obama on Friday underlined his call for Congress to allow a vote on gun control by traveling to Chicago, his hometown and the city with the second-highest murder rate in the country.¶ “Too many of our children are being taken away from us,” Obama said in an intensely personal speech delivered in his old neighborhood that focused on the concerns of the urban poor.¶ Obama discussed the hardships of being raised by a single mom and the importance of fatherhood, and his speech included nods to gun control and other proposals from his State of the Union address meant to help the poor move up to middle-class lives.¶ Speaking in Hyde Park, where a 17-year-old was recently gunned down just days after performing at his inauguration, Obama said that no law or set of laws “can prevent every senseless act of violence in this country.”¶ And he emphasized putting forth as much focus on the social aspects of communities, saying that this is “not just a gun issue.”¶ “When a child opens fire on another child, there is a hole in that child’s heart that government can’t fill, only community and parents and teachers and clergy can fill that hole,” he said, speaking before students, faculty and community leaders. “There are entire neighborhoods where young people, they don’t see an example of somebody succeeding. For a lot of young boys and young men in particular, they don’t see an example of fathers or grandfathers, uncles who are in a position to support families and be held up and respected.”¶ Obama acknowledged the obstacles before him in pushing for gun-control, which is seen in dramatically different lights in different parts of the country.¶ “The experience of gun ownership is different in urban areas than it is in rural areas,” Obama said. “But these proposals deserve a vote in Congress. They deserve a vote.¶ “We all share a responsibility as citizens to fix it,” he added.¶ Obama’s proposals include expanded background checks and bans on certain semi-automatic weapons and high-capacity clips. He made an impassioned plea for a vote the dramatic conclusion of his State of the Union address, which was attended by many victims of gun violence, including the parents of the teenager slain in Chicago a week after performing at his inauguration.

#### PC theory is wrong- winners win

Hirsh, 2-7 – National Journal chief correspondent, citing various political scientists

[Michael, former Newsweek senior correspondent, "There’s No Such Thing as Political Capital," National Journal, 2-9-13, www.nationaljournal.com/magazine/there-s-no-such-thing-as-political-capital-20130207, accessed 2-8-13, mss]

**There’s No Such Thing as Political Capital**

The idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get itwrong. On Tuesday, in his State of the Union address, President Obama will do what every president does this time of year. For about 60 minutes, he will lay out a sprawling and ambitious wish list highlighted by gun control and immigration reform, climate change and debt reduction. In response, the pundits will do what they always do this time of year: They will talk about how unrealistic most of the proposals are, discussions often informed by sagacious reckonings of how much “political capital” Obama possesses to push his program through. Most of **this** talk **will have no bearing on what actually happens** over the next four years. Consider this: Three months ago, just before the November election, if someone had talked seriously about Obama having enough political capital to oversee passage of both immigration reform and gun-control legislation at the beginning of his second term—even after winning the election by 4 percentage points and 5 million votes (the actual final tally)—this person would have been called crazy and stripped of his pundit’s license. (It doesn’t exist, but it ought to.) In his first term, in a starkly polarized country, the president had been so frustrated by GOP resistance that he finally issued a limited executive order last August permitting immigrants who entered the country illegally as children to work without fear of deportation for at least two years. Obama didn’t dare to even bring up gun control, a Democratic “third rail” that has cost the party elections and that actually might have been even less popular on the right than the president’s health care law. And yet, for reasons that have very little to do with Obama’s personal prestige or popularity—variously put in terms of a “mandate” or “political capital”—chances are fair that both will now happen. What changed? In the case of gun control, of course, it wasn’t the election. It was the horror of the 20 first-graders who were slaughtered in Newtown, Conn., in mid-December. The sickening reality of little girls and boys riddled with bullets from a high-capacity assault weapon seemed to precipitate a sudden tipping point in the national conscience. One thing changed after another. Wayne LaPierre of the National Rifle Association marginalized himself with poorly chosen comments soon after the massacre. The pro-gun lobby, once a phalanx of opposition, began to fissure into reasonables and crazies. Former Rep. Gabrielle Giffords, D-Ariz., who was shot in the head two years ago and is still struggling to speak and walk, started a PAC with her husband to appeal to the moderate middle of gun owners. Then she gave riveting and poignant testimony to the Senate, challenging lawmakers: “Be bold.” As a result, momentum has appeared to build around some kind of a plan to curtail sales of the most dangerous weapons and ammunition and the way people are permitted to buy them. It’s impossible to say now whether such a bill will pass and, if it does, whether it will make anything more than cosmetic changes to gun laws. But one thing is clear: The **political tectonics** have **shift**ed **dramatically in very little time**. Whole new possibilities exist now that didn’t a few weeks ago. Meanwhile, the Republican members of the Senate’s so-called Gang of Eight are pushing hard for a new spirit of compromise on immigration reform, a sharp change after an election year in which the GOP standard-bearer declared he would make life so miserable for the 11 million illegal immigrants in the U.S. that they would “self-deport.” But this turnaround has very little to do with Obama’s personal influence—his political mandate, as it were. It has almost entirely to do with just two numbers: 71 and 27. That’s 71 percent for Obama, 27 percent for Mitt Romney, the breakdown of the Hispanic vote in the 2012 presidential election. Obama drove home his advantage by giving a speech on immigration reform on Jan. 29 at a Hispanic-dominated high school in Nevada, a swing state he won by a surprising 8 percentage points in November. But the movement on immigration has mainly come out of the Republican Party’s recent introspection, and the realization by its more thoughtful members, such as Sen. Marco Rubio of Florida and Gov. Bobby Jindal of Louisiana, that without such a shift the party may be facing demographic death in a country where the 2010 census showed, for the first time, that white births have fallen into the minority. It’s got nothing to do with Obama’s political capital or, indeed, Obama at all. The point is not that “political capital” is a meaningless term. Often it is a synonym for “mandate” or “momentum” in the aftermath of a decisive election—and just about every politician ever elected has tried to claim more of a mandate than he actually has. Certainly, Obama can say that because he was elected and Romney wasn’t, he has a better claim on the country’s mood and direction. Many pundits still defend political capital as a useful metaphor at least. “It’s an unquantifiable but meaningful concept,” says Norman Ornstein of the American Enterprise Institute. “You can’t really look at a president and say he’s got 37 ounces of political capital. But the fact is, it’s a concept that matters, if you have popularity and some momentum on your side.” The real problem is that the idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get it wrong. “Presidents usually over-estimate it,” says George Edwards, a presidential scholar at Texas A&M University. “The best kind of political capital—some sense of an electoral mandate to do something—is very rare. It almost never happens. In 1964, maybe. And to some degree in 1980.” For that reason, **political capital** is a concept that **misleads** far more than it enlightens. **It is** **distortionary**. It conveys the idea that we know more than we really do about the ever-elusive concept of political power, and it discounts the way unforeseen events can suddenly change everything. Instead, it suggests, erroneously, that a political figure has a concrete amount of political capital to invest, just as someone might have real investment capital—that a particular leader can bank his gains, and the size of his account determines what he can do at any given moment in history. Naturally, any president has practical and electoral limits. Does he have a majority in both chambers of Congress and a cohesive coalition behind him? Obama has neither at present. And unless a surge in the economy—at the moment, still stuck—or some other great victory gives him more momentum, it is inevitable that the closer Obama gets to the 2014 election, the less he will be able to get done. Going into the midterms, Republicans will increasingly avoid any concessions that make him (and the Democrats) stronger. But the abrupt emergence of the immigration and gun-control issues illustrates how suddenly shifts in mood can occur and how political interests can align in new ways just as suddenly. Indeed, the pseudo-concept of political capital masks a larger truth about Washington that is kindergarten simple: You just don’t know what you can do until you try. Or as Ornstein himself once wrote years ago, “**Winning wins.”** In theory, and in practice, depending on Obama’s handling of any particular issue, even in a polarized time, he could still deliver on a lot of his second-term goals, depending on his skill and the breaks. Unforeseen catalysts can appear, like Newtown. Epiphanies can dawn, such as when many Republican Party leaders suddenly woke up in panic to the huge disparity in the Hispanic vote. Some **political scientists** **who study** the elusive calculus of **how to pass legislation** and run successful presidencies **say** that **political capital is**, at best, **an empty concept**, and that **almost nothing in** the **academic literature** successfully quantifies or even defines it. “It can refer to a very abstract thing, like a president’s popularity, but there’s no mechanism there. That makes it kind of useless,” says Richard Bensel, a government professor at Cornell University. Even Ornstein concedes that the calculus is far more complex than the term suggests. **Winning** on one issue often **changes the** **calculation** for the next issue; there is never any known amount of capital. “The idea here is, if an issue comes up where **the conventional wisdom is that president is not going to get what he wants**, and [they]he gets it, then each time that happens, it changes the calculus of the **other actors**” Ornstein says. “If they think he’s going to win, they may **change positions to get on the winning side**. **It’s a bandwagon effect**.” ALL THE WAY WITH LBJ Sometimes, a clever practitioner of power can get more done just because [they’re]he’s aggressive and knows the hallways of Congress well. Texas A&M’s Edwards is right to say that the outcome of the 1964 election, Lyndon Johnson’s landslide victory over Barry Goldwater, was one of the few that conveyed a mandate. But one of the main reasons for that mandate (in addition to Goldwater’s ineptitude as a candidate) was President Johnson’s masterful use of power leading up to that election, and his ability to get far more done than anyone thought possible, given his limited political capital. In the newest volume in his exhaustive study of LBJ, The Passage of Power, historian Robert Caro recalls Johnson getting cautionary advice after he assumed the presidency from the assassinated John F. Kennedy in late 1963. Don’t focus on a long-stalled civil-rights bill, advisers told him, because it might jeopardize Southern lawmakers’ support for a tax cut and appropriations bills the president needed. “One of the wise, practical people around the table [said that] the presidency has only a certain amount of coinage to expend, and you oughtn’t to expend it on this,” Caro writes. (Coinage, of course, was what political capital was called in those days.) Johnson replied, “Well, what the hell’s the presidency for?” Johnson didn’t worry about coinage, and he got the Civil Rights Act enacted, along with much else: Medicare, a tax cut, antipoverty programs. He appeared to understand not just the ways of Congress but also the way to maximize the momentum he possessed in the lingering mood of national grief and determination by picking the right issues, as Caro records. “Momentum is not a mysterious mistress,” LBJ said. “It is a controllable fact of political life.” Johnson had the skill and wherewithal to realize that, at that moment of history, he could have unlimited coinage if he handled the politics right. He did. (At least until Vietnam, that is.)

[Matt note: gender paraphrased]

#### Link shields itself – Obama will back away from the plan if Congress presses him

Herz ’12 – professor of law and co-director of the Floersheimer Center for Constitutional Democracy

(Michael E., “Political Oversight of Agency Decisionmaking”, Administrative Law JOTWELL, 1-23-2012)

Mendelson begins with two important but often overlooked points. First, we know remarkably little about the content and scope of presidential oversight of rulemaking. Second, there’s presidential oversight and there’s presidential oversight; that is, some presidential influence is almost indisputably appropriate and enhances the legitimacy of agency decisionmaking, and some (e.g. leaning on the agency to ignore scientific fact or to do something inconsistent with statutory constraints) is not. Although presidents have long exerted significant influence on agency rulemaking, and although that influence has been regularized and concentrated in OIRA for three decades, it remains quite invisible. The OIRA review process is fairly opaque (though less so than it once was), influence by other parts of the White House even more so, and official explanations of agency action almost always are silent about political considerations. As a result, the democratic responsiveness and accountability that, in theory, presidential oversight provides goes unrealized. Presidents take credit when it suits them, but keep their distance from controversy. (Although Mendelson does not make the connection explicit, her account resonates with critiques by supporters of a nondelegation doctrine with teeth who are dismayed by Congress’s desire to take credit but not blame.)

#### It’s massively popular, even AFTER the sequester – it still has massive support in Congress

Lewis ’13 – reporter for the Westville Reporter

(Frank, “Good news comes in bunches for USEC”, Westville Reporter, Energy Central, 3-6-2013, <http://www.energycentral.com/news/en/27816039/Good-news-comes-in-bunches-for-USEC>, DOA: 3-8-2013)

The good news continues to roll in for the funding of the research, development, and demonstration (RD&D) program at the American Centrifuge Project (ACP) in Piketon. News from Capitol Hill is that $150 million is included in the House Continuing Resolution (CR) to fund the USEC RD&D process which is a joint effort by USEC and the U.S. Department of Energy.¶ Section 1402 of the CR reads -- "In addition to amounts otherwise made available by this division, $150,000,000 is appropriated for 'Department of Energy, Atomic Energy Defense Activities, National Nuclear Security Administration, Defense Nuclear Nonproliferation' for domestic uranium enrichment research, development, and demonstration."¶ "Obviously we have been working to complete the funding for the RD&D program, which is an important program for demonstrating the technology, and laying the groundwork for commercialization," Paul Jacobson, Vice President of Communications for USEC told the Daily Times Tuesday. "I think the inclusion of the funds reflects a continued bi-partisan support in Congress and from the administration as well, for the national and energy security merits of this project. I think it's important to underscore that this proposed funding is to support the centrifuge project, and the national goals that the decision makers in Washington have decided are important to support. So obviously it is good news but there is a way to go with action in the House and action in the Senate, but it certainly is encouraging."

#### The link to politics happens if you DON’T do the Aff

Jennetta ’12 – publisher of Fuel Cycle Weekly

(Andrea Jennetta, “DOE Calls in the experts”, Fuel Cycle Weekly, Vol.10, No.414 3-3-11, http://fuelcycle.blogspot.com/2011/03/doe-calls-in-experts.html)

The only reason to mention his (and BWEC’s) credentials is to make the point that when it comes to USEC and the ACP loan guarantee application, the Energy Department really needs to be prepared. Regardless of the final outcome of the evaluation, everyone—EVERYONE—will be criticized.¶ With a “yes” decision, DOE is saying there are enough positive vectors in terms of USEC’s enrichment order book and ability to execute, despite financial weakness and questionable technology.¶ With a “no” decision, DOE is saying there are justifiable doubts about USEC’s finances and technology, and that granting the loan guarantee is too risky for U.S. taxpayers.

## 1AR

### Politics DA

#### Nuclear weapons are protected from hacking

**Green ‘2** (Joshua Green, editor of Washington Monthly, November, 2002, The Myth of Cyberterrorism, Washington Monthly,)

"The government is **miles ahead** of the private sector when it comes to cybersecurity," says Michael Cheek, director of intelligence for iDefense, a Virginia-based computer security company with government and private-sector clients. "**Particularly the most sensitive military systems**." Serious effort and plain good fortune have combined to bring this about. Take nuclear weapons. The biggest fallacy about their vulnerability, promoted in action thrillers like WarGames, is that they're designed for remote operation. "[The movie] is premised on the assumption that there's a modem bank hanging on **the side of the computer that controls** the missiles," says Martin Libicki, a defense analyst at the RAND Corporation. "**I assure you, there isn't**." Rather, nuclear weapons and other sensitive military systems enjoy the most basic form of Internet security: they're "air-gapped," meaning that they're **not physically connected to the Internet** and are therefore **inaccessible to** outside **hackers**. (Nuclear weapons also contain "permissive action links," mechanisms to prevent weapons from being armed without inputting codes carried by the president.) A retired military official was somewhat indignant at the mere suggestion: "As a general principle, we've been looking at this thing for 20 years. What cave have you been living in if you haven't considered this [threat]?"

#### Their ev is wrong – statistical data proves the vast majority of skilled immigrants are not a source of innovation.

Norman **Matloff**, prof. of computer science at UC Davis, “H-1Bs: Still Not the Best and the Brightest,” May **2008**, http://www.cis.org/articles/2008/back508.html

The results first show, once again, that rather few of the foreign workers are at Level IV, the level of **real expertise** whose description is associated with innovation. Most are in fact in Levels I and II, whose DOL definitions are for apprentice-like positions with only “limited exercise of judgment,” clearly not jobs for innovators.

Second, this pattern also holds individually for the most common job titles.

Third, the East-vs.-West pattern observed earlier for the TM data also holds for levels of expertise, with Asians typically being hired into non-innovative jobs while more Europeans are in the types of positions that could involve innovation.

The last table is striking. Most of the big firms hire almost no workers at all at Level IV. Since it is these very firms that are arguing they need foreign workers in order to innovate, there appears to be a **striking disconnect** between what they say and do.

#### Won’t pass

AFP 3-2-13. www.globalpost.com/dispatch/news/afp/130302/us-mexico-border-obstacle-immigration-reform

Immigration reform is one of President Barack Obama's priorities for his second term, and for a wide-reaching package to pass, lawmakers need to be convinced that the border with Mexico is secure.¶ But that is no easy sell.¶ Apprehensions of undocumented aliens at the frontier have dropped 50 percent since 2008, going to 365,000 people last year, which the Obama administration cites as evidence that border security measures work.¶ And deportations of aliens without residency permits, particularly those with criminal records -- a key government goal -- stand at about 400,000 a year.¶ But the investigative arm of Congress, the Government Accountability Office (GAO), dampened the government's optimism last week.¶ A report submitted to the House of Representatives said the number of apprehensions at the US-Mexico border "provides some useful information but does not position the department to be able to report on how effective its efforts are at securing the border."¶ "The Border Patrol is in the process of developing goals and measures; however, it has not yet set target timeframes and milestones for completing its efforts," it added.¶ Marc Rosenblum, an immigration policy expert with the Congressional Research Service, said that "the size and diversity of the US border mean that no single, quantitative, off-the-shelf indicator accurately and reliably provides a metric or a 'score' for border enforcement."¶ Another report found that southern US cities, in particular El Paso, Texas just across the border from drug violence-plagued Ciudad Juarez, are the safest in the country, with constantly dropping rates of all kinds of crime. That study was based on FBI figures.¶ So far, the Republicans, who control the House, have been adamant that they will not approve major immigration reform until they are convinced the border is secure.

#### High skilled reform won’t pass – union opposition.

Witman 3-6. [Luke, "Talks on immigration reform progressing, but hurdles remain" Examiner -- www.examiner.com/article/talks-on-immigration-reform-progressing-but-major-hurdles-remain]

However, despite the shared commitment from Republican and Democratic lawmakers to push forward a bipartisan immigration reform bill, a number of major roadblocks still stand in the way of this actually happening. Earlier today, Ariz. Sen. John McCain stated that the single biggest hurdle Senate Republicans have encountered thus far is working with labor unions on the establishment of viable visa programs both for highly skilled STEM workers and lower skilled agriculture workers. McCain admitted that coming to a compromise with unions could be impossible.

#### Plan builds massive PC – large groups of bipartisan senators have asked for the plan – Obama first move is key

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Both sides say they want the project to move forward. Both support short-term "bridge" funding to keep the project going until the financing can be worked out. Both say the other side has to make the first move.¶ The stakes are high: It's an election year, and Ohio is a swing state. USEC estimates the project at its peak will generate 3,158 jobs in Ohio, and 4,284 elsewhere. Pike County, home to the centrifuges, has a 13% unemployment rate — the highest in Ohio. The median household income is about $40,000. The average job at USEC pays $77,316.¶ Centrifuge parts are stacked up in Piketon. "It's as shovel-ready as they come," says spokeswoman Angela Duduit.¶ Indeed, the project has enjoyed bipartisan support. A USA TODAY review of DOE records shows that no fewer than 46 members of Congress — 32 Republicans and 14 Democrats — have pressured the Obama administration to approve the loan guarantee for USEC. "Quick action is paramount," said one bipartisan letter. "It is imperative that this application move forward now," said another.¶ The congressional support comes from states such as Ohio, Pennsylvania, Tennessee, Kentucky, West Virginia, Missouri, Alabama, Indiana, Maryland, North Carolina and South Carolina— an almost exact overlay of the states that would benefit from the 7,442 jobs the company says would be created.

#### Key GOP leaders want the plan – builds PC – and they don’t care about Solyndra

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Republican House Speaker John Boehner, who as a member of the Ohio delegation has personally pleaded with Obama to green-light the project, hasn't given that signal. "The speaker believes the president should keep his word to the people of Ohio," said Boehner spokesman Michael Steel.¶ The fallout from Solyndra has some in Congress doing some soul searching about their involvement in those decisions.¶ "A cloud, a big black cloud came over after Solyndra," said Rep. Mike Simpson, R-Idaho, at a recent congressional hearing. He admitted that he put "undue influence" on DOE to approve a $2 billion conditional loan guarantee for Areva and said members of the Ohio delegation were doing the same thing.

# Round 6 vs Mary Washington MM

## 1AC

### Inherency

#### Funding and Obama’s support for the American Centrifuge Project is strong and increasing now --- no loan gurantee coming

Shesgreen ’13 – congressional correspondent for USA Today

(Deirdre, she has covered campaign finance, health care, and lobbying, and she is a two-time winner of the David Lynch Memorial Reporting Award for regional coverage of Congress, “Fate of Ohio centrifuge project murky in 2nd Obama term”, USA Today, 2-3-2013, Accessed 2-25-2013, http://www.usatoday.com/story/news/politics/2013/02/02/usec-centrifuge-plant-piketon-uranium/1881243/)

As the 113th Congress gets underway and President Obama begins a second term, some possible shifts in federal energy policy could ripple down to affect the American Centrifuge Plant in Piketon, Ohio. For starters, Energy Secretary Steven Chu announced Friday that he was stepping down. And there have been rumors that some of his deputies, who have championed the USEC project, might also be leaving the Department of Energy (DOE). At the same time, the president has emphasized in his new term a desire to reduce greenhouse gas emissions, which boosters of nuclear power say could be a boon to uranium-enrichment initiatives like the one in Piketon. **But those big-picture changes will not be make-or-break for USEC**, a Maryland-based global energy company and a major supplier of enriched uranium fuel. Sen. Sherrod Brown, D-Ohio, said he would make sure a new energy secretary gets "up to speed quickly" on the USEC project. "Whoever the secretary is will know we have bipartisan, strong support in the delegation and in the Congress overall." Sen. Rob Portman, R-Ohio, agreed. "This argument won't be any different" just because there's a new chief at DOE. Indeed, supporters and foes alike say that right now, the ACP's short-term prospects are good, but its **long-term fate remains uncertain** and **USEC's future** will probably hinge more on its **internal financial troubles** and the commercial market for its technology than on any new political reality in Washington. Let's start with the short term: USEC has said it will run out of money to keep the project afloat at the end of February. But Congress is likely to approve **one last batch** of federal funds for USEC in the coming months — at least $50 million, and possibly more, will be needed to complete a current research, development and demonstration program aimed at proving that USEC's uranium-enrichment technology is viable. "I think the commitment is deep from the White House and is deep in Congress and is ongoing," said Brown who, along with Portman, has championed the project. Portman questioned the president's support for the project, saying it might have had more to do with its location, in the critical battleground state of Ohio, than with Obama's dedication to the technology. Still, Portman said, fears he had that the White House might kill the project have faded. "I'm feeling relieved that we still have a lifeline," he said. In the U.S. House of Representatives, the Piketon site has a new booster in freshman Rep. Brad Wenstrup, R-Ohio. "I would really like to see this project move forward," Wenstrup said in an interview. "It's something that needs to be done as a matter of national defense." If successful, USEC officials say the plant will eventually produce enough fuel to power dozens of nuclear power plants around the country. In addition, supporters say it will bolster national security by ensuring the U.S. has a domestic source of enriched uranium. The strong support in Congress for additional federal dollars doesn't mean opponents have given up. The real fight, say critics of the centrifuge project, will come at the end of the year. That's when the research program — part of a cooperative agreement between USEC and the Department of Energy — will end. And USEC will renew its bid for a $2 billion federal loan guarantee, an application DOE officials put on hold in 2011 after glitches at the Piketon site raised concerns inside the department about the viability of USEC's uranium-enrichment technology. USEC used to be part of the DOE, and although Congress privatized it in 1988, USEC and the department still work closely together. Autumn Hanna, senior program director at Taxpayers for Common Sense, a fiscal watchdog group, said USEC's renewed bid for a loan guarantee will ignite fresh skepticism about the project, particularly since it's such a large amount of money. Hanna and other critics note USEC's common stock is trading below $1, and the energy company could be delisted from the New York Stock Exchange if it doesn't rectify that. "Taxpayers shouldn't be putting more money into USEC," she said. "DOE just can't be the lifeline." Rep. Edward Markey, D-Mass., who has led efforts to nix funding for USEC, echoed that argument and signaled he would press hard against the loan guarantee. "The value of the entire company is just over $70 million, it is still rated at below junk bond status, and it is in danger of being delisted from the stock exchange and becoming a penny stock," Markey said. "To continue to subsidize this failing company would be irresponsible." A DOE spokeswoman, Niketa Kumar, said in a statement that the Obama administration would advocate more money to finish the research program, but hinted the loan guarantee was no sure thing. She said the research phase was critical to addressing the "technical and financial risks associated with the ACP project." The energy department's agreement requires USEC to meet "a series of detailed technical milestones and performance metrics that provide significant taxpayer protections," Kumar noted. USEC officials said they would address such concerns in a strengthened loan application come December. The research and development program "will be successful . . . (and) will address any remaining technical issues about the technology," said Paul Jacobson, a spokesman for USEC. "We've been indicating as well . . . that we're working to strengthen our balance sheet." "We would want to put in a strong application, both from a technical and financial perspective," he added. USEC's most vocal supporters in Congress said they were hopeful the political and fiscal obstacles to the loan guarantee could be overcome. But they conceded they could not predict how the next phase would play out. "I think this is going to work for the public and . . . for taxpayers," Brown said. But "there are hurdles they have to jump over . . . (and) I can't evaluate eight months from now and know where we're going" to end up. Portman expressed concern that the Obama administration might be reluctant to "pull the trigger" on the loan guarantee. "It requires leadership from the administration that has been lacking," he said. "The arguments are compelling, and I'm optimistic that they will, in the end, make the right decision. But as folks in Piketon will remind you, time's a wasting."

#### No DAs – DOE loan guarantees for uranium enrichment in the U.S. increasing now

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

The DOE has supported other centrifuges. In 2010, it gave a conditional $2 billion loan guarantee to Areva, a conglomerate whose majority shareholder is the French government, to build centrifuges in Idaho. But that project is temporarily stalled because of a cash situation one executive called "growing pains." "Basically, we went in with an application that was based on a proven technology that's been in use in Europe for nearly three decades," said Sam Shakir, president of Areva Enrichment Services. "There was no question about the technology, its viability or its economics." That helped Areva sell $5 billion in preliminary orders for uranium, he said. Still, "The size of the market is large enough for multiple suppliers to be playing in."

#### No perception links – Obama is already perceived to support the plan

**USEC 08**

(“Presidential candidate Barack Obama writing to Ohio Governor Ted Strickland”, 9-2-2008, http://www.usec.com/support/administration/presidential-candidate-barack-obama-writing-ohio-governor-ted-strickland)

"Under my administration, energy programs that promote safe and environmentally-sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my **full support**. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high cost, foreign energy sources."

### Plan

#### The United States Department of Energy should approve the United States Enrichment Corporation’s currently pending application for a $2 billion loan guarantee for the American Centrifuge Project.

### Solvency

**USEC failure collapses domestic enrichment capability ---- Federal loan guarantee for USEC key to third party financing and credibility—no barriers**

**Schmidt ‘9 – Former U.S. Representative**

**(Jean Schmidt, speech from Congress, “Where are the Jobs?”, 7-29-2009, http://votesmart.org/public-statement/445368/where-are-the-jobs)**

The United States Enrichment Corporation, called USEC, is deploying American Centrifuge technology to provide the dependable, long-term, U.S.-owned and developed **nuclear fuel production capability** needed to support the country's nuclear power plants, nuclear submarines, and a robust nuclear deterrent. Mr. Speaker, we have dozens of nuclear power plants in this country that all require nuclear fuel. And we have a Navy who, as I speak, is sailing in every ocean across the globe. And we have weapons of mass destruction that will become a useless deterrent without fresh tritium. Without the American Centrifuge Plant, in 5 years' time, we will have **no ability** in the United States to enrich uranium to keep our lights on, our ships at sea, or a deterrent potential. In 5 years, we will be forced to purchase uranium from foreign suppliers as we do with most of our oil. I don't want to depend on foreigners for this kind of product. The American Centrifuge Plant holds great promise. Unfortunately, in order to meet this promise, USEC needed a loan guarantee from the **Federal Government**. Now, I want to repeat that. It needed a loan guarantee from the Federal Government. You see, USEC has already invested $1.5 billion and has offered another billion dollars of corporate support. It did this with the **expectation** **that the Department of Energy** would make available a $2 billion loan guarantee needed to finance the full-scale deployment of the American Centrifuge Plants. Now, I want to refer to this chart here. Why were they so confident in that? Well, you see on September 2, 2008, when President Obama was running for election, he wrote a letter to our Governor, Ted Strickland. This is the full letter so you can see it. I'm not taking it out of context. He said, Under my administration, energy programs that promote safe and environmentally sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my full support. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high-cost and foreign-energy sources. This is what this letter said. So you understand that USEC was very, very confident that they were going to get that loan guarantee. But instead, on Monday night, the Department of Energy really pulled the rug out from all of us. I got a phone call asking me to call the White House, and I learned Monday night that the Department of Energy was going to withdraw its promise and they were actually asking USEC to withdraw its application and to try it again in 18 months. I was actually told on the phone that if they did that, then the Department of Energy would give them $45 million, $30 million, and another $15 million if they would rescind this. And that kind of shocked me. The next day it also shocked the folks at USEC because, you see, they had this letter that the President had given to our Governor, Ted Strickland, that said those loan guarantees would be given. Mr. Speaker, the American Centrifuge Plant currently supports more than 5,700 jobs and will help create 2,300 more within a year of commencement of the loan-guarantee funding. That's 2,300 additional jobs to my district. Now, because the Department of Energy has contradicted a promise that our President made in September of last year to our Governor and to those men and women in this area of the State, those jobs are in jeopardy. And I was on the phone with one of my constituents earlier today. Pink slips are being given out at the USEC plant. The Department of Energy has told the media the reasons for their denial were threefold: the cost subsidy estimate, a new requirement for another $300 million of capital, and the questions of technology. Well, the first question offered by the DOE is a little laughable. It turns out that the government isn't really backing these loans. Instead, the Department of Energy is charging a risk-of-failure fee to each of the folks that agrees to back the loans. These fees are pulled together to eliminate any risk to the taxpayers that actually have been given a loan guarantee. They determined that the fee for this loan would be $800 million on a $2 billion loan. So USEC is supposed to come up with $800 million on a $2 billion loan. I don't know about you, but in my neck of the woods, we call that like loan sharking. The second reason for denying the guarantee is a new need to set aside an additional 300 million for contingencies. Well, I can think where you and I see that that is headed. After the risk premium is paid, apparently USEC still has to come up with more money to make the Department of Energy feel more comfortable about giving these loans. But the last question, I think, is the most surprising, because the last reason is one where they say they have got technical questions, and this is the one that is the most absurd of all, because, quite frankly, this technology is out there. France is using it, England is using it. Would it surprise you to know, Mr. Speaker, that Iran is using it? But what I found most disturbing is that the Department of Energy hired a technology expert, as required by law, and they went through the technology and wrote a long report, and in fact the guy ran back to give it to the Department of Energy on Tuesday. That was the day after the Department of Energy made their decision. They made that decision on Monday night. They made it without any regard for the report they were relying on for this very important project. It is not just a project, Mr. Speaker, that continues to help the folks in my district. And it is important to me, because, Mr. Speaker, this is my district, and these are my folks and these are my friends. I have become friends with these people. This is the part of my community that doesn't have a lot of job opportunities, and they welcomed this job opportunity. They embraced it. And I believe that the President believes in this project, as he stated on September 2, 2008. But I think there must be some sort of disconnect with the Department of Energy. There is a chart here, and I would like to go through the chart a little bit again so we can clearly understand what is going on. The issue: credit subsidy cost estimated by the DOE to be $800 million. Well, let me be a little clearer. The estimate was never provided in writing. The methods of calculation were never disclosed or explained. An $800 million subsidy cost is not reasonable. I think it is outrageous, given USEC's fully collateralized $1 billion parent guarantee, standard credit, and, yes, yield exposures of $24 million to $74 million based on credit ratings of C to BB-minus and assets recoveries of only 20 to 30 percent of the cost. The DOE calculation clearly ignores the value of $1.5 billion invested by USEC to date and another billion of non-project collateral offered by USEC, consisting primarily of natural and enriched uranium inventories. The second issue, an additional need for $300 million of additional capital. USEC offered a legally binding capital commitment, which DOE agreed met statutory and regulatory requirements. USEC's fully collateralized $1 billion parent guarantee designed to permit loan to commerce while USEC raised additional equity while fully protecting the taxpayers. USEC's financial adviser stated that with the loan guarantee, $100 million to $150 million of capital could be raised in the public market. USEC has commenced discussions with strategic suppliers to obtain vendor financing for the balance. And the final, the technical readiness of American Centrifuge Technology. The DOE LGPO concluded that ACT was not ready to move to commercial scale operations prior to receiving the independent engineer's written assessment. The independent engineer had only been working for 12 days when DOE acted. DOE was scheduled to review the classified independent engineer report on July 28, and the DOE representative traveled to Tennessee to do so, unaware of the LGPO's decision the night before. American Centrifuge is based on technology which DOE initially developed in the 1970s and the 1980s and subsequently operated it for 10 years. USEC-approved centrifuges have been operating in the Lead Cascade for over 225,000 hours. The DOE has acknowledged that USEC met the milestone under the 2002 agreement between DOE and USEC, which requires obtaining satisfactory reliability and performance data from Lead Cascade operations, the last requirement to be met besides obtaining financing prior to commencing commercial plant construction and operations. Mr. Speaker, I don't understand what is going on here, I don't think that this body understands what is going on here, and I am not even sure that the President even understands what is going on here with the Department of Energy. But I am very confused. More than that, I am very outraged because I believe that we have to have energy independence, but we also have to have security for this Nation. Energy independence depends upon a variety of sources of energy, including nuclear power, but you have to have the stuff to make that nuclear power. In 5 years, we will no longer be the people that are producing the stuff that it takes to make that nuclear power. That is why this project is so important, not just for the 2,000 jobs that will be lost.

**Unconditional plan is key—further delays or roadblocks means USEC would pull out of the project**

**USEC ‘12**

**(“Funding”, 2012, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)**

USEC needs **significant additional financing** in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the DOE Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant. In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, DOE proposed a two-year RD&D program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program **but has given USEC no assurance that a successful RD&D program will result in a loan guarantee**. Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays it has experienced will not adversely affect these efforts. If **conditions change** and deployment of the American Centrifuge Plant becomes no longer **probable or becomes delayed** significantly from USEC’s current expectations, USEC could expense up to the full amount of previously capitalized costs related to the American Centrifuge Plant of up to $1.1 billion. Events that could **impact USEC’s views** as to the probability of deployment or USEC’s projections include progress in meeting the technical milestones of the RD&D program, the status of continued DOE funding for the RD&D program, changes in USEC’s anticipated ownership of or role in the project, changes in the cost estimate and schedule for the project, and prospects for obtaining a loan guarantee and other financing needed to deploy the project.

**DOE key—without its backing key investors would pull out of the project**

**Duffy ’11 – investment expert at Motley Fool**

**(Aimee, “Will the Government Guarantee Your Uranium Stock?”, The Motley Fool, 10-7-2011, http://www.fool.com/investing/general/2011/10/07/will-the-government-guarantee-your-uranium-stock.aspx#lastVisibleParagraph)**

The U.S. Department of Energy can be such a tease sometimes -- just ask the uranium enrichment outfit USEC (NYSE: USU ) . The company has been in **hurry-up-and-wait mode** for more than two years now, eagerly anticipating a DOE decision on a $2 billion loan guarantee for its American Centrifuge project that has yet to materialize. The company has been **forced to negotiate extensions** **with its two main investors**, Toshiba and Babcock and Wilcox (NYSE: BWC ) , for the second time in two months. The companies have agreed to stay tied to the project, and their respective $100 million investments, until Oct. 31. A key process in the production of nuclear fuel for power plants, uranium enrichment increases the U235 isotope and decreases the U238 isotope in naturally occurring uranium. The U235 isotope is the only one that is fissionable, therefore the only one that can be used as nuclear fuel. USEC plans to use the American Centrifuge to separate the isotopes and sell the U235 to its customers. USEC desperately needs a conditional commitment from the DOE by the end of the month. The company provides more than 50% of enriched uranium in the United States but has issues with liquidity. The new centrifuge project is expected to provide 20% of the U.S. electricity supply but cannot go forward without help from the DOE. **Continued support from Toshiba and Babcock and Wilcox is also contingent on DOE commitment.** As it stands now, USEC has already directed certain suppliers to suspend work and has informed employees that layoffs may or may not be just around the bend.

#### Fed action now key --- solves worker layoffs

Koss ’12 – CQ Staff

(Geof Koss, “Tug of War Over Uranium Prompts Odd Alliances”, Congressional Quarterly, 3-3-2012, http://public.cq.com/docs/weeklyreport/weeklyreport-000004039687.html)

As a result, the Kentuckians’ rescue plan has hit a brick wall, raising questions not just about the Paducah jobs but also about the future of U.S. uranium enrichment. Should the Paducah plant close before its successor plant is completed in Ohio, the United States will lack an indigenous source of enriched uranium and be dependent on suppliers largely controlled by foreign governments. Critics say that could leave the U.S. unable to meet non-proliferation requirements that a key component of its nuclear weapons be generated from homegrown sources. Further complicating matters, the fate of the Ohio plant also is in doubt. Without **congressional approval** for $106 million in research funds by the end of March, layoffs at the plant may begin, says Paul Jacobson, a spokesman for USEC Inc., which runs both the Paducah and Ohio facilities. The predicament has sparked an intense and somewhat ironic debate in Congress, where a bipartisan bloc that includes deficit-focused, small-government conservatives such as Paul, as well as senior House and Senate leaders, is advocating federal intervention to save a company struggling to stay afloat. Many of those same lawmakers have attacked the Obama administration’s backing for similar intervention to assist emerging renewable-energy technologies. Opposing them is an odd coalition that includes a conservative think tank, Western lawmakers from mining states and anti-nuclear liberal Democrats. The administration in January threw a lifeline to USEC when it assumed $44 million of its liability for tailings, radioactive waste produced when uranium is milled, while also requesting $150 million in fiscal 2013 for research funding at the Ohio site. But the company is focused on impending March and May deadlines that Jacobson calls crucial. Within weeks, he says, “the United States could well find itself without any plan for indigenous uranium enrichment for the first time since the dawn of the atomic age.”

#### Free market solutions mean USEC fails and no other commercial entity fills the void—only continued government intervention works

Rothwell ‘9 – professor of economics at Stanford

(Geoffrey, “Market Power in Uranium Enrichment”, Science & Global Security, 17:132–154, 2009)

With the retirement of diffusion capacity during the next decade, the artiﬁcially high price of enrichment could fall. (It is “artiﬁcially” high due to entry barriers: Were there open markets in enrichment, new cheaper capacity would have forced the retirement of diffusion technology much sooner). Entry of new participants into the **enrichment market** is **constrained** by non-proliferation considerations, as well as by commercial interests. Enrichment technology is now being more closely guarded with the discovery of a Pakistani enrichment technology smuggling network, which stole centrifuge technology from Urenco in the 1970s, used that technology to develop nuclear weapons in Pakistan, then sold or traded the technology with several other countries, sparking a nuclear arms race with its neighbors and enabling nuclear weapons development in North Korea. Without market intervention, prices could fall to competitive levels. This implies there might be no economic proﬁt for **anyone but the Russians and Europeans**. Therefore, the ﬁnancial outlook for uranium enrichers has been bleak, prompting a Standard and Poor’s analyst to write: Standard & Poor’s Ratings Services afﬁrmed its “A-/A-2” long- and short-term corporate credit ratings on Europe-based uranium enrichment company Urenco Ltd. . . . The enrichment market is undergoing very drastic changes, as TENEX (Rosatom)—which controls roughly 50% of global enrichment capacity but only 24% market share among end-customers—is looking to increase its share of direct sales to end-customers. The extent to which this will affect Western enrichment suppliers—USEC Inc. (B-/Negative/–), Areva (not rated), and Urenco—over the medium term remains to be seen, but will be strongly inﬂuenced by ongoing political and trade negotiations . . . The other major industry change is an expected phase-out of the non-economical gaseous diffusion plants used by USEC and Areva . . . (These ratings were re-afﬁrmed on April 24, 2008.) 11 “A−” implies that Standard & Poor’s believes that (1) “economic situation can affect ﬁnance” (A) and (2) that the rating is “likely to be downgraded” (−); where A−, BB, BB−, B+, B−, etc., are lower and lower credit ratings for “non-investment” grade bonds. Since 2002, USEC has been forced to pay high bond rates on its rising debt, while trying to ﬁnance a new, First-of-a-Kind technology. This situation has been deteriorating; see Table 2. Therefore, assuring adequate diversity of enrichment capacity could be problematic **without a** more comprehensive **market intervention** (rather than continued subsidization, or not, by national governments). A Russian-European duopoly in enrichment might provide an adequate diversity of supply. But the U.S. Government must determine how many suppliers should be in the enrichment market to maintain market competition or whether any form of market regulation is necessary. The U.S. Government has been **subsidizing** the **USEC since its privatization**; it is unlikely that USEC will survive without a *continuous* infusion of federal capital *until* the ACP is ﬁnished. If USEC does survive, it might not be competitive enough to grow, if only because USEC has so little experience with operating and manufacturing centrifuge technology. **If USEC fails, the U.S**. Government **could be required to** nationalize **the** American Centrifuge Plant to provide services to defense programs (e.g., naval reactors), as well as pay for decommissioning the gaseous diffusion facilities and all other outstanding USEC liabilities. On the other hand, American electric utility demand can be supplied by Americans working at the Areva and Urenco plants in Idaho and New Mexico, and by the Russians through the extension of current contracts. Therefore, while it is not in the American electric utilities’ interest to support USEC’s high prices, it could be in their interest to support the existence of USEC as a hedge against dependence on one or two suppliers. Unregulated enrichment markets will not necessarily lead to a socially optimal diversity of enrichment suppliers: a long-run equilibrium where the industry is necessarily concentrated such that there is no proliferating entry, but is sufﬁciently diverse so that no one national group can dictate prices, contract terms, or non-proliferation policy. United States decision makers should determine (1) whether a Russian-European duopoly is in the United States’ national interest, given the dependence of the U.S. **nuclear navy** on Highly Enriched Uranium (or whether highly enriched uranium stockpiles would be adequate for the foreseeable future), (2) whether to continue to subsidize USEC, or re-nationalize it in the national interest of the United States to facilitate the implementation of non-proliferation policy, and (3) whether some form of enrichment market regulation should be encouraged to assure low-enriched uranium at reasonable prices, particularly for U.S. electric utilities.

### Deterrence

#### Tritium requirements for the nuclear deterrent won’t be met now – only increasing tritium production solves

GAO ’10

(“NUCLEAR WEAPONS National Nuclear Security Administration Needs to Ensure Continued Availability of Tritium for the Weapons Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

DOD is responsible for implementing the U.S. nuclear deterrent strategy, which includes establishing the military requirements associated with planning for the nuclear weapons stockpile. NNSA and DOD work together to produce the Nuclear Weapons Stockpile Memorandum. This memorandum outlines a proposed plan for the President to sign to guide U.S. nuclear stockpile activities. This plan specifies the size and composition of the stockpile and other information concerning adjustments to the stockpile for a projected multi-year period. While the exact requirements are classified, NNSA uses the detailed information included in the memorandum on the number of weapons to be included in the stockpile to determine the amount of tritium needed to maintain these weapons. In addition, NNSA maintains a reserve of additional tritium to meet requirements in the event of an extended delay in tritium production. Small quantities of tritium are also needed by the national laboratories and other entities for scientific research and development purposes. According to NNSA officials, NNSA is meeting current requirements through a combination of harvesting tritium obtained from dismantled nuclear warheads and producing lower-than-planned amounts of tritium through the irradiation of TPBARs in the Watts Bar 1 reactor. However, tritium in the stockpile as well as in NNSA’s tritium reserve continues to decay, making increased production of tritium critical to NNSA’s ability to continue meeting requirements. Although the number of nuclear weapons in the U.S. stockpile is decreasing, these reductions are unlikely to result in a significant decrease to tritium requirements. Specifically, the New Strategic Arms Reduction Treaty signed in April 2010, if ratified by the Senate, will reduce the number of deployed strategic nuclear warheads by 30 percent. However, it has not yet been determined whether some or all of these warheads will be maintained in reserve—where the warheads would continue to be loaded with tritium—or dismantled—where the tritium could be removed from the weapons. Moreover, even if some or all of the warheads reduced under the treaty were dismantled, tritium requirements are unlikely to decrease by a significant amount. While the specific reasons for this lack of decrease in tritium requirements are classified, NNSA officials we spoke with said that the additional tritium supply that would be available as a result of increased warhead dismantlements is unlikely to fill what they estimate will be a steady tritium demand in the future.

#### The ACP key to domestic tritium in our nuclear arsenal

**Holt and Nikitin ’12 –** specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

Tritium, produced in nuclear reactors, is an essential ingredient in U.S. nuclear warheads and must be regularly replenished as it radioactively decays. The need for a domestic fuel supplier for tritium production reactors has been cited as a justification for providing government assistance to USEC. USEC Inc. was established in 1998 through the public sale of a government corporation, the U.S. Enrichment Corporation, pursuant to the USEC Privatization Act (P.L. 104-134). The company enriches uranium in the fissile isotope U-235 (increasing the proportion of U-235 from the level found in natural uranium) for use as fuel by nuclear power plants. USEC leases an enrichment plant in Paducah, KY, from the Department of Energy (DOE). Built in the late 1950s, the Paducah plant uses an enrichment technology known as gaseous diffusion, in which uranium hexafluoride gas is pumped through permeable barriers to separate the major isotopes of uranium. As the isotopes are separated, U-235 is concentrated in a product stream, while the non-fissile isotope U-238 becomes more concentrated in a waste stream (or tails). USEC plans to replace the Paducah plant with a new plant at a DOE site near Piketon, OH, that would use advanced centrifuges to separate the isotopes, called the American Centrifuge Plant. The $150 million requested in the FY2013 Department of Energy budget justification is to support R&D activities for the American Centrifuge Plant. DOE currently produces tritium by irradiating lithium-6 in the Watts Bar 1 commercial reactor (in Tennessee) and may expand the program to the two-reactor Sequoyah nuclear plant (also in Tennessee) as well, both of which are owned and operated by the Tennessee Valley Authority (TVA). Because the tritium is to be used in nuclear weapons, the Watts Bar 1 and Sequoyah reactors **may not be allowed to use fuel from foreign sources** or even some domestic uranium. U-234 is necessary for the production of tritium. USEC Inc. is the current supplier of fuel for tritium production. Thus, if USEC were to cease enrichment operations, it has been argued, U.S. tritium production could be jeopardized because of a lack of alternative fuel from a solely domestic source.

#### Foreign suppliers creates uncertainty and vulnerability in the arsenal

Rowny ’12 – retired Lieutenant General

(Edward Rowny, was chief negotiator with the rank of ambassador in the START arms control negotiations with the Soviet Union and has served as an arms control adviser and negotiator for five presidents, Roll Call, 3-29-2012, http://www.rollcall.com/issues/57\_118/edward-rowny-safe-uranium-enrichment-should-be-us-priority-213505-1.html)

Oil may grab headlines, but nuclear power for civilian use is growing, as it should. It is efficient, extremely safe and friendly to the environment. As with oil, the U.S. would be wise to produce its own supply of enriched uranium, the fuel for nuclear power plants. Farming out the process to other nations — or to companies headquartered overseas — is risky and increases our vulnerabilities. The U.S. government should pay more attention than it has in recent years to the nation’s dwindling ability to enrich its own uranium. The consequences of doing otherwise could be dramatic. Our country could **find itself at the mercy** of foreigners who do not have our best interests at heart. Energy independence, a laudable aspiration for oil, is even more essential for nuclear power. Domestically produced supplies of enriched uranium are already running short. The U.S. once produced most of the world’s enriched uranium. Now we’re down to about a quarter of the world’s supply. For reasons of national security, we shouldn’t dip further. That’s why the president should be praised for requesting $150 million in next year’s National Nuclear Security Administration budget to keep uranium enrichment alive on our soil. In the meantime, Chu has asked Congress for the authority to reallocate his current budget resources for that purpose until next year’s budget is enacted. Without this cash infusion, American technology at a major facility in rural Ohio will face an uncertain future. We can’t afford the *uncertainty*. Military considerations also play a role here. Nuclear weapons, while thankfully on the decline, still exist and must be maintained and updated. International treaties mandate that tritium, a rare, radioactive isotope that’s a byproduct of enriched uranium use in nuclear reactors and is critical to the proper, safe functioning of nuclear weapons, must be made with U.S. technology. Unless U.S. technology is available to make the enriched uranium needed to produce tritium, our national security will be at risk.

#### Foreign suppliers can’t and won’t provide the tech

Holt and Nikitin ’12 – specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

The European consortium Urenco is one of USEC’s major competitors. Urenco recently began operating a centrifuge enrichment plant in New Mexico, which is expected to reach a capacity of 5.8 million separative work units (SWU) by 2015. The New Mexico plant is operated by Urenco subsidiary Louisiana Enrichment Service (LES), so named because the facility was originally planned for Louisiana. Construction of Urenco’s New Mexico plant was authorized by the 1992 Washington Agreement between the United States and the three members of the Urenco consortium: Germany, the Netherlands, and the United Kingdom. 2 Article III of the agreement, Peaceful Use, states that the New Mexico plant shall only be used for peaceful, non-explosive purposes. The special nuclear material produced by the plant, enriched uranium, as well as any special nuclear material produced in a reactor using the enriched uranium, such as plutonium, is also restricted to peaceful uses. Urenco has signed a contract with TVA to supply enrichment services from its New Mexico plant to the Watts Bar and Sequoyah reactors. This arrangement raised questions about whether the TVA plants could be used to make tritium for nuclear warheads while being fueled by enriched uranium from Urenco. A 2008 legal memorandum to NNSA concluded that the Washington Agreement did not preclude such use of the Urenco-produced nuclear fuel, because tritium is not defined as special nuclear material, but rather as byproduct material. A Joint Committee of the Urenco consortium, after being briefed on the issue at a 2005 meeting, did not object to the TVA contract. 3 A Urenco official said that although the company does not object to TVA tritium production with its enriched uranium, **current DOE policy would not approve the transfer**. 4 An NNSA official said U.S. treaty obligations prevent fuel enriched by Urenco from being used for tritium production: The answer in general for Urenco is that its enrichment technology has peaceful use restrictions, consistent with section 123(a)(3) of the Atomic Energy Act and our treaty with Euratom [an association of European countries that use nuclear energy], that prevent its deployment in support of nuclear weapons programs or for any military purpose.

#### Perception of federal leadership key to effective nuclear deterrence

Schneider ‘8 – chairman of the Defense Science Board

(Dr. William Jr., “Nuclear Deterrence Skills”, Report of the Defense Science Board Task Force, September 2008, http://www.defense.gov/npr/docs/dsb%20nuclear%20deterrence%20skills%20chiles.pdf)

As long as anyone in the world has or can acquire nuclear weapons, America must have nuclear **deterrence expertise** competent to avoid strategic surprise and respond to present and future challenges. There are many kinds of threats that demand national leadership, but no threat can put the nation’s existence at risk as quickly and as chillingly as nuclear weapons. To say this is not to dismiss the seriousness of other threats. It simply acknowledges that since the dawn of the nuclear age, security from nuclear attack has been in a class of its own, and major national decisions on nuclear deterrence issues have been reserved for the President of the United States. Nuclear deterrence expertise is **uniquely demanding**. It cannot be acquired overnight or on the fly. It resides in a highly classified environment mandated by law, it crosses a number of disciplines and skills, and it involves implicit as well as explicit knowledge. Nuclear weapons **expertise is** **necessary to design and build nuclear weapons, to plan and operate nuclear forces**, and to design defense against nuclear attack. It is also necessary to analyze and understand foreign nuclear weapons programs, devise nuclear policies and strategies, deal with allies who depend on the American nuclear umbrella, prevent and counter nuclear proliferation, defeat nuclear terrorism, and—in the event that a nuclear detonation takes place by accident or cold, hostile intent—cope with the catastrophic consequences. America’s nuclear deterrence and nuclear weapons expertise resides in what this study calls the “nuclear security enterprise.” This enterprise includes nuclear activities in the Department of Defense (DOD), Department of Energy, Intelligence Community (IC), and the Department of Homeland Security.

#### The nuclear deterrent is critical to prevent nuclear war

Blackwill ’13 – special advisor to the Air Force’s assistant Chief of Staff for strategic deterrence and nuclear integration

(James, “Nuclear Weapons Critics Suffer Cold War Brain Freeze; Deterrence Works, Argues Top Air Force Official”, AOL Defense, 2-20-2013, Accessed 2-25-2013, http://defense.aol.com/2013/02/20/nuclear-weapons-critics-suffer-cold-war-brain-freeze-deterrence/)

There is an unsettling paradox in much of the recent debate over nuclear weapons in this country. Some pundits, fixated on purging "Cold War thinking" from those of us with real-world responsibilities for nuclear deterrence, are themselves suffering from thoughts frozen in time. In the midst of this important debate, let me offer some examples of the new strategic concepts emerging from a new generation of deterrence thinkers. The conventional wisdom is that a world with fewer nuclear weapons is inherently a better world. What we are discovering is that less is not less, less is different. US policy has led in reducing nuclear weapons. At its peak in 1967, the US stockpile stood at a staggering 31,255 warheads. Just since 1991, we have disassembled more than 13,000 weapons, and in the past decade taken our stockpile – the total number of weapons -- down from 10,526 in 2001 to 5,113 in 2010. Our nuclear weapons and delivery platforms now number an order of magnitude less than during the Cold War, and this policy continues -- creating new conditions in the global nuclear balance. In this new nuclear environment, potential adversaries are reaching conclusions we did not expect, and **our allies** and partners **are more nervous** about it than we want them to be. This new world of several contending nuclear powers **behaves** **differently than the bi-polar world** that preceded it. Deterrence is no longer (if it ever really was) a rational actor systems model; it works as a mental model. It's more like the "**hot hand" rule in basketball** – players do not keep mental statistics on who has the highest percentage shot for a particular game situation; instead they carry a moving mental image of who at that moment is on a streak and feed the ball to that player instinctively. The same kind of thing happens in crisis and conflict. Behavioral scientists call this "fast, frugal heuristics," and are beginning to explore the empirical dimensions of this 21st century deterrence dynamic. There are some surprising findings and insights. First, just because no one has detonated a nuclear weapon in war since 1945, does not mean they are sitting idly by, with little purpose. Nuclear weapons are in fact "used" **every day** -- not to win a war, but to deter any adversary from thinking they could get away with starting one. As budget pressures rise, many call for not spending more on weapons we cannot use in the kinds of conflicts most likely to occur – presumably counter-terrorism or conventional warfare. But a nuclear war is the conflict we need to make sure remains the least likely to happen. Second, there is **much new research** on 21st century deterrence of rogue actors and terrorists. We now know that, during the 1991 Persian Gulf War, Saddam Hussein was persuaded that if he were to order use of chemical weapons against US troops, the US would have responded with tactical nuclear weapons. Hussein had extensive discussions with his generals – lectures really – and injected that assumption into all their war planning. Such thinking likely resides within the decision-making processes of other states that face a similar calculus. There is merit in reinforcing such fears among others who would harm their neighbors. It turns out that terrorists, even suicide bombers, harbor visceral fears of nuclear weapons, fears that can be exploited to deter them from acting should they ever get one. Islamic terrorists adhere to the Koran's proscriptions against poisoning the earth with radiological effects and creating mass casualties among the innocent. Cyber and psychological campaigns can broadcast messages across terrorists' own social networks to convey this narrative challenge to terrorists' intent. Terrorist cells also fear failure, so technical sabotage, misinformation and deception can magnify doubt about the prospects for a successful detonation. Third, US nuclear weapons serve as a powerful instrument of nonproliferation. Post-Cold War experience reveals that others, from Saddam's Iraq, to North Korea, Libya, Iran and others, pursue nuclear weapons as the centerpiece of an asymmetric counter to the United States' conventional military superiority. As every other nuclear power except the U.S. modernizes their nuclear weapons, and as the number of nuclear armed states continues to grow, our allies and partners who rely on our extended deterrent are increasingly motivated to consider obtaining their own nuclear arsenal. We must actively pursue a flexible strategy that allays such concerns among allies. Some assert that a reliable nuclear deterrent does not require the ability to retaliate immediately, only the assurance that U.S. nuclear forces would survive any attack. Aside from the fact that none of America's nuclear triad is on "hair-trigger" alert, the reality of fewer nuclear weapons is that we cannot rely solely on a super-survivable second strike nuclear force that deters only by threatening retaliation. Such a posture could readily be perceived as threatening our intent to strike first. We must have a resilient nuclear arsenal that deters a nuclear strike in the first place. No president would want to ask the American people to ride out a first strike and then trust him to order a retaliatory strike on behalf of the remaining fraction of our population. What the president needs is a nuclear force that would lead no nuclear armed state, faction or terrorist to conclude that it has less to lose by striking us first, even with just one or a few nuclear weapons. We must not give anyone cause to contemplate such a move. This is a very different form of deterrence than the Cold War. No longer can we rely on the mathematics and purely rational models of nuclear exchange developed in the 20th century. We must understand human perception and decision-making. For 21st century deterrence, the value of first-strike stability is now at least equally important as maintaining an assured retaliation capability. Those of us in the new generation of strategic thinkers have liberated our minds from Cold War thinking to make sure that today, nuclear weapons are never used.

#### Perception of credible U.S. nuclear deterrent is key to Asian stability

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(Rory, “A Nuclear Pivot to Asia?”, The Diplomat, 3-5-2013, http://thediplomat.com/flashpoints-blog/2013/03/05/a-nuclear-pivot-to-asia/)

The 2010 U.S. Nuclear Posture Review made sensible, logical steps towards a reduced reliance on nuclear weapons in America’s global posture, without critically damaging the confidence of allies protected by the U.S.’ so-called extended deterrence – America’s willingness to use force to protect them even from nuclear threats. An innovative set of extended deterrence dialogues with Japan and South Korea has helped in this regard.¶ But how will the further pursuit of Obama’s anti-nuclear vision interact with the worsening strategic dynamics in Asia in 2013 and beyond?¶ Japan and South Korea are unnerved by North Korea’s continued progress in its nuclear and missile programs. Japan’s strategic anxiety is deepened by the prospect of confrontation, perhaps even an armed clash, with China over disputed islands.¶ The full implications of sequestration on America’s conventional force posture in Indo-Pacific Asia remain far from clear. But they almost certainly **will add to the fears** of allies.¶ It is notable meanwhile that the White House’s response to the February 13th North Korean missile test included an explicit reassurance to Japan that it was covered by the U.S. extended nuclear deterrent. President Obama openly used the phrase nuclear umbrella, rather than the usual more euphemistic reference to something like “all means.” ¶ This is a grim reminder that, deep down, the security of Asia rests of American capability – and presumed willingness – to use nuclear threats or force in an extreme crisis. ¶ Does all of this mean that we can expect voices to gather in Seoul, Tokyo or even parts of the American debate advocating reemphasizing nuclear deterrence to keep the peace in Asia, even vis-à-vis China? ¶ I am not suggesting that there is any serious prospect of a physical nuclear pivot, for instance the redeployment of U.S. tactical nuclear weapons to Korea.¶ But the path to further limitations on the role of nuclear weapons in America’s Asia posture, such as an unequivocal no-first-use declaration or a willingness to drop down to nuclear parity with China’s small arsenal, is now even less clear than it was five years ago.¶ It may not amount to a nuclear pivot, but if America’s conventional superiority in Asia significantly declines, then the relative importance of its nuclear edge will rise – whether President Obama and disarmament visionaries like it or not.

#### Asian instability causes nuclear war

Landay ’00 – national security and intelligence correspondent

(Jonathan S. Landay, National Security and Intelligence Correspondent, “Top Administration Officials Warn Stakes for U.S. Are High in Asian Conflicts”, Knight Ridder/Tribune News Service, March 10, p. Lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

#### Nuclear primacy stabilizes nuclear conflict with Russia and China

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 134-139)

Any practical scenario involving nuclear weapons looks highly unrealistic except in the context of a conflict with China, the most feared neighbor, which lost part of its territory during the time of Russia’s grandeur with the so-called unequal treaties. But even though Beijing is feared by lucid Russian officials and security experts, such a scenario appears remote. Russia would rather continue developing its anti-Western propaganda and trying to coerce its neighbors—a prospect that is troubling enough, particularly since many of those neighbors are NATO and/or EU members—but nuclear weapons can hardly be contemplated, even to coerce. In the south, Russian nuclear weapons can hardly be used as either a means to deter or a means of warfare. So, again, only a China scenario would make sense, particularly since with fewer nuclear capabilities, China would be much more tolerant of human losses. Moscow knows it. It also knows that deep cuts in nuclear forces after New Start would encourage China’s buildup. Finally, it is worth underlining in the event of future talks with Moscow that it is hard to understand its geostrategic picture as expressed in March 2011 by Military Sciences Academy President General Makhmud Gareyev: “Regarding security, Russia has never been in such a crunch as in the early twenty-first century since perhaps, 1612.”67 Forget 1941, and forget the Cold War, particularly after 1960, when both China and the United States were considered hostile. The delusion of the Russian side will be the most dangerous element to deal with in the coming years. In the 21st century, there is a potential nuclear triangle among the United States, Russia, and China that may be considerably more difficult to handle than the bipolar relationship that existed in the 20th century. Triangles are inherently unstable, particularly when the nations concerned are empowered with ballistic missiles and nuclear weapons.68 Each of the three powers has to make calculations regarding the evolution of the other two; two of the three may combine their forces against the third, and this kind of alliance may only be temporary; and in case of crisis, the **uncertainty** grows with the presence of a third actor. In George Orwell’s novel Nineteen Eighty-Four, the world is divided among “the Big Three,” all of them totalitarian. They combine but switch sides frequently. As Martin Wight recalls, “Triangles tend to be mobile figures of shifting alliances and negotiations.”69 In the case of the United States, Russia, and China, there would be only two dominant powers of different caliber (the United States and China) and a third force (Russia, which can no longer be called a great power). If triangles “are relationships of conflict” that “are resolved by war,”70 what can be expected from this particular triangle? For the time being, Washington has prioritized China and Russia in the 2010 NPR, frequently associating them with “strategic stability.” In the NPR, China and Russia are no longer presented as “contingencies” (even though both nations are still targeted in U.S. nuclear planning) but as partners with whom to discuss strategic stability. The Ballistic Missile Defense Review, for its part, has done its utmost to assure China and Russia of the absence of any U.S. plans to counter China’s or Russia’s deterrence capabilities. Rhetoric aside, how will the United States craft strategic stability with both Russia and China? The NPR offers no answer to this legitimate question. Thinking on the subject is not easy, particularly if government officials are pressed to reach public conclusions. It appears highly probable that strategic stability will be defined by both Russia and China—if they eventually agree to engage in such discussion 71—in wider terms than in terms of nuclear parity. In principle, the United States, which never equated “strategic” with “nuclear,” should have no problem accepting this. But difficulties would start just after this simple recognition. First, both Moscow and Beijing want to constrain advanced U.S. conventional capabilities, U.S. missile defenses, and alliances with the United States in their neighborhood. Washington can make some **gestures** (offer cooperation on missile defense to Moscow72 or reassure Beijing on the value of its nuclear deterrent73), but those **will hardly be enough**. Second, on the American side, it would only be natural to enlarge the concept as well and ask Moscow to clean up its ballistic weapon archipelago for good,74 while China might be asked to adhere to some rules in space and cyberspace. A year from now, the different definitions of strategic stability in the three nations are likely to endanger the optimistic scenario delineated in the NPR.75 On the Russian side, missile defense, Prompt Global Strike, and NATO’s presence in Russia’s periphery are going to remain contentious bilateral issues, while its own clandestine ballistic weapon activities are unlikely to be acknowledged. In addition, the primary source of instability in Moscow’s mind being its own decay, U.S. military and diplomatic superiority are going to be fought with all the available means, including influence, negotiations, intimidation, and espionage. The nostalgic empire perceives any secure neighbor as a threat, as if projecting fear were the only means of ensuring security. While the historical roots of this mind-set are well known, it clashes with stability as defined by most other countries (and certainly by Russia’s neighbors). For example, on the subject of missile defense, Moscow insists it is prepared to shield contiguous Eastern European states from missile threats: “Naturally, Russia should be in charge of the eastern sector encompassing the territories of the contiguous states and seas,” declared Russian Space Forces Commander Lt. Gen. Oleg Ostapenko on April 29 in Moscow.76 Would the Baltic states or Poland consider such a possibility? Unlikely. And Washington will not swallow any of this, either. As for China, stability is satisfactory as long as China’s status, meaning the “Middle Kingdom” under new guise, is restored. More than projecting fear, Beijing wants recognition of its superiority. The bottom line is “China is big” and deserves respect as such. Such was the motivation for Beijing’s totally disproportionate reaction to Tokyo’s decision to detain and charge the captain of a Chinese fishing trawler in September 2010. China needs to learn the measure of a great power, but it may never get there. It apparently enjoys looking like a bully. Beijing may therefore be exploiting the U.S. desire for partnership only to the extent that it buys it an additional decade of breathing room to become really big. Is it in the interest of the United States to endorse this line of thought and conduct? Hardly. In addition, the primary source of instability for China being the United States (in decline in China’s mind but still the big hegemon in China’s speeches), it is hard to imagine what kind of strategic stability can be crafted with Beijing. Sino-Russian relations have improved largely because both nations wish to constrain American power. The border dispute was resolved in 2004, some joint military exercises have been conducted, and China has benefited enormously from Russia’s willingness to export modern weapon systems (aircraft, submarines, cruise missiles, and air defense systems) and advanced technologies (notably in the field of uranium enrichment). In essence, China views the rapprochement as bringing more stability because it increases China’s power and influence. Russian policy is less clear and sometimes debated by Russian experts who worry about China’s military rise. In Central Asia, the two nations are in competition: Their only common goal is related to U.S. withdrawal. What will happen next? In the Middle East and in East Asia, there is some Sino-Russian coordination to constrain Western efforts toward sanctions on Iran and North Korea. From this perspective, both countries bear some responsibility in the advance of both Iran’s and North Korea’s ballistic and nuclear programs, even when technological cooperation between them and the two nuclear aspirants is set aside. With this in mind, how can strategic stability be crafted among the United States, China, and Russia? At the simplest level, strategic stability could mean securing the nuclear peace and preventing escalation in times of crisis. In principle, the Russians could be a satisfactory partner because of historic experience, competence, and a genuine desire to avoid worst-case scenarios. Less is known about the Chinese: Would they reject or favor deliberate escalation in wartime? One thing that is clear is that interest in this topic is growing in the PLA.77 Chinese writings continually emphasize the need to secure and maintain the political and military initiative, highlighting how difficult it is to regain once lost. This is probably the area where escalation with China is a concern. Russia used to state in its doctrine that it would not hesitate to resort to nuclear weapons when faced with possible defeat in a limited conventional conflict. The most recent Russian military doctrine states a more moderate position: The Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat.78 The contradiction between the declared Russian doctrine and Russia’s military exercises may provide a different insight, but in practice, nuclear escalation in a limited conventional conflict can be considered unlikely. China, on the contrary, repeatedly states a no-first-use policy in the Second Artillery’s publications. However, first, such a policy may be useful mainly in the diplomatic arena, and second, one wonders whether a probable conventional defeat against Taiwan, China’s most important territorial dispute linked to the legitimacy of the Chinese Communist Party, could be politically acceptable for Beijing. In other terms, on the ground the two nations might behave in ways that contradict their doctrines. This would be consistent with their patterns of behavior, Russia overplaying its hand and China underplaying it. In case of a U.S.-China confrontation over Taiwan, what would Russia do? The most likely answer is nothing. With no clear stake in the conflict, Moscow would not risk becoming a target of either Beijing or Washington. Some would argue, though, that Russia may have a stake in this conflict. A Chinese victory over Taiwan might be followed by the wish in Beijing to recover territories in the eastern part of Siberia. Would this possibility lead Russia to openly challenge China during such a conflict? Most probably not. But the United States may count on a neutral Russia, forgetting any strategic partnership with China. Any serious Russia-China confrontation, on the other hand, may raise questions in Washington about the possibility of intervening on the Russian side because of wider interests. The least that can be said is that Moscow does not facilitate thinking in the direction of such a scenario, which would imply an extraordinary level of rapprochement with Washington. But the reality is there and it is troubling: As President Kennedy understood at a very early stage, China is fundamentally more dangerous than Russia.79 This should be the perception in the West after decades of interaction. We can only imagine what China would be capable of doing if it perceived the United States having serious difficulties accessing the region, starting with the contested Senkaku Islands. From this viewpoint, Richard Nixon may have lost his bet. There is a widening divide between two categories of big nations: those convinced that the main challenge of the 21st century is to prevent major crises from emerging, fight nuclear and biological proliferation, and jointly manage the global commons, and those that continue to engage in power politics and competition. In the latter category, China is the most daring. Russia may continue to harass its neighbors, particularly if Moscow’s reading of the 2008 Georgian war is that it provides a telling example of the West’s lack of reaction, but it will probably pose no major challenge in the foreseeable future. In the former category, one finds European nations, America, and—a good surprise—increasingly India, which is progressively displaying the intent to rise as a responsible global power. These two worlds are hardly reconcilable, and they may collide. More substantial thinking on power politics may be required in the first group of nations, regardless of their preference for a more cooperative and stable world where most states increasingly share the same interests. Stability itself may require such thinking. If strategic engagement integrates a competitive dimension, it may work considerably better because it will be in tune with reality on the ground. A good example is the improvement of U.S.- Chinese relations in 2010, coinciding with a more sober view of China in the Obama administration.

#### China and Russia would exploit weakness in our nuclear deterrent to gain power

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 117-119)

With China now a major rising power, considerably more difficult challenges than those posed by regional powers are starting to appear on the horizon. If experience is any guide, a gradually more powerful China is likely to become not a more responsible stakeholder but rather an increasing challenge to an international order that, in the eyes of Beijing, is unduly protective of the West’s interests, including in Asia. The mood regarding Beijing has darkened after the Copenhagen Summit on climate change in December 2009, numerous cyberattacks, challenges to Internet freedom, ambiguous policy on Iran and North Korea,7 arms sales to Iran and to the Taliban, disregard for maritime law,8 and, finally, lack of common assessment on future challenges and future strategic stability. Beijing appears increasingly self-confident, arrogant, and nationalistic.9 With its imperial culture and its legacy of condescension, China sees itself as the only possible—and probably the only legitimate—successor to the United States on the international scene in the decades to come. In China’s view, it deserves to become number one; it only needs time to prove the point. Its neighbors have few doubts on the subject. And, instructed by experience, Washington itself had far fewer doubts in 2011 than it did in 2009, for good reason. Russia, a fading power, is a different matter of concern. Its rational choice should be to work with the West, with a potential nuclear-armed Islamic power on its southern flank, a collapsing demography, and a dynamic and greedy China in the southeast. But apart from reports written by some Russian experts popular in the West,10 there is no indication that Moscow has come to this conclusion. The 2010 Russian military doctrine still names NATO as the first danger to Moscow’s security, 20 years after the end of the Cold War. Concerning China, there may be fear and awe in Russian minds, but there is not a single word on the subject in Russia’s military doctrine. Whenever questions are raised about relations with China, Russian officials tend to answer that they have dramatically improved. Reluctance to engage in any serious security dialogue— not to mention any initiative—that could threaten bilateral relations with Beijing is obvious.11 When asked, for example, to share data with the United States on Chinese ballistic missile launches—a potential useful bilateral cooperation for both nations— Moscow refused in order to avoid hurting Russian-Chinese relations. According to an April 2010 BBC World Service survey, Russia ranks third in negative feelings toward the United States.12 The main threats coming from Russia are its difficulty in reconciling with the loss of its empire, its resentment toward the West for that reason, the corruption of its political elites, and its current inability to face real threats as opposed to imaginary ones. Big states seldom attempt to balance power, and even more seldom do they cooperate with each other. Most frequently, they simply seek to gain power of their own. The United States is probably a historical exception to this rule because it appeared on the world stage in order to limit the damage brought by its European allies rather than to enlarge its own world influence and power. History, revenge, **misconceptions**, and even suicidal moves can guide the policy of big powers: The 20th century has shown it in a devastating manner.13 An almost unthinkable series of absurdities in Vienna, Saint Petersburg, Berlin, and Paris set all of Europe ablaze as well as a large part of the rest of the world, after the assassination of the nephew of the Austrian emperor by a Serb nationalist. Once the machine had been set in motion, there was no way of holding it back. A lucid analysis of the policy pursued by both Russia and China does not provide a rosy picture for the future. If the challenges come closer, no one will be in a position to speak about any “strategic surprise.” Retrospectively, **the real surprise** for historians will be our blindness: The main elements of future crises are already present for everyone to see. In the case of **Russia**: continuous violation of the BWC, disregard of the CFE Treaty, a policy of fait accompli in both Abkhazia and South Ossetia, a wish to recover as much of its former empire as possible, endemic political corruption, and ambiguity vis-à-vis Iran.14 In the case of **China**: a will to gain at last the position it believes it deserves in the world (namely number one), deployment of more than 1,000 missiles on mainland China facing Taiwan, cyberattacks against America and Europe, competition with the United States in outer space, development of effective antiaccess capabilities, confrontation with neighbors on sea lanes and maritime law, and an unwillingness to implement sanctions against Iran and North Korea, even when Beijing agrees to vote for them. The triangular nuclear relationship among the United States, China, and Russia took a curious shape in 2010. At the very time when Washington took literally months to decide whether the NPR would use the phrase “sole purpose” or “primary purpose” to describe the objective of U.S. nuclear weapons (and finally settled for “fundamental purpose” in order to include a possible nuclear response to a biological attack), China quietly continued increasing and improving its ballistic and nuclear arsenal as well as its space and cyber capabilities, while in February 2010 Russia adopted an aggressive nuclear doctrine that worried its neighbors (who are also U.S. allies and often EU members).

#### Deterrence between the U.S. China and Russia works – communication and nuclear learning are increasing – just a question of U.S. technical capability to maintain deterrence

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(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 159-161)

In 1956, Paul Nitze made an interesting analogy between a nuclear world and a chessboard.1 He wrote that even though the atomic queens may never be brought into play, their position may still have a decisive bearing on which side can safely advance a limited-war bishop or a Cold War pawn. More than 50 years later, this may still be true. But while he had in mind mainly U.S. and Soviet atomic queens, with an advantage on the American side, the reality in the 21st century may be essentially about the **shadow of America’s adversaries’ atomic queens**. In the United States, expenditures related to the nuclear enterprise are under increasing scrutiny, making it difficult to modernize the nuclear arsenal.2 Today’s entire Air Force bomber fleet—nuclear and nonnuclear—is 90 percent smaller than it was in 1959, a decline justified in great part first by the deployment of ICBMs, the advent of precision-guided munitions, and the rise in the per-unit cost of combat aircraft, and second by the end of the Cold War. Still, all the remaining bombers are in need of costly upgrades, since the air-launched leg is apparently going to be retained for the foreseeable future.3 The remaining ICBMs are also aging rapidly, with underground silos in need of cost-prohibitive replacement. Among U.S. nuclear allies, the United Kingdom is far from having a clear nuclear policy for both political and financial reasons (in April 2011, for example, part of the UK coalition—LibDem—questioned the need for continuous submarine patrols at sea). Meanwhile in China, where the military budget has been unconstrained for 20 years, nuclear weapons are playing an increasing role. New air, sea, and ground systems are beginning to be deployed there, with great opacity denounced in the region and beyond. The future nuclear force that China has in mind is unknown. Even the number of new ICBMs, dual-capable aircraft, and nuclear submarines is anyone’s guess, though it is probable that the JL-2 will be made capable of carrying three warheads instead of one. At the same time, Beijing is developing space and cyberspace capabilities and testing them in disturbing ways. With significantly fewer financial resources than China, Russia also gives priority to its nuclear holdings because of perceived large conventional imbalances with both NATO and China. The New Start treaty has not led to any reductions in Russia, because its current holdings are already below the ceilings. In South Asia, Pakistan may well be the main strategic beneficiary of the 1998 nuclear tests, since Islamabad’s needs are much more limited than those of New Delhi. When American troops leave Afghanistan, China will have more freedom of maneuver to achieve its overriding regional objective: keeping India down. This has always been the basic tenet of the Sino-Pakistani relationship. Finally, the likelihood of additional nuclear players in the Middle East and in East Asia 20 years from now can hardly be discarded. Some official statements have now been made public. All of these factors will play a role in constraining the United States in the safe advance of what Paul Nitze called a limited-war bishop. At the same time, nuclear deterrence has receded in American minds as well as in European capitals. More urgent business—yesterday in the Balkans and Iraq, today in Afghanistan and Libya—is focusing intellectual and operational efforts. Paradoxically, a fortunate turn of events occurred with two serious nuclear incidents in 2006 and 2007 in the United States. In August 2006, nuclear fuses were mistakenly shipped to Taiwan, and a year later, in August 2007, six air-launched missiles armed with nuclear warheads were mistakenly flown from Minot Air Force Base to Barksdale Air Force Base. Both events led to the creation of Global Strike Command and to a reexamination of the nuclear enterprise. Since the revelations concerning the probable existence of additional clandestine military activities in Iran (beyond Qom) and the advancement in Pyongyang’s enrichment program, troubling questions have surfaced concerning Western intelligence, key challenges to international verification, and export control limits. In stimulating a renaissance of thought on nuclear deterrence, this reexamination should take into account the development of thinking in potentially adversarial nations. In many parts of the world, nuclear weapons are not seen as old-fashioned. The West will **not change this perception** by reducing its nuclear arsenals. Newcomers carefully follow the nuclear debates that are developing mostly in the West. They take part in them, they react to them, they read nuclear doctrines (including NATO’s new nuclear posture), and they occasionally learn from past nuclear crises. An important lesson of the Cold War stems from the high level of professionalism exhibited by those dealing with nuclear weapons on both sides. As General Larry Welch declared at the 2010 U.S. Strategic Command Deterrence Symposium in Omaha, referring to the Western and Eastern nuclear communities, “they kept peace” in part because each side recognized the competence on the other side and respected it.4 Deterrence greatly benefited from this competence and respect. It is worth noting that during the Cold War, such competence was not recognized in Mao and the Chinese. Nikita Khrushchev worried about Mao’s recklessness and his lack of understanding in nuclear matters. Things have changed a great deal in the last 40 years, but there is no doubt in the mind of this author that Beijing remains a risk-taking partner when compared with the USSR. This factor should be taken into account in the West as it already is in the East. Improving mutual understanding among potential nuclear adversaries is an important part of deterrence. Such is the purpose of a number of current bilateral strategic dialogues. Such dialogues with Russia and China have been disappointing so far. Russia, a revisionist state unlike the Soviet Union, is essentially trying to get Western military technology and is not really interested in any substantial dialogue on the most divisive issues—for example, missile defenses, a subject on which the same line of argument is presented over and over again, whatever the systems contemplated to protect Europe and America or the technical explanations provided by Washington to reassure Moscow. China, with increasingly sophisticated and well-read experts, appears reluctant to discuss with Washington its perceived conditions for strategic stability in the 21st century, a crucial topic for deterrence in both America and Europe. Track two meetings may provide different opportunities. The strategic community is now **more internationalized** than it used to be. American, European, Russian, and—increasingly—Asian experts exchange ideas on a daily basis. These meetings improve mutual understanding on key questions: ambitions, interests, sovereignty, stability, and regional crises, as well **as prevention of escalation**. Although they are not meant to replace official bilateral or multilateral meetings, they should be able to deal with part of the “thinking crisis”: With so many questions now open, shaping the intellectual framework of things to come on nuclear matters is not a minor business, especially since the real nuclear debate could well become less about nuclear abolition and more about whether there will even be any rules at all in the nuclear future.

#### U.S. leaders will cling to nuclear deterrence inevitably – only a question of how credible and effective it is

Thompson ’11 – Chief Operating Officer of the non-profit Lexington Institute

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The anti-nuclear rhetoric coming out of the White House during Obama’s early days in office was so persistent that some senior military officers worried the new president was taking America in the direction of unilateral disarmament, even though the candidate had explicitly ruled out that possibility during the campaign. But the military need not have worried, because the way things are turning out, Barack Obama is likely to spend more money on the U.S. nuclear arsenal than any U.S. president since Ronald Reagan. In fact, if all the plans authorized on Obama’s watch come to fruition, hundreds of billions of dollars will eventually be spent on new nuclear capabilities and infrastructure by a president who has repeatedly endorsed the goal of a nuclear-free world. This may be the ultimate example of how gaining political power can **transform the beliefs of leaders** — not because Obama has abandoned his support of disarmament, but because of how being responsible for the nation’s security forces him to think in practical terms about the dangers of disarming. To understand the seeming divergence between the president’s convictions and his military plans, you have to grasp the perverse logic of U.S. nuclear strategy. U.S. military analysts figured out during the early days of the Cold War that no effective defense against a large-scale nuclear attack was likely to be feasible. The Russians were acquiring thousands of warheads, and the destructive potential of each one was so great that if even a small fraction managed to penetrate U.S. defenses, the nation would probably be wiped out. Defense Secretary Robert McNamara illustrated the problem in congressional testimony when he displayed a graph that indicated how destruction in the Soviet Union would level off after a relatively small portion of the U.S. nuclear arsenal had been expended, because there wasn’t much left to destroy. With both nations facing the possibility of nuclear obliteration, a new approach to national security clearly was needed. The concept that policymakers settled on was deterrence — the idea that enemies could be dissuaded from aggression by threatening horrible consequences. The key to effective nuclear deterrence was a secure retaliatory capability, meaning an arsenal that could ride out any surprise attack and then respond with such devastating effect that adversaries would find the prospect unacceptable. As long as enemies were not crazy or accident prone, the thinking went, a secure retaliatory force should be sufficient to deter nuclear attack. U.S. military planners spent the next 50 years revising and refining the requirements of deterrence, spelling out in great detail the performance characteristics required of U.S. nuclear forces to assure they were both survivable and credible. Survivability resulted mainly from having a trio (or “triad”) of well-protected nuclear systems — land-based missiles, submarine-based missiles and manned bombers — that were so different no enemy could conceivably destroy them all in a surprise attack. **Credibility**, which was crucial in a strategy based mainly on **influencing enemy psychology**, meant having targeting options that were believable and proportional to any provocation. The United States eventually ended up with over 30,000 warheads in its arsenal before the two superpowers accepted the impossibility of achieving meaningful superiority in a world of “mutual assured destruction.” Once that realization occurred, though, a gradual reduction in forces commenced that accelerated after the collapse of the Soviet Union. By the time President Obama took office, there were only about 5,000 warheads in the active strategic arsenal, and nobody talked much anymore about the danger of nuclear war. In fact, Obama’s 2010 Nuclear Posture Review displaced traditional deterrence objectives from the top of the strategic agenda, emphasizing instead the importance of halting nuclear proliferation and preventing nuclear terrorism. But the need for **nuclear deterrence still existed**, because **Russia retained thousands of warheads** and **China had at least hundreds**. In addition, new nuclear powers such as North Korea and Pakistan were emerging. It was the enduring need for deterrence that forced the Obama Administration to confront a paradox of nuclear strategy. The paradox is that the fewer weapons each side has the greater the danger of a surprise attack because at lower numbers it becomes easier for each country to disarm the other side. For instance, when the United States had hundreds of nuclear-capable bombers scattered around the world, there wasn’t much danger Russia could catch them all on the ground in a first strike. But now that there are only sixty located at a handful of sites, an enemy might be able to take out a sizable portion of the U.S. nuclear arsenal with a dozen well-placed warheads. The other part of the paradox is that if the enemy really thinks it can pull off a disarming surprise attack, then the very fact we have a retaliatory force is a powerful inducement to launching that attack — because what looks like a deterrent to us looks like a huge threat to them. After all, it is aimed at their cities, their factories, and their own retaliatory capabilities. So ironically, as the size of the U.S. strategic arsenal shrinks, the government needs to spend huge amounts making sure what’s left is still an effective deterrent. And unfortunately for President Obama, the arsenal he inherited hadn’t seen much in the way of modernization since the Cold War ended. The biggest part of the Obama nuclear buildup, if you’ll pardon the expression, is efforts to replace or improve all three types of launching systems in the current strategic arsenal. A fleet of 14 Trident ballistic missile submarines due to start retiring in 2027 will be replaced by 12 follow-on subs that will probably cost around $80 billion to design and build and hundreds of billions more to operate over their 40-year service lives. The president’s fiscal 2012 budget request includes a billion dollars to continue design work on the new class of subs. The 60 B-52 and B-2 bombers capable of delivering nuclear weapons must be upgraded in the near term and replaced over the long term; the Obama plan calls for spending $1 billion over the next five years on upgrading 16 nuclear-capable B-2s and $4 billion on developing a bomber that might one day replace it in the nuclear strike mission. And the 450 silo-based Minuteman missiles located in Montana, North Dakota and Wyoming will require additional life-extension measures to assure their survivability and reliability beyond 2030. Those are the nuclear-weapons expenditures most visible to the outside world, but there are a host of other outlays that will be required to keep the nation’s strategic posture viable. For instance, the administration noted when it released the Nuclear Posture Review that there would be a need to “make new investments in the U.S. command and control system to maximize presidential decision time in a nuclear crisis.” What this means is that communications links between commanders and nuclear forces must be strengthened so that the potential loss of control in a nuclear scenario does not force a launch decision before critical details about threats are in hand. The need to acquire as much information as possible before acting in a crisis situation also explains why the United States is currently orbiting a new generation of space-based infrared satellites that can detect missile launches and nuclear detonations within seconds after they occur. And then there is the nuclear complex where warhead components are manufactured, refurbished and dismantled. You wouldn’t think much spending is required to sustain a complex that hasn’t produced a single new warhead since 1991, but the system consumes a billion dollars per month and that figure is going up. In the absence of new production, old weapons must be **repaired and upgraded**, often using nuclear material recovered from weapons that are being retired. The retired weapons must be taken apart and their pieces re-used or rendered safe, an extremely complex procedure. The need to sustain such processes has led to major new construction projects at all of the industrial sites involved in nuclear weapons work. For example, a 350,000 square-foot uranium processing facility will be built at the Y-12 plant in Oak Ridge, Tennessee, and three different facilities will be built at the Savannah River plant in South Carolina to dispose of weapons-grade plutonium. Thus, the Obama nuclear plan will generate huge revenues for companies involved in nuclear work such as Babcock & Wilcox and General Dynamics, the probable builder of the submarine that replaces Trident. However, it isn’t likely that President Obama and his security team envisioned the full extent of budgetary outlays that would be required to sustain the nation’s nuclear forces as they drove toward the goal of a nuclear-free world. As things currently stand, the administration will be spending a good deal more money on nuclear weapons during Obama’s tenure than renewable energy, a prospect that can’t be pleasing to progressives. On the other hand, nuclear war remains by far the greatest military threat that the nation faces. Not only would it generate more destruction than any other form of conflict, but our methods for preventing it are weaker, relying mainly on psychology rather than tangible defenses. As the number of nuclear weapons declines it may become more feasible to build defenses that can stop an attack, but for the time being conservatives and liberals alike are stuck with the paradoxes of surviving in the nuclear age. In President Obama’s case, that means spending a great deal of money on items you wish didn’t exist at all.

### Navy

#### Time is running out, now is key – USEC is critical to the nuclear navy

Korte ’12 – USA Today Correspondent

(Gregory Korte, “House preserves 'backdoor earmark' for Ohio nuclear facility”, USA Today, 5/18/2012, http://usatoday30.usatoday.com/news/washington/story/2012-05-18/USEC-earmark/55056188/1)

Rep. Michael Turner, R-Ohio, a nuclear supporter who represents a district neighboring USEC, said the issue is one of national security. "This is for our nuclear weapons programs. This is not like for a truck fleet," he said. "If you're not going to be doing domestic, you're going to have the United States be subject to foreign sources, and again these are critical components for our nuclear infrastructure and our **nuclear Navy."** The vote follows a high-stakes, behind-the-scenes lobbying effort this week. Rep. Jean Schmidt, R-Ohio, sent a letter to colleagues this week pointing out URENCO's ties to A.Q. Khan, the nuclear scientist that stole centrifuge technology secrets for Pakistan. URENCO lobbyist Clint Williamson accused USEC supporters — which include Republicans and Democrats — of "picking winners and losers" in the uranium market. The provision still must be negotiated with the Senate, which included similar language in a 2012 transportation bill. The measure wouldn't require the Energy Department to spend the money, but Energy Secretary Steven Chu has already said he would do so if given a "clear signal" from Congress. "Over the last three years, the Obama administration has worked tirelessly to support the American Centrifuge Plant," said DOE spokeswoman Jen Stutsman in a statement before the vote. "The administration is focused on advancing this technology in a way that protects the taxpayers." Time is running out for USEC. In regulatory filings, it has said its ability to borrow money to keep the existing test centrifuges running — about $15 million a month — will run out in June. Its stock price closed at an all-time low 68 cents Thursday, a level that could cause it to be unlisted from the New York Stock Exchange. And credit rating agency Standard & Poor's downgraded its debt this week to CCC+, citing its high debt levels.

#### Unencumbered support key to the nuclear navy

Pike County Daily ’12

(“USEC, DOE sign $350 Million agreement for RD&D program”, 6-15-2012, http://www.pikecountydaily.com/news/article\_9031d71a-b55e-11e1-9ce4-001a4bcf887a.html)

Other elected officials, such as Congresswoman Jean Schmidt, a longtime supporter of the ACP, praised the move. “This is the right thing to do for our country. Jobs are one of my top priorities, and this will support our hardworking, skilled labor force in Southern Ohio," Schmidt said. “But it is also critical to our national security,” Schmidt said. “The American Centrifuge Plant in Piketon will provide an **unencumbered domestic supply** of enriched uranium, which is necessary to support our nuclear arsenal and nuclear Navy. “This agreement and technology will allow the United States to maintain a leadership role in non-proliferation efforts by ensuring an adequate supply of nuclear fuel to encourage countries to forego their own enrichment programs. The American Centrifuge Plant will be our nation’s **only source** of enriched uranium, and it will be the basis of peaceful nonproliferation agreements.” The reaction from Ohio's two Senators, both also supporters of the Piketon-based project, was also positive. “The Department of Energy understands how important the ACP is to our nation’s security and Ohio’s economy,” commented Senator Sherrod Brown. “I commend the Department of Energy and USEC for working together on a path towards job creation and greater accountability. This federal investment will ensure that the Piketon community is on a path towards continued job creation and economic growth.”

#### Top officials agree – USEC is vital to the nuclear navy

Northey and Quinones ’12 – E&E Reporters

(Hannah Northey and Manuel Quinones, “Is Obama's support of Ohio plant securing the nation or his own political position?”, E&E Publishing Inc., 6-26-2012, http://www.eenews.net/public/EEDaily/2012/06/26/1)

The Obama administration and supportive lawmakers on this issue, particularly in Kentucky and Ohio, maintain the plant is key to complying with international treaties and providing a domestic source of uranium enrichment, which is needed to make tritium for nuclear weapons. That position has been affirmed by top federal officials, including the U.S. solicitor general, the Department of State's legal adviser and general counsel for the Commerce, Defense and Energy departments. Without that capability, they say, the United States would be dependent on other countries for nuclear weapons production and fuel for Navy submarines.

#### Foreign suppliers won’t work – only the plan solves

Kramer ’12 – news editor for the American Institute of Physics

(David, “DOE to finance more research on USEC gas centrifuge technology”, Physics Today, 6-15-2012, http://www.physicstoday.org/daily\_edition/politics\_and\_policy/doe\_to\_finance\_more\_research\_on\_usec\_gas\_centrifuge\_technology)

A DOE official, speaking on condition of anonymity, said USEC’s request for $2 billion in DOE loan guarantees to build the plant to full capacity has been put on hold, and he cautioned that a successful outcome for the R&D program won’t result in automatic approval of the loan guarantee. “We’re not trying to supply support for USEC per se,” the official said. But he noted that USEC is the only supplier of uranium enrichment services that DOE can use for “nonpeaceful” purposes—producing tritium for nuclear weapons and fueling the US Navy’s nuclear-powered ships. Treaty obligations stipulate that only domestic material produced with US-origin technology can be used for those purposes. That rules out other enrichment plants currently being constructed in the US; the Urenco plant in New Mexico, which went into small-scale operations in 2010, and the Areva plant due to be built in Idaho both use European centrifuge technology. Nor can low-enriched uranium obtained from blending down Russian weapons-grade material as part of the Megatons to Megawatts program be used for military purposes. In exchange for the R&D funding, DOE clarified its rights to the intellectual property and data generated by the cooperative agreement. The government is immediately taking ownership of the centrifuges that USEC has built and of centrifuges and other equipment that will be produced as part of the R&D program. The plant R&D will be managed under a new governance structure that strengthens the roles of other project partners, including Babcock and Wilcox and Toshiba, which will provide additional project management support and personnel for the program. “We know that the [USEC] technology is promising, and we believe it can work,” the DOE official said. “The question is, can it work at an output that makes sense for USEC on a commercial basis?” **Whether commercially viable or not, it could work for DOE’s needs**, he explained.

#### Nuclear navy is critical to our naval power projection –

#### A) Aircraft carriers

Head ‘12--US Naval Institute member

(Jeff, worked as a manager, director, and consultant for over twenty-five years in the defense and nuclear power industries, "CVN-78 Gerald Ford Class Page," 9-24-12, www.jeffhead.com/usn21/cvn21.htm, accessed 1-22-13)

The new CVN21 aircraft carrier class has been designated the USS Gerald R. Ford class, and the first of class will be CVN-78, USS Gerald R. Ford. The second in class will be CVN-79, USS John F. Kennedy. It is expected that ultimately 9-10 of the class will be built, replacing the US Nimitz class carriers one for one evey 5-6 yearss. They will be the largest warships ever built. They will be the mainstay of the US Navy's **power projection** and sea lane protection capabilities throughout the 21st century. Each of these vessels will carry an airwing of fixed wing aircraft, VSTOL aircraft, helicopters, and unamanned arial vehicles (UAV) that is larger and more powerful than many nation's complete air force. **By having the** resources, the experience, **and** the capability **to operate** 9-10 **such vessels** (where each vessel is surrounded by an extensive force of other surface and sub-surface combatants that make up each Carrier Strike Group (CSG)), the United States will **remain the** unchallenged**, dominant sea force on earth.** The USS George HW Bush, CVN-77, was christened on October 7, 2006, and replaced the USS Kitty Hawk, CV-63 in 2008. Although officially listed as a Nimitz class carrier, CVN-77 also represents a transformation step in US carrier development from the Nimitz class towards the Ford Class. Initial steel cutting for the USS Gerald R. Ford was accomplished in August of 2005. The keel laying occurred in late 2009 and the vessel is expected to be launched in 2013 and commissioned in 2015. As of April, 2012, the vessel was 75% structurally complete. CVN-78 will replace the USS Enterprise, CVN-65, America's first nuclear powered aircraft carrier. First steel for the second in class, USS John F. Kennedy, CVN-79, was cut in February of 2011. They are being built by Newport News Shipbuilding (Now Renamed as Northrup Grumman Shipbuilding), which built the USS Enterprise, and all ten Nimitz class carreirs. Among the innovations that the Ford class carriers will introduce are: A much more efficent nuclear reactor system providing three times more power. Electromagnetic aircraft launch and recovery replacing current steam catapaults and current arrestor systems. A redesigned, more efficent, and more stealthy island. More automated systems, providing for reduced manpower requirements and more efficent aircraft weapons handling, battle management, and damage control operations. Potential exotic defensive weapons systems operating off of the increased electrical power. 20% more sortie capability for the embarked airwing. 25% more operational availability of the carrier. With these innovations, and the many others that will be developed into the new carrier, the US Navy is making a direct statement that its 21st century, next-generation carrier fleet will continue to have as its **centerpiece** large-deck, **nuclear-powered vessels** that can **project power** and protect sea lanes **anywhere** in the world, at **any time**.

#### B) Force flexibility

**Spencer and Spring ‘7** – research fellow in the Thomas A. Roe Institute for Economic Policy Studies and F.M. Kirby Research Fellow in National Security Policy for the Kathryn and Shelby Cullom Davis Institute for International Studies

(“The Advantages of Expanding the Nuclear Navy” http://www.heritage.org/research/homelanddefense/wm1693.cfm

by Jack Spencer and Baker Spring- Jack Spencer is Research Fellow in the Thomas A. Roe Institute for Economic Policy Studies, and Baker Spring is F.M. Kirby Research Fellow in National Security Policy for the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation. November 5, 2007)

Congress is debating whether future naval ships should include nuclear propulsion. The House version of the Defense Authorization Act of 2008 calls for all future major combatant vessels to be powered by an integrated nuclear power and propulsion system; the Senate version does not. While Congress must be careful in dictating how America's armed forces are resourced, it also has a constitutional mandate "to provide and maintain a Navy." Although nuclear-powered ships have higher upfront costs, their many advantages make a larger nuclear navy critical for protecting national security interests in the 21st century. Nuclear Propulsion's Unique Benefits As the defense authorization bill is debated, Members of the House and Senate should consider the following features of nuclear propulsion: \* **Unparalleled Flexibility**. A nuclear surface ship brings **optimum capability** to bear. A recent study by the Navy found the nuclear option to be superior to conventional fuels **in terms of surge ability, moving from one theater to another,** and staying on station. Admiral Kirkland Donald, director of the Navy Nuclear Propulsion Program, said in recent congressional testimony, "Without the encumbrances of fuel supply logistics, our nuclear-powered warships can get to areas of interest quicker, ready to enter the fight, and stay on station longer then their fossil-fueled counterparts."\* High-Power Density. The high density of nuclear power, i.e., the amount of volume required to store a given amount of energy, frees storage capacity for **high value/high impact assets** such as jet fuel, small craft, remote-operated and autonomous vehicles, and weapons. When compared to its conventional counterpart, a nuclear aircraft carrier can carry twice the amount of aircraft fuel, 30 percent more weapons, and 300,000 cubic feet of additional space (which would be taken up by air intakes and exhaust trunks in gas turbine-powered carriers). This means that ships can get to station faster and deliver more impact, **which will be critical to future** **missions**. This energy supply is also necessary for new, power-intensive weapons systems like rail-guns and directed-energy weapons as well as for the powerful radar that the Navy envisions. \* Real-Time Response. **Only a nuclear ship can change its mission and respond to a crisis in real-time**.

#### C) Littoral combat ships – nuclear navy is key

Rubel ‘11 -- Naval War College naval warfare studies dean and professor

(Robert, served on the faculty and as chairman of the War Gaming Department, in the Center for Naval Warfare Studies, before his present appointment, "The Future of Aircraft Carriers," Naval War College Review, 8-11-11, www.usnwc.edu/getattachment/87bcd2ff-c7b6-4715-b2ed-05df6e416b3b/The-Future-of-Aircraft-Carriers, accessed 1-20-13)

Another potential supporting role for the carrier is as a mother ship for the littoral combat ship (LCS). The LCS has limited sea-keeping capability and **must have** a source of logistical support relatively close by, especially if it is to operate at high speed and high combat tempo. If a squadron of LCSs must enter a highthreat area where there are no bases and where regular logistical ships would be at excessive risk, **a nuclear carrier might be the answer**. Having considerable fuel and ammunition-storage capacity, high sustained speeds, and self-defense ability (with its escorts), a carrier could range around undetected or untargeted until a covert rendezvous with one or more LCSs could be arranged. While a logistical support system that employs submarines might be the ideal, this arrangement may be the most feasible in the short term. In conjunction with this role, the carrier, operating both manned and unmanned aircraft, could provide tactical scouting for littoral combat vessels as well as a secure and robust local battle network.

#### That solves maritime dominance

Global Security ‘10

(Date accessed Nov 18, 2010, page last updated May 11 2010, “Littoral Combat Ship (LCS)”-- <http://www.globalsecurity.org/military/systems/ship/lcs.htm>)

The Littoral Combat Ship (LCS) is a small specialised variant of the DD(X) family of future surface combat ships. LCS complements, but does not replace, the capabilities of DD(X) and CG(X). The Littoral Combat Ship will take advantage of the newest generation hull form and will have modularity and scalability built in. It focuses on mission capabilities, affordability, and life cycle costs. The LCS is an entirely new breed of U.S. Navy warship. A fast, agile, and networked surface combatant, LCS's modular, focused-mission design will provide Combatant Commanders the required **warfighting** **capabilities** **and** **operational flexibility to** ensure **maritime dominance** and access for the joint force. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute missions as assigned by Combatant Commanders. LCS will also perform Special Operations Forces (SOF) support, high-speed transit, Maritime Interdiction Operations (MIO), Intelligence, Surveillance and Reconnaissance (ISR), and Anti-Terrorism/Force Protection (AT/FP). While complementing capabilities of the Navy's larger multi-mission surface combatants, LCS will also be networked to share tactical information with other Navy aircraft, ships, submarines, and joint units. Secretary of the Navy Gordon England described this new ship as "a small, fast, maneuverable, and relatively inexpensive member of the DD(X) family of ships, which began construction in FY 2005. The goal is to develop a platform that can be fielded in relatively large numbers to support a wide range of joint missions, with reconfigurable mission modules to assure access to the littorals for our Navy forces in the face of threats from surface craft, submarines, and mines."

#### It’s independently key to TMD

States News Service 10. [“CNO to the Navy: The Shipwreck is coming” June 22 -- lexis]

It is ironic that the Navy should be in such a position just at the time when in many ways it is more powerful and capable than ever before. Yes, the Navy has shrunk in size. However, in the absence of a blue water threat and deploying an array of modern platforms and weapons systems, it can exercise near total command of the sea. The modern nuclear carrier will soon deploy an extraordinarily powerful air wing consisting of F/A-18 E/F and F-35 strike aircraft, the state-of-the-art E-2D Advanced Hawkeye and the new F-18G Growler electronic warfare platform. Carrier-launched unmanned aerial vehicles will soon join this array. New surface combatants including the DDG1000, advanced DDG51s and the Littoral Combat Ship with its modular mission packages will provide unparalleled capabilities in surface warfare, mine countermeasures, ASW and anti-aircraft/missile defense. Naval missile defenses based on the Aegis radar and the Standard Missile 3 are so good that the administration plans to expand its deployment to at least 38 surface combatants and to make it the centerpiece of a new land-based theater missile defense system. Then there is the fleet of nuclear submarines, in particular the Virginia class with its innovations in sonar arrays, photonic masts, enlarged launch tubes and power plant.

#### That solves Indo-Pak war

Perle 00. [Richard, a fellow at the American Enterprise Institute, was assistant secretary for international security policy at the Defense Department from 1981 to 1987, “A better way to build a missile defense” NYT -- July 13]

Opponents of a robust missile defense argue that it would encourage the proliferation of nuclear weapons and lead to instability. The opposite is far more likely. Imagine a sharp rise in tension between India and Pakistan. Both countries have nuclear weapons and ballistic missiles. Suppose the United States could dispatch an **Aegis** cruiser to the region with instructions to intercept any ballistic missile fired by either side. **Such a capability** in American hands **would be** **highly stabilizing**, **reducing the likelihood of** **conflict**, discouraging the use of offensive missiles, reassuring both sides.

#### Best studies show that causes nuclear war

Starr ’11 (Consequences of a Single Failure of Nuclear Deterrence by Steven Starr February 07, 2011 \* Associate member of the Nuclear Age Peace Foundation \* Senior Scientist for PSR)

Only a single failure of nuclear deterrence is required to start a nuclear war, and the consequences of such a failure would be profound. **Peer-reviewed studies predict** that **less than 1% of** the nuclear **weapons** now deployed in the arsenals of the Nuclear Weapon States, if detonated in urban areas, would immediately kill tens of millions of people, and cause long-term, **catastrophic disruptions of the global climate and massive destruction of Earth’s protective ozone layer**. The result would be a global nuclear famine that could kill up to one billion people. A full-scale war, fought with the strategic nuclear arsenals of the United States and Russia, would so utterly devastate Earth’s environment that most humans and other complex forms of life would not survive. Yet no Nuclear Weapon State has ever evaluated the environmental, ecological or agricultural consequences of the detonation of its nuclear arsenals in conflict. Military and political leaders in these nations thus remain dangerously unaware of the existential danger which their weapons present to the entire human race. Consequently, nuclear weapons remain as the cornerstone of the military arsenals in the Nuclear Weapon States, where nuclear deterrence guides political and military strategy. Those who actively support nuclear deterrence are trained to believe that deterrence cannot fail, so long as their doctrines are observed, and their weapons systems are maintained and continuously modernized. They insist that their nuclear forces will remain forever under their complete control, immune from cyberwarfare, sabotage, terrorism, human or technical error. They deny that the short 12-to-30 minute flight times of nuclear missiles would not leave a President enough time to make rational decisions following a tactical, electronic warning of nuclear attack. The U.S. and Russia continue to keep a total of 2000 strategic nuclear weapons at launch-ready status – ready to launch with only a few minutes warning. Yet both nations are remarkably unable to acknowledge that this high-alert status in any way increases the probability that these weapons will someday be used in conflict. How can strategic nuclear arsenals truly be “safe” from accidental or unauthorized use, when they can be launched literally at a moment’s notice? A cocked and loaded weapon is infinitely easier to fire than one which is unloaded and stored in a locked safe. The mere existence of immense nuclear arsenals, in whatever status they are maintained, makes possible their eventual use in a nuclear war. Our **best scientists now tell us** that **such a war would mean the end of human history**. We need to ask our leaders: Exactly what political or national goals could possibly justify risking a nuclear war that would likely cause the extinction of the human race? However, in order to pose this question, we must first make the fact known that existing nuclear arsenals – through their capacity to utterly devastate the Earth’s environment and ecosystems – threaten continued **human existence**. Otherwise, military and political leaders will continue to cling to their nuclear arsenals and will remain both unwilling and unable to discuss the real consequences of failure of deterrence. We can and must end the silence, and awaken the peoples of all nations to the realization that “nuclear war” means “global nuclear suicide”. A Single Failure of Nuclear Deterrence could lead to: \* A nuclear war **between India and Pakistan**; \* 50 Hiroshima-size (15 kiloton) weapons detonated in the mega-cities of both India and Pakistan (there are now 130-190 operational nuclear weapons which exist in the combined arsenals of these nations); \* The deaths of 20 to 50 million people as a result of the prompt effects of these nuclear detonations (blast, fire and radioactive fallout); \* Massive firestorms covering many hundreds of square miles/kilometers (created by nuclear detonations that produce temperatures hotter than those believed to exist at the center of the sun), that would engulf these cities and produce 6 to 7 million tons of thick, black smoke; \* About 5 million tons of smoke that would quickly rise above cloud level into the stratosphere, where strong winds would carry it around the Earth in 10 days; \* A stratospheric smoke layer surrounding the Earth, which would remain in place for 10 years; \* The dense smoke would heat the upper atmosphere, destroy Earth’s protective ozone layer, and block 7-10% of warming sunlight from reaching Earth’s surface; \* 25% to 40% of the protective ozone layer would be destroyed at the mid-latitudes, and 50-70% would be destroyed at northern and southern high latitudes; \* Ozone destruction would cause the average UV Index to increase to 16-22 in the U.S, Europe, Eurasia and China, with even higher readings towards the poles (readings of 11 or higher are classified as “extreme” by the U.S. EPA). It would take 7-8 minutes for a fair skinned person to receive a painful sunburn at mid-day; \* Loss of warming sunlight would quickly produce average surface temperatures in the Northern Hemisphere colder than any experienced in the last 1000 years; \* Hemispheric drops in temperature would be about twice as large and last ten times longer then those which followed the largest volcanic eruption in the last 500 years, Mt. Tambora in 1816. The following year, 1817, was called “The Year Without Summer”, which saw famine in Europe from massive crop failures; \* Growing seasons in the Northern Hemisphere would be significantly shortened. It would be too cold to grow wheat in most of Canada for at least several years; \* World grain stocks, which already are at historically low levels, would be completely depleted; grain exporting nations would likely cease exports in order to meet their own food needs; \* The one billion already hungry people, who currently depend upon grain imports, would likely starve to death in the years following this nuclear war; \* The total explosive power in these 100 Hiroshima-size weapons is less than 1% of the total explosive power contained in the currently operational and deployed U.S. and Russian nuclear forces.

#### D) Subs—nuclear navy key to subs- key to naval power projection

Padgett, 11 -- Rear Admiral (retired)

[John, "Projecting power: The case for maintaining an all-nuclear submarine fleet," Armed Forced Journal, Sept 2011, www.armedforcesjournal.com/2011/09/7558135/, accessed 1-22-13, mss]

Projecting power: The case for maintaining an all-nuclear submarine fleet Defense analysts periodically propose a mix of nuclear and conventionally powered submarines to increase U.S. undersea force structure. They argue that conventional submarines (SSKs) are so affordable the U.S. could acquire multiple boats for the price of a single nuclear-powered attack submarine (SSN). In an era of declining fleets and looming budget cuts, that sounds appealing. However, despite increasing capability, conventional submarines still lack the payload, endurance, mobility and affordability necessary to meet U.S. needs, even when forward-based and equipped with air-independent propulsion (AIP). The modern SSK is a formidable weapon, improved significantly over its World War II predecessors. Mechanically, it still depends on simple and forgiving technologies such as diesel engines, electric motors and large storage batteries. Tactically, it carries advanced sensors, combat systems and payloads — it can deliver a powerful punch. The SSK is among the stealthiest of modern combatants, and designers continue to address signatures associated with snorkeling, when it is most detectable. In recent years, new equipment mounting techniques and better exhaust management have reduced acoustic and infrared snorkel signatures. Operating fully submerged on the battery, the SSK is very difficult to detect and challenges even the most capable anti-submarine warfare (ASW) force. Despite its attributes, the SSK has considerable shortcomings, many of which relate to size. These small ships have limited stores, battery, fuel, payload and crew capacity, which in turn limit their endurance, agility, persistence and combat capability. The modern SSK ranges in size from the 1,500-ton Swedish Gotland class to the 3,350-ton Australian Collins class. Some countries are building even smaller submarines, including the French Andrasta-class coastal SSK (855 tons) and the North Korean Yono-class (130 tons) midget submarine — the same type believed to have torpedoed the South Korean corvette Cheonan in March 2010 Automation has helped reduce SSK crew requirements. Unmanned engineering spaces are common, and propulsion systems are often operated remotely from the control room. However, small crew capacity often places watch teams in extended port and starboard (two-section) rotations — a practice that can quickly reduce a crew’s effectiveness on patrol. To offset these size-related constraints, several countries are considering larger boats. For example, French shipbuilder DCNS plans to offer a larger version of its 1,800-ton Scorpene SSK to India, which wants the added volume to increase endurance and payload capacity. Australia, whose Collins-class ships are already some of the world’s largest conventional submarines, is planning an even larger replacement. It is estimated this follow-on boat will displace in excess of 4,000 tons to meet the endurance, payload and crew requirements outlined in Australia’s 2009 Defence White Paper. To put this in perspective, the U.S. Sturgeon-class SSN — a mainstay of the Cold War — displaced approximately 4,700 tons submerged. As countries incorporate technologies to increase SSK quieting, endurance and other combat capabilities, they are moving toward designs with larger displacements. Notwithstanding this trend, many SSK advocates highlight their small size as a significant advantage when operating in shallow, littoral areas — both in terms of the depth of water they can operate in and their maneuverability. However, this advantage is overstated and supposes a capability gap that does not exist. Specifically, SSK advocates imply there are areas where the U.S. cannot operate a SSN because its navigation draft is too large or it lacks maneuverability. That is not true. The Virginia-class SSN is about 15 feet taller (measured from the keel to top of sail) than a typical SSK. That difference is not significant in the waters U.S. submarines patrol to safeguard our national interests. While an SSN may incur slightly more risk than a SSK in some very shallow areas due to operating closer to the surface or bottom, the SSN can offset that risk by repositioning or evading at higher speeds for an indefinite period. Finally, it’s worth noting the Virginia-class SSN was designed to operate in shallow littoral areas and has a sophisticated depth-keeping and maneuvering system that can match or outperform the most capable SSK. In terms of maneuverability, SSK advocates paint a false picture of undersea navigation. Submarines do not typically operate submerged in areas that require them to turn on a dime or maneuver through narrow undersea canyons. Tom Clancy’s thriller “The Hunt for Red October” contained a scene in which a Soviet ballistic-missile submarine maneuvered deftly between “Thor’s Twins.” That was entertaining, but it was not reality. Stealth is the essence of submarine warfare, and conventional submarines are acoustically stealthy, especially when operating submerged on the battery. However, they need to snorkel periodically to recharge their batteries, making them more vulnerable to ship and airborne ASW forces that are increasingly adept at detecting a submarine’s masts and antennas. Scheduling this evolution to occur at night helps avoid visual detection, but does nothing to avoid radar, which is a more common means of finding snorkeling submarines. If equipped with AIP, an SSK can operate submerged for up to several weeks, but only at slow speeds. However, AIP systems require fuel and oxidizers they cannot recharge at sea. Once they are used, the SSK must return to port to regain its AIP capability. That will likely cause skippers to hold their AIP capability in reserve for dire tactical situations, or where mission accomplishment demands it. Under normal situations, the SSK has to deal with all the vulnerabilities and limitations associated with snorkeling: slow speed, acoustic transients, elevated noise levels, increased infrared signatures and long-term mast exposure. SPEED AND ENDURANCE SSK advocates acknowledge the SSN can operate submerged at high speed for extended periods, which is a significant advantage. They also acknowledge the value of speed in evading threats and repositioning quickly to collect intelligence or engage a target. However, they routinely discount that same speed advantage while transiting to and from mission areas. They assert that forward-basing a U.S. SSK fleet would eliminate the SSN speed advantage. That argument is problematic from several standpoints. First, if forward-basing more submarines were simple, the U.S. would already have more than three SSNs stationed in Guam. However, forward-basing entails considerable costs, including pier infrastructure, maintenance facilities, housing and a range of personnel support requirements. Together, these additions result in a large footprint — something indigenous peoples appear less willing to tolerate and something adversaries can hold at risk with a growing arsenal of ballistic missiles. Even if one ignores the costs and risks associated with expanding overseas facilities, the fact remains that long transits are still required. It is approximately 1,500 miles from Guam to Taiwan. An SSN can easily cover that distance in a few days — even less in a crisis. The SSK, by contrast, needs seven to 10 days, which is highly weather dependent. Unlike their World War II predecessors, today’s SSKs cannot transit any faster on the surface than they can while snorkeling. They can reach speeds up to 20 knots submerged; however, they can do that only for a few hours until the batteries are exhausted. Of course, while snorkeling at higher speed, the SSK is vulnerable to detection not only by the methods discussed earlier, but also because of the larger wake left by its snorkel mast and periscope. Moreover, a round-trip transit of 14 to 20 days represents one-third of the SSK’s overall endurance — it has much less on-station time than an SSN. That would require more ships to meet U.S. deployment needs. SSK advocates also discount the need to reposition deployed submarines within or between theaters during a given patrol, often at great distances. Some claim that operations in shallow littoral waters prevent even the SSN from rapidly repositioning. Current submarine operating area bathymetry does not support that claim, nor is it representative of how combatant commanders are employing submarines. Even when operating in very shallow water, an SSN can increase its transit speed as water depth increases, whereas the SSK can never reposition at high, sustained speeds regardless of available water depth. If a mission requires a submarine to reposition to another theater, an SSK could spend more than half its patrol endurance in transit. Additionally, all ships eventually require periodic depot-level maintenance, which requires returning to Pearl Harbor, Hawaii, or the continental U.S. Over the life of a forward-based SSK, this additional lost transit time would further degrade its operational availability. Considering speed alone, one can reasonably argue it would take two or more SSKs to provide the same on-station time a single SSN can provide. Adding SSKs to the U.S. submarine force would provide realistic and more-effective training targets for our ASW forces. SSK advocates are correct in noting this would be a convenient benefit. However, it is unnecessary. U.S. security partners, especially South American navies, provide conventional submarines in support of fleet readiness events. In 2001, U.S. Fleet Forces Command formalized a partnership called the Diesel-Electric Submarine Initiative (DESI) program. The Commander Submarine Force’s executes DESI and provides the U.S. Navy with an elevated level of ASW training against the growing SSK threat. COST COMPARISONS The most prevalent and, at first glance, most compelling argument for adding SSKs to the Navy is their low acquisition cost. SSK advocates recommend buying them from a foreign builder as the cheapest option, but also consider U.S.-built SSKs as more cost-effective than the nuclear submarines it currently builds. Unfortunately, in the context of the SSK-versus-SSN debate, price itself is obfuscation. SSK supporters often cite brochure prices that do not include sensor and combat-system packages. Additionally, they fail to recognize that these foreign-built submarines lack U.S. Submarine Safety Certification (SUBSAFE) requirements. The SUBSAFE program was born out of the Thresher disaster in 1963, when the nuclear-powered attack sub was lost with all hands due to design and maintenance deficiencies. The SUBSAFE program ensures proper design and materials are used in systems subjected to sea pressure or required for emergency recovery. In addition, it ensures only trained and certified personnel install or repair these systems, and that builders, maintainers and crews maintain auditable certifications for each critical component and system joint. These material, procedural and administrative requirements are vital to ensuring the safe operation of our submarines, and they have real costs associated with them. The lack of similar or as robust programs among SSK manufactures makes the price of their ships — at least superficially — more appealing. Of all the modern SSK producers, the Australian submarine program is probably closest to the U.S. SUBSAFE program and standards. Additionally, in some respects its deployment transit lengths to critical theaters and submarine combat requirements are also most comparable. Interestingly, early projections for its follow-on SSK class calls for a force of 12 boats at a cost of $36 billion. That equates to approximately $3 billion per boat (including nonrecurring costs) and is very different from the $500 million per boat that SSK advocates often cite. Studies assessing the viability and utility of adding SSKs to the Navy have examined a number of attributes. Two of the more significant metrics compared were life-cycle costs and equivalent effectiveness. While SSK advocates often focus on the life-cycle cost of a single SSK versus one SSN, a more useful comparison considers life-cycle costs for the number of platforms that provide equal on-station capability. This is the variable of significance to combatant commanders. Based largely on the factors discussed above, studies indicated it takes 2.2 to six SSKs to obtain the equivalent effectiveness of a single SSN. Even after accounting for the lower SSK cost, an SSK fleet with equal on-station capability as an SSN fleet would have life-cycle costs of 1.3 to 3.5 times that of an SSN fleet. The SSK is simply not an affordable alternative. These platform equivalency comparisons highlight the inadequacy of comparing the acquisition cost of a single SSK to an SSN because there are other factors to consider as well. Adding a mix of SSKs to the U.S. submarine force will increase the associated logistics, maintenance and modernization, and training costs due to having to maintain a second line of parts, repair capabilities and trainers. Some commonality of systems may be possible. However, numerous systems and functions are unique to either submarine class. Additionally, since the U.S. would most likely produce SSKs indigenously, there would be significant added costs to outfit the shipyards to build the conventional submarines. Simultaneously, the costs to build the nuclear submarines would go up due to the reduction in economies of scale associated with building two Virginia-class attack submarines per year. Despite these compelling equivalency comparisons, some SSK advocates continue to focus on the claim that for the same procurement dollars the U.S. could buy more submarines if they included conventional platforms. They emphasize that quantity has a quality and capability all its own. While former Defense Secretary Robert Gates and others have used this argument to discuss programs in general, they were not advocating that capabilities associated with quantity alone should trump all others. It is but one factor to consider. Unfortunately, for those advocating adding SSKs to the U.S. inventory, a comparison of almost every other capability consideration and metric shows that a force of only SSNs is the most cost-effective way to provide our nation the undersea capabilities and capacity it needs. POWER PROJECTION One thing SSK and SSN advocates can agree on is the need for submarines. That need is growing and stems from the proliferation of threats to nonstealthy surface ships and aircraft — the **mainstays of Navy power projection**. Those platforms, along with forward bases, are becoming increasingly vulnerable to precision-guided weapons ranging from man-portable missiles and guided mortars to the most sophisticated surface-to-air missiles and anti-ship ballistic-missile threats. The submarine’s immunity to these threats and the nonprovocative nature of its presence provides commanders with much-needed intelligence preparation of the battle space, as well as strike, anti-submarine warfare, anti-surface warfare, special operations support and other missions. U.S. adherence to an all-SSN fleet stems largely from its defense philosophy, which is to project power overseas and keep conflict far from the continental U.S. Even if forward deployed to Guam, the SSK is a poor investment as a power-projection platform. It lacks the agility, endurance and payload capacity for that mission. As potential competitors build more nuclear-powered submarines, a shift toward a mixed fleet would increase the risk of the U.S. losing undersea dominance. Repeated defense reviews, including those by the United Kingdom, concluded that nuclear-powered submarines were in the best interest of their national defense needs. Emerging powers such as India and Brazil seem to agree with those conclusions, since they have both embarked on their own nuclear-powered submarine programs. Technological advances such as AIP continue to improve SSK capabilities and our country’s security needs continue to change. Consequently, the Navy should periodically revisit this issue and determine if a mix of nuclear and conventionally powered submarines is appropriate. If some future AIP technology can provide the same power, endurance, reliability and safety as naval nuclear reactors provide today, that technology would be a game-changer and worthy of consideration. Short of that, the SSN will remain an **indispensable** element of the Navy’s fighting team. The SSK is a useful and capable platform for many countries seeking to defend their littorals. However, it is still not the right answer for the unique power projection needs of the United States.

#### Strong navy de-escalates all conflict and deters great power war

Roughead, 7 -- Admiral, US Navy, Chief of Naval Operations

[Gary, James Conway, General, US Marine Corps, and Thad Allen, Admiral, US Coast Guard, "A Cooperative Strategy for 21st Century Seapower," Oct 2007, www.navy.mil/maritime/Maritimestrategy.pdf, accessed 1-24-13, mss]

This strategy reaffirms the use of seapower to influence actions and activities at sea and ashore. The expeditionary character and versatility of maritime forces provide the U.S. the **asymmetric advantage** of enlarging or contracting its military footprint in areas where access is denied or limited. Permanent or prolonged basing of our military forces overseas often has unintended economic, social or political repercussions. The sea is a vast maneuver space, where the presence of maritime forces can be adjusted as conditions dictate to enable **flexible approaches** to escalation, **de-escalation** **and deterrence of conflicts**. The speed, flexibility, agility and scalability of maritime forces provide joint or combined force commanders a range of options for responding to crises. Additionally, integrated maritime operations, either within formal alliance structures (such as the North Atlantic Treaty Organization) or more informal arrangements (such as the Global Maritime Partnership initiative), send powerful messages to would-be aggressors that we will act with others to ensure collective security and prosperity. United States seapower will be globally postured to secure our homeland and citizens from direct attack and to advance our interests around the world. As our security and prosperity are inextricably linked with those of others, U.S. maritime forces will be deployed to protect and sustain the peaceful global system comprised of interdependent networks of trade, finance, information, law, people and governance. We will employ the global reach, persistent presence, and operational flexibility inherent in U.S. seapower to accomplish six key tasks, or strategic imperatives. Where tensions are high or where we wish to demonstrate to our friends and allies our commitment to security and stability, U.S. maritime forces will be characterized by regionally concentrated, forward-deployed task forces with the combat power to limit regional conflict, deter major power war, and should deterrence fail, win our Nation’s wars as part of a joint or combined campaign. In addition, persistent, mission-tailored maritime forces will be globally distributed in order to contribute to homeland defense-in-depth, foster and sustain cooperative relationships with an expanding set of international partners, and prevent or mitigate disruptions and crises. Credible combat power will be continuously postured in the Western Pacific and the Arabian Gulf/Indian Ocean to protect our vital interests, assure our friends and allies of our continuing commitment to regional security, and deter and dissuade potential adversaries and peer competitors. This combat power can be selectively and **rapidly repositioned to meet contingencies** that may arise elsewhere. These forces will be sized and postured to fulfill the following strategic imperatives: Limit regional conflict with forward deployed, decisive maritime power. Today regional conflict has ramifications far beyond the area of conflict. Humanitarian crises, violence spreading across borders, pandemics, and the interruption of vital resources are all possible when regional crises erupt. While this strategy advocates a wide dispersal of networked maritime forces, we cannot be everywhere, and we cannot act to mitigate all regional conflict. Where conflict threatens the global system and our national interests, maritime forces will be ready to respond alongside other elements of national and multi-national power, to give political leaders a range of options for deterrence, escalation and de-escalation. Maritime forces that are persistently present and combat-ready provide the Nation’s primary forcible entry option in an era of declining access, even as they provide the means for this Nation to respond quickly to other crises. Whether over the horizon or powerfully arrayed in plain sight, maritime forces can deter the ambitions of regional aggressors, assure friends and allies, gain and maintain access, and protect our citizens while working to sustain the global order. **Critical to this** notion **is the maintenance of a powerful fleet**—ships, aircraft, Marine forces, and shore-based fleet activities—capable of selectively controlling the seas, projecting power ashore, and protecting friendly forces and civilian populations from attack. Deter major power war. No other disruption is as potentially disastrous to global stability as war among major powers. Maintenance and extension of this Nation’s comparative seapower advantage is a **key component** of **deterring** major power war. While war with another great power strikes many as improbable, the near-certainty of its ruinous effects demands that it be actively deterred using all elements of national power. The expeditionary character of maritime forces—our lethality, global reach, speed, endurance, ability to overcome barriers to access, and operational agility—provide the joint commander with a range of deterrent options. We will pursue an approach to deterrence that includes a credible and scalable ability to retaliate against aggressors conventionally, unconventionally, and with nuclear forces.

#### Naval power key - alternatives don’t solve

Mcmahon 7. [Michael, Captain USN, associate chair of the Political Science Department at the U.S. Naval Academy, where he teaches National Security Policy, “World Disorder and the Decline of Pax Americana, May, Proceedings Magazine, http://www.usni.org/magazines/proceedings/archive/story.asp?STORY\_ID=321]

Max Boot writes in The Savage Wars of Peace (2003): "Many Americans cringe at the notion that their country should play globocop. But this is not a purely altruistic exercise. Without a benevolent hegemon to guarantee order, the international scene can degenerate quickly into chaos and worse. One scholar argues, with great plausibility, that the 1930s turned out as badly as they did because Britain abdicated its international leadership role." Today, it appears that the American "empire" is in decline: Pax Americana is disintegrating. This is a repeat of naval history. It may not require a Cold War-size Navy to reverse the trend, but it will require a Navy that helps sow the seeds of globalization and then continues to do the gardening. It requires a forward-deployed, expeditionary Navy to mind the interests of the United States, just as the Royal Navy minded Britain's in the 19th century. Navies, by their very presence and intercourse in faraway places, protect national interests every day in ways that armies and air forces cannot. The U.S. Navy is the only branch of our government that routinely employs all the elements of national power-diplomatic, informational, military, and economic. This most flexible use of our power advances national interests in important ways. But idealistic plans for collective security and a 1,000-ship navy could, if not executed properly, actually undermine these interests and accelerate American decline. That decline would ensure international chaos. Therefore, for the United States the choice is clear: **maritime supremacy or** international **chaos.**

## 2AC

### Deterrence

#### Even if they win squo supplies are fine, tritium requirements will spike in the future – more production now is key

Weitz ’12 – senior fellow and director of the Center for Political-Military Affairs at Hudson Institute

(Richard, “U.S. NUCLEAR WEAPONS STOCKPILE MANAGEMENT: AN UPDATE”, Second Line Of Defense, 6-24-2012, http://www.sldinfo.com/u-s-nuclear-weapons-stockpile-management-an-update/)

It was stated that the NNSA is moving toward non-destructive surveillance and sustainment of the entire stockpile. Currently, a small number of warheads of each type are removed from the stockpile each year for disassembly and testing. As part of this testing for most warhead types, one or more warheads may be destroyed.¶ The goal would be to inspect all stockpile warheads nondestructively every 15 years and resolve any identified problems. These “15-year touches” would also handle all the replacement of Limited Life Components (LLCs) such as tritium reservoirs, neutron generators, and radioisotope thermoelectric generators (nuclear batteries), eliminating the need to replace LLCs at other times.¶ This, in turn, would require increasing LLC lifetimes (e.g. by increasing the fill of tritium reservoirs to counteract the tritium lost to radioactive decay during the longer time between replacements).¶ A second reason for increasing the fill of the tritium reservoirs is to enhance the warhead reliability. (Tritium-deuterium fusion boosts the yield of the primary, so increasing the amount of tritium provides additional margin to ensure that the primary will have the minimum yield needed to initiate the secondary explosion.)

#### NNSA’s current plans won’t solve – tritium supplies are in trouble

GAO ’10

(“NUCLEAR WEAPONS¶ National Nuclear ¶ Security ¶ Administration Needs ¶ to Ensure Continued ¶ Availability of Tritium ¶ for the Weapons ¶ Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

NNSA’s inability to overcome the technical challenges and meet its ¶ original tritium production goals has raised serious questions about the ¶ agency’s ability to provide a reliable source of tritium to maintain the ¶ nation’s nuclear weapons stockpile in the future. While NNSA has taken ¶ steps to attempt to solve the tritium permeation problem, it is unlikely that ¶ anything less than a complete redesign of the TPBARs will solve the ¶ problem. Unfortunately, existing supplies of tritium in the stockpile and ¶ the tritium reserve are unlikely to fulfill requirements for the time a ¶ complete redesign would take. It is also not clear that a redesign would ¶ solve the problem since NNSA does not fully understand the reasons ¶ behind tritium permeation. Therefore, NNSA and TVA are working ¶ together to not only increase the number of TPBARs being irradiated in ¶ the Watts Bar 1 reactor but also to increase the number of reactors being ¶ used for the program. Increasing the number of TPBARs irradiated will ¶ also require substantial and costly modifications to TVA facilities to ensure ¶ that tritium emissions comply with applicable nuclear safety and ¶ environmental regulations. Because such modifications to the operation of ¶ TVA’s reactors must be approved by NRC, it is important that NNSA and ¶ TVA coordinate their efforts closely with the regulatory agency. In ¶ addition, it is critical that DOD—the ultimate customer of NNSA’s tritium ¶ production program—is also kept informed of the challenges facing the ¶ program and the impact of these challenges on current and future ¶ availability of tritium for the nuclear weapons stockpile.

#### NNSA will have to deplete its emergency reserves soon

GAO ’10

(“NUCLEAR WEAPONS¶ National Nuclear ¶ Security ¶ Administration Needs ¶ to Ensure Continued ¶ Availability of Tritium ¶ for the Weapons ¶ Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

NNSA currently meets the nuclear weapons stockpile requirements for ¶ tritium, but its ability to do so in the future is in doubt. NNSA officials told us ¶ that they will be able to meet future requirements through a combination of ¶ harvesting tritium obtained from dismantled nuclear warheads and irradiating ¶ TPBARs. Although the number of nuclear weapons in the U.S. stockpile is ¶ decreasing, these reductions are unlikely to result in a significant decrease of ¶ tritium requirements and will not eliminate the need for a reliable source of ¶ new tritium because of the need to periodically replenish it in the remaining ¶ nuclear weapons stockpile due to tritium’s decay. While NNSA has not, to ¶ date, been required to use tritium from a reserve that it maintains, use of this ¶ reserve in the relatively near future may be necessary if NNSA is unable to ¶ increase tritium production beyond its current level.

#### Grossman concludes Aff

Grossman ’11, NTI Writer, Elaine Grossman Accessed – 3/10/13, Some Nuclear Experts Question Ramp-up in U.S. Tritium Production, http://www.nti.org/gsn/article/some-nuclear-experts-question-ramp-up-in-us-tritium-production/

The Energy Department's semiautonomous National Nuclear Security Administration plans over the next few years to more than triple capacity to produce tritium at the commercial Watts Bar reactor in eastern Tennessee, according to the agency's fiscal 2012 "Stockpile Stewardship and Management Plan." This budget year alone, the agency is seeking a $27.3 million boost for its "tritium readiness" effort, in which production will increase from 240 to 544 rods per cycle at a cost of $77.5 million, the NNSA fiscal 2012 funding request to Congress states. Since production began at the Tennessee Valley Authority reactor in 2004, 10 tritium-irradiation cycles -- each taking about 18 months -- have been completed. The readiness program also includes the process of extracting tritium from the irradiated rods at the Energy Department's Savannah River Site, located on South Carolina's western border with Georgia, and of maintaining military reserves of the gas. By 2020, the agency intends to boost production to 1,700 rods each cycle, according to Terry Johnson, a TVA spokesman. The Obama administration seeks to spend $270.5 million on tritium readiness between fiscal 2013 and 2016, producing no fewer than 240 rods per cycle as a minimum "sustaining rate" during that period. This will "ensure a capability is available in the event that future resources are allocated to ramp up production to support the requirements" of a future U.S. nuclear stockpile, the funding plan states. The blueprint also calls for extracting tritium at a clip of no less than one batch of rods per year. Thanks to post-Cold War reductions in the size of the nuclear stockpile, the Energy Department now needs less new tritium than initially projected in May 1999, according a recent federal notice. However, tritium production has gone a bit slower than anticipated because more of the gas than expected has leached from rods at Watts Bar into reactor coolant water. That has left slightly less tritium available to extract from each rod, Johnson said. The nuclear agency is thus exploring options for further increasing its production capacity, the notice states. However, not everyone sees new production as a must. Some experts are questioning why a standard practice of recycling tritium from deactivated nuclear warheads is not offering sufficient reserve stocks of the gas, particularly given anticipated arms control reductions and further weapon retirements from the strategic hedge force. If the United States can deactivate warheads at an average rate of at least 5 percent every year, "there would be no need to produce additional tritium," said Charles Ferguson, president of the Federation of American Scientists. That would offset the roughly 5 percent rate of annual decay in tritium in the remaining warheads, he said. On occasions when warheads are shifted out of the operationally deployed stockpile or ready-reserve force, tritium gas is typically removed, purified and reused in weapons that are still active, the career physicist and a number of other experts said. The nation removes tritium from inactive stockpile warheads "as soon as logistically practical, and the tritium is returned to the national repository" at Savannah River, according to the Defense Department's 2011 "Nuclear Matters Handbook." The government has **not elaborated on the rate at which this is done** or exactly how much reserve supply is available today. A mix of tritium -- a radioactive isotope of hydrogen -- and deuterium is maintained in a small reservoir in each U.S. nuclear weapon to boost the warhead's explosive power. Just a few grams of the gas, injected into the hollow pit of a warhead's primary stage, initiate a chain reaction and trigger a much more powerful secondary stage. To make a nuclear weapon detonate, "this is where the rubber hits the road," said Hans Kristensen, who directs the FAS Nuclear Information Project. "If you can get the primary to go off with enough yield, then the secondary will go off." Conversely, if a warhead's tritium-dispenser bottle has been removed or if the gas has significantly deteriorated, the secondary stage could fail to ignite and the explosive power of the weapon would be considerably diminished, experts explain. U.S. nuclear weapons policy calls on the Energy Department to maintain fresh tritium in the deployed arsenal of atomic warheads carried by ICBMs, submarine-launched missiles and bomber aircraft. Continuing a policy from previous administrations, the Obama White House is also keeping roughly 2,290 warheads in an active hedge reserve force that receives regular maintenance and is kept stocked with tritium, according to Nuclear Matters. This stockpile hedge force constitutes more than one fully assembled backup warhead for each strategic warhead deployed at bomber aircraft bases, on ICBMs or on submarine-launched ballistic missiles. The State Department last week announced that the nation now has 1,790 operationally deployed warheads, as the United States gradually reduces to a limit of 1,550 fielded weapons under the U.S.-Russian New START agreement (see GSN, Oct. 26). One **key distinction** between a warhead in the active force -- either deployed or hedge -- and one that has been deactivated is that the tritium reservoir in the active warhead is routinely replaced every few years to ensure that the weapon's radioactive gas does not expire. The hedge warheads are maintained in active reserve status in case "an unforeseen catastrophic failure of a class of delivery vehicles, warhead-type or family" is discovered or there is "an unexpected reversal of the geopolitical situation that would require an increase in the number of weapons available for use," according to the Pentagon handbook. Kristensen sees this as overkill and a waste of resources. "I think it's totally unnecessary to retain active weapons in the hedge," he said in an interview this week. "Short of a Martian attack, there's nothing that would require us to suddenly upload 2,000 warheads onto the force. It's not going to happen." Finding a technical defect that puts a portion of U.S. warheads out of commission is perhaps more plausible than a resurgent-threat scenario in justifying the retention of a hedge force, Kristensen said. However, if such a flaw was discovered, it could likely be handled quietly over time without a need for massive warhead swap-outs from the active reserve stockpile, he argued. "Would it really require us to have active weapons that we'd have to upload immediately?" he said, calling for a "reality check" on how big of a backup nuclear force is truly needed. "The rest of the force would still be good. We'd have enough [other] warheads left to bomb Russia back to the Stone Age." In fact, the Pentagon anticipates reducing the size of the active stockpile hedge force in coming years as warhead maintainers develop more replacement components that could help aging weapons remain functional (see GSN, Aug. 18). It is unclear, however, if long-term plans for reductions in the active hedge force have translated into a lower requirement for the amount of tritium that must be produced in the years to come. "The United States is in an era of fiscal constraint with an unprecedented debt and a substantial annual deficit," Ferguson said. "Political leaders need to take a very serious examination of additional costs for maintaining a rather large reserve stockpile of warheads." More than a decade ago, he joined Princeton physicist Frank von Hippel in a 1999 letter published by Physics Today estimating that given the amount of tritium available, its rate of decay and the standard use of recycling, a U.S. nuclear arsenal numbering 4,500 warheads could be sustained without new tritium production through 2025. The pair noted that the Energy Department at the time had established a requirement to maintain a five-year reserve supply of tritium. Assuming that the backup tritium-supply policy has not changed and the nation continues to keep its roughly 5,000-warhead arsenal maintained with fresh tritium, "then the year would be 2022" in which new gas would have to be produced, von Hippel said this week in an e-mail response to questions. "But probably DOE still has more than a five-year reserve [available] and is getting nervous that it will be approaching that level in a few years." Additional tritium has been produced since the two scientists calculated their 1999 estimates, which should result in an even deeper cushion of reserve gas, Ferguson noted. Von Hippel said a national production schedule for tritium should account more realistically for how hedge-force warheads are actually managed. In the unlikely case that an emergent threat dictated a more urgent need for new tritium, "it might take a few **years** to produce enough for 2,000 additional [deployed] warheads," but the United States would almost certainly have at least that much warning time that more tritium is needed, he said. "[Or,] if a problem developed with some deployed warheads that required them to be replaced by reserve warheads, the tritium could be swapped."

#### Their ev concludes Asian war is probable-

**White ‘8** ("**Why War in Asia Remains Thinkable,"** White, ANU (Australian National University) strategic studies professor, 8

[Hugh, Lowy Institute for International Policy visiting fellow, former (Australian) Office of National Assessments intelligence analyst and senior advisor to the Defense minister, Survival, informaworld.com]

If we conceive of ‘wars’ the way our parents and grandparents did – as major conflicts among powerful states that disrupt the lives of billions and transform the international order – then war in Asia today seems close to unthinkable. For over 30 years, East Asia has enjoyed peace such as it has probably never known before. In Northeast Asia, the region's major powers – China, Japan and the United States – have maintained harmonious and cooperative relationships. Moreover, excluding only minor incidents in the Spratly Islands, none of East Asia's major powers has used significant force against another Asian country since China's limited war against Vietnam in 1979. For 40 years, the members of ASEAN have largely forsworn the use of force against one another; difficult issues like Taiwan, North Korea and the Spratlys have been effectively managed, and the deep problems of Indochina have been addressed. Minor clashes remain possible in trouble spots such as the Thailand-Myanmar border, and on Asia's western margin there remains a real risk of major, even nuclear, war between India and Pakistan. But even the risk of an India-Pakistan war does not seem to threaten an outbreak of major war in East Asia.

Meanwhile, most countries in the region have enjoyed remarkable social and political development, as authoritarian regimes (with a few exceptions) from Indonesia to South Korea have more or less peacefully given way to democratic change. Most notably, economies throughout East Asia have grown spectacularly, culminating in the remarkable transformation of China into a global economic power. Asia's economies have become deeply integrated, with an accelerating flow of goods, services, investment and people from one country to another. Finally, political convergence and economic integration have fostered the evolution of regional institutions such as the Asia-Pacific Economic Cooperation (APEC), ASEAN+3 (Japan, China and South Korea) and the East Asia Summit (EAS), which, if still rather modest by European standards, nonetheless offer at least a start towards building institutions that could manage regional affairs in the decades ahead. In this Asia, 'war' in the traditional sense is indeed hard to imagine.

But if the present order in East Asia makes war unthinkable today, the question of whether war in Asia will remain unthinkable in the future depends on the answer to a somewhat deeper question: can East Asia preserve the order it has enjoyed during the past few decades? If it can, Asia's future will be assured and Immanuel Kant's vision of perpetual peace1 will have come a long way towards fulfilment. If not, **major war among great powers could again become not just thinkable, but frighteningly** possible, or even **probable.** Whether one is optimistic that the order of recent decades will be sustained, or pessimistic that it may collapse, depends in part on how one explains the recent decades of peace. Many believe that Asia's peace is the product of inexorable forces of history, which are moving international society away from a world dominated by nation-states towards a system in which non-state actors are the most important players, and pose the most significant risks.2 In this new world, the threat of traditional, major conflict seems to be permanently reduced. This view has a Whiggish, even faintly Marxist flavour, with its faith in inexorable historical processes. Its supporters tend to see Asia's peaceful order as a durable fact, believing that individuals and even major states have little or no control over the deep historical processes that have produced it. They confidently expect that it will last for a long time to come, regardless of the actions of individuals or the policies of nations. The more pessimistic view is characteristically conservative in the old-fashioned, Burkean sense. Its supporters see no fundamental transformation of international society, and attribute the peace of recent decades to a fortunate, contingent and potentially fragile conjunction of events and circumstances. In other words, they believe it to be the product of good luck, helped by the sensible decisions of national leaders. They acknowledge the distinct possibility that bad luck and **unwise decisions could reverse this good fortune and destroy the peace**. They therefore do not assume that the recent peace in Asia will last; on the contrary, they believe that, without hard work, wise judgement and good luck, it is as likely as not to disappear. On balance, **the second view is more persuasive:** **the evidence suggests that it is becoming more difficult to preserve the order that has nurtured the peace of recent decades**. Economic growth is eroding the foundations of the regional order, and the work of building a new order, one that better reflects the economic realities of the ‘Asian century’, has not begun. When it does, it will become clear that building a stable new order in Asia will require significant concessions by all of the region's major powers. It is far from clear that they will be willing and able to make these concessions, and they certainly will not do so unless and until they understand more clearly how much is at stake. If they are not willing to think in new ways about Asia's order and their place in it, war – **systemic, catastrophic war – will become distinctly possible**.

### Navy

#### There will be a sequester replacement deal – GOP will cave.

Sargent 3-8. [Greg, journalist, "GOP fantasies about entitlements" Washington Post -- da: 3-9-13 -- www.washingtonpost.com/blogs/plum-line/wp/2013/03/08/gop-fantasies-about-entitlements/]

The basic dynamic here is simple for both parties. Either a deal is reached involving new revenues and entitlement cuts, or the sequester continues indefinitely. And it needs to be restated that the sequester is not a good option for Republicans, either, despite all the triumphalism about it. They risk taking the blame for the economic damage it does (Obama does, too, but he’s not up for reelection, and they are), and it doesn’t give them the entitlement cuts they claim to want. Giving Obama more flexibility over the sequester doesn’t really solve anything, either: The magnitude of cuts remains the same, and nothing happens with entitlements. What’s more, it seems that even some Republican officials are realizing that being the party of deep austerity and crisis-to-crisis governing (such as would happen with another debt ceiling fight) is not sustainable over the long term.¶ The most important fact about the situation — the central fact about it — is that there’s no route to a resolution that doesn’t involve a new cuts/revenues compromise of some kind. As Noam Scheiber detailed yesterday, there is a route to that compromise, albeit a difficult one, that could be viable even if GOP leaders hold out against it. I don’t necessarily think Republicans will agree to new revenues because they actually care about the deficit or about entitlement reform, but it is conceivable that some non-leadership GOP officials may break away and do so simply because the alternative for the GOP, over time, looks a lot worse.

### T – Not Energy Production

#### We meet – nuclear fuel cycle counts as energy production, including electricity generation

International Trade Association ’12

(“The Nuclear Fuel Cycle”, http://trade.gov/mas/ian/nuclear/tg\_ian\_003164.asp)

The nuclear fuel cycle is the series of industrial processes which involve the production of uranium 235 for use in nuclear energy power reactors. Uranium 238 (uranium) is a relatively common element that is found throughout the world, and is mined in a number of countries. But before uranium can be used as fuel for a nuclear reactor, it must first go through a number of processes known as “enrichment.”¶ The various activities associated with the production of electricity from nuclear reactions are referred to collectively as the nuclear fuel cycle. The nuclear fuel cycle starts with the mining of uranium and ends with the disposal of nuclear waste (this is called an open fuel cycle). If the fuel is reprocessed after use, this is called a closed fuel cycle (note: even reprocessing produces a small amount of nuclear waste which cannot be re-used and must be disposed of).

#### Massive number of Generation-III reactor designs that could be their own separate topics—not even the NRC can keep up

Union of Concerned Scientists ‘7

(“Nuclear Power in a Warming World: Assessing the Risks, Addressing the Challenges”, 2007, http://www.ucsusa.org/assets/documents/nuclear\_power/nuclear-power-in-a-warming-world.pdf)

Until recently, designers of new U.S. reactors have focused on evolutionary refinements that aim to make plants safer and less costly to build. The NRC has certified four evolutionary designs: the General Electric (GE) Advanced Boiling Water Reactor (ABWR) and the Westinghouse System-80+, AP600, and AP1000 pressurized-water reactors (PWRs). The first three reactors are sometimes referred to as Generation III, and the AP1000 as Generation III+ (see Table 1, p. 58). 114 Although GE has sold ABWRs abroad, no U.S. company has ordered any of these reactors because of their high cost. 115 The ABWR and System-80+ are very similar to existing plants, while the AP600 was designed to significantly reduce capital costs “by eliminating equipment which is subject to regulation.” 116 This means, in part, that the plant was designed to reduce the number of safetyrelated systems, structures, and components (SSCs)— those needed to mitigate design-basis accidents. 117 Such equipment must meet a much higher standard than commercial off-the-shelf equipment, and may raise its cost by a factor of 10. 118 To reduce the number of safety-related SSCs, the AP600 uses more dual-purpose systems, such as the one that provides water to steam generators during both normal operation and accidents. The AP600 also employs “passive” safety features (e.g., natural convection cooling, a reliance on gravity rather than motordriven pumps). Because concrete and steel account for over 95 percent of the capital cost of today’s reactors, Westinghouse made it a priority to reduce the size of safety-related SSCs such as the containment vessel. Westinghouse claims that this reactor reduces the probability of accidents because it has fewer active safety systems, which can be unreliable. To enhance the effectiveness of the AP600’s passive safety features, Westinghouse limited the power rating of the reactor to 600 MWe. The net result is a higher projected cost for electricity from the reactor than from the ABWR and System-80+, even though the AP600 has a lower projected capital cost. As a result, the AP600 has not proved attractive to U.S. utilities. In response, Westinghouse developed the AP1000— a scaled-up version of the AP600 with a power rating nearly twice as high (more than 1,100 MWe)—to reduce the projected cost of electricity through economies of scale. Several U.S. utilities have indicated interest in building this reactor. Designs under NRC Review As of October 2007, four other Generation III+ designs were in the NRC certification pipeline, although only one had formally begun the licensing process. 119 The others are under pre-application review, which the NRC typically uses to identify major safety and technical issues and determine what research would be needed to resolve them. 120 The one design now under certification review is GE’s 1,500 MWe Economic Simplified Boiling Water Reactor (ESBWR). Like the AP1000, it uses passive safety features and a higher power rating than U.S. plants operating today to reduce its capital cost per installed kilowatt. The three reactor designs in pre-application review are the U.S. Advanced Pressurized-Water Reactor (APWR) developed by Mitsubishi; the Evolutionary Power Reactor (EPR) developed by the French company Areva; and the Pebble Bed Modular Reactor (PBMR) developed by the South African national electric utility Eskom. The 1,700 MWe U.S. APWR is a large evolutionary variant of today’s pressurized-water reactors. Like the ABWR, it offers some incremental improvements over its Generation III counterparts, but it does not have novel features. In contrast, the EPR stands apart from other Generation III+ PWR designs. This design, a joint FrenchGerman project known in Europe as the European Power Reactor, has considerably greater safety margins than designs developed to meet only NRC standards, because it fulfills more stringent safety criteria developed jointly by France and Germany. For instance, the reactor has a double-walled containment structure, whereas the NRC requires only a single-walled one. The EPR also has systems intended to stabilize and contain the reactor core in the event that it overheats, melts, and breaches the reactor vessel. Areva plans to apply for NRC design certification in late 2007. The PBMR is distinctly different from today’s commercial light-water reactors. It uses helium gas as a coolant, a graphite moderator, and fuel consisting of very small uranium-oxide spheres coated with a corrosion-resistant material and embedded in tennis-ball-sized graphite “pebbles.” These pebbles travel from the top to the bottom of the reactor vessel as the reactor operates. Each module has a low power rating (about 150 MWe), so a typical power station would require about a dozen PBMR modules. The PBMR represents another attempt to reduce capital costs through a design intended to be safer. PBMR promoters bill the reactor as “inherently safe,” arguing that the reactor’s low power density and the hightemperature integrity of its fuel would prevent significant fuel damage, even in an accident in which the reactor lost all coolant. (If the fuel retains its integrity, there is no radioactive release.) The U.S. utility Exelon submitted the PBMR design to the NRC for pre-application review in 2000, arguing that the reactor was so safe it did not require a pressureresisting containment vessel—only a less costly “confinement” building. However, because the NRC did not have enough technical information, it had not been able to assess whether the proposed confinement building was acceptable when Exelon terminated the review in 2002. In 2004, the Pebble Bed Modular Reactor Co. (PBMR Ltd.), a consortium that includes British Nuclear Fuels and Eskom, informed the NRC that it wanted to resume the pre-application review, and intends to apply for design certification in 2007. 121 In July 2006 Eskom submitted several white papers to the NRC as part of the pre-application review process. Designs Not Yet under Review In addition to the designs under active review, the NRC has had preliminary discussions with vendors and other interested parties about three other reactor designs. The IRIS (International Reactor Innovative and Secure) design, a pressurized-water reactor with a relatively low power rating of 325 MWe, is being developed by an international consortium headed by Westinghouse. Westinghouse submitted the IRIS design to the NRC for pre-application review, but that review became inactive when the company told the NRC that it did not intend to apply for design certification until 2010. The second design is Toshiba’s 4S (Super Safe, Small, and Simple) reactor, which could also be classified as a Generation IV design (see Box 8, p. 59). This liquid sodium-cooled fast reactor would provide 10 MWe of power and have a core lifetime of 30 years. The reactor is intended for use in remote regions and is designed to operate without routine maintenance. To minimize the need for security personnel, the reactor would sit inside a sealed vault 30 meters underground. Toshiba offered to provide a free 4S reactor to the town of Galena, Alaska, as a demonstration project if the company received a license from the NRC. Although the town voted in December 2004 to accept Toshiba’s proposal, and officials from Galena and Toshiba met with the NRC in February 2005, Toshiba has not yet initiated an NRC pre-application review. Fast reactors are typically fueled with either highly enriched uranium or plutonium. The limited number of public documents describing the Galena proposal are vague or inconsistent regarding the type of fuel that would be used, but the most recent documents indicate that the fuel would consist of 17–19 percent-enriched uranium. 122 The third project is a 2006 proposal by General Atomics to build a test high-temperature gas-cooled reactor at the University of Texas–Permian Basin. General Atomics originally initiated a pre-application review of its full-scale Gas Turbine Modular Helium Reactor (GT-MHR) in 2001, but told the NRC in 2005 that it intended to terminate those discussions. Its proposal for a test reactor would require a less extensive approval process than that for a full-scale power reactor. The large number of reactor designs potentially seeking certification—some well outside the experience base of most NRC staff—and uncertainties about which proposals are serious present significant challenges to the NRC. It is difficult for the agency to justify developing the expertise to evaluate unfamiliar reactor concepts when it is unclear whether they are viable.

#### And, there will always be new reactors for the Aff to pick—DOE Generation IV research proves

Union of Concerned Scientists ‘7

(“Nuclear Power in a Warming World: Assessing the Risks, Addressing the Challenges”, 2007, http://www.ucsusa.org/assets/documents/nuclear\_power/nuclear-power-in-a-warming-world.pdf)

In addition to the Generation III and III+ designs of commercial reactor vendors, the Department of Energy is sponsoring R&D on advanced reactor systems at national laboratories and universities. This program—known as Generation IV—is nominally pursuing five systems. Two are thermal reactors: the Very High Temperature Reactor (VHTR) and the Supercritical-Water-Cooled Reactor (SCWR). 125 Three are fast reactors, which would use plutonium-based fuels: the Gas-cooled Fast Reactor (GFR), the Lead-cooled Fast Reactor (LFR), and the Sodiumcooled Fast Reactor (SFR). 126 The goals of the Generation IV program are ambitious: Generation IV . . . systems will provide sustainable energy generation . . . will minimize and manage their nuclear waste . . . will have a clear life-cycle cost advantage . . . will have a level of financial risk comparable to other energy projects . . . will excel in safety and reliability will have a very low likelihood and degree of . . . core damage . . . will eliminate the need for offsite emergency response . . . will increase the assurance that they are . . . the least desirable route for diversion or theft of weapons-usable materials and provide increased physical protection against acts of terrorism. 127

#### Counter-interpretation—energy production is the production of electricity or combustible or nuclear fuels

NASA ‘11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Production—The production of electricity, combustible fuels, nuclear and thermonuclear fuels, and heating and cooling by renewable resources.

#### Our interpretation is best—

#### Has a brightline limit—it excludes “tech of the week” Affs; those are energy conversion, which is distinct from production

NASA ’11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Conversion – The change of a working substance or natural power into a more useable form of energy such as electricity or mechanical motion. NASA Thesaurus, Washington, DC: National Aeronautics and Space Administration.

1. **Best debate—our interpretation opens the best and most real world discussions on nuclear power because each stage of the fuel cycle has different consequences. This turn any marginal limit they create**

**MIT ’11**

(“The Future of Nuclear Power”, Chapter 4 – Fuel Cycles, 2011, <http://web.mit.edu/nuclearpower/pdf/nuclearpower-ch4-9.pdf>)

The description of a possible global growth scenario for nuclear power with 1000 or so GWe deployed worldwide **must begin with some specification of the nuclear fuel cycles** that will be in operation. **The nuclear fuel cycle refers to all activities that occur in the production of nuclear energy**. It is important to emphasize that producing nuclear energy requires more than a nuclear reactor steam supply system and the associated turbine-generator equipment required to produce electricity from the heat created by nuclear fission. **The process includes ore mining,** enrichment**, fuel fabrication, waste management and disposal, and finally decontamination and decommissioning of facilities**. All steps in the process must be specified, because each involves different technical, economic, safety, and environmental consequences. A vast number of different fuel cycles appear in the literature, and many have been utilized to one degree or another. We review the operating characteristics of a number of these fuel cycles, summarized in Appendix 4. In this report, our concern is not with the description of the technical details of each fuel cycle. Rather, we stress the importance of aligning the different fuel cycle options with the global growth scenario criteria that we have specified in the last section: cost, safety, nonproliferation, and waste. This is by no means an easy task, because objective quantitative measures are not obvious, there are great uncertainties, and it is difficult to harmonize technical and institutional features. Moreover, different fuel cycles will meet the four different objectives differently, and therefore the selection of one over the other will inevitably be a matter of judgment. All too often, advocates of a particular reactor type or fuel cycle are selective in emphasizing criteria that have led them to propose a particular candidate. We believe that detailed and thorough analysis is needed to properly evaluate the many fuel cycle alternatives. We do not believe that a new technical configuration exists that meets all the criteria we have set forth, e.g. there is not a technical ‘silver bullet’ that will satisfy each of the criteria. Accordingly, the choice of the best technical path requires a judgment balancing the characteristics of a particular fuel cycle against how well it meets the criteria we have adopted. Our analysis separates fuel cycles into two classes: “open” and “closed.” In the open or once-through fuel cycle, the spent fuel discharged from the reactor is treated as waste. See Figure 4.1. In the closed fuel cycle today, the spent fuel discharged from the reactor is reprocessed, and the products are partitioned into uranium (U) and plutonium (Pu) suitable for fabrication into oxide fuel or mixed oxide fuel (MOX) for recycle back into a reactor. See Figure 4.2. The rest of the spent fuel is treated as high-level waste (HLW). In the future, closed fuel cycles could include use of a dedicated reactor that would be used to transmute selected isotopes that have been separated from spent fuel. See Figure 4.3. The dedicated reactor also may be used as a breeder to produce new fissile fuel by neutron absorption at a rate that exceeds the consumption of fissile fuel by the neutron chain reaction.2 In such fuel cycles the waste stream will contain less actinides,3 which will significantly reduce the long-term radioactivity of the nuclear waste.4

### T – Financial Incentive

#### We meet – we’re not R&D, we’re a loan guarantee. That’s 1AC CX The two are distinct – we’re about the completion of the actual plant

USEC ’12

(“Funding”, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)

USEC needs significant additional financing in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the U.S. Department of Energy Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant.¶ In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, the Department of Energy (DOE) proposed a two-year research, development and demonstration (RD&D) program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program but has given USEC no assurance that a successful RD&D program will result in a loan guarantee.¶ Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays the Company has experienced will not adversely affect these efforts.

#### Even if they win we’re R&D, it’s a financial incentive

**EIA 1** – US Energy Information Administration

(Renewable Energy 2000: Issues and Trends, Report prepared by the US Energy Information Administration, "Incentives, Mandates, and Government Programs for Promoting Renewable Energy", http://tonto.eia.doe.gov/ftproot/renewables/06282000.pdf)

Over the years, incentives and mandates for renewable¶ energy have been used to advance different energy¶ policies, such as ensuring energy security or promoting¶ environmentally benign energy sources. Renewable¶ energy has beneficial attributes, such as low emissions¶ and replenishable energy supply, that are not fully¶ reflected in the market price. Accordingly, governments¶ have used a variety of programs to promote renewable¶ energy resources, technologies, and renewable-based¶ transportation fuels.¶ 1¶ This paper discusses: (1) financial¶ incentives and regulatory mandates used by Federal and¶ State governments and Federal research and development (R&D),¶ 2, 3¶ and (2) their effectiveness in promoting¶ renewables. ¶ A financial incentive is defined in this report as providing one or more of the following benefits:¶ A transfer of economic resources by the Government to the buyer or seller of a good or service that¶ has the effect of reducing the price paid, or,¶ increasing the price received, respectively; ¶ Reducing the cost of production of the good or¶ service; or,¶ Creating or expanding a market for producers.¶ The intended effect of a financial incentive is to increase¶ the production or consumption of the good or service¶ over what it otherwise would have been without the¶ incentive. Examples of financial incentives are: tax¶ credits, production payments, trust funds, and low-cost¶ loans. Research and development is included as a¶ support program because its effect is to decrease cost,¶ thus enhancing the commercial viability of the good(s)¶ provided.¶ 4

#### C/I – financial incentives are disbursements of public funds – includes loan guarantees

Webb, 93 – lecturer in the Faculty of Law at the University of Ottawa (Kernaghan, “Thumbs, Fingers, and Pushing on String: Legal Accountability in the Use of Federal Financial Incentives”, 31 Alta. L. Rev. 501 (1993) Hein Online) –  **.** In this paper, "financial incentives" are taken to mean disbursements 18 of public funds or contingent commitments to individuals and organizations, intended to encourage, support or induce certain behaviours in accordance with express public policy objectives. They take the form of grants, contributions, repayable contributions, loans, loan guarantees and insurance, subsidies, procurement contracts and tax expenditures.19 Needless to say, the ability of government to achieve desired behaviour may vary with the type of incentive in use: up-front disbursements of funds (such as with contributions and procurement contracts) may put government in a better position to dictate the terms upon which assistance is provided than contingent disbursements such as loan guarantees and insurance. In some cases, the incentive aspects of the funding come from the conditions attached to use of the monies.20 In others, the mere existence of a program providing financial assistance for a particular activity (eg. low interest loans for a nuclear power plant, or a pulp mill) may be taken as government approval of that activity, and in that sense, an incentive to encourage that type of activity has been created.21 Given the wide variety of incentive types, it will not be possible in a paper of this length to provide anything more than a cursory discussion of some of the main incentives used.22 And, needless to say, the comments made herein concerning accountability apply to differing degrees depending upon the type of incentive under consideration.

By limiting the definition of financial incentives to initiatives where public funds are *either* disbursed or *contingently* committed, a large number of regulatory programs with incentive effectswhich exist, but in which no money is forthcoming,23 are excluded from direct examination in this paper.

### T – Substantial

#### We meet – plan is substantial

Bloomberg ‘9

(USEC Anticipates Loan Guarantee Decision by Early August, 2009, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aNwBO9eDjzGs)

USEC has invested nearly $1.5 billion in the American Centrifuge project and¶ needs a DOE loan guarantee to secure the substantial portion of the remaining¶ financing needed to complete the project. USEC submitted its application to¶ DOE in 2008 and has been working closely with DOE to expedite the process.

#### Counter-interpretation—substantial is considerable in degree, that’s American Heritage Dictionary in 2000.

#### We meet – plan is a $2 billion loan guarantee, that’s a massive portion of the DOE’s loan guarantee budget

CBO ‘12

(“DOE LOAN ¶ GUARANTEES¶ Further Actions Are ¶ Needed to Improve ¶ Tracking and Review ¶ of Applications”, March 2012, http://www.gao.gov/assets/590/589210.pdf)

(note: That works out to about $65 million a loan guarantee on average)

For 460 applications to the LGP from its nine solicitations, DOE has made ¶ $15.1 billion in loan guarantees and conditionally committed to an ¶ additional $15 billion, representing $30 billion of the $34 billion in loan ¶ guarantees authorized for the LGP.14 However, when we requested data ¶ from the LGP on the status of the applications to its nine solicitations, the ¶ LGP did not have consolidated data readily available but had to assemble ¶ them from various sources.

### CP

#### CP’s renationalization through pure funding means they don’t solve

Hochberg et al 8

(ON PETITION FOR A WRIT OF CERTIORARI TO THE¶ UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT¶ USEC INC. and¶ UNITED STATES ENRICHMENT CORPORATION,¶ Petitioners,¶ v.¶ EURODIF S.A.; AREVA NC; AREVA NC, INC.;¶ AD HOC UTILITIES GROUP; and¶ UNITED STATES OF AMERICA,¶ Respondents.¶ SHELDON E. HOCHBERG¶ Counsel of Record¶ ERIC C. EMERSON¶ CHARLES G. COLE¶ MICHAEL A. VATIS¶ JOHN P. NOLAN¶ STEPTOE & JOHNSON LLP¶ 1330 Connecticut Avenue, N.W.¶ Washington, D.C. 20036¶ (202) 429-3000¶ Attorneys for Petitioners¶ USEC Inc. and United States¶ Enrichment Corporation, 2008, http://www.scotusblog.com/wp-content/uploads/2008/04/07-1078\_cert\_rep.pdf)

Similarly, Respondents suggest that the Government¶ could step in and supply the needs of the U.S. military if¶ USEC is forced out of business. Eurodif Br. at 21-22;¶ AHUG Br. at 26-27. But such a nationalization of USEC’s¶ operations would fly in the face of Congressional policy¶ reflected in the USEC Privatization Act, Pub. L. No.¶ 104-134, 110 Stat. 1321-35 (1996), that the production of¶ enriched uranium should be placed in the private sector.¶ Moreover, the Government could not take over USEC’s¶ operations solely to maintain production of fuel for the¶ military without also reinserting itself in the commercial¶ enrichment market.

#### DOE funding key to stamp of approval

Jennetta ’12 – publisher of Fuel Cycle Weekly

(Andrea Jennetta, “DOE Calls in the experts”, Fuel Cycle Weekly, Vol.10, No.414 3-3-11, http://fuelcycle.blogspot.com/2011/03/doe-calls-in-experts.html)

The only reason to mention his (and BWEC’s) credentials is to make the point that when it comes to USEC and the ACP loan guarantee application, the Energy Department really needs to be prepared. Regardless of the final outcome of the evaluation, everyone—EVERYONE—will be criticized.¶ With a “yes” decision, DOE is saying there are enough positive vectors in terms of USEC’s enrichment order book and ability to execute, despite financial weakness and questionable technology.¶ With a “no” decision, DOE is saying there are justifiable doubts about USEC’s finances and technology, and that granting the loan guarantee is too risky for U.S. taxpayers.

### DA – Politics

**Food shocks are self-correcting**

**Kharas 8** (Homi, The Economist Debate: Rising food prices, The Proposition’s closing statement, <http://www.economist.com/debate/index.cfm?action=article&debate_id=10&story_id=11829068>)

Images of food riots and hungry people stir deep emotions. But we must debate trade-offs: will the rise in food prices generate more food for the world and less poverty for poor people in the future? Are today’s food prices fair to producers and consumers? Yes, **because higher food prices will bring about new investments in agriculture and higher global production.** This is already happening in Asia and other parts of the world, **and will accelerate over time**. Yes, because **without higher food prices, land use would shift towards** corn-for-**ethanol** and other biofuel crops **and we would have less food available**. Yes, because **a system with food prices in free fall for 30 years did not produce any measurable decline in hunger and poverty.** But **the last time food prices were as high as they are today we witnessed the Green Revolution and a rapid reduction of rural poverty** in one of the largest population centres of the world, South Asia.

#### Labor shortage is inevitable – reform is irrelevant

Plumer 1/29/13 (Brad, “We’re Running out of Farm Workers. Immigration Reform Won’t Help” Wonkblog @ The Washington Post)

But looser immigration laws may not be able to keep our food cheap forever. A [recent study](http://aepp.oxfordjournals.org/content/34/4/587.abstract) suggests that U.S. farms could well face a shortage of low-cost labor in the years ahead no matter what Congress does on immigration. That’s because Mexico is getting richer and can no longer supply as many rural farm workers to the United States. And it won’t be nearly as easy to import low-wage agricultural workers from elsewhere. For decades, farms in the United States have relied heavily on low-wage foreign workers — mainly from Mexico — to work their fields. In 2006, 77 percent of all agricultural workers in the United States were foreign-born. (And [half of those foreign workers](http://www.wisconsinwatch.org/2009/11/04/immigrants-now-40-of-states-dairy-workforce/) were undocumented immigrants.) All that cheap labor has helped keep down U.S. food prices, particularly for labor-intensive fruits and vegetables. But that labor pool is now drying up. In recent years, we’ve seen a spate of headlines like this from CNBC: “[California Farm Labor Shortage ‘Worst It’s Been, Ever’](http://www.cnbc.com/id/48725145/California_Farm_Labor_Shortage_039Worst_It039s_Been_Ever039).” Typically, these stories blame drug-related violence on the Mexican border or tougher border enforcement for the decline. Hence the call for new guest-worker programs. But a [new paper](http://aepp.oxfordjournals.org/content/34/4/587.abstract) from U.C. Davis offers up a simpler explanation for the labor shortage. Mexico is getting richer. And, when a country gets richer, its pool of rural agricultural labor shrinks. Not only are Mexican workers shifting into other sectors like construction, but Mexico’s own farms are increasing wages. That means U.S. farms will have to pay higher and higher wages to attract a dwindling pool of available Mexican farm workers.

#### Won’t pass – no bill or consensus.

Alonso 3/6

(Basilisa, “President Obama and Congress are still far apart on immigration reform”, Hispanic News Service, 3-6-2013, http://www.voxxi.com/obama-congress-apart-immigration-reform/)

President Barack Obama and Congress have yet to address seriously, let alone find much common ground, on major differences in shaping comprehensive immigration reform legislation this year. They remain ideologically and politically far apart on a myriad of issues, most prominently border enforcement, a path to citizenship and family reunification.¶ The latest move by the Administration is the probationary release of several hundred immigrants from detention centers over the country who are awaiting disposition of their deportation orders. White House press secretary Jay Carney says they are ”low-risk, non-criminal detainees” being shifted to a less-expensive form of monitoring to ensure detention levels stay within ICE’s overall budget.¶ More than 400,000 immigrants are held annually in 250 federal immigration prisons. House Judiciary Committee chairman Robert Goodlatte (R- Virginia) calls it “abhorrent that President Obama is releasing criminals into our communities.” He adds that achieving an overhaul of immigration laws would have better odds if Congress, rather than the President, takes the lead.¶

President Obama’s leaked immigration bill¶ The buoyancy from the president’s Feb. 12 State of the Union immigration reform message turned flat five days later, when USA Today obtained a copy and revealed it. The leaked proposal included his intended roadmap to citizenship for nearly 11 million undocumented immigrants who meet stringent requirements in order to qualify. Although the White House has not confirmed the report, qualifying immigrants would be granted renewable “lawful prospective immigrant” visas.¶ Much like the Deferred Action for Childhood Arrival (DACA) program, the plan would allow currently undocumented immigrants to live and work here temporarily within a four-year timeframe. After that, the visa could be renewed. Immigrants would have to pass criminal background checks, submit biometrics and pay any back taxes and fees due. The current non-refundable fee is $685 to take the citizenship test is $685.¶ Applicants would then have a minimum eight-year wait before they could apply for a green card, which grants permanent residency. Some persons already in deportation proceedings would be allowed to apply. The New York Times reported that none of the 11 million undocumented immigrants currently in the country would be granted permanent resident status or a green card before the earlier of two dates: either eight years after the bill is enacted or 30 days after visas have been awarded to everyone who applied legally before they did.¶ During the State of the Union address the President entreated, “Let’s get this done. Send me a comprehensive immigration reform bill in the next few months, and I will sign it right away.” The bipartisan exuberance that filled the House chamber has visibly retracted. Senator John McCain (R-Ariz.) told NBC’s Meet the Press that if the president proposes the leaked plan as legislation it would fail. “Leaks don’t happen in Washington by accident,” he added.¶ U.S. Rep. Paul Ryan (R-Wisc.,) who had earlier praised Obama’s State of the Union immigration rhetoric, said on ABC’s This Week that by leaking his proposal the president was “looking for a partisan advantage and not a bipartisan solution.”¶

#### Immigration will be watered down

Politico 3-5-13. dyn.politico.com/printstory.cfm?uuid=12207C2F-7F94-479F-959C-F539B631CDF1

“More likely that we deal with one bill at a time, more likely that the Senate slams them all together,” said Oklahoma Rep. James Lankford, chairman of the Republican Policy Committee, who is involved with immigration strategy. “They do so few bills over there, they’re going to do one big giant, we may do a few small [bills] and see what we work on in conference together.”¶ Still, as Washington is a-twitter about immigration reform, and President Barack Obama is corralling support on Capitol Hill, the GOP leadership is staring at a daunting statistic: More than 140 Republicans represent districts with nearly no Hispanics. So many of them look at immigration reform through a parochial lens, not as a national political imperative like the party bigwigs.¶ The uptick in private action tells a more hopeful story for reform than was previously understood. Of course, passing any immigration reform bills is a political risk because if the House is seen even temporarily as moving minor proposals while the Senate moves a massive bill, that action could be seen as insufficient.¶ For instance, the piecemeal approach could risk putting some House Republicans crosswise with national party apparatus — who see comprehensive immigration reform as a pathway toward maintaining power in Washington.¶ “I don’t like how some people on our side who are pushing a comprehensive plan who say, ‘The reason we have to do this if because we’re not getting enough of the Hispanic vote at the presidential level,’” said Rep. Tom Rooney (R-Fla.) . “For me, policy should be driven because of policy, not politics, and I know that’s wishful thinking.”¶ Ryan’s office did not answer an email about the private conversations. Gowdy told reporters he would talk about anything except immigration.¶ The desire to avoid comprehensive movement on immigration is so widespread, so geographically diverse, that it’s hard to ignore and might be impossible for leadership to circumvent.¶ Rep. Reid Ribble (R-Wis.) said he is “hopeful … that rather than trying to do a major comprehensive reform, we will try and do it sequentially.”¶ “Everyone agrees on certain things,” Ribble said.¶ Rooney said Republicans would “lose a group of people right off the bat” if they try to cobble together a comprehensive bill.

#### Minimum wage, infrastructure stimulus and preschool thumps

The Hill, 2-16-2013 http://thehill.com/blogs/on-the-money/economy/283579-obama-pushes-stimulus-minimum-wage-increase-in-weekly-address

President Obama used his weekly address on Saturday to recap ideas from the State of the Union that have little chance of passing Congress anytime soon, including more stimulus spending proposals and a pitch to increase the federal minimum wage to $9 an hour.¶ The president said that, taken as a package, his ideas will lead to a thriving middle class.¶ “Every day, we should ask ourselves three questions: How do we bring good jobs to America? How do we equip people with the skills those jobs require? And how do we make sure your hard work leads to a decent living?,” he said.¶ Obama said that to boost manufacturing, the United States should “launch manufacturing hubs,” increase investments in research and technology and increase infrastructure spending.¶ Obama also reiterated his call for guaranteeing high-quality preschool for all, a proposition that could cost billions of dollars.¶ “No one in America should work full-time and raise their children in poverty. So let’s raise the minimum wage so that it’s a wage you can live on,” he said.¶ Speaker John Boehner (R-Ohio) this week ruled out an increase of the minimum wage.¶ Obama reiterated that that the new investments can be done while reducing the deficit and that the goal should be some $1.5 trillion in additional deficit reduction.¶ “We don’t have to choose between the two – we just have to make smart choices,” Obama said. “Over the last few years, both parties have worked together to reduce the deficit by more than $2.5 trillion – which puts us more than halfway towards the goal of $4 trillion in deficit reduction that economists say we need to stabilize our finances. Now we need to finish the job.”

#### PC theory is wrong- winners win

Hirsh, 2-7 – National Journal chief correspondent, citing various political scientists

[Michael, former Newsweek senior correspondent, "There’s No Such Thing as Political Capital," National Journal, 2-9-13, www.nationaljournal.com/magazine/there-s-no-such-thing-as-political-capital-20130207, accessed 2-8-13, mss]

**There’s No Such Thing as Political Capital**

The idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get itwrong. On Tuesday, in his State of the Union address, President Obama will do what every president does this time of year. For about 60 minutes, he will lay out a sprawling and ambitious wish list highlighted by gun control and immigration reform, climate change and debt reduction. In response, the pundits will do what they always do this time of year: They will talk about how unrealistic most of the proposals are, discussions often informed by sagacious reckonings of how much “political capital” Obama possesses to push his program through. Most of **this** talk **will have no bearing on what actually happens** over the next four years. Consider this: Three months ago, just before the November election, if someone had talked seriously about Obama having enough political capital to oversee passage of both immigration reform and gun-control legislation at the beginning of his second term—even after winning the election by 4 percentage points and 5 million votes (the actual final tally)—this person would have been called crazy and stripped of his pundit’s license. (It doesn’t exist, but it ought to.) In his first term, in a starkly polarized country, the president had been so frustrated by GOP resistance that he finally issued a limited executive order last August permitting immigrants who entered the country illegally as children to work without fear of deportation for at least two years. Obama didn’t dare to even bring up gun control, a Democratic “third rail” that has cost the party elections and that actually might have been even less popular on the right than the president’s health care law. And yet, for reasons that have very little to do with Obama’s personal prestige or popularity—variously put in terms of a “mandate” or “political capital”—chances are fair that both will now happen. What changed? In the case of gun control, of course, it wasn’t the election. It was the horror of the 20 first-graders who were slaughtered in Newtown, Conn., in mid-December. The sickening reality of little girls and boys riddled with bullets from a high-capacity assault weapon seemed to precipitate a sudden tipping point in the national conscience. One thing changed after another. Wayne LaPierre of the National Rifle Association marginalized himself with poorly chosen comments soon after the massacre. The pro-gun lobby, once a phalanx of opposition, began to fissure into reasonables and crazies. Former Rep. Gabrielle Giffords, D-Ariz., who was shot in the head two years ago and is still struggling to speak and walk, started a PAC with her husband to appeal to the moderate middle of gun owners. Then she gave riveting and poignant testimony to the Senate, challenging lawmakers: “Be bold.” As a result, momentum has appeared to build around some kind of a plan to curtail sales of the most dangerous weapons and ammunition and the way people are permitted to buy them. It’s impossible to say now whether such a bill will pass and, if it does, whether it will make anything more than cosmetic changes to gun laws. But one thing is clear: The **political tectonics** have **shift**ed **dramatically in very little time**. Whole new possibilities exist now that didn’t a few weeks ago. Meanwhile, the Republican members of the Senate’s so-called Gang of Eight are pushing hard for a new spirit of compromise on immigration reform, a sharp change after an election year in which the GOP standard-bearer declared he would make life so miserable for the 11 million illegal immigrants in the U.S. that they would “self-deport.” But this turnaround has very little to do with Obama’s personal influence—his political mandate, as it were. It has almost entirely to do with just two numbers: 71 and 27. That’s 71 percent for Obama, 27 percent for Mitt Romney, the breakdown of the Hispanic vote in the 2012 presidential election. Obama drove home his advantage by giving a speech on immigration reform on Jan. 29 at a Hispanic-dominated high school in Nevada, a swing state he won by a surprising 8 percentage points in November. But the movement on immigration has mainly come out of the Republican Party’s recent introspection, and the realization by its more thoughtful members, such as Sen. Marco Rubio of Florida and Gov. Bobby Jindal of Louisiana, that without such a shift the party may be facing demographic death in a country where the 2010 census showed, for the first time, that white births have fallen into the minority. It’s got nothing to do with Obama’s political capital or, indeed, Obama at all. The point is not that “political capital” is a meaningless term. Often it is a synonym for “mandate” or “momentum” in the aftermath of a decisive election—and just about every politician ever elected has tried to claim more of a mandate than he actually has. Certainly, Obama can say that because he was elected and Romney wasn’t, he has a better claim on the country’s mood and direction. Many pundits still defend political capital as a useful metaphor at least. “It’s an unquantifiable but meaningful concept,” says Norman Ornstein of the American Enterprise Institute. “You can’t really look at a president and say he’s got 37 ounces of political capital. But the fact is, it’s a concept that matters, if you have popularity and some momentum on your side.” The real problem is that the idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get it wrong. “Presidents usually over-estimate it,” says George Edwards, a presidential scholar at Texas A&M University. “The best kind of political capital—some sense of an electoral mandate to do something—is very rare. It almost never happens. In 1964, maybe. And to some degree in 1980.” For that reason, **political capital** is a concept that **misleads** far more than it enlightens. **It is** **distortionary**. It conveys the idea that we know more than we really do about the ever-elusive concept of political power, and it discounts the way unforeseen events can suddenly change everything. Instead, it suggests, erroneously, that a political figure has a concrete amount of political capital to invest, just as someone might have real investment capital—that a particular leader can bank his gains, and the size of his account determines what he can do at any given moment in history. Naturally, any president has practical and electoral limits. Does he have a majority in both chambers of Congress and a cohesive coalition behind him? Obama has neither at present. And unless a surge in the economy—at the moment, still stuck—or some other great victory gives him more momentum, it is inevitable that the closer Obama gets to the 2014 election, the less he will be able to get done. Going into the midterms, Republicans will increasingly avoid any concessions that make him (and the Democrats) stronger. But the abrupt emergence of the immigration and gun-control issues illustrates how suddenly shifts in mood can occur and how political interests can align in new ways just as suddenly. Indeed, the pseudo-concept of political capital masks a larger truth about Washington that is kindergarten simple: You just don’t know what you can do until you try. Or as Ornstein himself once wrote years ago, “**Winning wins.”** In theory, and in practice, depending on Obama’s handling of any particular issue, even in a polarized time, he could still deliver on a lot of his second-term goals, depending on his skill and the breaks. Unforeseen catalysts can appear, like Newtown. Epiphanies can dawn, such as when many Republican Party leaders suddenly woke up in panic to the huge disparity in the Hispanic vote. Some **political scientists** **who study** the elusive calculus of **how to pass legislation** and run successful presidencies **say** that **political capital is**, at best, **an empty concept**, and that **almost nothing in** the **academic literature** successfully quantifies or even defines it. “It can refer to a very abstract thing, like a president’s popularity, but there’s no mechanism there. That makes it kind of useless,” says Richard Bensel, a government professor at Cornell University. Even Ornstein concedes that the calculus is far more complex than the term suggests. **Winning** on one issue often **changes the** **calculation** for the next issue; there is never any known amount of capital. “The idea here is, if an issue comes up where **the conventional wisdom is that president is not going to get what he wants**, and [they]he gets it, then each time that happens, it changes the calculus of the **other actors**” Ornstein says. “If they think he’s going to win, they may **change positions to get on the winning side**. **It’s a bandwagon effect**.” ALL THE WAY WITH LBJ Sometimes, a clever practitioner of power can get more done just because [they’re]he’s aggressive and knows the hallways of Congress well. Texas A&M’s Edwards is right to say that the outcome of the 1964 election, Lyndon Johnson’s landslide victory over Barry Goldwater, was one of the few that conveyed a mandate. But one of the main reasons for that mandate (in addition to Goldwater’s ineptitude as a candidate) was President Johnson’s masterful use of power leading up to that election, and his ability to get far more done than anyone thought possible, given his limited political capital. In the newest volume in his exhaustive study of LBJ, The Passage of Power, historian Robert Caro recalls Johnson getting cautionary advice after he assumed the presidency from the assassinated John F. Kennedy in late 1963. Don’t focus on a long-stalled civil-rights bill, advisers told him, because it might jeopardize Southern lawmakers’ support for a tax cut and appropriations bills the president needed. “One of the wise, practical people around the table [said that] the presidency has only a certain amount of coinage to expend, and you oughtn’t to expend it on this,” Caro writes. (Coinage, of course, was what political capital was called in those days.) Johnson replied, “Well, what the hell’s the presidency for?” Johnson didn’t worry about coinage, and he got the Civil Rights Act enacted, along with much else: Medicare, a tax cut, antipoverty programs. He appeared to understand not just the ways of Congress but also the way to maximize the momentum he possessed in the lingering mood of national grief and determination by picking the right issues, as Caro records. “Momentum is not a mysterious mistress,” LBJ said. “It is a controllable fact of political life.” Johnson had the skill and wherewithal to realize that, at that moment of history, he could have unlimited coinage if he handled the politics right. He did. (At least until Vietnam, that is.)

[Matt note: gender paraphrased]

#### Link shields itself – Obama will back away from the plan if Congress presses him

Herz ’12 – professor of law and co-director of the Floersheimer Center for Constitutional Democracy

(Michael E., “Political Oversight of Agency Decisionmaking”, Administrative Law JOTWELL, 1-23-2012)

Mendelson begins with two important but often overlooked points. First, we know remarkably little about the content and scope of presidential oversight of rulemaking. Second, there’s presidential oversight and there’s presidential oversight; that is, some presidential influence is almost indisputably appropriate and enhances the legitimacy of agency decisionmaking, and some (e.g. leaning on the agency to ignore scientific fact or to do something inconsistent with statutory constraints) is not. Although presidents have long exerted significant influence on agency rulemaking, and although that influence has been regularized and concentrated in OIRA for three decades, it remains quite invisible. The OIRA review process is fairly opaque (though less so than it once was), influence by other parts of the White House even more so, and official explanations of agency action almost always are silent about political considerations. As a result, the democratic responsiveness and accountability that, in theory, presidential oversight provides goes unrealized. Presidents take credit when it suits them, but keep their distance from controversy. (Although Mendelson does not make the connection explicit, her account resonates with critiques by supporters of a nondelegation doctrine with teeth who are dismayed by Congress’s desire to take credit but not blame.)

#### It’s massively popular, even AFTER the sequester – it still has massive support in Congress

Lewis ’13 – reporter for the Westville Reporter

(Frank, “Good news comes in bunches for USEC”, Westville Reporter, Energy Central, 3-6-2013, <http://www.energycentral.com/news/en/27816039/Good-news-comes-in-bunches-for-USEC>, DOA: 3-8-2013)

The good news continues to roll in for the funding of the research, development, and demonstration (RD&D) program at the American Centrifuge Project (ACP) in Piketon. News from Capitol Hill is that $150 million is included in the House Continuing Resolution (CR) to fund the USEC RD&D process which is a joint effort by USEC and the U.S. Department of Energy.¶ Section 1402 of the CR reads -- "In addition to amounts otherwise made available by this division, $150,000,000 is appropriated for 'Department of Energy, Atomic Energy Defense Activities, National Nuclear Security Administration, Defense Nuclear Nonproliferation' for domestic uranium enrichment research, development, and demonstration."¶ "Obviously we have been working to complete the funding for the RD&D program, which is an important program for demonstrating the technology, and laying the groundwork for commercialization," Paul Jacobson, Vice President of Communications for USEC told the Daily Times Tuesday. "I think the inclusion of the funds reflects a continued bi-partisan support in Congress and from the administration as well, for the national and energy security merits of this project. I think it's important to underscore that this proposed funding is to support the centrifuge project, and the national goals that the decision makers in Washington have decided are important to support. So obviously it is good news but there is a way to go with action in the House and action in the Senate, but it certainly is encouraging."

### DA – Nat Gas

**The Russian economy is strong and resilient**

**Actuarial Post 11** [“Russian recovery continues to gather momentum,” July 19 2011, <http://www.actuarialpost.co.uk/article/russian-recovery-continues-to-gather-momentum-623.htm>]

Baring Asset Management (Barings), the international investment management firm, believes Russia will become an increasingly attractive market to investors over the next 18 months as its economic recovery continues to gather pace on the back of higher public sector investment and consumer spending. Matthias Siller, manager of the Baring Russia Fund also believes that over the next 18 months, Russia's political backdrop will have a positive influence on investment opportunities in the country. This year, Russia's Parliamentary elections will take place and in 2012, the Presidential election. Siller explains: "The elections will naturally result in an increase in social spending on infrastructure and on housing as the government tries to secure support. Aggressive fiscal loosening will also put more money in people's pockets and boost consumer confidence, supporting growth." In terms of GDP growth Barings believes this will remain solid, although Russia's economic recovery has been slower to gain momentum compared to other emerging European nations. Siller says: "Russia's late cyclical recovery means that whilst consumer spending is only just starting to pick up, its monetary pressures are less strained than other European countries. Consumer spending, supported by a revival in retail loan growth since early 2010, points toward a strong, sustained recovery. Evidence of growth in consumption can be seen in rising new car sales which for example are well above Turkey's." Barings believes the **Russian economy has been** relatively **resilient to the financial crisis, and** currently its budget deficit forecasts are significantly better than some other European emerging economies. **While other** European **governments' support of growth via deficit spending comes to an end, Russia is an exception** to the trend. A deficit spending increase in Russia will continue to underpin wage growth and consumption. Barings also expects privatisation efforts to increase and generate more growth for businesses.

#### DA’s inevitable—

#### Public wants more nuclear power and it’s expanding globally

Westenhaus 9/30

(Brian, “Confidence in Nuclear Power is on the Rise Again”, Oil Price, 9-30-2012, <http://oilprice.com/Alternative-Energy/Nuclear-Power/Confidence-in-Nuclear-Power-is-on-the-Rise-Again.html>)

This latest survey found that Americans strongly favoring nuclear energy outnumber those strongly opposed by a two-to-one ratio, 29% versus 14%. The new numbers improve on a poll conducted in September 2011, six months after the Fukushima accident, when 62% of American favored nuclear energy, with 35% opposed. The new survey shows confidence is improving. Just over three quarters of respondents agree that nuclear energy facilities operating in the United States are ‘safe and secure,’ while only 19% think they are not. Eighty percent of Americans opposed to 16% believe “we should learn the lessons from the Japanese accident and continue to develop advanced nuclear energy plants to meet America’s growing electricity demand.” In a shock to the political system and the anti nuclear crowd a large majority (81%) of those surveyed favor the renewal of operating licenses of facilities that continue to meet federal safety standards, while 74% believe electric utilities should prepare now so they will be ready to build new nuclear power plants in the next decade if needed. The U.S. is not alone. New nuclear plants are coming in Asia and even in Europe. Nuclear generating capacity is projected to grow 38% in the next eight years. These kinds of numbers wake up the uranium commodities speculators – even while the market is in the doldrums.

#### Nuclear power’s expanding in the U.S. now

Ferguson ’12

(Charles D., Federation of the American Scientists, Public Interest Report, “Making the Case for

Nuclear Power in the United States”, Summer 2012, <http://www.fas.org/pubs/pir/2012summer/Summer2012_PresidentMessage.pdf>)

Will nuclear power in the United States flourish or fade away? To paraphrase Mark Twain, “The news of nuclear power’s demise has been greatly exaggerated.” The United States still has the largest number of nuclear reactors in the world with 104 and almost 20 percent of its electricity is generated from nuclear power. Moreover, four new reactors are under construction: two at the Vogtle plant in Georgia and two at the Summer plant in South Carolina. One big reason these plants are moving forward is because the utilities can recoup some of the costs during construction. The regional regulatory authorities in the Southeastern United States have allowed such cost recovery. Four new reactors, however, will not be enough to keep nuclear power on pace to continue to generate about 20 percent of the nation’s electricity.¶ Zero link to the Aff—all of their evidence is about new nuclear power plant construction

#### Plan not sufficient to trigger the link

EIA ’11

(“Over 90% of uranium purchased by U.S. commercial nuclear reactors is from outside the U.S.”, 7-11-2011, http://www.eia.gov/todayinenergy/detail.cfm?id=2150#)

Owners and operators of U.S. commercial nuclear power reactors purchased nearly 47 million pounds of uranium from U.S. and foreign suppliers during 2010; 92% of this total was of foreign origin.¶ Historically, U.S. owners and operators have purchased the majority of their uranium from foreign sources. Russia, Canada, Australia, Kazakhstan, and Namibia represent the top five countries of origin for U.S. uranium, and together account for 85% of total U.S. uranium purchases in 2010. Owners and operators of U.S. commercial nuclear power plants purchased uranium from a total of 14 different countries in 2010.¶ Preparing uranium for use as fuel in nuclear reactors involves a complex process of mining, refinement, and enrichment. EIA's 2010 Uranium Marketing Annual Report presents data on purchases and sales of uranium contracts and market requirements, enrichment services, and other information pertaining to feed, loaded uranium, and inventories.

#### Nat gas and nuclear don’t compete—utilities will always rely on nuclear as a hedge

Lamonica ‘12

(Martin, “A Glut of Natural Gas Leaves Nuclear Power Stalled”, Technology Review by MIT, 8-9-2012, http://www.technologyreview.com/news/428737/a-glut-of-natural-gas-leaves-nuclear-power/)

Even in United States, of course, super cheap natural gas will not last forever. With supply exceeding demand, some drillers are said to be losing money on natural gas, which could push prices back up. Prices will also be pushed upward by utilities, as they come to rely on more natural gas for power generation, says James. Ali Azad, the chief business development officer at energy company Babcock & Wilcox, thinks the answer is making nuclear power smaller, cheaper, and faster. His is one of a handful of companies developing small modular reactors that can be built in three years, rather than 10 or more, for a fraction of the cost of gigawatt-size reactors. Although this technology is not yet commercially proven, the company has a customer in the Tennessee Valley Authority, which expects to have its first unit online in 2021 (see "A Preassembled Nuclear Reactor"). "When we arrive, we will have a level cost of energy on the grid, which competes favorably with a brand-new combined-cycle natural gas plants when gas prices are between $6 to $8," said Azad. He sees strong demand in power-hungry China and places such as Saudia Arabia, where power is needed for desalination. Even if natural gas remains cheaper, utilities don't want to find themselves with an overreliance on gas, which has been volatile on price in the past, so nuclear power will still contribute to the energy mix. "[Utilities] still continue [with nuclear] but with a lower level of enthusiasm—it's a hedging strategy," says Hans-Holger Rogner from the Planning and Economics Studies section of the International Atomic Energy Agency. "They don't want to pull all their eggs in one basket because of the new kid on the block called shale gas."

#### No impact to natural gas—market will adapt

Persily ‘12

(Larry Persily, “Experts say U.S. exports will push global LNG prices lower”, Alaska Natural Gas Transportation Projects: Office of the Federal Coordinator, 8-30-2012, <http://www.arcticgas.gov/2012/experts-say-us-exports-will-push-global-lng-prices-lower>)

Exporting U.S. LNG will raise domestic natural gas prices little - and maybe not at all - because the global market won't take enough to make a difference. But it could help push down LNG prices in Asia and Europe. That was the conclusion of three economists who separately studied global prospects and presented their work at an Energy Information Administration workshop Aug. 23 in Washington. Kenneth Medlock, from the James A. Baker Institute for Public Policy at Rice University in Houston, said his models determined the world will not need all that much U.S. LNG. All three experts also said the LNG business is highly competitive and other players won't stand still while the U.S. enters the market. Philip Hanser, of The Brattle Group, said LNG requires so much up-front capital that the market for U.S. exports is small and the window is already closing. Producer nations like Canada, Russia, Qatar and Nigeria will protect their market shares and "will react even before we do anything," he said. Most of the LNG delivered to Asia and Europe is priced on contract formulas connected to oil. With high prices for crude driving up LNG in those markets, natural gas buyers are already balking and insisting on contract renegotiations. Hanser said he expects U.S. exports would push the rest of the world away from oil indexing and toward market-based prices. Medlock said U.S. LNG could exert "significant downward pressure on prices," particularly in Asia, while Dale Nesbitt, senior manager at Deloitte MarketPoint, said prices will "converge" globally with lower-priced U.S. LNG in the market.

#### Nat gas prices terminally low now—demand won’t be able to keep up with supply

Deutch ‘12

(John Deutch, “The U.S. Natural-Gas Boom Will Transform the World”, Wall Street Journal 8-14-2012, <http://online.wsj.com/article/SB10001424052702303343404577514622469426012.html>)

Demand for natural gas has not kept up with the phenomenal growth in supply. That's indicated by the extremely low current price and the thousands of recently developed unconventional natural gas wells that are shut-in. Unconventional natural gas production from "dry" wells (those that don't produce useful petroleum liquid products) is at a virtual standstill. This signals that some recovery in North American natural gas prices is likely—to the range of $4 per thousand cubic feet, perhaps—which would be welcomed by producers. Consumers who heat their homes with gas, and chemical companies and other manufacturers who rely on this raw material for producing petrochemical and polymers, should enjoy several decades of abundant supply. It will take time for the demand for gas to grow, and it is uncertain how rapidly and how far it will. Incremental gas production will initially go the power sector, displacing coal-generating plants. Natural gas will offer the cheapest way to produce electricity, at six cents per kilowatt-hour—more than 20% lower than new coal, nuclear or most renewable alternatives. Because of its low price, some natural gas will also be used to extract crude from Canada's oil sands. But the main question will be how much natural gas displaces higher-priced gasoline and alcohol fuels in transportation.

## 1AR

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#### We set a better limit – only three types of uranium enrichment

NRC ‘12

(http://www.nrc.gov/materials/fuel-cycle-fac/ur-enrichment.html)

The uranium enriched in uranium-235 (U235) is required in commercial light-water reactors to produce a controlled nuclear reaction. Several different processes may be used to enrich uranium, as described on this page:¶ Enriching Uranium¶ Gaseous Diffusion¶ Gas Centrifuge¶ Laser Separation

#### Only three types of reprocessing/waste management

IAEA ‘12

(http://www-pub.iaea.org/MTCD/publications/PDF/te\_1587\_web.pdf)

Three types of technologies are considered here:

− Hydrometallurgical processes (aqueous technologies) as the reference route nowadays for

industrial scale spent fuel reprocessing. They have a high potential of optimization to

further address minor actinides, global actinides or fission products partitioning. All these

issues will be covered in different sections of this TECDOC (Sections 3.2, 3.3, 3.4

respectively).

This is the only mature process (fully closed cycle) to deal both with:

• The separation of major actinides such as U and Pu;

• The treatment and conditioning of ultimate waste for long-term storage.

The processes derived from PUREX are able to deal with a large variety of spent fuels

(oxides, carbides, nitrides) whatever are the nature and shape of the fissile composite. They

can also be adapted to the co-laminated fuel (U Mo, U Si, U Al, Pu Al).

− Pyrometallurgical processes (non aqueous technologies) as another promising R&D route

for the reprocessing of:

ƒ Metallic fuel (electro refining process);

ƒ Very radioactive fuels (early-processing of spent fuel) or fuel with a high content of

minor actinides (transmutation fuels for ADS targets in heterogeneous recycling

mode, or fuels assemblies dedicated to transmutation in fast systems in homogeneous

recycling mode)

These methods are also aiming at the global actinide separation. This issue is addressed in a

specific section of this TECDOC (3.3).

− Other non-aqueous technologies: this section is dealing with a fluid (CO2 or Freon)

dissolution and extraction process, fluorination, etc...

#### The plan is a production method of nuclear energy – their interp rehashes old controversies, and we lead to the best debate – this card is a slayer

Taebi ’10 – assistant professor of philosophy at the Delft University of Technology who concentrates on issues of ethics and nuclear power.

(Behnam Taebi, “The Burden of Nuclear Waste”, The New York Times, 8-29-2010, http://www.nytimes.com/2010/08/30/opinion/30iht-edtaebi.html?pagewanted=all&\_r=0)

DELFT, THE NETHERLANDS — Tensions within Chancellor Angela Merkel’s administration over Germany’s energy policy cut to the heart of a contentious, worldwide debate over the future of nuclear power. The old controversies over nuclear reactors — their dangers, benefits and costs — have been raised to the forefront.¶ But as politicians, energy experts and the general public weigh the pros and cons, one key element in harnessing energy from the atom is being neglected: the link between the different methods of producing nuclear power and the nature — and longevity — of the radioactive waste that each method leaves behind. This in turn raises the issue of intergenerational justice: The technical choices we make today will determine the extent of the burden humanity will face in containing contaminated byproducts that can remain radioactive for tens of thousands of years.¶ While an increasing number of states are being swayed by the fact that nuclear power can enhance domestic energy security, produce large amounts of energy, and emit very low greenhouse gas byproducts, critics nonetheless remain vociferous.¶ They cite the continued risk of reactor accidents, the dangers of transporting nuclear fuel and fears of proliferation — along with the vexing problem of how to deal with the long-lived nuclear waste — as reasons why it should be curtailed.¶ But what is most striking in this controversy is the “missing nuclear debate.” Little is said about the major distinctions between the various production methods, or nuclear fuel cycles. Rather than reducing nuclear power to a simple yes/no, good/bad dichotomy, we need to focus first on the advantages and disadvantages of each nuclear energy production method, including the burdens and benefits they pose now and in generations to come.

### Politics

#### Immigrants won’t come – low wages

Taylor and Charlton 3/8/13 (J. Edward and Diane, Taylor is a Prof of Ag and Resource Economics and Director of the Center on Rural Economies of the Americans and Pacific Rim @ the U of California Davis, and Charlton is a PhD Student in Ag and Resource Economics @ UC Davis, Oxford University Press, “Why Are Mexicans Leaving Farm Work, And What Does This Mean for US Farmers”) http://blog.oup.com/2013/03/mexicans-farm-work-united-states/

Agriculture in North America traditionally has had its comparative advantage in having access to abundant low-skilled labor from Mexico. Around 70% of the United States hired farm workforce is Mexico-born, according to the National Agricultural Worker Survey (NAWS). Fruit, vegetable, and horticultural farms in the US have enjoyed an extended period of farm labor abundance with stable or decreasing real wages. However, new panel data reveal a declining long-term trend in the farm labor supply in rural Mexico. In coming years, US farmers will need to offer higher wages to induce new workers to migrate northward to US farm jobs.

#### History disproves causality between crisis and war

**Ferguson 6** (Niall, Laurence A. Tisch Professor of History at Harvard, a Senior Research Fellow of Jesus College at Oxford, and a Senior Fellow of the Hoover Institution, “The War of the World”, Penguin Books, pg. xxxviii)

Nor can economic crises explain all the violent upheavals of the century. As noted already, perhaps the most familiar causal chain in modern historiography leads from the Great Depression to the rise of fascism and the outbreak of war. Yet on closer inspection this pleasing story falls apart. Not all the countries affected by the Great Depression became fascist regimes; nor did all the fascist regimes engage in wars of aggression. Nazi Germany started the war in Europe, but only after its economy had recovered from the Depression. The Soviet Union, which started the war on Hitler’s side, was cut off from the world economic crisis, yet ended up mobilizing and losing more soldiers than any other combatant. **For the century as a whole, no general rule is discernible.** Some wars came after periods of growth; others were the causes rather than the consequence of economic crisis. And some severe economic crisis did not lead to wars. Certainly, it is now impossible to argue (thought Marxists long tried to) that the First World War was the result of a crisis of capitalism; on the contrary, it abruptly terminated a period of extraordinary global economic integration with relatively high growth and low inflation.

#### Won’t pass

#### Border sec

AFP 3-2-13. www.globalpost.com/dispatch/news/afp/130302/us-mexico-border-obstacle-immigration-reform

Immigration reform is one of President Barack Obama's priorities for his second term, and for a wide-reaching package to pass, lawmakers need to be convinced that the border with Mexico is secure.¶ But that is no easy sell.¶ Apprehensions of undocumented aliens at the frontier have dropped 50 percent since 2008, going to 365,000 people last year, which the Obama administration cites as evidence that border security measures work.¶ And deportations of aliens without residency permits, particularly those with criminal records -- a key government goal -- stand at about 400,000 a year.¶ But the investigative arm of Congress, the Government Accountability Office (GAO), dampened the government's optimism last week.¶ A report submitted to the House of Representatives said the number of apprehensions at the US-Mexico border "provides some useful information but does not position the department to be able to report on how effective its efforts are at securing the border."¶ "The Border Patrol is in the process of developing goals and measures; however, it has not yet set target timeframes and milestones for completing its efforts," it added.¶ Marc Rosenblum, an immigration policy expert with the Congressional Research Service, said that "the size and diversity of the US border mean that no single, quantitative, off-the-shelf indicator accurately and reliably provides a metric or a 'score' for border enforcement."¶ Another report found that southern US cities, in particular El Paso, Texas just across the border from drug violence-plagued Ciudad Juarez, are the safest in the country, with constantly dropping rates of all kinds of crime. That study was based on FBI figures.¶ So far, the Republicans, who control the House, have been adamant that they will not approve major immigration reform until they are convinced the border is secure.

#### Plan builds massive PC – large groups of bipartisan senators have asked for the plan – Obama first move is key

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Both sides say they want the project to move forward. Both support short-term "bridge" funding to keep the project going until the financing can be worked out. Both say the other side has to make the first move.¶ The stakes are high: It's an election year, and Ohio is a swing state. USEC estimates the project at its peak will generate 3,158 jobs in Ohio, and 4,284 elsewhere. Pike County, home to the centrifuges, has a 13% unemployment rate — the highest in Ohio. The median household income is about $40,000. The average job at USEC pays $77,316.¶ Centrifuge parts are stacked up in Piketon. "It's as shovel-ready as they come," says spokeswoman Angela Duduit.¶ Indeed, the project has enjoyed bipartisan support. A USA TODAY review of DOE records shows that no fewer than 46 members of Congress — 32 Republicans and 14 Democrats — have pressured the Obama administration to approve the loan guarantee for USEC. "Quick action is paramount," said one bipartisan letter. "It is imperative that this application move forward now," said another.¶ The congressional support comes from states such as Ohio, Pennsylvania, Tennessee, Kentucky, West Virginia, Missouri, Alabama, Indiana, Maryland, North Carolina and South Carolina— an almost exact overlay of the states that would benefit from the 7,442 jobs the company says would be created.

#### Key GOP leaders want the plan – builds PC – and they don’t care about Solyndra

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Republican House Speaker John Boehner, who as a member of the Ohio delegation has personally pleaded with Obama to green-light the project, hasn't given that signal. "The speaker believes the president should keep his word to the people of Ohio," said Boehner spokesman Michael Steel.¶ The fallout from Solyndra has some in Congress doing some soul searching about their involvement in those decisions.¶ "A cloud, a big black cloud came over after Solyndra," said Rep. Mike Simpson, R-Idaho, at a recent congressional hearing. He admitted that he put "undue influence" on DOE to approve a $2 billion conditional loan guarantee for Areva and said members of the Ohio delegation were doing the same thing.

# Quarters vs George Mason KL

## 1AC

### Inherency

#### Funding and Obama’s support for the American Centrifuge Project is strong and increasing now --- no loan gurantee coming

Shesgreen ’13 – congressional correspondent for USA Today

(Deirdre, she has covered campaign finance, health care, and lobbying, and she is a two-time winner of the David Lynch Memorial Reporting Award for regional coverage of Congress, “Fate of Ohio centrifuge project murky in 2nd Obama term”, USA Today, 2-3-2013, Accessed 2-25-2013, http://www.usatoday.com/story/news/politics/2013/02/02/usec-centrifuge-plant-piketon-uranium/1881243/)

As the 113th Congress gets underway and President Obama begins a second term, some possible shifts in federal energy policy could ripple down to affect the American Centrifuge Plant in Piketon, Ohio. For starters, Energy Secretary Steven Chu announced Friday that he was stepping down. And there have been rumors that some of his deputies, who have championed the USEC project, might also be leaving the Department of Energy (DOE). At the same time, the president has emphasized in his new term a desire to reduce greenhouse gas emissions, which boosters of nuclear power say could be a boon to uranium-enrichment initiatives like the one in Piketon. **But those big-picture changes will not be make-or-break for USEC**, a Maryland-based global energy company and a major supplier of enriched uranium fuel. Sen. Sherrod Brown, D-Ohio, said he would make sure a new energy secretary gets "up to speed quickly" on the USEC project. "Whoever the secretary is will know we have bipartisan, strong support in the delegation and in the Congress overall." Sen. Rob Portman, R-Ohio, agreed. "This argument won't be any different" just because there's a new chief at DOE. Indeed, supporters and foes alike say that right now, the ACP's short-term prospects are good, but its **long-term fate remains uncertain** and **USEC's future** will probably hinge more on its **internal financial troubles** and the commercial market for its technology than on any new political reality in Washington. Let's start with the short term: USEC has said it will run out of money to keep the project afloat at the end of February. But Congress is likely to approve **one last batch** of federal funds for USEC in the coming months — at least $50 million, and possibly more, will be needed to complete a current research, development and demonstration program aimed at proving that USEC's uranium-enrichment technology is viable. "I think the commitment is deep from the White House and is deep in Congress and is ongoing," said Brown who, along with Portman, has championed the project. Portman questioned the president's support for the project, saying it might have had more to do with its location, in the critical battleground state of Ohio, than with Obama's dedication to the technology. Still, Portman said, fears he had that the White House might kill the project have faded. "I'm feeling relieved that we still have a lifeline," he said. In the U.S. House of Representatives, the Piketon site has a new booster in freshman Rep. Brad Wenstrup, R-Ohio. "I would really like to see this project move forward," Wenstrup said in an interview. "It's something that needs to be done as a matter of national defense." If successful, USEC officials say the plant will eventually produce enough fuel to power dozens of nuclear power plants around the country. In addition, supporters say it will bolster national security by ensuring the U.S. has a domestic source of enriched uranium. The strong support in Congress for additional federal dollars doesn't mean opponents have given up. The real fight, say critics of the centrifuge project, will come at the end of the year. That's when the research program — part of a cooperative agreement between USEC and the Department of Energy — will end. And USEC will renew its bid for a $2 billion federal loan guarantee, an application DOE officials put on hold in 2011 after glitches at the Piketon site raised concerns inside the department about the viability of USEC's uranium-enrichment technology. USEC used to be part of the DOE, and although Congress privatized it in 1988, USEC and the department still work closely together. Autumn Hanna, senior program director at Taxpayers for Common Sense, a fiscal watchdog group, said USEC's renewed bid for a loan guarantee will ignite fresh skepticism about the project, particularly since it's such a large amount of money. Hanna and other critics note USEC's common stock is trading below $1, and the energy company could be delisted from the New York Stock Exchange if it doesn't rectify that. "Taxpayers shouldn't be putting more money into USEC," she said. "DOE just can't be the lifeline." Rep. Edward Markey, D-Mass., who has led efforts to nix funding for USEC, echoed that argument and signaled he would press hard against the loan guarantee. "The value of the entire company is just over $70 million, it is still rated at below junk bond status, and it is in danger of being delisted from the stock exchange and becoming a penny stock," Markey said. "To continue to subsidize this failing company would be irresponsible." A DOE spokeswoman, Niketa Kumar, said in a statement that the Obama administration would advocate more money to finish the research program, but hinted the loan guarantee was no sure thing. She said the research phase was critical to addressing the "technical and financial risks associated with the ACP project." The energy department's agreement requires USEC to meet "a series of detailed technical milestones and performance metrics that provide significant taxpayer protections," Kumar noted. USEC officials said they would address such concerns in a strengthened loan application come December. The research and development program "will be successful . . . (and) will address any remaining technical issues about the technology," said Paul Jacobson, a spokesman for USEC. "We've been indicating as well . . . that we're working to strengthen our balance sheet." "We would want to put in a strong application, both from a technical and financial perspective," he added. USEC's most vocal supporters in Congress said they were hopeful the political and fiscal obstacles to the loan guarantee could be overcome. But they conceded they could not predict how the next phase would play out. "I think this is going to work for the public and . . . for taxpayers," Brown said. But "there are hurdles they have to jump over . . . (and) I can't evaluate eight months from now and know where we're going" to end up. Portman expressed concern that the Obama administration might be reluctant to "pull the trigger" on the loan guarantee. "It requires leadership from the administration that has been lacking," he said. "The arguments are compelling, and I'm optimistic that they will, in the end, make the right decision. But as folks in Piketon will remind you, time's a wasting."

#### No DAs – DOE loan guarantees for uranium enrichment in the U.S. increasing now

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

The DOE has supported other centrifuges. In 2010, it gave a conditional $2 billion loan guarantee to Areva, a conglomerate whose majority shareholder is the French government, to build centrifuges in Idaho. But that project is temporarily stalled because of a cash situation one executive called "growing pains." "Basically, we went in with an application that was based on a proven technology that's been in use in Europe for nearly three decades," said Sam Shakir, president of Areva Enrichment Services. "There was no question about the technology, its viability or its economics." That helped Areva sell $5 billion in preliminary orders for uranium, he said. Still, "The size of the market is large enough for multiple suppliers to be playing in."

#### No perception links – Obama is already perceived to support the plan

**USEC 08**

(“Presidential candidate Barack Obama writing to Ohio Governor Ted Strickland”, 9-2-2008, http://www.usec.com/support/administration/presidential-candidate-barack-obama-writing-ohio-governor-ted-strickland)

"Under my administration, energy programs that promote safe and environmentally-sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my **full support**. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high cost, foreign energy sources."

### Plan

#### The United States Department of Energy should approve the United States Enrichment Corporation’s currently pending application for a $2 billion loan guarantee for the American Centrifuge Project.

### Solvency

**USEC failure collapses domestic enrichment capability ---- Federal loan guarantee for USEC key to third party financing and credibility—no barriers**

**Schmidt ‘9 – Former U.S. Representative**

**(Jean Schmidt, speech from Congress, “Where are the Jobs?”, 7-29-2009, http://votesmart.org/public-statement/445368/where-are-the-jobs)**

The United States Enrichment Corporation, called USEC, is deploying American Centrifuge technology to provide the dependable, long-term, U.S.-owned and developed **nuclear fuel production capability** needed to support the country's nuclear power plants, nuclear submarines, and a robust nuclear deterrent. Mr. Speaker, we have dozens of nuclear power plants in this country that all require nuclear fuel. And we have a Navy who, as I speak, is sailing in every ocean across the globe. And we have weapons of mass destruction that will become a useless deterrent without fresh tritium. Without the American Centrifuge Plant, in 5 years' time, we will have **no ability** in the United States to enrich uranium to keep our lights on, our ships at sea, or a deterrent potential. In 5 years, we will be forced to purchase uranium from foreign suppliers as we do with most of our oil. I don't want to depend on foreigners for this kind of product. The American Centrifuge Plant holds great promise. Unfortunately, in order to meet this promise, USEC needed a loan guarantee from the **Federal Government**. Now, I want to repeat that. It needed a loan guarantee from the Federal Government. You see, USEC has already invested $1.5 billion and has offered another billion dollars of corporate support. It did this with the **expectation** **that the Department of Energy** would make available a $2 billion loan guarantee needed to finance the full-scale deployment of the American Centrifuge Plants. Now, I want to refer to this chart here. Why were they so confident in that? Well, you see on September 2, 2008, when President Obama was running for election, he wrote a letter to our Governor, Ted Strickland. This is the full letter so you can see it. I'm not taking it out of context. He said, Under my administration, energy programs that promote safe and environmentally sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my full support. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high-cost and foreign-energy sources. This is what this letter said. So you understand that USEC was very, very confident that they were going to get that loan guarantee. But instead, on Monday night, the Department of Energy really pulled the rug out from all of us. I got a phone call asking me to call the White House, and I learned Monday night that the Department of Energy was going to withdraw its promise and they were actually asking USEC to withdraw its application and to try it again in 18 months. I was actually told on the phone that if they did that, then the Department of Energy would give them $45 million, $30 million, and another $15 million if they would rescind this. And that kind of shocked me. The next day it also shocked the folks at USEC because, you see, they had this letter that the President had given to our Governor, Ted Strickland, that said those loan guarantees would be given. Mr. Speaker, the American Centrifuge Plant currently supports more than 5,700 jobs and will help create 2,300 more within a year of commencement of the loan-guarantee funding. That's 2,300 additional jobs to my district. Now, because the Department of Energy has contradicted a promise that our President made in September of last year to our Governor and to those men and women in this area of the State, those jobs are in jeopardy. And I was on the phone with one of my constituents earlier today. Pink slips are being given out at the USEC plant. The Department of Energy has told the media the reasons for their denial were threefold: the cost subsidy estimate, a new requirement for another $300 million of capital, and the questions of technology. Well, the first question offered by the DOE is a little laughable. It turns out that the government isn't really backing these loans. Instead, the Department of Energy is charging a risk-of-failure fee to each of the folks that agrees to back the loans. These fees are pulled together to eliminate any risk to the taxpayers that actually have been given a loan guarantee. They determined that the fee for this loan would be $800 million on a $2 billion loan. So USEC is supposed to come up with $800 million on a $2 billion loan. I don't know about you, but in my neck of the woods, we call that like loan sharking. The second reason for denying the guarantee is a new need to set aside an additional 300 million for contingencies. Well, I can think where you and I see that that is headed. After the risk premium is paid, apparently USEC still has to come up with more money to make the Department of Energy feel more comfortable about giving these loans. But the last question, I think, is the most surprising, because the last reason is one where they say they have got technical questions, and this is the one that is the most absurd of all, because, quite frankly, this technology is out there. France is using it, England is using it. Would it surprise you to know, Mr. Speaker, that Iran is using it? But what I found most disturbing is that the Department of Energy hired a technology expert, as required by law, and they went through the technology and wrote a long report, and in fact the guy ran back to give it to the Department of Energy on Tuesday. That was the day after the Department of Energy made their decision. They made that decision on Monday night. They made it without any regard for the report they were relying on for this very important project. It is not just a project, Mr. Speaker, that continues to help the folks in my district. And it is important to me, because, Mr. Speaker, this is my district, and these are my folks and these are my friends. I have become friends with these people. This is the part of my community that doesn't have a lot of job opportunities, and they welcomed this job opportunity. They embraced it. And I believe that the President believes in this project, as he stated on September 2, 2008. But I think there must be some sort of disconnect with the Department of Energy. There is a chart here, and I would like to go through the chart a little bit again so we can clearly understand what is going on. The issue: credit subsidy cost estimated by the DOE to be $800 million. Well, let me be a little clearer. The estimate was never provided in writing. The methods of calculation were never disclosed or explained. An $800 million subsidy cost is not reasonable. I think it is outrageous, given USEC's fully collateralized $1 billion parent guarantee, standard credit, and, yes, yield exposures of $24 million to $74 million based on credit ratings of C to BB-minus and assets recoveries of only 20 to 30 percent of the cost. The DOE calculation clearly ignores the value of $1.5 billion invested by USEC to date and another billion of non-project collateral offered by USEC, consisting primarily of natural and enriched uranium inventories. The second issue, an additional need for $300 million of additional capital. USEC offered a legally binding capital commitment, which DOE agreed met statutory and regulatory requirements. USEC's fully collateralized $1 billion parent guarantee designed to permit loan to commerce while USEC raised additional equity while fully protecting the taxpayers. USEC's financial adviser stated that with the loan guarantee, $100 million to $150 million of capital could be raised in the public market. USEC has commenced discussions with strategic suppliers to obtain vendor financing for the balance. And the final, the technical readiness of American Centrifuge Technology. The DOE LGPO concluded that ACT was not ready to move to commercial scale operations prior to receiving the independent engineer's written assessment. The independent engineer had only been working for 12 days when DOE acted. DOE was scheduled to review the classified independent engineer report on July 28, and the DOE representative traveled to Tennessee to do so, unaware of the LGPO's decision the night before. American Centrifuge is based on technology which DOE initially developed in the 1970s and the 1980s and subsequently operated it for 10 years. USEC-approved centrifuges have been operating in the Lead Cascade for over 225,000 hours. The DOE has acknowledged that USEC met the milestone under the 2002 agreement between DOE and USEC, which requires obtaining satisfactory reliability and performance data from Lead Cascade operations, the last requirement to be met besides obtaining financing prior to commencing commercial plant construction and operations. Mr. Speaker, I don't understand what is going on here, I don't think that this body understands what is going on here, and I am not even sure that the President even understands what is going on here with the Department of Energy. But I am very confused. More than that, I am very outraged because I believe that we have to have energy independence, but we also have to have security for this Nation. Energy independence depends upon a variety of sources of energy, including nuclear power, but you have to have the stuff to make that nuclear power. In 5 years, we will no longer be the people that are producing the stuff that it takes to make that nuclear power. That is why this project is so important, not just for the 2,000 jobs that will be lost.

**Unconditional plan is key—further delays or roadblocks means USEC would pull out of the project**

**USEC ‘12**

**(“Funding”, 2012, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)**

USEC needs **significant additional financing** in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the DOE Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant. In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, DOE proposed a two-year RD&D program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program **but has given USEC no assurance that a successful RD&D program will result in a loan guarantee**. Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays it has experienced will not adversely affect these efforts. If **conditions change** and deployment of the American Centrifuge Plant becomes no longer **probable or becomes delayed** significantly from USEC’s current expectations, USEC could expense up to the full amount of previously capitalized costs related to the American Centrifuge Plant of up to $1.1 billion. Events that could **impact USEC’s views** as to the probability of deployment or USEC’s projections include progress in meeting the technical milestones of the RD&D program, the status of continued DOE funding for the RD&D program, changes in USEC’s anticipated ownership of or role in the project, changes in the cost estimate and schedule for the project, and prospects for obtaining a loan guarantee and other financing needed to deploy the project.

**DOE key—without its backing key investors would pull out of the project**

**Duffy ’11 – investment expert at Motley Fool**

**(Aimee, “Will the Government Guarantee Your Uranium Stock?”, The Motley Fool, 10-7-2011, http://www.fool.com/investing/general/2011/10/07/will-the-government-guarantee-your-uranium-stock.aspx#lastVisibleParagraph)**

The U.S. Department of Energy can be such a tease sometimes -- just ask the uranium enrichment outfit USEC (NYSE: USU ) . The company has been in **hurry-up-and-wait mode** for more than two years now, eagerly anticipating a DOE decision on a $2 billion loan guarantee for its American Centrifuge project that has yet to materialize. The company has been **forced to negotiate extensions** **with its two main investors**, Toshiba and Babcock and Wilcox (NYSE: BWC ) , for the second time in two months. The companies have agreed to stay tied to the project, and their respective $100 million investments, until Oct. 31. A key process in the production of nuclear fuel for power plants, uranium enrichment increases the U235 isotope and decreases the U238 isotope in naturally occurring uranium. The U235 isotope is the only one that is fissionable, therefore the only one that can be used as nuclear fuel. USEC plans to use the American Centrifuge to separate the isotopes and sell the U235 to its customers. USEC desperately needs a conditional commitment from the DOE by the end of the month. The company provides more than 50% of enriched uranium in the United States but has issues with liquidity. The new centrifuge project is expected to provide 20% of the U.S. electricity supply but cannot go forward without help from the DOE. **Continued support from Toshiba and Babcock and Wilcox is also contingent on DOE commitment.** As it stands now, USEC has already directed certain suppliers to suspend work and has informed employees that layoffs may or may not be just around the bend.

#### Fed action now key --- solves worker layoffs

Koss ’12 – CQ Staff

(Geof Koss, “Tug of War Over Uranium Prompts Odd Alliances”, Congressional Quarterly, 3-3-2012, http://public.cq.com/docs/weeklyreport/weeklyreport-000004039687.html)

As a result, the Kentuckians’ rescue plan has hit a brick wall, raising questions not just about the Paducah jobs but also about the future of U.S. uranium enrichment. Should the Paducah plant close before its successor plant is completed in Ohio, the United States will lack an indigenous source of enriched uranium and be dependent on suppliers largely controlled by foreign governments. Critics say that could leave the U.S. unable to meet non-proliferation requirements that a key component of its nuclear weapons be generated from homegrown sources. Further complicating matters, the fate of the Ohio plant also is in doubt. Without **congressional approval** for $106 million in research funds by the end of March, layoffs at the plant may begin, says Paul Jacobson, a spokesman for USEC Inc., which runs both the Paducah and Ohio facilities. The predicament has sparked an intense and somewhat ironic debate in Congress, where a bipartisan bloc that includes deficit-focused, small-government conservatives such as Paul, as well as senior House and Senate leaders, is advocating federal intervention to save a company struggling to stay afloat. Many of those same lawmakers have attacked the Obama administration’s backing for similar intervention to assist emerging renewable-energy technologies. Opposing them is an odd coalition that includes a conservative think tank, Western lawmakers from mining states and anti-nuclear liberal Democrats. The administration in January threw a lifeline to USEC when it assumed $44 million of its liability for tailings, radioactive waste produced when uranium is milled, while also requesting $150 million in fiscal 2013 for research funding at the Ohio site. But the company is focused on impending March and May deadlines that Jacobson calls crucial. Within weeks, he says, “the United States could well find itself without any plan for indigenous uranium enrichment for the first time since the dawn of the atomic age.”

#### Free market solutions mean USEC fails and no other commercial entity fills the void—only continued government intervention works

Rothwell ‘9 – professor of economics at Stanford

(Geoffrey, “Market Power in Uranium Enrichment”, Science & Global Security, 17:132–154, 2009)

With the retirement of diffusion capacity during the next decade, the artiﬁcially high price of enrichment could fall. (It is “artiﬁcially” high due to entry barriers: Were there open markets in enrichment, new cheaper capacity would have forced the retirement of diffusion technology much sooner). Entry of new participants into the **enrichment market** is **constrained** by non-proliferation considerations, as well as by commercial interests. Enrichment technology is now being more closely guarded with the discovery of a Pakistani enrichment technology smuggling network, which stole centrifuge technology from Urenco in the 1970s, used that technology to develop nuclear weapons in Pakistan, then sold or traded the technology with several other countries, sparking a nuclear arms race with its neighbors and enabling nuclear weapons development in North Korea. Without market intervention, prices could fall to competitive levels. This implies there might be no economic proﬁt for **anyone but the Russians and Europeans**. Therefore, the ﬁnancial outlook for uranium enrichers has been bleak, prompting a Standard and Poor’s analyst to write: Standard & Poor’s Ratings Services afﬁrmed its “A-/A-2” long- and short-term corporate credit ratings on Europe-based uranium enrichment company Urenco Ltd. . . . The enrichment market is undergoing very drastic changes, as TENEX (Rosatom)—which controls roughly 50% of global enrichment capacity but only 24% market share among end-customers—is looking to increase its share of direct sales to end-customers. The extent to which this will affect Western enrichment suppliers—USEC Inc. (B-/Negative/–), Areva (not rated), and Urenco—over the medium term remains to be seen, but will be strongly inﬂuenced by ongoing political and trade negotiations . . . The other major industry change is an expected phase-out of the non-economical gaseous diffusion plants used by USEC and Areva . . . (These ratings were re-afﬁrmed on April 24, 2008.) 11 “A−” implies that Standard & Poor’s believes that (1) “economic situation can affect ﬁnance” (A) and (2) that the rating is “likely to be downgraded” (−); where A−, BB, BB−, B+, B−, etc., are lower and lower credit ratings for “non-investment” grade bonds. Since 2002, USEC has been forced to pay high bond rates on its rising debt, while trying to ﬁnance a new, First-of-a-Kind technology. This situation has been deteriorating; see Table 2. Therefore, assuring adequate diversity of enrichment capacity could be problematic **without a** more comprehensive **market intervention** (rather than continued subsidization, or not, by national governments). A Russian-European duopoly in enrichment might provide an adequate diversity of supply. But the U.S. Government must determine how many suppliers should be in the enrichment market to maintain market competition or whether any form of market regulation is necessary. The U.S. Government has been **subsidizing** the **USEC since its privatization**; it is unlikely that USEC will survive without a *continuous* infusion of federal capital *until* the ACP is ﬁnished. If USEC does survive, it might not be competitive enough to grow, if only because USEC has so little experience with operating and manufacturing centrifuge technology. **If USEC fails, the U.S**. Government **could be required to** nationalize **the** American Centrifuge Plant to provide services to defense programs (e.g., naval reactors), as well as pay for decommissioning the gaseous diffusion facilities and all other outstanding USEC liabilities. On the other hand, American electric utility demand can be supplied by Americans working at the Areva and Urenco plants in Idaho and New Mexico, and by the Russians through the extension of current contracts. Therefore, while it is not in the American electric utilities’ interest to support USEC’s high prices, it could be in their interest to support the existence of USEC as a hedge against dependence on one or two suppliers. Unregulated enrichment markets will not necessarily lead to a socially optimal diversity of enrichment suppliers: a long-run equilibrium where the industry is necessarily concentrated such that there is no proliferating entry, but is sufﬁciently diverse so that no one national group can dictate prices, contract terms, or non-proliferation policy. United States decision makers should determine (1) whether a Russian-European duopoly is in the United States’ national interest, given the dependence of the U.S. **nuclear navy** on Highly Enriched Uranium (or whether highly enriched uranium stockpiles would be adequate for the foreseeable future), (2) whether to continue to subsidize USEC, or re-nationalize it in the national interest of the United States to facilitate the implementation of non-proliferation policy, and (3) whether some form of enrichment market regulation should be encouraged to assure low-enriched uranium at reasonable prices, particularly for U.S. electric utilities.

### Deterrence

#### Tritium requirements for the nuclear deterrent won’t be met now – only increasing tritium production solves

GAO ’10

(“NUCLEAR WEAPONS National Nuclear Security Administration Needs to Ensure Continued Availability of Tritium for the Weapons Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

DOD is responsible for implementing the U.S. nuclear deterrent strategy, which includes establishing the military requirements associated with planning for the nuclear weapons stockpile. NNSA and DOD work together to produce the Nuclear Weapons Stockpile Memorandum. This memorandum outlines a proposed plan for the President to sign to guide U.S. nuclear stockpile activities. This plan specifies the size and composition of the stockpile and other information concerning adjustments to the stockpile for a projected multi-year period. While the exact requirements are classified, NNSA uses the detailed information included in the memorandum on the number of weapons to be included in the stockpile to determine the amount of tritium needed to maintain these weapons. In addition, NNSA maintains a reserve of additional tritium to meet requirements in the event of an extended delay in tritium production. Small quantities of tritium are also needed by the national laboratories and other entities for scientific research and development purposes. According to NNSA officials, NNSA is meeting current requirements through a combination of harvesting tritium obtained from dismantled nuclear warheads and producing lower-than-planned amounts of tritium through the irradiation of TPBARs in the Watts Bar 1 reactor. However, tritium in the stockpile as well as in NNSA’s tritium reserve continues to decay, making increased production of tritium critical to NNSA’s ability to continue meeting requirements. Although the number of nuclear weapons in the U.S. stockpile is decreasing, these reductions are unlikely to result in a significant decrease to tritium requirements. Specifically, the New Strategic Arms Reduction Treaty signed in April 2010, if ratified by the Senate, will reduce the number of deployed strategic nuclear warheads by 30 percent. However, it has not yet been determined whether some or all of these warheads will be maintained in reserve—where the warheads would continue to be loaded with tritium—or dismantled—where the tritium could be removed from the weapons. Moreover, even if some or all of the warheads reduced under the treaty were dismantled, tritium requirements are unlikely to decrease by a significant amount. While the specific reasons for this lack of decrease in tritium requirements are classified, NNSA officials we spoke with said that the additional tritium supply that would be available as a result of increased warhead dismantlements is unlikely to fill what they estimate will be a steady tritium demand in the future.

#### The ACP key to domestic tritium in our nuclear arsenal

**Holt and Nikitin ’12 –** specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

Tritium, produced in nuclear reactors, is an essential ingredient in U.S. nuclear warheads and must be regularly replenished as it radioactively decays. The need for a domestic fuel supplier for tritium production reactors has been cited as a justification for providing government assistance to USEC. USEC Inc. was established in 1998 through the public sale of a government corporation, the U.S. Enrichment Corporation, pursuant to the USEC Privatization Act (P.L. 104-134). The company enriches uranium in the fissile isotope U-235 (increasing the proportion of U-235 from the level found in natural uranium) for use as fuel by nuclear power plants. USEC leases an enrichment plant in Paducah, KY, from the Department of Energy (DOE). Built in the late 1950s, the Paducah plant uses an enrichment technology known as gaseous diffusion, in which uranium hexafluoride gas is pumped through permeable barriers to separate the major isotopes of uranium. As the isotopes are separated, U-235 is concentrated in a product stream, while the non-fissile isotope U-238 becomes more concentrated in a waste stream (or tails). USEC plans to replace the Paducah plant with a new plant at a DOE site near Piketon, OH, that would use advanced centrifuges to separate the isotopes, called the American Centrifuge Plant. The $150 million requested in the FY2013 Department of Energy budget justification is to support R&D activities for the American Centrifuge Plant. DOE currently produces tritium by irradiating lithium-6 in the Watts Bar 1 commercial reactor (in Tennessee) and may expand the program to the two-reactor Sequoyah nuclear plant (also in Tennessee) as well, both of which are owned and operated by the Tennessee Valley Authority (TVA). Because the tritium is to be used in nuclear weapons, the Watts Bar 1 and Sequoyah reactors **may not be allowed to use fuel from foreign sources** or even some domestic uranium. U-234 is necessary for the production of tritium. USEC Inc. is the current supplier of fuel for tritium production. Thus, if USEC were to cease enrichment operations, it has been argued, U.S. tritium production could be jeopardized because of a lack of alternative fuel from a solely domestic source.

#### Foreign suppliers creates uncertainty and vulnerability in the arsenal

Rowny ’12 – retired Lieutenant General

(Edward Rowny, was chief negotiator with the rank of ambassador in the START arms control negotiations with the Soviet Union and has served as an arms control adviser and negotiator for five presidents, Roll Call, 3-29-2012, http://www.rollcall.com/issues/57\_118/edward-rowny-safe-uranium-enrichment-should-be-us-priority-213505-1.html)

Oil may grab headlines, but nuclear power for civilian use is growing, as it should. It is efficient, extremely safe and friendly to the environment. As with oil, the U.S. would be wise to produce its own supply of enriched uranium, the fuel for nuclear power plants. Farming out the process to other nations — or to companies headquartered overseas — is risky and increases our vulnerabilities. The U.S. government should pay more attention than it has in recent years to the nation’s dwindling ability to enrich its own uranium. The consequences of doing otherwise could be dramatic. Our country could **find itself at the mercy** of foreigners who do not have our best interests at heart. Energy independence, a laudable aspiration for oil, is even more essential for nuclear power. Domestically produced supplies of enriched uranium are already running short. The U.S. once produced most of the world’s enriched uranium. Now we’re down to about a quarter of the world’s supply. For reasons of national security, we shouldn’t dip further. That’s why the president should be praised for requesting $150 million in next year’s National Nuclear Security Administration budget to keep uranium enrichment alive on our soil. In the meantime, Chu has asked Congress for the authority to reallocate his current budget resources for that purpose until next year’s budget is enacted. Without this cash infusion, American technology at a major facility in rural Ohio will face an uncertain future. We can’t afford the *uncertainty*. Military considerations also play a role here. Nuclear weapons, while thankfully on the decline, still exist and must be maintained and updated. International treaties mandate that tritium, a rare, radioactive isotope that’s a byproduct of enriched uranium use in nuclear reactors and is critical to the proper, safe functioning of nuclear weapons, must be made with U.S. technology. Unless U.S. technology is available to make the enriched uranium needed to produce tritium, our national security will be at risk.

#### Foreign suppliers can’t and won’t provide the tech

Holt and Nikitin ’12 – specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

The European consortium Urenco is one of USEC’s major competitors. Urenco recently began operating a centrifuge enrichment plant in New Mexico, which is expected to reach a capacity of 5.8 million separative work units (SWU) by 2015. The New Mexico plant is operated by Urenco subsidiary Louisiana Enrichment Service (LES), so named because the facility was originally planned for Louisiana. Construction of Urenco’s New Mexico plant was authorized by the 1992 Washington Agreement between the United States and the three members of the Urenco consortium: Germany, the Netherlands, and the United Kingdom. 2 Article III of the agreement, Peaceful Use, states that the New Mexico plant shall only be used for peaceful, non-explosive purposes. The special nuclear material produced by the plant, enriched uranium, as well as any special nuclear material produced in a reactor using the enriched uranium, such as plutonium, is also restricted to peaceful uses. Urenco has signed a contract with TVA to supply enrichment services from its New Mexico plant to the Watts Bar and Sequoyah reactors. This arrangement raised questions about whether the TVA plants could be used to make tritium for nuclear warheads while being fueled by enriched uranium from Urenco. A 2008 legal memorandum to NNSA concluded that the Washington Agreement did not preclude such use of the Urenco-produced nuclear fuel, because tritium is not defined as special nuclear material, but rather as byproduct material. A Joint Committee of the Urenco consortium, after being briefed on the issue at a 2005 meeting, did not object to the TVA contract. 3 A Urenco official said that although the company does not object to TVA tritium production with its enriched uranium, **current DOE policy would not approve the transfer**. 4 An NNSA official said U.S. treaty obligations prevent fuel enriched by Urenco from being used for tritium production: The answer in general for Urenco is that its enrichment technology has peaceful use restrictions, consistent with section 123(a)(3) of the Atomic Energy Act and our treaty with Euratom [an association of European countries that use nuclear energy], that prevent its deployment in support of nuclear weapons programs or for any military purpose.

#### Perception of federal leadership key to effective nuclear deterrence

Schneider ‘8 – chairman of the Defense Science Board

(Dr. William Jr., “Nuclear Deterrence Skills”, Report of the Defense Science Board Task Force, September 2008, http://www.defense.gov/npr/docs/dsb%20nuclear%20deterrence%20skills%20chiles.pdf)

As long as anyone in the world has or can acquire nuclear weapons, America must have nuclear **deterrence expertise** competent to avoid strategic surprise and respond to present and future challenges. There are many kinds of threats that demand national leadership, but no threat can put the nation’s existence at risk as quickly and as chillingly as nuclear weapons. To say this is not to dismiss the seriousness of other threats. It simply acknowledges that since the dawn of the nuclear age, security from nuclear attack has been in a class of its own, and major national decisions on nuclear deterrence issues have been reserved for the President of the United States. Nuclear deterrence expertise is **uniquely demanding**. It cannot be acquired overnight or on the fly. It resides in a highly classified environment mandated by law, it crosses a number of disciplines and skills, and it involves implicit as well as explicit knowledge. Nuclear weapons **expertise is** **necessary to design and build nuclear weapons, to plan and operate nuclear forces**, and to design defense against nuclear attack. It is also necessary to analyze and understand foreign nuclear weapons programs, devise nuclear policies and strategies, deal with allies who depend on the American nuclear umbrella, prevent and counter nuclear proliferation, defeat nuclear terrorism, and—in the event that a nuclear detonation takes place by accident or cold, hostile intent—cope with the catastrophic consequences. America’s nuclear deterrence and nuclear weapons expertise resides in what this study calls the “nuclear security enterprise.” This enterprise includes nuclear activities in the Department of Defense (DOD), Department of Energy, Intelligence Community (IC), and the Department of Homeland Security.

#### The nuclear deterrent is critical to prevent nuclear war

Blackwill ’13 – special advisor to the Air Force’s assistant Chief of Staff for strategic deterrence and nuclear integration

(James, “Nuclear Weapons Critics Suffer Cold War Brain Freeze; Deterrence Works, Argues Top Air Force Official”, AOL Defense, 2-20-2013, Accessed 2-25-2013, http://defense.aol.com/2013/02/20/nuclear-weapons-critics-suffer-cold-war-brain-freeze-deterrence/)

There is an unsettling paradox in much of the recent debate over nuclear weapons in this country. Some pundits, fixated on purging "Cold War thinking" from those of us with real-world responsibilities for nuclear deterrence, are themselves suffering from thoughts frozen in time. In the midst of this important debate, let me offer some examples of the new strategic concepts emerging from a new generation of deterrence thinkers. The conventional wisdom is that a world with fewer nuclear weapons is inherently a better world. What we are discovering is that less is not less, less is different. US policy has led in reducing nuclear weapons. At its peak in 1967, the US stockpile stood at a staggering 31,255 warheads. Just since 1991, we have disassembled more than 13,000 weapons, and in the past decade taken our stockpile – the total number of weapons -- down from 10,526 in 2001 to 5,113 in 2010. Our nuclear weapons and delivery platforms now number an order of magnitude less than during the Cold War, and this policy continues -- creating new conditions in the global nuclear balance. In this new nuclear environment, potential adversaries are reaching conclusions we did not expect, and **our allies** and partners **are more nervous** about it than we want them to be. This new world of several contending nuclear powers **behaves** **differently than the bi-polar world** that preceded it. Deterrence is no longer (if it ever really was) a rational actor systems model; it works as a mental model. It's more like the "**hot hand" rule in basketball** – players do not keep mental statistics on who has the highest percentage shot for a particular game situation; instead they carry a moving mental image of who at that moment is on a streak and feed the ball to that player instinctively. The same kind of thing happens in crisis and conflict. Behavioral scientists call this "fast, frugal heuristics," and are beginning to explore the empirical dimensions of this 21st century deterrence dynamic. There are some surprising findings and insights. First, just because no one has detonated a nuclear weapon in war since 1945, does not mean they are sitting idly by, with little purpose. Nuclear weapons are in fact "used" **every day** -- not to win a war, but to deter any adversary from thinking they could get away with starting one. As budget pressures rise, many call for not spending more on weapons we cannot use in the kinds of conflicts most likely to occur – presumably counter-terrorism or conventional warfare. But a nuclear war is the conflict we need to make sure remains the least likely to happen. Second, there is **much new research** on 21st century deterrence of rogue actors and terrorists. We now know that, during the 1991 Persian Gulf War, Saddam Hussein was persuaded that if he were to order use of chemical weapons against US troops, the US would have responded with tactical nuclear weapons. Hussein had extensive discussions with his generals – lectures really – and injected that assumption into all their war planning. Such thinking likely resides within the decision-making processes of other states that face a similar calculus. There is merit in reinforcing such fears among others who would harm their neighbors. It turns out that terrorists, even suicide bombers, harbor visceral fears of nuclear weapons, fears that can be exploited to deter them from acting should they ever get one. Islamic terrorists adhere to the Koran's proscriptions against poisoning the earth with radiological effects and creating mass casualties among the innocent. Cyber and psychological campaigns can broadcast messages across terrorists' own social networks to convey this narrative challenge to terrorists' intent. Terrorist cells also fear failure, so technical sabotage, misinformation and deception can magnify doubt about the prospects for a successful detonation. Third, US nuclear weapons serve as a powerful instrument of nonproliferation. Post-Cold War experience reveals that others, from Saddam's Iraq, to North Korea, Libya, Iran and others, pursue nuclear weapons as the centerpiece of an asymmetric counter to the United States' conventional military superiority. As every other nuclear power except the U.S. modernizes their nuclear weapons, and as the number of nuclear armed states continues to grow, our allies and partners who rely on our extended deterrent are increasingly motivated to consider obtaining their own nuclear arsenal. We must actively pursue a flexible strategy that allays such concerns among allies. Some assert that a reliable nuclear deterrent does not require the ability to retaliate immediately, only the assurance that U.S. nuclear forces would survive any attack. Aside from the fact that none of America's nuclear triad is on "hair-trigger" alert, the reality of fewer nuclear weapons is that we cannot rely solely on a super-survivable second strike nuclear force that deters only by threatening retaliation. Such a posture could readily be perceived as threatening our intent to strike first. We must have a resilient nuclear arsenal that deters a nuclear strike in the first place. No president would want to ask the American people to ride out a first strike and then trust him to order a retaliatory strike on behalf of the remaining fraction of our population. What the president needs is a nuclear force that would lead no nuclear armed state, faction or terrorist to conclude that it has less to lose by striking us first, even with just one or a few nuclear weapons. We must not give anyone cause to contemplate such a move. This is a very different form of deterrence than the Cold War. No longer can we rely on the mathematics and purely rational models of nuclear exchange developed in the 20th century. We must understand human perception and decision-making. For 21st century deterrence, the value of first-strike stability is now at least equally important as maintaining an assured retaliation capability. Those of us in the new generation of strategic thinkers have liberated our minds from Cold War thinking to make sure that today, nuclear weapons are never used.

#### Perception of credible U.S. nuclear deterrent is key to Asian stability

Medcalf ’13 – directs the international security program at the Lowy Institute in Sydney and is also a non-resident Senior Fellow with the Brookings Institution

(Rory, “A Nuclear Pivot to Asia?”, The Diplomat, 3-5-2013, http://thediplomat.com/flashpoints-blog/2013/03/05/a-nuclear-pivot-to-asia/)

The 2010 U.S. Nuclear Posture Review made sensible, logical steps towards a reduced reliance on nuclear weapons in America’s global posture, without critically damaging the confidence of allies protected by the U.S.’ so-called extended deterrence – America’s willingness to use force to protect them even from nuclear threats. An innovative set of extended deterrence dialogues with Japan and South Korea has helped in this regard.¶ But how will the further pursuit of Obama’s anti-nuclear vision interact with the worsening strategic dynamics in Asia in 2013 and beyond?¶ Japan and South Korea are unnerved by North Korea’s continued progress in its nuclear and missile programs. Japan’s strategic anxiety is deepened by the prospect of confrontation, perhaps even an armed clash, with China over disputed islands.¶ The full implications of sequestration on America’s conventional force posture in Indo-Pacific Asia remain far from clear. But they almost certainly **will add to the fears** of allies.¶ It is notable meanwhile that the White House’s response to the February 13th North Korean missile test included an explicit reassurance to Japan that it was covered by the U.S. extended nuclear deterrent. President Obama openly used the phrase nuclear umbrella, rather than the usual more euphemistic reference to something like “all means.” ¶ This is a grim reminder that, deep down, the security of Asia rests of American capability – and presumed willingness – to use nuclear threats or force in an extreme crisis. ¶ Does all of this mean that we can expect voices to gather in Seoul, Tokyo or even parts of the American debate advocating reemphasizing nuclear deterrence to keep the peace in Asia, even vis-à-vis China? ¶ I am not suggesting that there is any serious prospect of a physical nuclear pivot, for instance the redeployment of U.S. tactical nuclear weapons to Korea.¶ But the path to further limitations on the role of nuclear weapons in America’s Asia posture, such as an unequivocal no-first-use declaration or a willingness to drop down to nuclear parity with China’s small arsenal, is now even less clear than it was five years ago.¶ It may not amount to a nuclear pivot, but if America’s conventional superiority in Asia significantly declines, then the relative importance of its nuclear edge will rise – whether President Obama and disarmament visionaries like it or not.

#### Asian instability causes nuclear war

Landay ’00 – national security and intelligence correspondent

(Jonathan S. Landay, National Security and Intelligence Correspondent, “Top Administration Officials Warn Stakes for U.S. Are High in Asian Conflicts”, Knight Ridder/Tribune News Service, March 10, p. Lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

#### Nuclear primacy stabilizes nuclear conflict with Russia and China

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 134-139)

Any practical scenario involving nuclear weapons looks highly unrealistic except in the context of a conflict with China, the most feared neighbor, which lost part of its territory during the time of Russia’s grandeur with the so-called unequal treaties. But even though Beijing is feared by lucid Russian officials and security experts, such a scenario appears remote. Russia would rather continue developing its anti-Western propaganda and trying to coerce its neighbors—a prospect that is troubling enough, particularly since many of those neighbors are NATO and/or EU members—but nuclear weapons can hardly be contemplated, even to coerce. In the south, Russian nuclear weapons can hardly be used as either a means to deter or a means of warfare. So, again, only a China scenario would make sense, particularly since with fewer nuclear capabilities, China would be much more tolerant of human losses. Moscow knows it. It also knows that deep cuts in nuclear forces after New Start would encourage China’s buildup. Finally, it is worth underlining in the event of future talks with Moscow that it is hard to understand its geostrategic picture as expressed in March 2011 by Military Sciences Academy President General Makhmud Gareyev: “Regarding security, Russia has never been in such a crunch as in the early twenty-first century since perhaps, 1612.”67 Forget 1941, and forget the Cold War, particularly after 1960, when both China and the United States were considered hostile. The delusion of the Russian side will be the most dangerous element to deal with in the coming years. In the 21st century, there is a potential nuclear triangle among the United States, Russia, and China that may be considerably more difficult to handle than the bipolar relationship that existed in the 20th century. Triangles are inherently unstable, particularly when the nations concerned are empowered with ballistic missiles and nuclear weapons.68 Each of the three powers has to make calculations regarding the evolution of the other two; two of the three may combine their forces against the third, and this kind of alliance may only be temporary; and in case of crisis, the **uncertainty** grows with the presence of a third actor. In George Orwell’s novel Nineteen Eighty-Four, the world is divided among “the Big Three,” all of them totalitarian. They combine but switch sides frequently. As Martin Wight recalls, “Triangles tend to be mobile figures of shifting alliances and negotiations.”69 In the case of the United States, Russia, and China, there would be only two dominant powers of different caliber (the United States and China) and a third force (Russia, which can no longer be called a great power). If triangles “are relationships of conflict” that “are resolved by war,”70 what can be expected from this particular triangle? For the time being, Washington has prioritized China and Russia in the 2010 NPR, frequently associating them with “strategic stability.” In the NPR, China and Russia are no longer presented as “contingencies” (even though both nations are still targeted in U.S. nuclear planning) but as partners with whom to discuss strategic stability. The Ballistic Missile Defense Review, for its part, has done its utmost to assure China and Russia of the absence of any U.S. plans to counter China’s or Russia’s deterrence capabilities. Rhetoric aside, how will the United States craft strategic stability with both Russia and China? The NPR offers no answer to this legitimate question. Thinking on the subject is not easy, particularly if government officials are pressed to reach public conclusions. It appears highly probable that strategic stability will be defined by both Russia and China—if they eventually agree to engage in such discussion 71—in wider terms than in terms of nuclear parity. In principle, the United States, which never equated “strategic” with “nuclear,” should have no problem accepting this. But difficulties would start just after this simple recognition. First, both Moscow and Beijing want to constrain advanced U.S. conventional capabilities, U.S. missile defenses, and alliances with the United States in their neighborhood. Washington can make some **gestures** (offer cooperation on missile defense to Moscow72 or reassure Beijing on the value of its nuclear deterrent73), but those **will hardly be enough**. Second, on the American side, it would only be natural to enlarge the concept as well and ask Moscow to clean up its ballistic weapon archipelago for good,74 while China might be asked to adhere to some rules in space and cyberspace. A year from now, the different definitions of strategic stability in the three nations are likely to endanger the optimistic scenario delineated in the NPR.75 On the Russian side, missile defense, Prompt Global Strike, and NATO’s presence in Russia’s periphery are going to remain contentious bilateral issues, while its own clandestine ballistic weapon activities are unlikely to be acknowledged. In addition, the primary source of instability in Moscow’s mind being its own decay, U.S. military and diplomatic superiority are going to be fought with all the available means, including influence, negotiations, intimidation, and espionage. The nostalgic empire perceives any secure neighbor as a threat, as if projecting fear were the only means of ensuring security. While the historical roots of this mind-set are well known, it clashes with stability as defined by most other countries (and certainly by Russia’s neighbors). For example, on the subject of missile defense, Moscow insists it is prepared to shield contiguous Eastern European states from missile threats: “Naturally, Russia should be in charge of the eastern sector encompassing the territories of the contiguous states and seas,” declared Russian Space Forces Commander Lt. Gen. Oleg Ostapenko on April 29 in Moscow.76 Would the Baltic states or Poland consider such a possibility? Unlikely. And Washington will not swallow any of this, either. As for China, stability is satisfactory as long as China’s status, meaning the “Middle Kingdom” under new guise, is restored. More than projecting fear, Beijing wants recognition of its superiority. The bottom line is “China is big” and deserves respect as such. Such was the motivation for Beijing’s totally disproportionate reaction to Tokyo’s decision to detain and charge the captain of a Chinese fishing trawler in September 2010. China needs to learn the measure of a great power, but it may never get there. It apparently enjoys looking like a bully. Beijing may therefore be exploiting the U.S. desire for partnership only to the extent that it buys it an additional decade of breathing room to become really big. Is it in the interest of the United States to endorse this line of thought and conduct? Hardly. In addition, the primary source of instability for China being the United States (in decline in China’s mind but still the big hegemon in China’s speeches), it is hard to imagine what kind of strategic stability can be crafted with Beijing. Sino-Russian relations have improved largely because both nations wish to constrain American power. The border dispute was resolved in 2004, some joint military exercises have been conducted, and China has benefited enormously from Russia’s willingness to export modern weapon systems (aircraft, submarines, cruise missiles, and air defense systems) and advanced technologies (notably in the field of uranium enrichment). In essence, China views the rapprochement as bringing more stability because it increases China’s power and influence. Russian policy is less clear and sometimes debated by Russian experts who worry about China’s military rise. In Central Asia, the two nations are in competition: Their only common goal is related to U.S. withdrawal. What will happen next? In the Middle East and in East Asia, there is some Sino-Russian coordination to constrain Western efforts toward sanctions on Iran and North Korea. From this perspective, both countries bear some responsibility in the advance of both Iran’s and North Korea’s ballistic and nuclear programs, even when technological cooperation between them and the two nuclear aspirants is set aside. With this in mind, how can strategic stability be crafted among the United States, China, and Russia? At the simplest level, strategic stability could mean securing the nuclear peace and preventing escalation in times of crisis. In principle, the Russians could be a satisfactory partner because of historic experience, competence, and a genuine desire to avoid worst-case scenarios. Less is known about the Chinese: Would they reject or favor deliberate escalation in wartime? One thing that is clear is that interest in this topic is growing in the PLA.77 Chinese writings continually emphasize the need to secure and maintain the political and military initiative, highlighting how difficult it is to regain once lost. This is probably the area where escalation with China is a concern. Russia used to state in its doctrine that it would not hesitate to resort to nuclear weapons when faced with possible defeat in a limited conventional conflict. The most recent Russian military doctrine states a more moderate position: The Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat.78 The contradiction between the declared Russian doctrine and Russia’s military exercises may provide a different insight, but in practice, nuclear escalation in a limited conventional conflict can be considered unlikely. China, on the contrary, repeatedly states a no-first-use policy in the Second Artillery’s publications. However, first, such a policy may be useful mainly in the diplomatic arena, and second, one wonders whether a probable conventional defeat against Taiwan, China’s most important territorial dispute linked to the legitimacy of the Chinese Communist Party, could be politically acceptable for Beijing. In other terms, on the ground the two nations might behave in ways that contradict their doctrines. This would be consistent with their patterns of behavior, Russia overplaying its hand and China underplaying it. In case of a U.S.-China confrontation over Taiwan, what would Russia do? The most likely answer is nothing. With no clear stake in the conflict, Moscow would not risk becoming a target of either Beijing or Washington. Some would argue, though, that Russia may have a stake in this conflict. A Chinese victory over Taiwan might be followed by the wish in Beijing to recover territories in the eastern part of Siberia. Would this possibility lead Russia to openly challenge China during such a conflict? Most probably not. But the United States may count on a neutral Russia, forgetting any strategic partnership with China. Any serious Russia-China confrontation, on the other hand, may raise questions in Washington about the possibility of intervening on the Russian side because of wider interests. The least that can be said is that Moscow does not facilitate thinking in the direction of such a scenario, which would imply an extraordinary level of rapprochement with Washington. But the reality is there and it is troubling: As President Kennedy understood at a very early stage, China is fundamentally more dangerous than Russia.79 This should be the perception in the West after decades of interaction. We can only imagine what China would be capable of doing if it perceived the United States having serious difficulties accessing the region, starting with the contested Senkaku Islands. From this viewpoint, Richard Nixon may have lost his bet. There is a widening divide between two categories of big nations: those convinced that the main challenge of the 21st century is to prevent major crises from emerging, fight nuclear and biological proliferation, and jointly manage the global commons, and those that continue to engage in power politics and competition. In the latter category, China is the most daring. Russia may continue to harass its neighbors, particularly if Moscow’s reading of the 2008 Georgian war is that it provides a telling example of the West’s lack of reaction, but it will probably pose no major challenge in the foreseeable future. In the former category, one finds European nations, America, and—a good surprise—increasingly India, which is progressively displaying the intent to rise as a responsible global power. These two worlds are hardly reconcilable, and they may collide. More substantial thinking on power politics may be required in the first group of nations, regardless of their preference for a more cooperative and stable world where most states increasingly share the same interests. Stability itself may require such thinking. If strategic engagement integrates a competitive dimension, it may work considerably better because it will be in tune with reality on the ground. A good example is the improvement of U.S.- Chinese relations in 2010, coinciding with a more sober view of China in the Obama administration.

#### China and Russia would exploit weakness in our nuclear deterrent to gain power

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 117-119)

With China now a major rising power, considerably more difficult challenges than those posed by regional powers are starting to appear on the horizon. If experience is any guide, a gradually more powerful China is likely to become not a more responsible stakeholder but rather an increasing challenge to an international order that, in the eyes of Beijing, is unduly protective of the West’s interests, including in Asia. The mood regarding Beijing has darkened after the Copenhagen Summit on climate change in December 2009, numerous cyberattacks, challenges to Internet freedom, ambiguous policy on Iran and North Korea,7 arms sales to Iran and to the Taliban, disregard for maritime law,8 and, finally, lack of common assessment on future challenges and future strategic stability. Beijing appears increasingly self-confident, arrogant, and nationalistic.9 With its imperial culture and its legacy of condescension, China sees itself as the only possible—and probably the only legitimate—successor to the United States on the international scene in the decades to come. In China’s view, it deserves to become number one; it only needs time to prove the point. Its neighbors have few doubts on the subject. And, instructed by experience, Washington itself had far fewer doubts in 2011 than it did in 2009, for good reason. Russia, a fading power, is a different matter of concern. Its rational choice should be to work with the West, with a potential nuclear-armed Islamic power on its southern flank, a collapsing demography, and a dynamic and greedy China in the southeast. But apart from reports written by some Russian experts popular in the West,10 there is no indication that Moscow has come to this conclusion. The 2010 Russian military doctrine still names NATO as the first danger to Moscow’s security, 20 years after the end of the Cold War. Concerning China, there may be fear and awe in Russian minds, but there is not a single word on the subject in Russia’s military doctrine. Whenever questions are raised about relations with China, Russian officials tend to answer that they have dramatically improved. Reluctance to engage in any serious security dialogue— not to mention any initiative—that could threaten bilateral relations with Beijing is obvious.11 When asked, for example, to share data with the United States on Chinese ballistic missile launches—a potential useful bilateral cooperation for both nations— Moscow refused in order to avoid hurting Russian-Chinese relations. According to an April 2010 BBC World Service survey, Russia ranks third in negative feelings toward the United States.12 The main threats coming from Russia are its difficulty in reconciling with the loss of its empire, its resentment toward the West for that reason, the corruption of its political elites, and its current inability to face real threats as opposed to imaginary ones. Big states seldom attempt to balance power, and even more seldom do they cooperate with each other. Most frequently, they simply seek to gain power of their own. The United States is probably a historical exception to this rule because it appeared on the world stage in order to limit the damage brought by its European allies rather than to enlarge its own world influence and power. History, revenge, **misconceptions**, and even suicidal moves can guide the policy of big powers: The 20th century has shown it in a devastating manner.13 An almost unthinkable series of absurdities in Vienna, Saint Petersburg, Berlin, and Paris set all of Europe ablaze as well as a large part of the rest of the world, after the assassination of the nephew of the Austrian emperor by a Serb nationalist. Once the machine had been set in motion, there was no way of holding it back. A lucid analysis of the policy pursued by both Russia and China does not provide a rosy picture for the future. If the challenges come closer, no one will be in a position to speak about any “strategic surprise.” Retrospectively, **the real surprise** for historians will be our blindness: The main elements of future crises are already present for everyone to see. In the case of **Russia**: continuous violation of the BWC, disregard of the CFE Treaty, a policy of fait accompli in both Abkhazia and South Ossetia, a wish to recover as much of its former empire as possible, endemic political corruption, and ambiguity vis-à-vis Iran.14 In the case of **China**: a will to gain at last the position it believes it deserves in the world (namely number one), deployment of more than 1,000 missiles on mainland China facing Taiwan, cyberattacks against America and Europe, competition with the United States in outer space, development of effective antiaccess capabilities, confrontation with neighbors on sea lanes and maritime law, and an unwillingness to implement sanctions against Iran and North Korea, even when Beijing agrees to vote for them. The triangular nuclear relationship among the United States, China, and Russia took a curious shape in 2010. At the very time when Washington took literally months to decide whether the NPR would use the phrase “sole purpose” or “primary purpose” to describe the objective of U.S. nuclear weapons (and finally settled for “fundamental purpose” in order to include a possible nuclear response to a biological attack), China quietly continued increasing and improving its ballistic and nuclear arsenal as well as its space and cyber capabilities, while in February 2010 Russia adopted an aggressive nuclear doctrine that worried its neighbors (who are also U.S. allies and often EU members).

#### Deterrence between the U.S. China and Russia works – communication and nuclear learning are increasing – just a question of U.S. technical capability to maintain deterrence

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 159-161)

In 1956, Paul Nitze made an interesting analogy between a nuclear world and a chessboard.1 He wrote that even though the atomic queens may never be brought into play, their position may still have a decisive bearing on which side can safely advance a limited-war bishop or a Cold War pawn. More than 50 years later, this may still be true. But while he had in mind mainly U.S. and Soviet atomic queens, with an advantage on the American side, the reality in the 21st century may be essentially about the **shadow of America’s adversaries’ atomic queens**. In the United States, expenditures related to the nuclear enterprise are under increasing scrutiny, making it difficult to modernize the nuclear arsenal.2 Today’s entire Air Force bomber fleet—nuclear and nonnuclear—is 90 percent smaller than it was in 1959, a decline justified in great part first by the deployment of ICBMs, the advent of precision-guided munitions, and the rise in the per-unit cost of combat aircraft, and second by the end of the Cold War. Still, all the remaining bombers are in need of costly upgrades, since the air-launched leg is apparently going to be retained for the foreseeable future.3 The remaining ICBMs are also aging rapidly, with underground silos in need of cost-prohibitive replacement. Among U.S. nuclear allies, the United Kingdom is far from having a clear nuclear policy for both political and financial reasons (in April 2011, for example, part of the UK coalition—LibDem—questioned the need for continuous submarine patrols at sea). Meanwhile in China, where the military budget has been unconstrained for 20 years, nuclear weapons are playing an increasing role. New air, sea, and ground systems are beginning to be deployed there, with great opacity denounced in the region and beyond. The future nuclear force that China has in mind is unknown. Even the number of new ICBMs, dual-capable aircraft, and nuclear submarines is anyone’s guess, though it is probable that the JL-2 will be made capable of carrying three warheads instead of one. At the same time, Beijing is developing space and cyberspace capabilities and testing them in disturbing ways. With significantly fewer financial resources than China, Russia also gives priority to its nuclear holdings because of perceived large conventional imbalances with both NATO and China. The New Start treaty has not led to any reductions in Russia, because its current holdings are already below the ceilings. In South Asia, Pakistan may well be the main strategic beneficiary of the 1998 nuclear tests, since Islamabad’s needs are much more limited than those of New Delhi. When American troops leave Afghanistan, China will have more freedom of maneuver to achieve its overriding regional objective: keeping India down. This has always been the basic tenet of the Sino-Pakistani relationship. Finally, the likelihood of additional nuclear players in the Middle East and in East Asia 20 years from now can hardly be discarded. Some official statements have now been made public. All of these factors will play a role in constraining the United States in the safe advance of what Paul Nitze called a limited-war bishop. At the same time, nuclear deterrence has receded in American minds as well as in European capitals. More urgent business—yesterday in the Balkans and Iraq, today in Afghanistan and Libya—is focusing intellectual and operational efforts. Paradoxically, a fortunate turn of events occurred with two serious nuclear incidents in 2006 and 2007 in the United States. In August 2006, nuclear fuses were mistakenly shipped to Taiwan, and a year later, in August 2007, six air-launched missiles armed with nuclear warheads were mistakenly flown from Minot Air Force Base to Barksdale Air Force Base. Both events led to the creation of Global Strike Command and to a reexamination of the nuclear enterprise. Since the revelations concerning the probable existence of additional clandestine military activities in Iran (beyond Qom) and the advancement in Pyongyang’s enrichment program, troubling questions have surfaced concerning Western intelligence, key challenges to international verification, and export control limits. In stimulating a renaissance of thought on nuclear deterrence, this reexamination should take into account the development of thinking in potentially adversarial nations. In many parts of the world, nuclear weapons are not seen as old-fashioned. The West will **not change this perception** by reducing its nuclear arsenals. Newcomers carefully follow the nuclear debates that are developing mostly in the West. They take part in them, they react to them, they read nuclear doctrines (including NATO’s new nuclear posture), and they occasionally learn from past nuclear crises. An important lesson of the Cold War stems from the high level of professionalism exhibited by those dealing with nuclear weapons on both sides. As General Larry Welch declared at the 2010 U.S. Strategic Command Deterrence Symposium in Omaha, referring to the Western and Eastern nuclear communities, “they kept peace” in part because each side recognized the competence on the other side and respected it.4 Deterrence greatly benefited from this competence and respect. It is worth noting that during the Cold War, such competence was not recognized in Mao and the Chinese. Nikita Khrushchev worried about Mao’s recklessness and his lack of understanding in nuclear matters. Things have changed a great deal in the last 40 years, but there is no doubt in the mind of this author that Beijing remains a risk-taking partner when compared with the USSR. This factor should be taken into account in the West as it already is in the East. Improving mutual understanding among potential nuclear adversaries is an important part of deterrence. Such is the purpose of a number of current bilateral strategic dialogues. Such dialogues with Russia and China have been disappointing so far. Russia, a revisionist state unlike the Soviet Union, is essentially trying to get Western military technology and is not really interested in any substantial dialogue on the most divisive issues—for example, missile defenses, a subject on which the same line of argument is presented over and over again, whatever the systems contemplated to protect Europe and America or the technical explanations provided by Washington to reassure Moscow. China, with increasingly sophisticated and well-read experts, appears reluctant to discuss with Washington its perceived conditions for strategic stability in the 21st century, a crucial topic for deterrence in both America and Europe. Track two meetings may provide different opportunities. The strategic community is now **more internationalized** than it used to be. American, European, Russian, and—increasingly—Asian experts exchange ideas on a daily basis. These meetings improve mutual understanding on key questions: ambitions, interests, sovereignty, stability, and regional crises, as well **as prevention of escalation**. Although they are not meant to replace official bilateral or multilateral meetings, they should be able to deal with part of the “thinking crisis”: With so many questions now open, shaping the intellectual framework of things to come on nuclear matters is not a minor business, especially since the real nuclear debate could well become less about nuclear abolition and more about whether there will even be any rules at all in the nuclear future.

#### U.S. leaders will cling to nuclear deterrence inevitably – only a question of how credible and effective it is

Thompson ’11 – Chief Operating Officer of the non-profit Lexington Institute

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The anti-nuclear rhetoric coming out of the White House during Obama’s early days in office was so persistent that some senior military officers worried the new president was taking America in the direction of unilateral disarmament, even though the candidate had explicitly ruled out that possibility during the campaign. But the military need not have worried, because the way things are turning out, Barack Obama is likely to spend more money on the U.S. nuclear arsenal than any U.S. president since Ronald Reagan. In fact, if all the plans authorized on Obama’s watch come to fruition, hundreds of billions of dollars will eventually be spent on new nuclear capabilities and infrastructure by a president who has repeatedly endorsed the goal of a nuclear-free world. This may be the ultimate example of how gaining political power can **transform the beliefs of leaders** — not because Obama has abandoned his support of disarmament, but because of how being responsible for the nation’s security forces him to think in practical terms about the dangers of disarming. To understand the seeming divergence between the president’s convictions and his military plans, you have to grasp the perverse logic of U.S. nuclear strategy. U.S. military analysts figured out during the early days of the Cold War that no effective defense against a large-scale nuclear attack was likely to be feasible. The Russians were acquiring thousands of warheads, and the destructive potential of each one was so great that if even a small fraction managed to penetrate U.S. defenses, the nation would probably be wiped out. Defense Secretary Robert McNamara illustrated the problem in congressional testimony when he displayed a graph that indicated how destruction in the Soviet Union would level off after a relatively small portion of the U.S. nuclear arsenal had been expended, because there wasn’t much left to destroy. With both nations facing the possibility of nuclear obliteration, a new approach to national security clearly was needed. The concept that policymakers settled on was deterrence — the idea that enemies could be dissuaded from aggression by threatening horrible consequences. The key to effective nuclear deterrence was a secure retaliatory capability, meaning an arsenal that could ride out any surprise attack and then respond with such devastating effect that adversaries would find the prospect unacceptable. As long as enemies were not crazy or accident prone, the thinking went, a secure retaliatory force should be sufficient to deter nuclear attack. U.S. military planners spent the next 50 years revising and refining the requirements of deterrence, spelling out in great detail the performance characteristics required of U.S. nuclear forces to assure they were both survivable and credible. Survivability resulted mainly from having a trio (or “triad”) of well-protected nuclear systems — land-based missiles, submarine-based missiles and manned bombers — that were so different no enemy could conceivably destroy them all in a surprise attack. **Credibility**, which was crucial in a strategy based mainly on **influencing enemy psychology**, meant having targeting options that were believable and proportional to any provocation. The United States eventually ended up with over 30,000 warheads in its arsenal before the two superpowers accepted the impossibility of achieving meaningful superiority in a world of “mutual assured destruction.” Once that realization occurred, though, a gradual reduction in forces commenced that accelerated after the collapse of the Soviet Union. By the time President Obama took office, there were only about 5,000 warheads in the active strategic arsenal, and nobody talked much anymore about the danger of nuclear war. In fact, Obama’s 2010 Nuclear Posture Review displaced traditional deterrence objectives from the top of the strategic agenda, emphasizing instead the importance of halting nuclear proliferation and preventing nuclear terrorism. But the need for **nuclear deterrence still existed**, because **Russia retained thousands of warheads** and **China had at least hundreds**. In addition, new nuclear powers such as North Korea and Pakistan were emerging. It was the enduring need for deterrence that forced the Obama Administration to confront a paradox of nuclear strategy. The paradox is that the fewer weapons each side has the greater the danger of a surprise attack because at lower numbers it becomes easier for each country to disarm the other side. For instance, when the United States had hundreds of nuclear-capable bombers scattered around the world, there wasn’t much danger Russia could catch them all on the ground in a first strike. But now that there are only sixty located at a handful of sites, an enemy might be able to take out a sizable portion of the U.S. nuclear arsenal with a dozen well-placed warheads. The other part of the paradox is that if the enemy really thinks it can pull off a disarming surprise attack, then the very fact we have a retaliatory force is a powerful inducement to launching that attack — because what looks like a deterrent to us looks like a huge threat to them. After all, it is aimed at their cities, their factories, and their own retaliatory capabilities. So ironically, as the size of the U.S. strategic arsenal shrinks, the government needs to spend huge amounts making sure what’s left is still an effective deterrent. And unfortunately for President Obama, the arsenal he inherited hadn’t seen much in the way of modernization since the Cold War ended. The biggest part of the Obama nuclear buildup, if you’ll pardon the expression, is efforts to replace or improve all three types of launching systems in the current strategic arsenal. A fleet of 14 Trident ballistic missile submarines due to start retiring in 2027 will be replaced by 12 follow-on subs that will probably cost around $80 billion to design and build and hundreds of billions more to operate over their 40-year service lives. The president’s fiscal 2012 budget request includes a billion dollars to continue design work on the new class of subs. The 60 B-52 and B-2 bombers capable of delivering nuclear weapons must be upgraded in the near term and replaced over the long term; the Obama plan calls for spending $1 billion over the next five years on upgrading 16 nuclear-capable B-2s and $4 billion on developing a bomber that might one day replace it in the nuclear strike mission. And the 450 silo-based Minuteman missiles located in Montana, North Dakota and Wyoming will require additional life-extension measures to assure their survivability and reliability beyond 2030. Those are the nuclear-weapons expenditures most visible to the outside world, but there are a host of other outlays that will be required to keep the nation’s strategic posture viable. For instance, the administration noted when it released the Nuclear Posture Review that there would be a need to “make new investments in the U.S. command and control system to maximize presidential decision time in a nuclear crisis.” What this means is that communications links between commanders and nuclear forces must be strengthened so that the potential loss of control in a nuclear scenario does not force a launch decision before critical details about threats are in hand. The need to acquire as much information as possible before acting in a crisis situation also explains why the United States is currently orbiting a new generation of space-based infrared satellites that can detect missile launches and nuclear detonations within seconds after they occur. And then there is the nuclear complex where warhead components are manufactured, refurbished and dismantled. You wouldn’t think much spending is required to sustain a complex that hasn’t produced a single new warhead since 1991, but the system consumes a billion dollars per month and that figure is going up. In the absence of new production, old weapons must be **repaired and upgraded**, often using nuclear material recovered from weapons that are being retired. The retired weapons must be taken apart and their pieces re-used or rendered safe, an extremely complex procedure. The need to sustain such processes has led to major new construction projects at all of the industrial sites involved in nuclear weapons work. For example, a 350,000 square-foot uranium processing facility will be built at the Y-12 plant in Oak Ridge, Tennessee, and three different facilities will be built at the Savannah River plant in South Carolina to dispose of weapons-grade plutonium. Thus, the Obama nuclear plan will generate huge revenues for companies involved in nuclear work such as Babcock & Wilcox and General Dynamics, the probable builder of the submarine that replaces Trident. However, it isn’t likely that President Obama and his security team envisioned the full extent of budgetary outlays that would be required to sustain the nation’s nuclear forces as they drove toward the goal of a nuclear-free world. As things currently stand, the administration will be spending a good deal more money on nuclear weapons during Obama’s tenure than renewable energy, a prospect that can’t be pleasing to progressives. On the other hand, nuclear war remains by far the greatest military threat that the nation faces. Not only would it generate more destruction than any other form of conflict, but our methods for preventing it are weaker, relying mainly on psychology rather than tangible defenses. As the number of nuclear weapons declines it may become more feasible to build defenses that can stop an attack, but for the time being conservatives and liberals alike are stuck with the paradoxes of surviving in the nuclear age. In President Obama’s case, that means spending a great deal of money on items you wish didn’t exist at all.

### Navy

#### Time is running out, now is key – USEC is critical to the nuclear navy

Korte ’12 – USA Today Correspondent

(Gregory Korte, “House preserves 'backdoor earmark' for Ohio nuclear facility”, USA Today, 5/18/2012, http://usatoday30.usatoday.com/news/washington/story/2012-05-18/USEC-earmark/55056188/1)

Rep. Michael Turner, R-Ohio, a nuclear supporter who represents a district neighboring USEC, said the issue is one of national security. "This is for our nuclear weapons programs. This is not like for a truck fleet," he said. "If you're not going to be doing domestic, you're going to have the United States be subject to foreign sources, and again these are critical components for our nuclear infrastructure and our **nuclear Navy."** The vote follows a high-stakes, behind-the-scenes lobbying effort this week. Rep. Jean Schmidt, R-Ohio, sent a letter to colleagues this week pointing out URENCO's ties to A.Q. Khan, the nuclear scientist that stole centrifuge technology secrets for Pakistan. URENCO lobbyist Clint Williamson accused USEC supporters — which include Republicans and Democrats — of "picking winners and losers" in the uranium market. The provision still must be negotiated with the Senate, which included similar language in a 2012 transportation bill. The measure wouldn't require the Energy Department to spend the money, but Energy Secretary Steven Chu has already said he would do so if given a "clear signal" from Congress. "Over the last three years, the Obama administration has worked tirelessly to support the American Centrifuge Plant," said DOE spokeswoman Jen Stutsman in a statement before the vote. "The administration is focused on advancing this technology in a way that protects the taxpayers." Time is running out for USEC. In regulatory filings, it has said its ability to borrow money to keep the existing test centrifuges running — about $15 million a month — will run out in June. Its stock price closed at an all-time low 68 cents Thursday, a level that could cause it to be unlisted from the New York Stock Exchange. And credit rating agency Standard & Poor's downgraded its debt this week to CCC+, citing its high debt levels.

#### Unencumbered support key to the nuclear navy

Pike County Daily ’12

(“USEC, DOE sign $350 Million agreement for RD&D program”, 6-15-2012, http://www.pikecountydaily.com/news/article\_9031d71a-b55e-11e1-9ce4-001a4bcf887a.html)

Other elected officials, such as Congresswoman Jean Schmidt, a longtime supporter of the ACP, praised the move. “This is the right thing to do for our country. Jobs are one of my top priorities, and this will support our hardworking, skilled labor force in Southern Ohio," Schmidt said. “But it is also critical to our national security,” Schmidt said. “The American Centrifuge Plant in Piketon will provide an **unencumbered domestic supply** of enriched uranium, which is necessary to support our nuclear arsenal and nuclear Navy. “This agreement and technology will allow the United States to maintain a leadership role in non-proliferation efforts by ensuring an adequate supply of nuclear fuel to encourage countries to forego their own enrichment programs. The American Centrifuge Plant will be our nation’s **only source** of enriched uranium, and it will be the basis of peaceful nonproliferation agreements.” The reaction from Ohio's two Senators, both also supporters of the Piketon-based project, was also positive. “The Department of Energy understands how important the ACP is to our nation’s security and Ohio’s economy,” commented Senator Sherrod Brown. “I commend the Department of Energy and USEC for working together on a path towards job creation and greater accountability. This federal investment will ensure that the Piketon community is on a path towards continued job creation and economic growth.”

#### Top officials agree – USEC is vital to the nuclear navy

Northey and Quinones ’12 – E&E Reporters

(Hannah Northey and Manuel Quinones, “Is Obama's support of Ohio plant securing the nation or his own political position?”, E&E Publishing Inc., 6-26-2012, http://www.eenews.net/public/EEDaily/2012/06/26/1)

The Obama administration and supportive lawmakers on this issue, particularly in Kentucky and Ohio, maintain the plant is key to complying with international treaties and providing a domestic source of uranium enrichment, which is needed to make tritium for nuclear weapons. That position has been affirmed by top federal officials, including the U.S. solicitor general, the Department of State's legal adviser and general counsel for the Commerce, Defense and Energy departments. Without that capability, they say, the United States would be dependent on other countries for nuclear weapons production and fuel for Navy submarines.

#### Foreign suppliers won’t work – only the plan solves

Kramer ’12 – news editor for the American Institute of Physics

(David, “DOE to finance more research on USEC gas centrifuge technology”, Physics Today, 6-15-2012, http://www.physicstoday.org/daily\_edition/politics\_and\_policy/doe\_to\_finance\_more\_research\_on\_usec\_gas\_centrifuge\_technology)

A DOE official, speaking on condition of anonymity, said USEC’s request for $2 billion in DOE loan guarantees to build the plant to full capacity has been put on hold, and he cautioned that a successful outcome for the R&D program won’t result in automatic approval of the loan guarantee. “We’re not trying to supply support for USEC per se,” the official said. But he noted that USEC is the only supplier of uranium enrichment services that DOE can use for “nonpeaceful” purposes—producing tritium for nuclear weapons and fueling the US Navy’s nuclear-powered ships. Treaty obligations stipulate that only domestic material produced with US-origin technology can be used for those purposes. That rules out other enrichment plants currently being constructed in the US; the Urenco plant in New Mexico, which went into small-scale operations in 2010, and the Areva plant due to be built in Idaho both use European centrifuge technology. Nor can low-enriched uranium obtained from blending down Russian weapons-grade material as part of the Megatons to Megawatts program be used for military purposes. In exchange for the R&D funding, DOE clarified its rights to the intellectual property and data generated by the cooperative agreement. The government is immediately taking ownership of the centrifuges that USEC has built and of centrifuges and other equipment that will be produced as part of the R&D program. The plant R&D will be managed under a new governance structure that strengthens the roles of other project partners, including Babcock and Wilcox and Toshiba, which will provide additional project management support and personnel for the program. “We know that the [USEC] technology is promising, and we believe it can work,” the DOE official said. “The question is, can it work at an output that makes sense for USEC on a commercial basis?” **Whether commercially viable or not, it could work for DOE’s needs**, he explained.

#### Nuclear navy is critical to our naval power projection –

#### A) Aircraft carriers

Head ‘12--US Naval Institute member

(Jeff, worked as a manager, director, and consultant for over twenty-five years in the defense and nuclear power industries, "CVN-78 Gerald Ford Class Page," 9-24-12, www.jeffhead.com/usn21/cvn21.htm, accessed 1-22-13)

The new CVN21 aircraft carrier class has been designated the USS Gerald R. Ford class, and the first of class will be CVN-78, USS Gerald R. Ford. The second in class will be CVN-79, USS John F. Kennedy. It is expected that ultimately 9-10 of the class will be built, replacing the US Nimitz class carriers one for one evey 5-6 yearss. They will be the largest warships ever built. They will be the mainstay of the US Navy's **power projection** and sea lane protection capabilities throughout the 21st century. Each of these vessels will carry an airwing of fixed wing aircraft, VSTOL aircraft, helicopters, and unamanned arial vehicles (UAV) that is larger and more powerful than many nation's complete air force. **By having the** resources, the experience, **and** the capability **to operate** 9-10 **such vessels** (where each vessel is surrounded by an extensive force of other surface and sub-surface combatants that make up each Carrier Strike Group (CSG)), the United States will **remain the** unchallenged**, dominant sea force on earth.** The USS George HW Bush, CVN-77, was christened on October 7, 2006, and replaced the USS Kitty Hawk, CV-63 in 2008. Although officially listed as a Nimitz class carrier, CVN-77 also represents a transformation step in US carrier development from the Nimitz class towards the Ford Class. Initial steel cutting for the USS Gerald R. Ford was accomplished in August of 2005. The keel laying occurred in late 2009 and the vessel is expected to be launched in 2013 and commissioned in 2015. As of April, 2012, the vessel was 75% structurally complete. CVN-78 will replace the USS Enterprise, CVN-65, America's first nuclear powered aircraft carrier. First steel for the second in class, USS John F. Kennedy, CVN-79, was cut in February of 2011. They are being built by Newport News Shipbuilding (Now Renamed as Northrup Grumman Shipbuilding), which built the USS Enterprise, and all ten Nimitz class carreirs. Among the innovations that the Ford class carriers will introduce are: A much more efficent nuclear reactor system providing three times more power. Electromagnetic aircraft launch and recovery replacing current steam catapaults and current arrestor systems. A redesigned, more efficent, and more stealthy island. More automated systems, providing for reduced manpower requirements and more efficent aircraft weapons handling, battle management, and damage control operations. Potential exotic defensive weapons systems operating off of the increased electrical power. 20% more sortie capability for the embarked airwing. 25% more operational availability of the carrier. With these innovations, and the many others that will be developed into the new carrier, the US Navy is making a direct statement that its 21st century, next-generation carrier fleet will continue to have as its **centerpiece** large-deck, **nuclear-powered vessels** that can **project power** and protect sea lanes **anywhere** in the world, at **any time**.

#### B) Force flexibility

**Spencer and Spring ‘7** – research fellow in the Thomas A. Roe Institute for Economic Policy Studies and F.M. Kirby Research Fellow in National Security Policy for the Kathryn and Shelby Cullom Davis Institute for International Studies

(“The Advantages of Expanding the Nuclear Navy” http://www.heritage.org/research/homelanddefense/wm1693.cfm

by Jack Spencer and Baker Spring- Jack Spencer is Research Fellow in the Thomas A. Roe Institute for Economic Policy Studies, and Baker Spring is F.M. Kirby Research Fellow in National Security Policy for the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation. November 5, 2007)

Congress is debating whether future naval ships should include nuclear propulsion. The House version of the Defense Authorization Act of 2008 calls for all future major combatant vessels to be powered by an integrated nuclear power and propulsion system; the Senate version does not. While Congress must be careful in dictating how America's armed forces are resourced, it also has a constitutional mandate "to provide and maintain a Navy." Although nuclear-powered ships have higher upfront costs, their many advantages make a larger nuclear navy critical for protecting national security interests in the 21st century. Nuclear Propulsion's Unique Benefits As the defense authorization bill is debated, Members of the House and Senate should consider the following features of nuclear propulsion: \* **Unparalleled Flexibility**. A nuclear surface ship brings **optimum capability** to bear. A recent study by the Navy found the nuclear option to be superior to conventional fuels **in terms of surge ability, moving from one theater to another,** and staying on station. Admiral Kirkland Donald, director of the Navy Nuclear Propulsion Program, said in recent congressional testimony, "Without the encumbrances of fuel supply logistics, our nuclear-powered warships can get to areas of interest quicker, ready to enter the fight, and stay on station longer then their fossil-fueled counterparts."\* High-Power Density. The high density of nuclear power, i.e., the amount of volume required to store a given amount of energy, frees storage capacity for **high value/high impact assets** such as jet fuel, small craft, remote-operated and autonomous vehicles, and weapons. When compared to its conventional counterpart, a nuclear aircraft carrier can carry twice the amount of aircraft fuel, 30 percent more weapons, and 300,000 cubic feet of additional space (which would be taken up by air intakes and exhaust trunks in gas turbine-powered carriers). This means that ships can get to station faster and deliver more impact, **which will be critical to future** **missions**. This energy supply is also necessary for new, power-intensive weapons systems like rail-guns and directed-energy weapons as well as for the powerful radar that the Navy envisions. \* Real-Time Response. **Only a nuclear ship can change its mission and respond to a crisis in real-time**.

#### C) Littoral combat ships – nuclear navy is key

Rubel ‘11 -- Naval War College naval warfare studies dean and professor

(Robert, served on the faculty and as chairman of the War Gaming Department, in the Center for Naval Warfare Studies, before his present appointment, "The Future of Aircraft Carriers," Naval War College Review, 8-11-11, www.usnwc.edu/getattachment/87bcd2ff-c7b6-4715-b2ed-05df6e416b3b/The-Future-of-Aircraft-Carriers, accessed 1-20-13)

Another potential supporting role for the carrier is as a mother ship for the littoral combat ship (LCS). The LCS has limited sea-keeping capability and **must have** a source of logistical support relatively close by, especially if it is to operate at high speed and high combat tempo. If a squadron of LCSs must enter a highthreat area where there are no bases and where regular logistical ships would be at excessive risk, **a nuclear carrier might be the answer**. Having considerable fuel and ammunition-storage capacity, high sustained speeds, and self-defense ability (with its escorts), a carrier could range around undetected or untargeted until a covert rendezvous with one or more LCSs could be arranged. While a logistical support system that employs submarines might be the ideal, this arrangement may be the most feasible in the short term. In conjunction with this role, the carrier, operating both manned and unmanned aircraft, could provide tactical scouting for littoral combat vessels as well as a secure and robust local battle network.

#### That solves maritime dominance

Global Security ‘10

(Date accessed Nov 18, 2010, page last updated May 11 2010, “Littoral Combat Ship (LCS)”-- <http://www.globalsecurity.org/military/systems/ship/lcs.htm>)

The Littoral Combat Ship (LCS) is a small specialised variant of the DD(X) family of future surface combat ships. LCS complements, but does not replace, the capabilities of DD(X) and CG(X). The Littoral Combat Ship will take advantage of the newest generation hull form and will have modularity and scalability built in. It focuses on mission capabilities, affordability, and life cycle costs. The LCS is an entirely new breed of U.S. Navy warship. A fast, agile, and networked surface combatant, LCS's modular, focused-mission design will provide Combatant Commanders the required **warfighting** **capabilities** **and** **operational flexibility to** ensure **maritime dominance** and access for the joint force. LCS will operate with focused-mission packages that deploy manned and unmanned vehicles to execute missions as assigned by Combatant Commanders. LCS will also perform Special Operations Forces (SOF) support, high-speed transit, Maritime Interdiction Operations (MIO), Intelligence, Surveillance and Reconnaissance (ISR), and Anti-Terrorism/Force Protection (AT/FP). While complementing capabilities of the Navy's larger multi-mission surface combatants, LCS will also be networked to share tactical information with other Navy aircraft, ships, submarines, and joint units. Secretary of the Navy Gordon England described this new ship as "a small, fast, maneuverable, and relatively inexpensive member of the DD(X) family of ships, which began construction in FY 2005. The goal is to develop a platform that can be fielded in relatively large numbers to support a wide range of joint missions, with reconfigurable mission modules to assure access to the littorals for our Navy forces in the face of threats from surface craft, submarines, and mines."

#### It’s independently key to TMD

States News Service 10. [“CNO to the Navy: The Shipwreck is coming” June 22 -- lexis]

It is ironic that the Navy should be in such a position just at the time when in many ways it is more powerful and capable than ever before. Yes, the Navy has shrunk in size. However, in the absence of a blue water threat and deploying an array of modern platforms and weapons systems, it can exercise near total command of the sea. The modern nuclear carrier will soon deploy an extraordinarily powerful air wing consisting of F/A-18 E/F and F-35 strike aircraft, the state-of-the-art E-2D Advanced Hawkeye and the new F-18G Growler electronic warfare platform. Carrier-launched unmanned aerial vehicles will soon join this array. New surface combatants including the DDG1000, advanced DDG51s and the Littoral Combat Ship with its modular mission packages will provide unparalleled capabilities in surface warfare, mine countermeasures, ASW and anti-aircraft/missile defense. Naval missile defenses based on the Aegis radar and the Standard Missile 3 are so good that the administration plans to expand its deployment to at least 38 surface combatants and to make it the centerpiece of a new land-based theater missile defense system. Then there is the fleet of nuclear submarines, in particular the Virginia class with its innovations in sonar arrays, photonic masts, enlarged launch tubes and power plant.

#### That solves Indo-Pak war

Perle 00. [Richard, a fellow at the American Enterprise Institute, was assistant secretary for international security policy at the Defense Department from 1981 to 1987, “A better way to build a missile defense” NYT -- July 13]

Opponents of a robust missile defense argue that it would encourage the proliferation of nuclear weapons and lead to instability. The opposite is far more likely. Imagine a sharp rise in tension between India and Pakistan. Both countries have nuclear weapons and ballistic missiles. Suppose the United States could dispatch an **Aegis** cruiser to the region with instructions to intercept any ballistic missile fired by either side. **Such a capability** in American hands **would be** **highly stabilizing**, **reducing the likelihood of** **conflict**, discouraging the use of offensive missiles, reassuring both sides.

#### Best studies show that causes nuclear war

Starr ’11 (Consequences of a Single Failure of Nuclear Deterrence by Steven Starr February 07, 2011 \* Associate member of the Nuclear Age Peace Foundation \* Senior Scientist for PSR)

Only a single failure of nuclear deterrence is required to start a nuclear war, and the consequences of such a failure would be profound. **Peer-reviewed studies predict** that **less than 1% of** the nuclear **weapons** now deployed in the arsenals of the Nuclear Weapon States, if detonated in urban areas, would immediately kill tens of millions of people, and cause long-term, **catastrophic disruptions of the global climate and massive destruction of Earth’s protective ozone layer**. The result would be a global nuclear famine that could kill up to one billion people. A full-scale war, fought with the strategic nuclear arsenals of the United States and Russia, would so utterly devastate Earth’s environment that most humans and other complex forms of life would not survive. Yet no Nuclear Weapon State has ever evaluated the environmental, ecological or agricultural consequences of the detonation of its nuclear arsenals in conflict. Military and political leaders in these nations thus remain dangerously unaware of the existential danger which their weapons present to the entire human race. Consequently, nuclear weapons remain as the cornerstone of the military arsenals in the Nuclear Weapon States, where nuclear deterrence guides political and military strategy. Those who actively support nuclear deterrence are trained to believe that deterrence cannot fail, so long as their doctrines are observed, and their weapons systems are maintained and continuously modernized. They insist that their nuclear forces will remain forever under their complete control, immune from cyberwarfare, sabotage, terrorism, human or technical error. They deny that the short 12-to-30 minute flight times of nuclear missiles would not leave a President enough time to make rational decisions following a tactical, electronic warning of nuclear attack. The U.S. and Russia continue to keep a total of 2000 strategic nuclear weapons at launch-ready status – ready to launch with only a few minutes warning. Yet both nations are remarkably unable to acknowledge that this high-alert status in any way increases the probability that these weapons will someday be used in conflict. How can strategic nuclear arsenals truly be “safe” from accidental or unauthorized use, when they can be launched literally at a moment’s notice? A cocked and loaded weapon is infinitely easier to fire than one which is unloaded and stored in a locked safe. The mere existence of immense nuclear arsenals, in whatever status they are maintained, makes possible their eventual use in a nuclear war. Our **best scientists now tell us** that **such a war would mean the end of human history**. We need to ask our leaders: Exactly what political or national goals could possibly justify risking a nuclear war that would likely cause the extinction of the human race? However, in order to pose this question, we must first make the fact known that existing nuclear arsenals – through their capacity to utterly devastate the Earth’s environment and ecosystems – threaten continued **human existence**. Otherwise, military and political leaders will continue to cling to their nuclear arsenals and will remain both unwilling and unable to discuss the real consequences of failure of deterrence. We can and must end the silence, and awaken the peoples of all nations to the realization that “nuclear war” means “global nuclear suicide”. A Single Failure of Nuclear Deterrence could lead to: \* A nuclear war **between India and Pakistan**; \* 50 Hiroshima-size (15 kiloton) weapons detonated in the mega-cities of both India and Pakistan (there are now 130-190 operational nuclear weapons which exist in the combined arsenals of these nations); \* The deaths of 20 to 50 million people as a result of the prompt effects of these nuclear detonations (blast, fire and radioactive fallout); \* Massive firestorms covering many hundreds of square miles/kilometers (created by nuclear detonations that produce temperatures hotter than those believed to exist at the center of the sun), that would engulf these cities and produce 6 to 7 million tons of thick, black smoke; \* About 5 million tons of smoke that would quickly rise above cloud level into the stratosphere, where strong winds would carry it around the Earth in 10 days; \* A stratospheric smoke layer surrounding the Earth, which would remain in place for 10 years; \* The dense smoke would heat the upper atmosphere, destroy Earth’s protective ozone layer, and block 7-10% of warming sunlight from reaching Earth’s surface; \* 25% to 40% of the protective ozone layer would be destroyed at the mid-latitudes, and 50-70% would be destroyed at northern and southern high latitudes; \* Ozone destruction would cause the average UV Index to increase to 16-22 in the U.S, Europe, Eurasia and China, with even higher readings towards the poles (readings of 11 or higher are classified as “extreme” by the U.S. EPA). It would take 7-8 minutes for a fair skinned person to receive a painful sunburn at mid-day; \* Loss of warming sunlight would quickly produce average surface temperatures in the Northern Hemisphere colder than any experienced in the last 1000 years; \* Hemispheric drops in temperature would be about twice as large and last ten times longer then those which followed the largest volcanic eruption in the last 500 years, Mt. Tambora in 1816. The following year, 1817, was called “The Year Without Summer”, which saw famine in Europe from massive crop failures; \* Growing seasons in the Northern Hemisphere would be significantly shortened. It would be too cold to grow wheat in most of Canada for at least several years; \* World grain stocks, which already are at historically low levels, would be completely depleted; grain exporting nations would likely cease exports in order to meet their own food needs; \* The one billion already hungry people, who currently depend upon grain imports, would likely starve to death in the years following this nuclear war; \* The total explosive power in these 100 Hiroshima-size weapons is less than 1% of the total explosive power contained in the currently operational and deployed U.S. and Russian nuclear forces.

#### D) Subs—nuclear navy key to subs- key to naval power projection

Padgett, 11 -- Rear Admiral (retired)

[John, "Projecting power: The case for maintaining an all-nuclear submarine fleet," Armed Forced Journal, Sept 2011, www.armedforcesjournal.com/2011/09/7558135/, accessed 1-22-13, mss]

Projecting power: The case for maintaining an all-nuclear submarine fleet Defense analysts periodically propose a mix of nuclear and conventionally powered submarines to increase U.S. undersea force structure. They argue that conventional submarines (SSKs) are so affordable the U.S. could acquire multiple boats for the price of a single nuclear-powered attack submarine (SSN). In an era of declining fleets and looming budget cuts, that sounds appealing. However, despite increasing capability, conventional submarines still lack the payload, endurance, mobility and affordability necessary to meet U.S. needs, even when forward-based and equipped with air-independent propulsion (AIP). The modern SSK is a formidable weapon, improved significantly over its World War II predecessors. Mechanically, it still depends on simple and forgiving technologies such as diesel engines, electric motors and large storage batteries. Tactically, it carries advanced sensors, combat systems and payloads — it can deliver a powerful punch. The SSK is among the stealthiest of modern combatants, and designers continue to address signatures associated with snorkeling, when it is most detectable. In recent years, new equipment mounting techniques and better exhaust management have reduced acoustic and infrared snorkel signatures. Operating fully submerged on the battery, the SSK is very difficult to detect and challenges even the most capable anti-submarine warfare (ASW) force. Despite its attributes, the SSK has considerable shortcomings, many of which relate to size. These small ships have limited stores, battery, fuel, payload and crew capacity, which in turn limit their endurance, agility, persistence and combat capability. The modern SSK ranges in size from the 1,500-ton Swedish Gotland class to the 3,350-ton Australian Collins class. Some countries are building even smaller submarines, including the French Andrasta-class coastal SSK (855 tons) and the North Korean Yono-class (130 tons) midget submarine — the same type believed to have torpedoed the South Korean corvette Cheonan in March 2010 Automation has helped reduce SSK crew requirements. Unmanned engineering spaces are common, and propulsion systems are often operated remotely from the control room. However, small crew capacity often places watch teams in extended port and starboard (two-section) rotations — a practice that can quickly reduce a crew’s effectiveness on patrol. To offset these size-related constraints, several countries are considering larger boats. For example, French shipbuilder DCNS plans to offer a larger version of its 1,800-ton Scorpene SSK to India, which wants the added volume to increase endurance and payload capacity. Australia, whose Collins-class ships are already some of the world’s largest conventional submarines, is planning an even larger replacement. It is estimated this follow-on boat will displace in excess of 4,000 tons to meet the endurance, payload and crew requirements outlined in Australia’s 2009 Defence White Paper. To put this in perspective, the U.S. Sturgeon-class SSN — a mainstay of the Cold War — displaced approximately 4,700 tons submerged. As countries incorporate technologies to increase SSK quieting, endurance and other combat capabilities, they are moving toward designs with larger displacements. Notwithstanding this trend, many SSK advocates highlight their small size as a significant advantage when operating in shallow, littoral areas — both in terms of the depth of water they can operate in and their maneuverability. However, this advantage is overstated and supposes a capability gap that does not exist. Specifically, SSK advocates imply there are areas where the U.S. cannot operate a SSN because its navigation draft is too large or it lacks maneuverability. That is not true. The Virginia-class SSN is about 15 feet taller (measured from the keel to top of sail) than a typical SSK. That difference is not significant in the waters U.S. submarines patrol to safeguard our national interests. While an SSN may incur slightly more risk than a SSK in some very shallow areas due to operating closer to the surface or bottom, the SSN can offset that risk by repositioning or evading at higher speeds for an indefinite period. Finally, it’s worth noting the Virginia-class SSN was designed to operate in shallow littoral areas and has a sophisticated depth-keeping and maneuvering system that can match or outperform the most capable SSK. In terms of maneuverability, SSK advocates paint a false picture of undersea navigation. Submarines do not typically operate submerged in areas that require them to turn on a dime or maneuver through narrow undersea canyons. Tom Clancy’s thriller “The Hunt for Red October” contained a scene in which a Soviet ballistic-missile submarine maneuvered deftly between “Thor’s Twins.” That was entertaining, but it was not reality. Stealth is the essence of submarine warfare, and conventional submarines are acoustically stealthy, especially when operating submerged on the battery. However, they need to snorkel periodically to recharge their batteries, making them more vulnerable to ship and airborne ASW forces that are increasingly adept at detecting a submarine’s masts and antennas. Scheduling this evolution to occur at night helps avoid visual detection, but does nothing to avoid radar, which is a more common means of finding snorkeling submarines. If equipped with AIP, an SSK can operate submerged for up to several weeks, but only at slow speeds. However, AIP systems require fuel and oxidizers they cannot recharge at sea. Once they are used, the SSK must return to port to regain its AIP capability. That will likely cause skippers to hold their AIP capability in reserve for dire tactical situations, or where mission accomplishment demands it. Under normal situations, the SSK has to deal with all the vulnerabilities and limitations associated with snorkeling: slow speed, acoustic transients, elevated noise levels, increased infrared signatures and long-term mast exposure. SPEED AND ENDURANCE SSK advocates acknowledge the SSN can operate submerged at high speed for extended periods, which is a significant advantage. They also acknowledge the value of speed in evading threats and repositioning quickly to collect intelligence or engage a target. However, they routinely discount that same speed advantage while transiting to and from mission areas. They assert that forward-basing a U.S. SSK fleet would eliminate the SSN speed advantage. That argument is problematic from several standpoints. First, if forward-basing more submarines were simple, the U.S. would already have more than three SSNs stationed in Guam. However, forward-basing entails considerable costs, including pier infrastructure, maintenance facilities, housing and a range of personnel support requirements. Together, these additions result in a large footprint — something indigenous peoples appear less willing to tolerate and something adversaries can hold at risk with a growing arsenal of ballistic missiles. Even if one ignores the costs and risks associated with expanding overseas facilities, the fact remains that long transits are still required. It is approximately 1,500 miles from Guam to Taiwan. An SSN can easily cover that distance in a few days — even less in a crisis. The SSK, by contrast, needs seven to 10 days, which is highly weather dependent. Unlike their World War II predecessors, today’s SSKs cannot transit any faster on the surface than they can while snorkeling. They can reach speeds up to 20 knots submerged; however, they can do that only for a few hours until the batteries are exhausted. Of course, while snorkeling at higher speed, the SSK is vulnerable to detection not only by the methods discussed earlier, but also because of the larger wake left by its snorkel mast and periscope. Moreover, a round-trip transit of 14 to 20 days represents one-third of the SSK’s overall endurance — it has much less on-station time than an SSN. That would require more ships to meet U.S. deployment needs. SSK advocates also discount the need to reposition deployed submarines within or between theaters during a given patrol, often at great distances. Some claim that operations in shallow littoral waters prevent even the SSN from rapidly repositioning. Current submarine operating area bathymetry does not support that claim, nor is it representative of how combatant commanders are employing submarines. Even when operating in very shallow water, an SSN can increase its transit speed as water depth increases, whereas the SSK can never reposition at high, sustained speeds regardless of available water depth. If a mission requires a submarine to reposition to another theater, an SSK could spend more than half its patrol endurance in transit. Additionally, all ships eventually require periodic depot-level maintenance, which requires returning to Pearl Harbor, Hawaii, or the continental U.S. Over the life of a forward-based SSK, this additional lost transit time would further degrade its operational availability. Considering speed alone, one can reasonably argue it would take two or more SSKs to provide the same on-station time a single SSN can provide. Adding SSKs to the U.S. submarine force would provide realistic and more-effective training targets for our ASW forces. SSK advocates are correct in noting this would be a convenient benefit. However, it is unnecessary. U.S. security partners, especially South American navies, provide conventional submarines in support of fleet readiness events. In 2001, U.S. Fleet Forces Command formalized a partnership called the Diesel-Electric Submarine Initiative (DESI) program. The Commander Submarine Force’s executes DESI and provides the U.S. Navy with an elevated level of ASW training against the growing SSK threat. COST COMPARISONS The most prevalent and, at first glance, most compelling argument for adding SSKs to the Navy is their low acquisition cost. SSK advocates recommend buying them from a foreign builder as the cheapest option, but also consider U.S.-built SSKs as more cost-effective than the nuclear submarines it currently builds. Unfortunately, in the context of the SSK-versus-SSN debate, price itself is obfuscation. SSK supporters often cite brochure prices that do not include sensor and combat-system packages. Additionally, they fail to recognize that these foreign-built submarines lack U.S. Submarine Safety Certification (SUBSAFE) requirements. The SUBSAFE program was born out of the Thresher disaster in 1963, when the nuclear-powered attack sub was lost with all hands due to design and maintenance deficiencies. The SUBSAFE program ensures proper design and materials are used in systems subjected to sea pressure or required for emergency recovery. In addition, it ensures only trained and certified personnel install or repair these systems, and that builders, maintainers and crews maintain auditable certifications for each critical component and system joint. These material, procedural and administrative requirements are vital to ensuring the safe operation of our submarines, and they have real costs associated with them. The lack of similar or as robust programs among SSK manufactures makes the price of their ships — at least superficially — more appealing. Of all the modern SSK producers, the Australian submarine program is probably closest to the U.S. SUBSAFE program and standards. Additionally, in some respects its deployment transit lengths to critical theaters and submarine combat requirements are also most comparable. Interestingly, early projections for its follow-on SSK class calls for a force of 12 boats at a cost of $36 billion. That equates to approximately $3 billion per boat (including nonrecurring costs) and is very different from the $500 million per boat that SSK advocates often cite. Studies assessing the viability and utility of adding SSKs to the Navy have examined a number of attributes. Two of the more significant metrics compared were life-cycle costs and equivalent effectiveness. While SSK advocates often focus on the life-cycle cost of a single SSK versus one SSN, a more useful comparison considers life-cycle costs for the number of platforms that provide equal on-station capability. This is the variable of significance to combatant commanders. Based largely on the factors discussed above, studies indicated it takes 2.2 to six SSKs to obtain the equivalent effectiveness of a single SSN. Even after accounting for the lower SSK cost, an SSK fleet with equal on-station capability as an SSN fleet would have life-cycle costs of 1.3 to 3.5 times that of an SSN fleet. The SSK is simply not an affordable alternative. These platform equivalency comparisons highlight the inadequacy of comparing the acquisition cost of a single SSK to an SSN because there are other factors to consider as well. Adding a mix of SSKs to the U.S. submarine force will increase the associated logistics, maintenance and modernization, and training costs due to having to maintain a second line of parts, repair capabilities and trainers. Some commonality of systems may be possible. However, numerous systems and functions are unique to either submarine class. Additionally, since the U.S. would most likely produce SSKs indigenously, there would be significant added costs to outfit the shipyards to build the conventional submarines. Simultaneously, the costs to build the nuclear submarines would go up due to the reduction in economies of scale associated with building two Virginia-class attack submarines per year. Despite these compelling equivalency comparisons, some SSK advocates continue to focus on the claim that for the same procurement dollars the U.S. could buy more submarines if they included conventional platforms. They emphasize that quantity has a quality and capability all its own. While former Defense Secretary Robert Gates and others have used this argument to discuss programs in general, they were not advocating that capabilities associated with quantity alone should trump all others. It is but one factor to consider. Unfortunately, for those advocating adding SSKs to the U.S. inventory, a comparison of almost every other capability consideration and metric shows that a force of only SSNs is the most cost-effective way to provide our nation the undersea capabilities and capacity it needs. POWER PROJECTION One thing SSK and SSN advocates can agree on is the need for submarines. That need is growing and stems from the proliferation of threats to nonstealthy surface ships and aircraft — the **mainstays of Navy power projection**. Those platforms, along with forward bases, are becoming increasingly vulnerable to precision-guided weapons ranging from man-portable missiles and guided mortars to the most sophisticated surface-to-air missiles and anti-ship ballistic-missile threats. The submarine’s immunity to these threats and the nonprovocative nature of its presence provides commanders with much-needed intelligence preparation of the battle space, as well as strike, anti-submarine warfare, anti-surface warfare, special operations support and other missions. U.S. adherence to an all-SSN fleet stems largely from its defense philosophy, which is to project power overseas and keep conflict far from the continental U.S. Even if forward deployed to Guam, the SSK is a poor investment as a power-projection platform. It lacks the agility, endurance and payload capacity for that mission. As potential competitors build more nuclear-powered submarines, a shift toward a mixed fleet would increase the risk of the U.S. losing undersea dominance. Repeated defense reviews, including those by the United Kingdom, concluded that nuclear-powered submarines were in the best interest of their national defense needs. Emerging powers such as India and Brazil seem to agree with those conclusions, since they have both embarked on their own nuclear-powered submarine programs. Technological advances such as AIP continue to improve SSK capabilities and our country’s security needs continue to change. Consequently, the Navy should periodically revisit this issue and determine if a mix of nuclear and conventionally powered submarines is appropriate. If some future AIP technology can provide the same power, endurance, reliability and safety as naval nuclear reactors provide today, that technology would be a game-changer and worthy of consideration. Short of that, the SSN will remain an **indispensable** element of the Navy’s fighting team. The SSK is a useful and capable platform for many countries seeking to defend their littorals. However, it is still not the right answer for the unique power projection needs of the United States.

#### Strong navy de-escalates all conflict and deters great power war

Roughead, 7 -- Admiral, US Navy, Chief of Naval Operations

[Gary, James Conway, General, US Marine Corps, and Thad Allen, Admiral, US Coast Guard, "A Cooperative Strategy for 21st Century Seapower," Oct 2007, www.navy.mil/maritime/Maritimestrategy.pdf, accessed 1-24-13, mss]

This strategy reaffirms the use of seapower to influence actions and activities at sea and ashore. The expeditionary character and versatility of maritime forces provide the U.S. the **asymmetric advantage** of enlarging or contracting its military footprint in areas where access is denied or limited. Permanent or prolonged basing of our military forces overseas often has unintended economic, social or political repercussions. The sea is a vast maneuver space, where the presence of maritime forces can be adjusted as conditions dictate to enable **flexible approaches** to escalation, **de-escalation** **and deterrence of conflicts**. The speed, flexibility, agility and scalability of maritime forces provide joint or combined force commanders a range of options for responding to crises. Additionally, integrated maritime operations, either within formal alliance structures (such as the North Atlantic Treaty Organization) or more informal arrangements (such as the Global Maritime Partnership initiative), send powerful messages to would-be aggressors that we will act with others to ensure collective security and prosperity. United States seapower will be globally postured to secure our homeland and citizens from direct attack and to advance our interests around the world. As our security and prosperity are inextricably linked with those of others, U.S. maritime forces will be deployed to protect and sustain the peaceful global system comprised of interdependent networks of trade, finance, information, law, people and governance. We will employ the global reach, persistent presence, and operational flexibility inherent in U.S. seapower to accomplish six key tasks, or strategic imperatives. Where tensions are high or where we wish to demonstrate to our friends and allies our commitment to security and stability, U.S. maritime forces will be characterized by regionally concentrated, forward-deployed task forces with the combat power to limit regional conflict, deter major power war, and should deterrence fail, win our Nation’s wars as part of a joint or combined campaign. In addition, persistent, mission-tailored maritime forces will be globally distributed in order to contribute to homeland defense-in-depth, foster and sustain cooperative relationships with an expanding set of international partners, and prevent or mitigate disruptions and crises. Credible combat power will be continuously postured in the Western Pacific and the Arabian Gulf/Indian Ocean to protect our vital interests, assure our friends and allies of our continuing commitment to regional security, and deter and dissuade potential adversaries and peer competitors. This combat power can be selectively and **rapidly repositioned to meet contingencies** that may arise elsewhere. These forces will be sized and postured to fulfill the following strategic imperatives: Limit regional conflict with forward deployed, decisive maritime power. Today regional conflict has ramifications far beyond the area of conflict. Humanitarian crises, violence spreading across borders, pandemics, and the interruption of vital resources are all possible when regional crises erupt. While this strategy advocates a wide dispersal of networked maritime forces, we cannot be everywhere, and we cannot act to mitigate all regional conflict. Where conflict threatens the global system and our national interests, maritime forces will be ready to respond alongside other elements of national and multi-national power, to give political leaders a range of options for deterrence, escalation and de-escalation. Maritime forces that are persistently present and combat-ready provide the Nation’s primary forcible entry option in an era of declining access, even as they provide the means for this Nation to respond quickly to other crises. Whether over the horizon or powerfully arrayed in plain sight, maritime forces can deter the ambitions of regional aggressors, assure friends and allies, gain and maintain access, and protect our citizens while working to sustain the global order. **Critical to this** notion **is the maintenance of a powerful fleet**—ships, aircraft, Marine forces, and shore-based fleet activities—capable of selectively controlling the seas, projecting power ashore, and protecting friendly forces and civilian populations from attack. Deter major power war. No other disruption is as potentially disastrous to global stability as war among major powers. Maintenance and extension of this Nation’s comparative seapower advantage is a **key component** of **deterring** major power war. While war with another great power strikes many as improbable, the near-certainty of its ruinous effects demands that it be actively deterred using all elements of national power. The expeditionary character of maritime forces—our lethality, global reach, speed, endurance, ability to overcome barriers to access, and operational agility—provide the joint commander with a range of deterrent options. We will pursue an approach to deterrence that includes a credible and scalable ability to retaliate against aggressors conventionally, unconventionally, and with nuclear forces.

#### Naval power key - alternatives don’t solve

Mcmahon 7. [Michael, Captain USN, associate chair of the Political Science Department at the U.S. Naval Academy, where he teaches National Security Policy, “World Disorder and the Decline of Pax Americana, May, Proceedings Magazine, http://www.usni.org/magazines/proceedings/archive/story.asp?STORY\_ID=321]

Max Boot writes in The Savage Wars of Peace (2003): "Many Americans cringe at the notion that their country should play globocop. But this is not a purely altruistic exercise. Without a benevolent hegemon to guarantee order, the international scene can degenerate quickly into chaos and worse. One scholar argues, with great plausibility, that the 1930s turned out as badly as they did because Britain abdicated its international leadership role." Today, it appears that the American "empire" is in decline: Pax Americana is disintegrating. This is a repeat of naval history. It may not require a Cold War-size Navy to reverse the trend, but it will require a Navy that helps sow the seeds of globalization and then continues to do the gardening. It requires a forward-deployed, expeditionary Navy to mind the interests of the United States, just as the Royal Navy minded Britain's in the 19th century. Navies, by their very presence and intercourse in faraway places, protect national interests every day in ways that armies and air forces cannot. The U.S. Navy is the only branch of our government that routinely employs all the elements of national power-diplomatic, informational, military, and economic. This most flexible use of our power advances national interests in important ways. But idealistic plans for collective security and a 1,000-ship navy could, if not executed properly, actually undermine these interests and accelerate American decline. That decline would ensure international chaos. Therefore, for the United States the choice is clear: **maritime supremacy or** international **chaos.**

## 2AC

### Deterrence

#### Empirics de facto prove U.S. nuclear deterrence works – hold the Neg ev to a high standard – leaders lie and correlation is enough

Culp ’12 – Research Associate at Columbia University National Center for Disaster Preparedness

(Derrin, PART I: A CRITICAL EXAMINATION OF¶ “THE MYTH OF NUCLEAR DETERRENCE”, The Nonproliferation Review, 19:1, 51-68, 2012)

In the final sections of his paper, Wilson pulls together various strands of evidence¶ concerning the effectiveness of nuclear deterrence. Taking up the argument that nuclear¶ deterrence cannot necessarily claim credit for the absence of nuclear attacks or great¶ power conflict since 1945, he enunciates a tough standard in order to claim that prize:¶ ‘‘In order to answer the question ‘did deterrence work?’ you must first be able to¶ know whether your opponent had a fully formed intention to attack and then refrained¶ from doing so because of your threat.’’¶ 58 This standard seems excessive for several¶ reasons, not the least of which is that ‘‘fully formed’’ is very much in the eye of the¶ beholder.¶ As in Wilson’s reckoning of historical wars of extermination, intent here is key.¶ He emphasizes the difficulty of discerning statesmen’s intentions, but seems of two minds¶ about the implication of this caveat. His quotation from behavioral scientist Alexander L.¶ George and political scientist Richard Smoke urges skepticism concerning evidence that¶ leaders were deterred.59 On the other hand, he says that because statesmen are reluctant¶ to admit they’ve been thwarted, one should be cautious in accepting their statements¶ that they were not; leaders may have been deterred more than they let on.60¶ Furthermore, Wilson’s threshold reflects the perspective that a firm decision to¶ attack must precede consideration of retaliatory threats; the processes of deciding to¶ attack, evaluating threats of retaliation, and deciding not to attack are sequential and¶ independent. However, these processes occur simultaneously and influence each other.¶ It would seem reasonable to conclude that nuclear deterrence had succeeded if an¶ enemy’s knowledge and perception of the deterrent threat had removed attack from¶ his menu of viable options, or substantially raised his threshold for considering attack.¶ Compared to Wilson’s standard for deterrence success, this alternative is very modest.¶ One can at least imagine the possibility of demonstrating that a deterrent threat changed¶ an enemy’s assessment or ranking of its options in this way. Bluth recently attempted to do precisely that, arguing that the threat of Western¶ retaliation with nuclear weapons (coupled with the death of Stalin) had several profound¶ effects on Soviet national policy and military doctrine.61 According to Bluth, nuclear¶ deterrent threats convinced Soviet leaders that attacking the West was tantamount to¶ national suicide and initiating the end of civilization on earth. It led them to repudiate¶ the Leninist doctrine of the ‘‘inevitably of war,’’ reject war with imperialist states as a tool¶ to advance world revolution, reconsider the strategic merits and potential of surprise¶ attack, contain conflicts at a local or sub-regional level, and make avoidance of global¶ or total war their ultimate objective.

#### Default to deterrence explanations – the Neg’s standard is too high and alternative explanations for no war are inadequate

Culp ’12 – Research Associate at Columbia University National Center for Disaster Preparedness

(Derrin, PART I: A CRITICAL EXAMINATION OF¶ “THE MYTH OF NUCLEAR DETERRENCE”, The Nonproliferation Review, 19:1, 51-68, 2012)

Wilson repeats his ‘‘chicken and egg’’ conundrum when he notes that ‘‘there is little¶ evidence that either the United States or the Soviet Union was ever on the brink of¶ launching an aggressive war against the other’’ and asks, ‘‘How is it possible to assert¶ that deterrence prevented war without clear evidence that war was ever imminent?’’¶ 62¶ If there was not a potential great power military confrontation to be deterred, he wonders,¶ how can one credit deterrence with anything?¶ Here again, Wilson has specified a threshold for crediting nuclear deterrence\*war¶ between America and the Soviet Union was imminent\*that would be almost impossible¶ to document. However, the term ‘‘nuclear crisis’’ did not permanently enter America’s¶ national security lexicon by accident; in a handful of incidents\*Suez in 1956, Berlin in¶ 1959, Cuba in 1962, the Middle East in 1973\*US leaders acutely perceived a significantly¶ heightened risk of nuclear conflict with another nuclear state.¶ Many would agree, though, that the Cold War antagonists were not perpetually on¶ the brink of war. Even so, unlike Ohio State University’s John Mueller, in his classic¶ International Security article ‘‘The Essential Irrelevance of Nuclear Weapons: Stability in the¶ Postwar World,’’ Wilson doesn’t advance any explanation as to why not, if not nuclear¶ deterrence.63 In fact, he questions why we even need such an explanation. ‘‘Most major¶ wars,’’ he writes, ‘‘are followed by periods, sometimes quite long periods, of relative¶ peace.’’ He asks why explanations offered for periods of peace after earlier wars aren’t¶ considered sufficient for the nuclear era.64 It would be easy to turn these questions on¶ their head. Why should analysts fall back on facile explanations for peace such as ‘‘war¶ weariness,’’ ‘‘economic exhaustion,’’ and ‘‘domestic political distraction’’ that are largely¶ disconnected from international relations theory?¶ At least through the 1970s, the United States and Soviet Union were ideologically¶ hostile, mutually suspicious, and fearful of each other. In the early Cold War period, US¶ public political discourse often addressed American desires to ‘‘roll back’’ the Soviet¶ domination of Eastern Europe, and the national security establishment contemplated¶ preventive wars against the Soviet Union and China.65 For much of the Cold War, the¶ Soviet Union was not a ‘‘status quo state.’’ So if not fear of nuclear war, what was it that¶ kept such virulently adversarial foes at arm’s length? Answering this question was beyond¶ the scope of Wilson’s essay, but acknowledging it should not have been.

#### Only nuclear deterrence solves – conv deterrence fails

John S. Foster**,** Jr., Chairman of the Board of GKN Aerospace Transparency Systems, former Director of the Lawrence Livermore National Laboratory and Director of Defense Research and Engineering, andKeith Payne, president of the National Institute for Public Policy department head at the Graduate Department of Defense and Strategic Studies, Missouri State University, chairman of the Policy Panel of the US Strategic Command’s Senior Advisory Group, co-chair of the Nuclear Strategy Forum, and a member of the Department of State’s International Security Advisory Board, 2007. Forum on Physics and Society, “What are Nuclear Weapons For?” http://www.aps.org/units/fps/newsletters/2007/october/foster-payne.html

As a matter of fact, the on-going development and deployment of new nuclear weapons in Russia and China and the spread of mass destruction weapons to rogue states make effective deterrence as important now as it was during the Cold War, and nuclear weapons are likely to continue to be critical to effective deterrence.  And, while superficially counterintuitive, the net effect of U.S. nuclear capabilities almost certainly is a positive and essential contribution to nuclear non-proliferation.  The following provides a brief elaboration of four reasons why nuclear weapons remain critical to U.S. and allied security. To address the question “What are nuclear weapons for?” requires that we examine the multiple roles served by nuclear weapons.  We need to look beyond the military characteristics of U.S. nuclear weapons and address the broader spectrum of national defense goals that they serve.  These goals - deterrence, assurance, and dissuasion - reflect our long-standing core objectives of protecting the United States and allies, working to limit the proliferation of nuclear weapons and other weapons of mass destruction, and steering potential adversaries away from military challenges and competition. There should be no desire to rely on nuclear weapons *per se*; precision conventional weapons and defensive capabilities may rightly assume a relatively greater role, as was emphasized in the 2001 Nuclear Posture Review.  There is, however, a continuing need for nuclear weapons to support these overarching U.S. defense goals of deterrence, assurance, and dissuasion.  None of these roles for nuclear weapons follows from a “war-fighting” policy orientation, or presumes the actual military employment of nuclear weapons, or entails a requirement to do so.  The value of nuclear weapons for these traditional core goals of deterrence, assurance and dissuasion resides in their continued role as a withheld threat.  Identifying these roles for nuclear weapons in the new strategic environment was a focus of the 2001 Nuclear Posture Review (NPR). Deterrence: The value of effective deterrence did not end with the Cold War; it remains essential to national security, and nuclear weapons remain essential to effective deterrence.  By helping to prevent war and the need to use force, nuclear deterrence does not represent a disdainful “trap” as some commentators have claimed.  Nuclear weapons are an enormously valuable tool of deterrence in the contemporary strategic context and should be given up only after long and careful consideration.  As Winston Churchill observed, “Be careful above all things not to let go of the atomic weapon until you are sure and more than sure that other means of preserving peace are in your hands!”[[3]](http://www.aps.org/units/fps/newsletters/2007/october/foster-payne.html" \l "_ftn3" \o ") Strategic nuclear weapons that can threaten an adversary’s valued targets from afar are, and are likely to remain, essential for holding particularly well-protected targets at risk for deterrence purposes.  These targets are, for all practical purposes, invulnerable to non-nuclear threats and are likely to remain so for the foreseeable future.  For example, during the 1991 Gulf War many hardened Iraqi facilities were destroyed but some bunkers were, “virtually invulnerable to conventional weapons.”[[4]](http://www.aps.org/units/fps/newsletters/2007/october/foster-payne.html" \l "_ftn4" \o ")  Similarly, according to statements by Clinton Administration senior officials in 1996, the Libyan chemical weapons plant located inside a mountain near Tarhunah could be threatened with destruction only by nuclear weapons.[[5]](http://www.aps.org/units/fps/newsletters/2007/october/foster-payne.html" \l "_ftn5" \o ")   The potential importance to effective deterrence of the U.S. capability to hold these types of targets at risk from afar is suggested by the attention and resources some adversaries devote to protecting and shielding them.  Adversaries unsurprisingly seek to protect what they value.  And, as Dr. Harold Brown, Secretary of Defense during the Carter Administration, emphasized when in office, U.S. deterrence threats should be capable of holding at risk those assets particularly valued by the adversary.  In some important cases U.S non-nuclear threats cannot do so and can promise little deterrent effect. In addition, there is no doubt that some opponents who were *not* deterrable via U.S. non-nuclear threats were in fact deterred by what they interpreted to be nuclear threats.  This deterrent effect is a matter of adversary perceptions, not our preferences: Whatever we believe about the lethality of U.S. non-nuclear weapons and what should be their deterrent effect, and whatever our hopes might be about how adversaries should think and behave, the actual behavior of past adversaries, including Khrushchev, Mao, and Saddam Hussein, has shown beyond doubt that there can be a profound difference between the deterring effects of nuclear and non-nuclear weapons.  In some cases, given the adversary’s views and the context, only nuclear deterrence works.  To assert that nuclear weapons now are unimportant is to suggest either that deterrence is no longer important, or that the future will be much more benign than the past, = and that we will not again confront such opponents armed with dangerous weapons.  There is every reason to reject both propositions.  U.S. policy with regard to nuclear weapons should not be based on optimistic hopes that so contrast with the actual past behavior of foes.  Given past experience, the burden of proof is on those who now contend that nuclear deterrence no longer is necessary to preserve the peace. The question is not whether we “want” to rely on nuclear weapons for deterrence.  It is whether we are willing to accept the risk of deterrence failure that would be introduced by our inability to threaten some adversaries’ highly-valued targets that may be essentially impervious to non-nuclear weapons and/or our inability to threaten nuclear escalation in response to a severe provocation.  The risk of deterrence failure flowing from such inabilities can not be calculated with precision.  Because multiple contemporary opponents possess nuclear and/or biological weapons, the consequences of deterrence failure could be measured in thousands to millions of U.S. and/or allied casualties.  The risk of deterrence failure following from U.S. abandonment of nuclear capabilities may be low or high depending on the opponent and context.  But even low-probability events deserve serious consideration if they have potentially severe consequences.  The **move to reliance on non-nuclear weapons to hold enemy targets at risk would carry the increased risk of deterrence failure, and the probability may not be low.**

### T

#### We meet – nuclear fuel cycle counts as energy production, including electricity generation

International Trade Association ’12

(“The Nuclear Fuel Cycle”, http://trade.gov/mas/ian/nuclear/tg\_ian\_003164.asp)

The nuclear fuel cycle is the series of industrial processes which involve the production of uranium 235 for use in nuclear energy power reactors. Uranium 238 (uranium) is a relatively common element that is found throughout the world, and is mined in a number of countries. But before uranium can be used as fuel for a nuclear reactor, it must first go through a number of processes known as “enrichment.”¶ The various activities associated with the production of electricity from nuclear reactions are referred to collectively as the nuclear fuel cycle. The nuclear fuel cycle starts with the mining of uranium and ends with the disposal of nuclear waste (this is called an open fuel cycle). If the fuel is reprocessed after use, this is called a closed fuel cycle (note: even reprocessing produces a small amount of nuclear waste which cannot be re-used and must be disposed of).

#### The Aff specifically is energy production

USEC ’12

(“The American Centrifuge”, 2012, http://www.usec.com/american-centrifuge)

Since 2002, USEC has been developing and demonstrating a highly efficient uranium enrichment gas centrifuge technology called the American Centrifuge. USEC is working to deploy this technology in its American Centrifuge Plant. The American Centrifuge Plant is an advanced uranium enrichment facility in Piketon, Ohio, which will produce low enriched uranium, a key component for the fabrication of commercial nuclear fuel. The American Centrifuge Plant’s capacity will be equal to about one-third of the fuel requirements for the commercial power reactors in the United States, which provide approximately 20% of the U.S. electricity supply today. The American Centrifuge Plant will utilize USEC’s AC100 centrifuge machine, which has been developed, engineered and assembled in the United States. The AC100 design is a disciplined evolution of classified U.S. centrifuge technology originally developed by the U.S. Department of Energy (DOE) and successfully demonstrated during the 1980s. DOE invested $3 billion over 10 years to develop the centrifuge technology, built approximately 1,500 machines and accumulated more than 10 million machine hours of run time. USEC has improved the DOE technology through advanced materials, updated electronics and design enhancements based on highly advanced computer modeling capabilities. Due to these improvements, the AC100 can produce four times the output per machine of any other centrifuge in existence today. USEC has operated centrifuges as part of its Lead Cascade test program since August 2007, demonstrating that the machines can be successfully manufactured and installed for commercial use. USEC has a construction and operating license issued by the U.S. Nuclear Regulatory Commission (NRC) and began construction of the American Centrifuge Plant in May 2007. USEC is deploying the American Centrifuge Plant to replace its gaseous diffusion uranium enrichment plant and to be well positioned to meet future demand for low enriched uranium. Deploying the American Centrifuge technology will substantially reduce USEC’s power costs and will modernize its production capacity, enabling USEC to stay competitive in the long term. In addition to providing economic advantages through energy production and job creation, the American Centrifuge Project will also provide significant environmental, energy security, nonproliferation and national security benefits.

#### Neg interp is unpredictable and leads to bad debates

Taebi ’10 – assistant professor of philosophy at the Delft University of Technology who concentrates on issues of ethics and nuclear power.

(Behnam Taebi, “The Burden of Nuclear Waste”, The New York Times, 8-29-2010, http://www.nytimes.com/2010/08/30/opinion/30iht-edtaebi.html?pagewanted=all&\_r=0)

DELFT, THE NETHERLANDS — Tensions within Chancellor Angela Merkel’s administration over Germany’s energy policy cut to the heart of a contentious, worldwide debate over the future of nuclear power. The old controversies over nuclear reactors — their dangers, benefits and costs — have been raised to the forefront.¶ But as politicians, energy experts and the general public weigh the pros and cons, one key element in harnessing energy from the atom is being neglected: the link between the different methods of producing nuclear power and the nature — and longevity — of the radioactive waste that each method leaves behind. This in turn raises the issue of intergenerational justice: The technical choices we make today will determine the extent of the burden humanity will face in containing contaminated byproducts that can remain radioactive for tens of thousands of years.¶ While an increasing number of states are being swayed by the fact that nuclear power can enhance domestic energy security, produce large amounts of energy, and emit very low greenhouse gas byproducts, critics nonetheless remain vociferous.¶ They cite the continued risk of reactor accidents, the dangers of transporting nuclear fuel and fears of proliferation — along with the vexing problem of how to deal with the long-lived nuclear waste — as reasons why it should be curtailed.¶ But what is most striking in this controversy is the “missing nuclear debate.” Little is said about the major distinctions between the various production methods, or nuclear fuel cycles. Rather than reducing nuclear power to a simple yes/no, good/bad dichotomy, we need to focus first on the advantages and disadvantages of each nuclear energy production method, including the burdens and benefits they pose now and in generations to come.

#### Counter-interpretation—energy production is the production of electricity or combustible or nuclear fuels

NASA ‘11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Production—The production of electricity, combustible fuels, nuclear and thermonuclear fuels, and heating and cooling by renewable resources.

#### Only three cases for uranium enrichment

NRC ‘12

(http://www.nrc.gov/materials/fuel-cycle-fac/ur-enrichment.html)

The uranium enriched in uranium-235 (U235) is required in commercial light-water reactors to produce a controlled nuclear reaction. Several different processes may be used to enrich uranium, as described on this page:¶ Enriching Uranium¶ Gaseous Diffusion¶ Gas Centrifuge¶ Laser Separation

#### Only three cases for reprocessing/waste management

IAEA ‘12

(http://www-pub.iaea.org/MTCD/publications/PDF/te\_1587\_web.pdf)

Three types of technologies are considered here:

− Hydrometallurgical processes (aqueous technologies) as the reference route nowadays for

industrial scale spent fuel reprocessing. They have a high potential of optimization to

further address minor actinides, global actinides or fission products partitioning. All these

issues will be covered in different sections of this TECDOC (Sections 3.2, 3.3, 3.4

respectively).

This is the only mature process (fully closed cycle) to deal both with:

• The separation of major actinides such as U and Pu;

• The treatment and conditioning of ultimate waste for long-term storage.

The processes derived from PUREX are able to deal with a large variety of spent fuels

(oxides, carbides, nitrides) whatever are the nature and shape of the fissile composite. They

can also be adapted to the co-laminated fuel (U Mo, U Si, U Al, Pu Al).

− Pyrometallurgical processes (non aqueous technologies) as another promising R&D route

for the reprocessing of:

 Metallic fuel (electro refining process);

 Very radioactive fuels (early-processing of spent fuel) or fuel with a high content of

minor actinides (transmutation fuels for ADS targets in heterogeneous recycling

mode, or fuels assemblies dedicated to transmutation in fast systems in homogeneous

recycling mode)

These methods are also aiming at the global actinide separation. This issue is addressed in a

specific section of this TECDOC (3.3).

− Other non-aqueous technologies: this section is dealing with a fluid (CO2 or Freon)

dissolution and extraction process, fluorination, etc...

**Best debate—our interpretation opens the best and most real world discussions on nuclear power because each stage of the fuel cycle has different consequences. This turn any marginal limit they create**

**MIT ’11**

(“The Future of Nuclear Power”, Chapter 4 – Fuel Cycles, 2011, <http://web.mit.edu/nuclearpower/pdf/nuclearpower-ch4-9.pdf>)

The description of a possible global growth scenario for nuclear power with 1000 or so GWe deployed worldwide **must begin with some specification of the nuclear fuel cycles** that will be in operation. **The nuclear fuel cycle refers to all activities that occur in the production of nuclear energy**. It is important to emphasize that producing nuclear energy requires more than a nuclear reactor steam supply system and the associated turbine-generator equipment required to produce electricity from the heat created by nuclear fission. **The process includes ore mining,** enrichment**, fuel fabrication, waste management and disposal, and finally decontamination and decommissioning of facilities**. All steps in the process must be specified, because each involves different technical, economic, safety, and environmental consequences. A vast number of different fuel cycles appear in the literature, and many have been utilized to one degree or another. We review the operating characteristics of a number of these fuel cycles, summarized in Appendix 4. In this report, our concern is not with the description of the technical details of each fuel cycle. Rather, we stress the importance of aligning the different fuel cycle options with the global growth scenario criteria that we have specified in the last section: cost, safety, nonproliferation, and waste. This is by no means an easy task, because objective quantitative measures are not obvious, there are great uncertainties, and it is difficult to harmonize technical and institutional features. Moreover, different fuel cycles will meet the four different objectives differently, and therefore the selection of one over the other will inevitably be a matter of judgment. All too often, advocates of a particular reactor type or fuel cycle are selective in emphasizing criteria that have led them to propose a particular candidate. We believe that detailed and thorough analysis is needed to properly evaluate the many fuel cycle alternatives. We do not believe that a new technical configuration exists that meets all the criteria we have set forth, e.g. there is not a technical ‘silver bullet’ that will satisfy each of the criteria. Accordingly, the choice of the best technical path requires a judgment balancing the characteristics of a particular fuel cycle against how well it meets the criteria we have adopted. Our analysis separates fuel cycles into two classes: “open” and “closed.” In the open or once-through fuel cycle, the spent fuel discharged from the reactor is treated as waste. See Figure 4.1. In the closed fuel cycle today, the spent fuel discharged from the reactor is reprocessed, and the products are partitioned into uranium (U) and plutonium (Pu) suitable for fabrication into oxide fuel or mixed oxide fuel (MOX) for recycle back into a reactor. See Figure 4.2. The rest of the spent fuel is treated as high-level waste (HLW). In the future, closed fuel cycles could include use of a dedicated reactor that would be used to transmute selected isotopes that have been separated from spent fuel. See Figure 4.3. The dedicated reactor also may be used as a breeder to produce new fissile fuel by neutron absorption at a rate that exceeds the consumption of fissile fuel by the neutron chain reaction.2 In such fuel cycles the waste stream will contain less actinides,3 which will significantly reduce the long-term radioactivity of the nuclear waste.4

#### We meet – we’re not R&D, we’re a loan guarantee. The two are distinct – we’re about the completion of the actual plant

USEC ’12

(“Funding”, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)

USEC needs significant additional financing in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the U.S. Department of Energy Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant.¶ In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, the Department of Energy (DOE) proposed a two-year research, development and demonstration (RD&D) program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program but has given USEC no assurance that a successful RD&D program will result in a loan guarantee.¶ Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays the Company has experienced will not adversely affect these efforts.

#### Even if they win we’re R&D, it’s a financial incentive

**EIA 1** – US Energy Information Administration

(Renewable Energy 2000: Issues and Trends, Report prepared by the US Energy Information Administration, "Incentives, Mandates, and Government Programs for Promoting Renewable Energy", http://tonto.eia.doe.gov/ftproot/renewables/06282000.pdf)

Over the years, incentives and mandates for renewable¶ energy have been used to advance different energy¶ policies, such as ensuring energy security or promoting¶ environmentally benign energy sources. Renewable¶ energy has beneficial attributes, such as low emissions¶ and replenishable energy supply, that are not fully¶ reflected in the market price. Accordingly, governments¶ have used a variety of programs to promote renewable¶ energy resources, technologies, and renewable-based¶ transportation fuels.¶ 1¶ This paper discusses: (1) financial¶ incentives and regulatory mandates used by Federal and¶ State governments and Federal research and development (R&D),¶ 2, 3¶ and (2) their effectiveness in promoting¶ renewables. ¶ A financial incentive is defined in this report as providing one or more of the following benefits:¶ A transfer of economic resources by the Government to the buyer or seller of a good or service that¶ has the effect of reducing the price paid, or,¶ increasing the price received, respectively; ¶ Reducing the cost of production of the good or¶ service; or,¶ Creating or expanding a market for producers.¶ The intended effect of a financial incentive is to increase¶ the production or consumption of the good or service¶ over what it otherwise would have been without the¶ incentive. Examples of financial incentives are: tax¶ credits, production payments, trust funds, and low-cost¶ loans. Research and development is included as a¶ support program because its effect is to decrease cost,¶ thus enhancing the commercial viability of the good(s)¶ provided.¶ 4

#### C/I – financial incentives are disbursements of public funds – includes loan guarantees

Webb, 93 – lecturer in the Faculty of Law at the University of Ottawa (Kernaghan, “Thumbs, Fingers, and Pushing on String: Legal Accountability in the Use of Federal Financial Incentives”, 31 Alta. L. Rev. 501 (1993) Hein Online) –  **.** In this paper, "financial incentives" are taken to mean disbursements 18 of public funds or contingent commitments to individuals and organizations, intended to encourage, support or induce certain behaviours in accordance with express public policy objectives. They take the form of grants, contributions, repayable contributions, loans, loan guarantees and insurance, subsidies, procurement contracts and tax expenditures.19 Needless to say, the ability of government to achieve desired behaviour may vary with the type of incentive in use: up-front disbursements of funds (such as with contributions and procurement contracts) may put government in a better position to dictate the terms upon which assistance is provided than contingent disbursements such as loan guarantees and insurance. In some cases, the incentive aspects of the funding come from the conditions attached to use of the monies.20 In others, the mere existence of a program providing financial assistance for a particular activity (eg. low interest loans for a nuclear power plant, or a pulp mill) may be taken as government approval of that activity, and in that sense, an incentive to encourage that type of activity has been created.21 Given the wide variety of incentive types, it will not be possible in a paper of this length to provide anything more than a cursory discussion of some of the main incentives used.22 And, needless to say, the comments made herein concerning accountability apply to differing degrees depending upon the type of incentive under consideration.

By limiting the definition of financial incentives to initiatives where public funds are *either* disbursed or *contingently* committed, a large number of regulatory programs with incentive effectswhich exist, but in which no money is forthcoming,23 are excluded from direct examination in this paper.

### Politics

#### Naval power turns the global economy

Roughead, 7 -- Admiral, US Navy, Chief of Naval Operations

[Gary, James Conway, General, US Marine Corps, and Thad Allen, Admiral, US Coast Guard, "A Cooperative Strategy for 21st Century Seapower," Oct 2007, www.navy.mil/maritime/Maritimestrategy.pdf, accessed 1-24-13, mss]

The security, prosperity, and vital interests of the United States are increasingly coupled to those of other nations. Our Nation’s interests are best served by fostering a peaceful global system comprised of interdependent networks of trade, finance, information, law, people and governance. We prosper because of this system of exchange among nations, yet recognize it is vulnerable to a range of disruptions that can produce cascading and harmful effects far from their sources. Major power war, regional conflict, terrorism, lawlessness and natural disasters—all have the potential to threaten U.S. national security and world prosperity. The oceans connect the nations of the world, even those countries that are landlocked. **Because the maritime domain**—the world’s oceans, seas, bays, estuaries, islands, coastal areas, littorals, and the airspace above them—**supports 90% of the world’s trade, it carries the lifeblood of a global system** that links every country on earth. Covering three-quarters of the planet, the oceans make neighbors of people around the world. They enable us to help friends in need and to confront and defeat aggression far from our shores. Today, the United States and its partners find themselves competing for global influence in an era in which they are unlikely to be fully at war or fully at peace. Our challenge is to apply seapower in a manner that protects U.S. vital interests even as it promotes greater collective security, stability, and trust. While defending our homeland and defeating adversaries in war remain the indisputable ends of seapower, it must be applied more broadly if it is to serve the national interest. We believe that preventing wars is as important as winning wars. There is a tension, however, between the requirements for continued peacetime engagement and maintaining proficiency in the critical skills necessary to fighting and winning in combat. Maritime forces must contribute to winning wars decisively while enhancing our ability to prevent war, win the long struggle against terrorist networks, positively influence events, and ease the impact of disasters. As it has always been, these critical tasks will be carried out by our people—the key to success in any military strategy. Accordingly, we will provide our people—our Sailors, Marines, and Coast Guardsmen—with the training, education and tools necessary to promote peace and prevail in conflict. Guided by the objectives articulated in the National Security Strategy, National Defense Strategy, National Military Strategy and the National Strategy for Maritime Security, the United States Navy, Marine Corps, and Coast Guard will act across the full range of military operations to secure the United States from direct attack; secure strategic access and retain global freedom of action; strengthen existing and emerging alliances and partnerships and establish favorable security conditions. Additionally, maritime forces will be employed to build confidence and trust among nations through collective security efforts that focus on common threats and mutual interests in an open, multi-polar world. To do so will require an unprecedented level of integration among our maritime forces and enhanced cooperation with the other instruments of national power, as well as the capabilities of our international partners. Seapower will be a unifying force for building a better tomorrow. Challenges of a New Era The world economy is tightly interconnected. Over the past four decades, total sea borne trade has more than quadrupled: 90% of world trade and two-thirds of its petroleum are transported by sea. **The sea-lanes** and supporting shore infrastructure **are the lifelines of the modern global economy,** visible and vulnerable symbols of **the modern distribution system** that **relies on free transit** through increasingly urbanized littoral regions. Expansion of the global system has increased the prosperity of many nations. Yet their continued growth may create increasing competition for resources and capital with other economic powers, transnational corporations and international organizations. Heightened popular expectations and increased competition for resources, coupled with scarcity, may encourage nations to exert wider claims of sovereignty over greater expanses of ocean, waterways, and natural resources—potentially resulting in conflict.

#### The economy is resilient

**Lamy ’11**(Pascal Lamy is the Director-General of the World Trade Organization. Lamy is Honorary President of Paris-based think tank Notre Europe. Lamy graduated from the prestigious Sciences Po Paris, from HEC and ÉNA, graduating second in his year of those specializing in economics. “System Upgrade” BY PASCAL LAMY | APRIL 18, 2011)

The bigger test came with the 2008-2009 Great Recession, the first truly **global recession** since World War II. When the international economy went into free fall, trade went right along with it. Production and supply are today thoroughly global in nature, with most manufactured products made from parts and materials imported from many other countries. These global value chains have a multiplier effect on trade statistics, which explains why, as the global economy contracted by 2 percent in 2009, trade volume shrank by more than 12 percent. This multiplier effect works the other way around as well: **Growth returned** to 4.6 percent and trade volume grew by a record 14.5 percent over the course of 2010. **Projections for trade** in 2011 **are** also **strong**, with WTO economists predicting that trade volume will rise 6.5 percent during the current year. This sharp rebound in trade has proved two essential things: **Markets stayed open despite ever-stronger pressures** to close them, and trade is an indispensible tool for economic recovery, particularly for developing countries, which are more dependent on trade. Shortly after the crisis broke out, we in the WTO began to closely monitor the trade policy response of our member governments. Many were fearful that pressures to impose trade restrictions would prove too powerful for governments to resist. But this is not what happened. Instead, the system of rules and disciplines, agreed to over 60 years of negotiations, **held firm**. In **a series of reports** prepared for WTO members and the G-20, we found that governments acted **with great restraint**. At no time did the trade-restrictive measures imposed cover more than 2 percent of world imports. Moreover, the measures used -- anti-dumping duties, safeguards, and countervailing duties to offset export or production subsidies -- were those which, in the right circumstances, are permissible under WTO rules. I am not suggesting that every safeguard measure or countervailing duty imposed during those difficult days was in compliance with WTO rules, but responses to trade pressures were generally undertaken within an internationally agreed-upon framework. Countries by and large resisted overtly noncompliant measures, such as breaking legally binding tariff ceilings or imposing import bans or quotas. As **markets stayed open, trade flows began to shift**, **and countries** that shrugged off the impact of the crisis and **continued to grow** -- notably China, India, and Brazil -- became ever-more attractive markets for countries that were struggling, including those in Europe and North America. Trade has been a powerful engine for growth in the developing world, a fact reflected in the far greater trade-to-GDP ratios we see there. In 2010, developing countries' share of world trade expanded to a record 45 percent, and this trend looks set to continue. Decisions made in Brasilia, Beijing, and New Delhi to open their respective economies to trade have been instrumental in enabling these countries to lift hundreds of millions of people out of poverty.

#### US not key to global economy

**Economist ’10** (The odd decouple Theories about why some rich-world economies are doing better than America’s don’t stand up Sep 2nd 2010 | from the print edition http://www.economist.com/node/16943853

AMERICA is used to making the economic weather. It has the world's largest economy, its most influential central bank and it issues the main global reserve currency. In recent months, however, some rich-world **economies** (**notably Germany's**) **have basked in the sunshine even as the clouds gathered over America**. On August 27th America's second-quarter GDP growth was revised down to an annualised 1.6%. That looked moribund compared with the 9% rate confirmed in Germany a few days earlier. America's jobless rate was 9.5% in July (figures for August were released on September 3rd, after The Economist went to press). But in Germany the unemployment rate is lower even than before the downturn. **Other** rich **countries**, including Britain and Australia, **have enjoyed sprightlier recent GDP growth and lower unemployment** **than America**. This unusual divergence within the rich world has fostered many competing theories to explain it, including differences in fiscal policies, exchange rates and debt levels. Most of these do not quite fit the facts. On one account Germany and, to a lesser extent, Britain have been rewarded for taking a firm grip on their public finances. In this view, the promise to tackle budget deficits has had a liberating effect on private spending by reducing uncertainty. In America, by contrast, anxiety about public debt is making businesses and consumers tighten their purse strings. The theory is a little too neat. Although credible plans to curb deficits are helpful to medium-term growth, they are unlikely to explain sudden spurts. Britain's budget plans were announced towards the end of the quarter, on June 22nd. Germany's were set out two weeks earlier. They could scarcely explain why GDP growth was strong. Indeed for most of the second quarter, fiscal uncertainty hung over both countries: in Britain because of a close election, in Germany because of commitments to help Greece and other countries. And the immediate impact of austerity is to dampen growth: witness the slump in Greece. Perhaps the explanation is found in currency movements. One effect of the euro-area crisis was to push the euro down against the dollar in the early months of this year—helping German firms but harming American exporters. Much of Germany's second-quarter GDP growth came from trade, even as a wider trade gap sapped America's economy. A weak pound could also explain Britain's renewed economic strength, much as a surge in the yen has increased worries about Japan. On August 30th Japan's central bank said it would offer banks ¥10 trillion ($118 billion) of six-month secured loans at its benchmark interest rate of 0.1%, on top of the ¥20 trillion of three-month loans it had already pledged. It hopes that this flood of money will push down borrowing costs, cap the yen's rise and help exporters. The currency theory also has holes in it. The yen's surge is too recent to explain why Japan's GDP barely rose in the second quarter. Net trade added almost nothing to Britain's GDP growth in the last quarter. Indeed America's export growth has been much stronger (a sudden surge in imports was behind the second-quarter trade gap). And demand for the sort of exports Germany has done well with, mostly luxury cars and specialist capital goods, tends to be insensitive to shifts in the exchange rate. Britain is an awkward challenger to another theory: that a debt hangover is holding back consumers in countries that had housing booms. Consumer spending in Britain (and in America) rose at about the same rate as in thriftier Germany during the second quarter. Britain stands out in another respect, too: its unemployment rate has risen by far less than in other places that had also racked up big mortgage debts. Divergent trends in unemployment may be better explained by the sort of recession each country had than by variations in jobs-market flexibility, says Kevin Daly at Goldman Sachs. In America, Ireland and Spain, the collapse of labour-intensive construction swelled the dole queues. Britain also had a housing boom but its tight planning laws kept its construction industry small, so fewer jobs were lost when the bust came. The downturns in Japan and Germany, deeper than America's (see chart), were mainly caused by the collapse in world trade. That hurt capital-intensive export industries—which were also more likely to rebound quickly—so fewer jobs disappeared. Some think America's slowness to create new jobs is leading to **undue pessimism** **about the rest of the world's prospects. “**If US growth is not enough to give us a big payrolls figure, **it's deemed a disaster**,” says Marco Annunziata at UniCredit. **But fast-growing emerging markets,** such as China**, have kept the world economy ticking over.** Germany has done well because its exporters have made headway there. China's vibrancy also explains why Australia's GDP rose at its fastest rate for three years in the second quarter.

#### Immigrants will be employed in jobs that waste their potential.

Bárbara **Castelletti**, economist at the OECD Development Centre, **et al.**, Jeff Dayton-Johnson, head of the OECD development Centre, and Ángel Melguizo, economist at the OECD Development Centre, “Migration in Latin America: Answering old questions with new data,” 3/19/**2010**, http://www.voxeu.org/index.php?q=node/4764

Most research on migration assumes that workers are employed in activities that correspond to their skill level. In practice workers may be employed in sectors characterised by skill requirements different from their educational or training background. In particular, **migrants may be overqualified for the work they do**. As Mattoo et al. (2005) show, this is the case for Mexicans, Central Americans and Andean university-educated migrants working in the US. **Despite their tertiary degrees, these groups rarely hold highly skilled jobs**. Worse, they may even be at the **lower rungs of the skill ladder**; 44% of tertiary-educated Mexicans migrants in the US are working in unskilled jobs. **This equilibrium represents a lose-lose-lose situation**. The home country loses human capital (brain drain), the host country and the migrant him/herself are not fully employed (brain waste), and the low skilled workers in host countries (both earlier migrants and natives) can be pushed out of the market (given that they compete with these higher-educated workers for jobs).

To illustrate this phenomenon for South-South flows, we follow OECD (2007) and compare the education level (primary, secondary and tertiary) of migrants in Argentina, Costa Rica and Venezuela with their category of job qualification (low, intermediate and high skilled). Figure 3 shows the share of over-qualified migrants and native workers, residing in different countries, and the comparison between foreign-born and natives.

Over-qualification rates vary sharply among countries, ranging from 5% in Costa Rica and Venezuela to 14% in Argentina. While lower than in the US, Canada and Spain where the over-qualification rates are above 15%, these results point to a high degree of over-qualification among immigrants compared to the native-born in Latin American countries. While there are possible omitted variables, it is likely that some part of the brain waste observed is because of the non-recognition of foreign qualifications or excessive requalification requirements for foreigners.

#### Won’t pass – no bill or consensus.

Alonso 3/6

(Basilisa, “President Obama and Congress are still far apart on immigration reform”, Hispanic News Service, 3-6-2013, http://www.voxxi.com/obama-congress-apart-immigration-reform/)

President Barack Obama and Congress have yet to address seriously, let alone find much common ground, on major differences in shaping comprehensive immigration reform legislation this year. They remain ideologically and politically far apart on a myriad of issues, most prominently border enforcement, a path to citizenship and family reunification.¶ The latest move by the Administration is the probationary release of several hundred immigrants from detention centers over the country who are awaiting disposition of their deportation orders. White House press secretary Jay Carney says they are ”low-risk, non-criminal detainees” being shifted to a less-expensive form of monitoring to ensure detention levels stay within ICE’s overall budget.¶ More than 400,000 immigrants are held annually in 250 federal immigration prisons. House Judiciary Committee chairman Robert Goodlatte (R- Virginia) calls it “abhorrent that President Obama is releasing criminals into our communities.” He adds that achieving an overhaul of immigration laws would have better odds if Congress, rather than the President, takes the lead.¶

President Obama’s leaked immigration bill¶ The buoyancy from the president’s Feb. 12 State of the Union immigration reform message turned flat five days later, when USA Today obtained a copy and revealed it. The leaked proposal included his intended roadmap to citizenship for nearly 11 million undocumented immigrants who meet stringent requirements in order to qualify. Although the White House has not confirmed the report, qualifying immigrants would be granted renewable “lawful prospective immigrant” visas.¶ Much like the Deferred Action for Childhood Arrival (DACA) program, the plan would allow currently undocumented immigrants to live and work here temporarily within a four-year timeframe. After that, the visa could be renewed. Immigrants would have to pass criminal background checks, submit biometrics and pay any back taxes and fees due. The current non-refundable fee is $685 to take the citizenship test is $685.¶ Applicants would then have a minimum eight-year wait before they could apply for a green card, which grants permanent residency. Some persons already in deportation proceedings would be allowed to apply. The New York Times reported that none of the 11 million undocumented immigrants currently in the country would be granted permanent resident status or a green card before the earlier of two dates: either eight years after the bill is enacted or 30 days after visas have been awarded to everyone who applied legally before they did.¶ During the State of the Union address the President entreated, “Let’s get this done. Send me a comprehensive immigration reform bill in the next few months, and I will sign it right away.” The bipartisan exuberance that filled the House chamber has visibly retracted. Senator John McCain (R-Ariz.) told NBC’s Meet the Press that if the president proposes the leaked plan as legislation it would fail. “Leaks don’t happen in Washington by accident,” he added.¶ U.S. Rep. Paul Ryan (R-Wisc.,) who had earlier praised Obama’s State of the Union immigration rhetoric, said on ABC’s This Week that by leaking his proposal the president was “looking for a partisan advantage and not a bipartisan solution.”¶

#### Mass opposition to amnesty – won’t pass

USA Today 3-7. ["Foes of immigration 'amnesty' mobilizing" da: 3-9-13 -- www.usatoday.com/story/news/nation/2013/03/07/foes-of-immigration-amnesty-mobilizing/1972487/]

As lawmakers get closer to introducing a comprehensive immigration-reform bill, opponents are gearing up to flood Congress with calls condemning any legislation that allows illegal immigrants to gain legal status or citizenship.¶ The same tactic helped defeat immigration reform the last time lawmakers considered passing bills in 2006 and especially 2007, when a flood of angry calls shut down the switchboard in Congress.¶ That prompted supporters to pull the plug on immigration reform in favor of beefing up border security first.¶ Groups opposed to immigration reform say legalizing illegal immigrants is a form of "amnesty" that rewards people who broke the country's immigration laws and encourages more people to enter illegally or remain unlawfully after their visas have expired.¶ Once legislation is introduced -- lawmakers anticipate late March or early April -- opponents plan to take advantage of the country's high unemployment rate and conservative discontent with President Barack Obama's policies to fuel a grassroots campaign against the bill that includes phone calls, emails, faxes and online petitions to lawmakers.¶ "It's just starting to percolate," said Rusty Childress, a former Phoenix auto-dealership owner who has founded several anti-illegal immigration groups, including United for a Sovereign America, American Freedom Riders and Riders USA.

#### Immigration will be watered down

Politico 3-5-13. dyn.politico.com/printstory.cfm?uuid=12207C2F-7F94-479F-959C-F539B631CDF1

“More likely that we deal with one bill at a time, more likely that the Senate slams them all together,” said Oklahoma Rep. James Lankford, chairman of the Republican Policy Committee, who is involved with immigration strategy. “They do so few bills over there, they’re going to do one big giant, we may do a few small [bills] and see what we work on in conference together.”¶ Still, as Washington is a-twitter about immigration reform, and President Barack Obama is corralling support on Capitol Hill, the GOP leadership is staring at a daunting statistic: More than 140 Republicans represent districts with nearly no Hispanics. So many of them look at immigration reform through a parochial lens, not as a national political imperative like the party bigwigs.¶ The uptick in private action tells a more hopeful story for reform than was previously understood. Of course, passing any immigration reform bills is a political risk because if the House is seen even temporarily as moving minor proposals while the Senate moves a massive bill, that action could be seen as insufficient.¶ For instance, the piecemeal approach could risk putting some House Republicans crosswise with national party apparatus — who see comprehensive immigration reform as a pathway toward maintaining power in Washington.¶ “I don’t like how some people on our side who are pushing a comprehensive plan who say, ‘The reason we have to do this if because we’re not getting enough of the Hispanic vote at the presidential level,’” said Rep. Tom Rooney (R-Fla.) . “For me, policy should be driven because of policy, not politics, and I know that’s wishful thinking.”¶ Ryan’s office did not answer an email about the private conversations. Gowdy told reporters he would talk about anything except immigration.¶ The desire to avoid comprehensive movement on immigration is so widespread, so geographically diverse, that it’s hard to ignore and might be impossible for leadership to circumvent.¶ Rep. Reid Ribble (R-Wis.) said he is “hopeful … that rather than trying to do a major comprehensive reform, we will try and do it sequentially.”¶ “Everyone agrees on certain things,” Ribble said.¶ Rooney said Republicans would “lose a group of people right off the bat” if they try to cobble together a comprehensive bill.

#### Minimum wage, infrastructure stimulus and preschool thumps

The Hill, 2-16-2013 http://thehill.com/blogs/on-the-money/economy/283579-obama-pushes-stimulus-minimum-wage-increase-in-weekly-address

President Obama used his weekly address on Saturday to recap ideas from the State of the Union that have little chance of passing Congress anytime soon, including more stimulus spending proposals and a pitch to increase the federal minimum wage to $9 an hour.¶ The president said that, taken as a package, his ideas will lead to a thriving middle class.¶ “Every day, we should ask ourselves three questions: How do we bring good jobs to America? How do we equip people with the skills those jobs require? And how do we make sure your hard work leads to a decent living?,” he said.¶ Obama said that to boost manufacturing, the United States should “launch manufacturing hubs,” increase investments in research and technology and increase infrastructure spending.¶ Obama also reiterated his call for guaranteeing high-quality preschool for all, a proposition that could cost billions of dollars.¶ “No one in America should work full-time and raise their children in poverty. So let’s raise the minimum wage so that it’s a wage you can live on,” he said.¶ Speaker John Boehner (R-Ohio) this week ruled out an increase of the minimum wage.¶ Obama reiterated that that the new investments can be done while reducing the deficit and that the goal should be some $1.5 trillion in additional deficit reduction.¶ “We don’t have to choose between the two – we just have to make smart choices,” Obama said. “Over the last few years, both parties have worked together to reduce the deficit by more than $2.5 trillion – which puts us more than halfway towards the goal of $4 trillion in deficit reduction that economists say we need to stabilize our finances. Now we need to finish the job.”

#### Guns thump

The Hill 2-15-13 http://thehill.com/homenews/administration/283563-obama-pushes-gun-control-in-personal-speech-in-chicago

President Obama on Friday underlined his call for Congress to allow a vote on gun control by traveling to Chicago, his hometown and the city with the second-highest murder rate in the country.¶ “Too many of our children are being taken away from us,” Obama said in an intensely personal speech delivered in his old neighborhood that focused on the concerns of the urban poor.¶ Obama discussed the hardships of being raised by a single mom and the importance of fatherhood, and his speech included nods to gun control and other proposals from his State of the Union address meant to help the poor move up to middle-class lives.¶ Speaking in Hyde Park, where a 17-year-old was recently gunned down just days after performing at his inauguration, Obama said that no law or set of laws “can prevent every senseless act of violence in this country.”¶ And he emphasized putting forth as much focus on the social aspects of communities, saying that this is “not just a gun issue.”¶ “When a child opens fire on another child, there is a hole in that child’s heart that government can’t fill, only community and parents and teachers and clergy can fill that hole,” he said, speaking before students, faculty and community leaders. “There are entire neighborhoods where young people, they don’t see an example of somebody succeeding. For a lot of young boys and young men in particular, they don’t see an example of fathers or grandfathers, uncles who are in a position to support families and be held up and respected.”¶ Obama acknowledged the obstacles before him in pushing for gun-control, which is seen in dramatically different lights in different parts of the country.¶ “The experience of gun ownership is different in urban areas than it is in rural areas,” Obama said. “But these proposals deserve a vote in Congress. They deserve a vote.¶ “We all share a responsibility as citizens to fix it,” he added.¶ Obama’s proposals include expanded background checks and bans on certain semi-automatic weapons and high-capacity clips. He made an impassioned plea for a vote the dramatic conclusion of his State of the Union address, which was attended by many victims of gun violence, including the parents of the teenager slain in Chicago a week after performing at his inauguration.

#### ICE thumps

Noah Rothman, Editor at Mediaite 3-1-2013 http://www.mediaite.com/tv/geraldo-calls-release-of-immigrants-a-spiteful-move-by-obama-hes-throwing-a-tantrum-over-budget-cuts/

In a discussion about the White House’s efforts to intimidate their critics, Rivera brought up ICE’s decision to release illegal immigrants from detention centers in order to prepare for budget cuts contained within the sequester.¶ “They were scheduled to begin in Arizona,” Rivera noted. “Who presides over the state Arizona? Gov. Jan Brewer, who famously scolded the president with her finger. Sheriff Joe Arpiao there in Maricopa County.”¶ “This was the White House saying, ‘you want to see what this sequester is going to do? I’m going to show you,’” Rivera suggested.¶ “But they overplayed their hand,” Brian Kilmeade interjected, “because now there’s such backlash, they distanced themselves from it.”¶ “They declared war on the people who were opposing the president,” Rivera determined. “I think history will come to regard this as President Obama’s hold your breath tantrum period.”¶ “What if something happens to other American citizens because these illegals were released?” Gretchen Carlson asked. “What if something happens – a violent crime?”¶ Rivera replied that it is his impression that those undocumented immigrants released were non-violent offenders and they are going to be closely monitored. He said that he hopes this “spiteful move” on the part of the administration does not threatened the passage of a comprehensive immigration reform bill this year.

#### PC theory is wrong- winners win

Hirsh, 2-7 – National Journal chief correspondent, citing various political scientists

[Michael, former Newsweek senior correspondent, "There’s No Such Thing as Political Capital," National Journal, 2-9-13, www.nationaljournal.com/magazine/there-s-no-such-thing-as-political-capital-20130207, accessed 2-8-13, mss]

**There’s No Such Thing as Political Capital**

The idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get itwrong. On Tuesday, in his State of the Union address, President Obama will do what every president does this time of year. For about 60 minutes, he will lay out a sprawling and ambitious wish list highlighted by gun control and immigration reform, climate change and debt reduction. In response, the pundits will do what they always do this time of year: They will talk about how unrealistic most of the proposals are, discussions often informed by sagacious reckonings of how much “political capital” Obama possesses to push his program through. Most of **this** talk **will have no bearing on what actually happens** over the next four years. Consider this: Three months ago, just before the November election, if someone had talked seriously about Obama having enough political capital to oversee passage of both immigration reform and gun-control legislation at the beginning of his second term—even after winning the election by 4 percentage points and 5 million votes (the actual final tally)—this person would have been called crazy and stripped of his pundit’s license. (It doesn’t exist, but it ought to.) In his first term, in a starkly polarized country, the president had been so frustrated by GOP resistance that he finally issued a limited executive order last August permitting immigrants who entered the country illegally as children to work without fear of deportation for at least two years. Obama didn’t dare to even bring up gun control, a Democratic “third rail” that has cost the party elections and that actually might have been even less popular on the right than the president’s health care law. And yet, for reasons that have very little to do with Obama’s personal prestige or popularity—variously put in terms of a “mandate” or “political capital”—chances are fair that both will now happen. What changed? In the case of gun control, of course, it wasn’t the election. It was the horror of the 20 first-graders who were slaughtered in Newtown, Conn., in mid-December. The sickening reality of little girls and boys riddled with bullets from a high-capacity assault weapon seemed to precipitate a sudden tipping point in the national conscience. One thing changed after another. Wayne LaPierre of the National Rifle Association marginalized himself with poorly chosen comments soon after the massacre. The pro-gun lobby, once a phalanx of opposition, began to fissure into reasonables and crazies. Former Rep. Gabrielle Giffords, D-Ariz., who was shot in the head two years ago and is still struggling to speak and walk, started a PAC with her husband to appeal to the moderate middle of gun owners. Then she gave riveting and poignant testimony to the Senate, challenging lawmakers: “Be bold.” As a result, momentum has appeared to build around some kind of a plan to curtail sales of the most dangerous weapons and ammunition and the way people are permitted to buy them. It’s impossible to say now whether such a bill will pass and, if it does, whether it will make anything more than cosmetic changes to gun laws. But one thing is clear: The **political tectonics** have **shift**ed **dramatically in very little time**. Whole new possibilities exist now that didn’t a few weeks ago. Meanwhile, the Republican members of the Senate’s so-called Gang of Eight are pushing hard for a new spirit of compromise on immigration reform, a sharp change after an election year in which the GOP standard-bearer declared he would make life so miserable for the 11 million illegal immigrants in the U.S. that they would “self-deport.” But this turnaround has very little to do with Obama’s personal influence—his political mandate, as it were. It has almost entirely to do with just two numbers: 71 and 27. That’s 71 percent for Obama, 27 percent for Mitt Romney, the breakdown of the Hispanic vote in the 2012 presidential election. Obama drove home his advantage by giving a speech on immigration reform on Jan. 29 at a Hispanic-dominated high school in Nevada, a swing state he won by a surprising 8 percentage points in November. But the movement on immigration has mainly come out of the Republican Party’s recent introspection, and the realization by its more thoughtful members, such as Sen. Marco Rubio of Florida and Gov. Bobby Jindal of Louisiana, that without such a shift the party may be facing demographic death in a country where the 2010 census showed, for the first time, that white births have fallen into the minority. It’s got nothing to do with Obama’s political capital or, indeed, Obama at all. The point is not that “political capital” is a meaningless term. Often it is a synonym for “mandate” or “momentum” in the aftermath of a decisive election—and just about every politician ever elected has tried to claim more of a mandate than he actually has. Certainly, Obama can say that because he was elected and Romney wasn’t, he has a better claim on the country’s mood and direction. Many pundits still defend political capital as a useful metaphor at least. “It’s an unquantifiable but meaningful concept,” says Norman Ornstein of the American Enterprise Institute. “You can’t really look at a president and say he’s got 37 ounces of political capital. But the fact is, it’s a concept that matters, if you have popularity and some momentum on your side.” The real problem is that the idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get it wrong. “Presidents usually over-estimate it,” says George Edwards, a presidential scholar at Texas A&M University. “The best kind of political capital—some sense of an electoral mandate to do something—is very rare. It almost never happens. In 1964, maybe. And to some degree in 1980.” For that reason, **political capital** is a concept that **misleads** far more than it enlightens. **It is** **distortionary**. It conveys the idea that we know more than we really do about the ever-elusive concept of political power, and it discounts the way unforeseen events can suddenly change everything. Instead, it suggests, erroneously, that a political figure has a concrete amount of political capital to invest, just as someone might have real investment capital—that a particular leader can bank his gains, and the size of his account determines what he can do at any given moment in history. Naturally, any president has practical and electoral limits. Does he have a majority in both chambers of Congress and a cohesive coalition behind him? Obama has neither at present. And unless a surge in the economy—at the moment, still stuck—or some other great victory gives him more momentum, it is inevitable that the closer Obama gets to the 2014 election, the less he will be able to get done. Going into the midterms, Republicans will increasingly avoid any concessions that make him (and the Democrats) stronger. But the abrupt emergence of the immigration and gun-control issues illustrates how suddenly shifts in mood can occur and how political interests can align in new ways just as suddenly. Indeed, the pseudo-concept of political capital masks a larger truth about Washington that is kindergarten simple: You just don’t know what you can do until you try. Or as Ornstein himself once wrote years ago, “**Winning wins.”** In theory, and in practice, depending on Obama’s handling of any particular issue, even in a polarized time, he could still deliver on a lot of his second-term goals, depending on his skill and the breaks. Unforeseen catalysts can appear, like Newtown. Epiphanies can dawn, such as when many Republican Party leaders suddenly woke up in panic to the huge disparity in the Hispanic vote. Some **political scientists** **who study** the elusive calculus of **how to pass legislation** and run successful presidencies **say** that **political capital is**, at best, **an empty concept**, and that **almost nothing in** the **academic literature** successfully quantifies or even defines it. “It can refer to a very abstract thing, like a president’s popularity, but there’s no mechanism there. That makes it kind of useless,” says Richard Bensel, a government professor at Cornell University. Even Ornstein concedes that the calculus is far more complex than the term suggests. **Winning** on one issue often **changes the** **calculation** for the next issue; there is never any known amount of capital. “The idea here is, if an issue comes up where **the conventional wisdom is that president is not going to get what he wants**, and [they]he gets it, then each time that happens, it changes the calculus of the **other actors**” Ornstein says. “If they think he’s going to win, they may **change positions to get on the winning side**. **It’s a bandwagon effect**.” ALL THE WAY WITH LBJ Sometimes, a clever practitioner of power can get more done just because [they’re]he’s aggressive and knows the hallways of Congress well. Texas A&M’s Edwards is right to say that the outcome of the 1964 election, Lyndon Johnson’s landslide victory over Barry Goldwater, was one of the few that conveyed a mandate. But one of the main reasons for that mandate (in addition to Goldwater’s ineptitude as a candidate) was President Johnson’s masterful use of power leading up to that election, and his ability to get far more done than anyone thought possible, given his limited political capital. In the newest volume in his exhaustive study of LBJ, The Passage of Power, historian Robert Caro recalls Johnson getting cautionary advice after he assumed the presidency from the assassinated John F. Kennedy in late 1963. Don’t focus on a long-stalled civil-rights bill, advisers told him, because it might jeopardize Southern lawmakers’ support for a tax cut and appropriations bills the president needed. “One of the wise, practical people around the table [said that] the presidency has only a certain amount of coinage to expend, and you oughtn’t to expend it on this,” Caro writes. (Coinage, of course, was what political capital was called in those days.) Johnson replied, “Well, what the hell’s the presidency for?” Johnson didn’t worry about coinage, and he got the Civil Rights Act enacted, along with much else: Medicare, a tax cut, antipoverty programs. He appeared to understand not just the ways of Congress but also the way to maximize the momentum he possessed in the lingering mood of national grief and determination by picking the right issues, as Caro records. “Momentum is not a mysterious mistress,” LBJ said. “It is a controllable fact of political life.” Johnson had the skill and wherewithal to realize that, at that moment of history, he could have unlimited coinage if he handled the politics right. He did. (At least until Vietnam, that is.)

[Matt note: gender paraphrased]

#### Link shields itself – Obama will back away from the plan if Congress presses him

Herz ’12 – professor of law and co-director of the Floersheimer Center for Constitutional Democracy

(Michael E., “Political Oversight of Agency Decisionmaking”, Administrative Law JOTWELL, 1-23-2012)

Mendelson begins with two important but often overlooked points. First, we know remarkably little about the content and scope of presidential oversight of rulemaking. Second, there’s presidential oversight and there’s presidential oversight; that is, some presidential influence is almost indisputably appropriate and enhances the legitimacy of agency decisionmaking, and some (e.g. leaning on the agency to ignore scientific fact or to do something inconsistent with statutory constraints) is not. Although presidents have long exerted significant influence on agency rulemaking, and although that influence has been regularized and concentrated in OIRA for three decades, it remains quite invisible. The OIRA review process is fairly opaque (though less so than it once was), influence by other parts of the White House even more so, and official explanations of agency action almost always are silent about political considerations. As a result, the democratic responsiveness and accountability that, in theory, presidential oversight provides goes unrealized. Presidents take credit when it suits them, but keep their distance from controversy. (Although Mendelson does not make the connection explicit, her account resonates with critiques by supporters of a nondelegation doctrine with teeth who are dismayed by Congress’s desire to take credit but not blame.)

#### It’s massively popular, even AFTER the sequester – it still has massive support in Congress

Lewis ’13 – reporter for the Westville Reporter

(Frank, “Good news comes in bunches for USEC”, Westville Reporter, Energy Central, 3-6-2013, <http://www.energycentral.com/news/en/27816039/Good-news-comes-in-bunches-for-USEC>, DOA: 3-8-2013)

The good news continues to roll in for the funding of the research, development, and demonstration (RD&D) program at the American Centrifuge Project (ACP) in Piketon. News from Capitol Hill is that $150 million is included in the House Continuing Resolution (CR) to fund the USEC RD&D process which is a joint effort by USEC and the U.S. Department of Energy.¶ Section 1402 of the CR reads -- "In addition to amounts otherwise made available by this division, $150,000,000 is appropriated for 'Department of Energy, Atomic Energy Defense Activities, National Nuclear Security Administration, Defense Nuclear Nonproliferation' for domestic uranium enrichment research, development, and demonstration."¶ "Obviously we have been working to complete the funding for the RD&D program, which is an important program for demonstrating the technology, and laying the groundwork for commercialization," Paul Jacobson, Vice President of Communications for USEC told the Daily Times Tuesday. "I think the inclusion of the funds reflects a continued bi-partisan support in Congress and from the administration as well, for the national and energy security merits of this project. I think it's important to underscore that this proposed funding is to support the centrifuge project, and the national goals that the decision makers in Washington have decided are important to support. So obviously it is good news but there is a way to go with action in the House and action in the Senate, but it certainly is encouraging."

### States CP

#### Uncertainty DA—CP creates massive regulatory uncertainty—states will act in different ways to implement, impact is no investment

DeShazo and Freeman ‘7 – professor and director of the Lewis Center and professor of law

(J.R. DeShazo and Jody Freeman, TIMING AND FORM OF FEDERAL REGULATION:

THE CASE OF CLIMATE CHANGE, University of Pennsylvania Law Review, Vol. 155:1499, 2007)

States can increase regulatory uncertainty in this way either by taking action alone or by joining together with other states in regional compacts. Moreover, because states will be responding to somewhat different interest group configurations within their own jurisdictions, there is a high likelihood that different states will adopt different regulatory approaches. This practically ensures inconsistency and helps drive industry to Congress. At the same time, some states are likely to be more important than others in provoking this reaction. Historically, California seems to have been especially influential in prompting industry demand for federal uniformity, perhaps because of the state’s disproportionate market power 27 and history of engaging in product regulation targeting automobiles. 28

### K

#### No prior questions – our justification for the 1AC is true

Owen ‘2 – reader of political theory

(David Owen, Reader of Political Theory at the Univ. of Southampton, Millennium Vol 31 No 3 2002 p. 655-7)

Commenting on the ‘philosophical turn’ in IR, Wæver remarks that ‘[a] frenzy for words like “epistemology” and “ontology” often signals this philosophical turn’, although he goes on to comment that these terms are often used loosely.4 However, loosely deployed or not, it is clear that debates concerning ontology and epistemology play a central role in the contemporary IR theory wars. In one respect, this is unsurprising since it is a characteristic feature of the social sciences that periods of disciplinary disorientation involve recourse to reflection on the philosophical commitments of different theoretical approaches, and there is no doubt that such reflection can play a valuable role in making explicit the commitments that characterise (and help individuate) diverse theoretical positions. Yet, such a philosophical turn is not without its dangers and I will briefly mention three before turning to consider a confusion that has, I will suggest, helped to promote the IR theory wars by motivating this philosophical turn. The first danger with the philosophical turn is that it has an inbuilt tendency to prioritise issues of ontology and epistemology over explanatory and/or interpretive power as if the latter two were merely a simple function of the former. But while the explanatory and/or interpretive power of a theoretical account is not wholly independent of its ontological and/or epistemological commitments (otherwise criticism of these features would not be a criticism that had any value), it is by no means clear that it is, in contrast, wholly dependent on these philosophical commitments. Thus, for example, one need not be sympathetic to rational choice theory to recognise that it can provide powerful accounts of certain kinds of problems, such as the tragedy of the commons in which dilemmas of collective action are foregrounded. It may, of course, be the case that the advocates of rational choice theory cannot give a good account of why this type of theory is powerful in accounting for this class of problems (i.e., how it is that the relevant actors come to exhibit features in these circumstances that approximate the assumptions of rational choice theory) and, if this is the case, it is a philosophical weakness—but this does not undermine the point that, for a certain class of problems, rational choice theory may provide the best account available to us. In other words, while the critical judgement of theoretical accounts in terms of their ontological and/or epistemological sophistication is one kind of critical judgement, it is not the only or even necessarily the most important kind. The second danger run by the philosophical turn is that because prioritisation **of ontology** and epistemologypromotes theory-construction from philosophical first principles, it cultivates **a** theory-driven rather than problem-driven approach to IR. Paraphrasing Ian Shapiro, the point can be put like this: since it is the case that there is always a plurality of possible true descriptions of a given action, event or phenomenon, the challenge is to decide which is the most apt in terms of getting a perspicuous grip on the action, event or phenomenon in question given the purposes of the inquiry; yet, from this standpoint, ‘theory-driven work is part of a reductionist program’ in that it ‘dictates always opting for the description that calls for the explanation that flows from the preferred model or theory’.5 The justification offered for this strategy rests on the mistaken belief that it is necessary for social science because general explanations are required to characterise the classes of phenomena studied in similar terms. However, as Shapiro points out, this is to misunderstand the enterprise of science since ‘whether there are general **explanations** for classes of phenomena **is a question** for social-scientific inquiry, not to be prejudged before conducting that inquiry’.6 Moreover, this strategy easily slips into the promotion of the pursuit of generality over that of empirical validity. The third danger is that the preceding two combine to encourage the formation of a particular image of disciplinary debate in IR—what might be called (only slightly tongue in cheek) ‘the Highlander view’—namely, an image of warring theoretical approaches with each, despite occasional temporary tactical alliances, dedicated to the strategic achievement of sovereignty over the disciplinary field. It encourages this view because the turn to, and prioritisation of, ontology and epistemology stimulates the idea that there can only be one theoretical approach which gets things right, namely, the theoretical approach that gets its ontology and epistemology right. This image feeds back into IR exacerbating the first and second dangers, and so a potentially vicious circle arises.

#### Extinction first – always VTL

Bernstein ‘2

(Richard J., Vera List Prof. Phil. – New School for Social Research, “Radical Evil: A Philosophical Interrogation”, p. 188-192)

There is a basic value inherent in **organic** being, a basic affirmation, "The Yes' of Life" (IR 81). 15 "The self-affirmation of being becomes emphatic in the opposition of life to death. Life is the explicit confrontation of being with not-being. . . . The 'yes' of all striving is here sharpened by the active `no' to not-being" (IR 81-2). Furthermore — and this is the crucial point for Jonas — this affirmation of life that is in all organic being has a binding obligatory force upon human beings. This blindly self-enacting "yes" gains obligating force in the seeing freedom of man, who as the supreme outcome of nature's purposive labor is no longer its automatic executor but, with the power obtained from knowledge, can become its destroyer as well. He must adopt the "yes" into his will and impose the "no" to not-being on his power. But precisely this transition from willing to obligation is the critical point of moral theory at which attempts at laying a foundation for it come so easily to grief. Why does now, in man, that become a duty which hitherto "being" itself took care of through all individual willings? (IR 82). We discover here the transition from is to "ought" — from the self-affirmation of life to the binding obligation of human beings to preserve life not only for the present but also for the future. But why do we need a new ethics? The subtitle of The Imperative of Responsibility — In Search of an Ethics for the Technological Age — indicates why we need a new ethics. Modern technology has transformed the nature and consequences of human action so radically that the underlying premises of traditional ethics are no longer valid. For the first time in history human beings possess the knowledge and the power to destroy life on this planet, including human life. Not only is there the new possibility of total nuclear disaster; there are the even more invidious and threatening possibilities that result from the unconstrained use of technologies that can destroy the environment required for life. The major transformation brought about by modern technology is that the consequences of our actions frequently exceed by far anything we can envision. Jonas was one of the first philosophers to warn us about the unprecedented ethical and political problems that arise with the rapid development of biotechnology. He claimed that this was happening at a time when there was an "ethical vacuum," when there did not seem to be any effective ethical principles to limit ot guide our ethical decisions. In the name of scientific and technological "progress," there is a relentless pressure to adopt a stance where virtually anything is permissible, includ-ing transforming the genetic structure of human beings, as long as it is "freely chosen." We need, Jonas argued, a new categorical imperative that might be formulated as follows: "Act so that the effects of your action are compatible with the permanence of genuine human life"; or expressed negatively: "Act so that the effects of your action are not destructive of the future possibility of such a life"; or simply: "Do not compromise **the conditions for** an indefinite continuation of humanity on earth**"; or again turned positive:** "In your present choices, include the future wholeness of Man among the objects of your will."

#### Affirming the theory of the Aff is critical to prevent nuclear war

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear ¶ Deterrence ¶ in the 21st ¶ Century¶ Lessons from the Cold War ¶ for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, ¶ pg 9-11)

One of its most important tasks is to keep humanity within the boundaries of acceptable historical experiences. 3 Sixty-seven years after 1945, most would consider a nuclear attack to be beyond those boundaries. The variety of nuclear actors, the proliferation of cruise and ballistic missiles, thermonuclear weapons, and radical ideologies have transformed the nuclear scene to a considerable extent since the end of World War II. Whether thinking on nuclear weapons has followed a similarly impressive path, particularly since the dissolution of the USSR, is questionable. There are numerous analyses and studies, but they do not match the quality and pertinence of those of the Cold War vintage. While nuclear deterrence attracted an abundance of intellectual attention during the Cold War, since the 1950s there has been a decline in thinking on this subject even as the risk of nuclear use has been rising. The absolute necessity of preventing extreme violence among states (as opposed to nonstate actors) has receded in our minds, even though it is prominent in our speeches. Humanity does not learn much from events that do not happen. In a way, the very success of the deterrence enterprise during the Cold War undermined its principal gain: Since no nuclear exchange took place, the notion of nuclear weapons as a threat to our survival lost a good deal of force and a sense of urgency. Ideas have consequences. So does a lack of them. During the Cold War, a mixture of deterrence, containment, conventional capabilities, and arms control seemed successful in preventing a nuclear exchange with the Soviets. Luck may have played a part as well. 4 Today’s nuclear dangers seem to pale in comparison with those of the Cold War. They pale even when compared with those of the 1990s, when Russia was weak, with a considerable and poorly guarded nuclear stockpile and nuclear scientists and military officials reduced to poverty. At the time, a substantial effort was launched to secure Russia’s weapons, nuclear materials, and scientists. New problems are arising now: nuclear terrorism; radical Islamists challenging the Islamabad government; the ability of nonstate actors to bring India and Pakistan to the brink of war; asymmetric nuclear threats coming from Iran and North Korea; 5 Pakistan’s, Iran’s, and North Korea’s nuclear and missile proliferation nexus; and China increasingly asserting its military achievements—including its nuclear, ballistic missile, cyber, and space achievements. 6 While many in the West tend to see nuclear weapons as instruments of the past, other actors view them as weapons of the future. There are obvious gaps in Western thinking and some disregard for those gaps. However unpleasant, it is imperative to address these. To start with, consider the following reasons why another look at nuclear deterrence is important in the 21st century. The first is obvious: In an era of extraordinary uncertainty, turmoil, and upheavals, it is good to keep a clear mind about the most dangerous strategic situations contemporary leaders may face. There is little doubt that a nuclear crisis—or, worse, a nuclear attack—whether effected by a nation-state or a nonstate actor, would be a critical situation. It should be considered unlikely, but as long as it appears even remotely possible, the difficult choices that would be required from governments ought to be understood for what they are, particularly in democratic societies. Such choices are “deeply baffling even to the ablest minds,” as Bernard and Fawn Brodie wrote in From Crossbow to H-Bomb. 7 The “unthinkable” 8 may have become less unlikely in practice since reckless actors are entering the nuclear arena, but it is becoming increasingly unlikely in Western minds at a time when even the political capacity of tolerating military casualties is questionable. Foreign policy, notably Western foreign policy, continues to be made under the shadow of a nuclear strategy that is almost forgotten or that is becoming empty. The consequence is that our ability to face a nuclear attack effectively may be slipping through our fingers. If this is true, what the strategic planning community can contribute toward preventing this loss (or preparing to deal with it, if necessary) is to revitalize nuclear thinking. This does not call for any specific doctrine but for a top-quality intellectual debate on the concepts, old and new; on the crises, old and new; and on the actors, whether they played a part on the nuclear scene in the past or are only just now entering it, sometimes with masks on their faces.

#### Alt fails – attempting to resist security results in more power for powerful states and worse intervention

**McCormack 10**

[Tara McCormack, ’10, is Lecturer in International Politics at the University of Leicester and has a PhD in International Relations from the University of Westminster. 2010, (Critique, Security and Power: The political limits to emancipatory approaches, page 59-61)]

The following section will briefly raise some questions about the rejection of the old security framework as it has been taken up by the most powerful institutions and states. Here we can begin to see the political limits to critical and emancipatory frameworks. In an international system which is marked by great power inequalities between states, the rejection of the old narrow national interest-based security framework by major international institutions, and the adoption of ostensibly emancipatory policies and policy rhetoric, has the consequence of **problematising weak or unstable states** and allowing international institutions or major states **a more interventionary role**, yet without establishing mechanisms by which the citizens of states being intervened in might have any control over the agents or agencies of their emancipation. Whatever the problems associated with the pluralist security framework **there were at least formal and clear demarcations**. This has the consequence of **entrenching international power inequalities** and allowing for a shift towards a hierarchical international order in which the citizens in weak or unstable states may arguably have even less freedom or power than before. Radical critics of contemporary security policies, such as human security and humanitarian intervention, argue that we see an assertion of Western power and the creation of liberal subjectivities in the developing world. For example, see Mark Duffield’s important and insightful contribution to the ongoing debates about contemporary international security and development. Duffield attempts to provide a coherent empirical engagement with, and theoretical explanation of, these shifts. Whilst these shifts, away from a focus on state security, and the so-called merging of security and development are often portrayed as positive and progressive shifts that have come about because of the end of the Cold War, Duffield argues convincingly that these shifts are highly problematic and unprogressive. For example, the rejection of sovereignty as formal international equality and a presumption of nonintervention has eroded the division between the international and domestic spheres and led to an international environment in which Western NGOs and powerful states have a major role in the governance of third world states. Whilst for supporters of humanitarian intervention this is a good development, Duffield points out the depoliticising implications, drawing on examples in Mozambique and Afghanistan. Duffield also draws out the problems of the retreat from modernisation that is represented by sustainable development. The Western world has moved away from the development policies of the Cold War, which aimed to develop third world states industrially. Duffield describes this in terms of a new division of human life into uninsured and insured life. Whilst we in the West are ‘insured’ – that is we no longer have to be entirely self-reliant, we have welfare systems, a modern division of labour and so on – sustainable development aims to teach populations in poor states how to survive in the absence of any of this. Third world populations must be taught to be self-reliant, they will remain uninsured. Self-reliance of course means **the condemnation of millions to** **a barbarous life of inhuman bare survival**. Ironically, although sustainable development is celebrated by many on the left today, by leaving people to fend for themselves rather than developing a society wide system which can support people, sustainable development actually leads to a less human and humane system than that developed in modern capitalist states. Duffield also describes how many of these problematic shifts are embodied in the contemporary concept of human security. For Duffield, we can understand these shifts in terms of Foucauldian biopolitical framework, which can be understood as a regulatory power that seeks to support life through intervening in the biological, social and economic processes that constitute a human population (2007: 16). Sustainable development and human security are for Duffield technologies of security which aim to *create* self-managing and self-reliant subjectivities in the third world, which can then survive in a situation of serious underdevelopment (or being uninsured as Duffield terms it) without causing security problems for the developed world. For Duffield this is all driven by a neoliberal project which seeks to control and manage uninsured populations globally. Radical critic Costas Douzinas (2007) also criticises new forms of cosmopolitanism such as human rights and interventions for human rights as a triumph of American hegemony. Whilst we are in agreement with critics such as Douzinas and Duffield that these new security frameworks cannot be empowering, and **ultimately lead to more power for powerful states**, we need to understand why these frameworks have the effect that they do. We can understand that these frameworks have political limitations without having to look for a specific plan on the part of current powerful states. In new security frameworks such as human security we can see the political limits of the framework proposed by critical and emancipatory theoretical approaches.

### Oil DA

#### Aff turns the DA—stops oil production

YERGIN ’12 - is chairman of IHS Cambridge Energy Research Associates, an energy research and consulting firm. (Daniel, “There Will Be Oil “. September 17. http://online.wsj.com/article/SB10001424053111904060604576572552998674340.html)

But this is no done deal. There are many "buts," having to do with what happens above ground. The policies of governments around the world—especially concerning taxes and access to resources—have a major impact on whether and when oil is discovered and developed.

Wars and civil wars, social turmoil and political upheavals, regional conflict, corruption and crime, mismanagement of resources—all of these can affect not only current production but also investment and future prospects. Environmental and climate policies can alter the timing and scale of development, as can geopolitics and politics within oil-producing countries.

#### DA’s inevitable—

#### Public wants more nuclear power and it’s expanding globally

Westenhaus 9/30

(Brian, “Confidence in Nuclear Power is on the Rise Again”, Oil Price, 9-30-2012, <http://oilprice.com/Alternative-Energy/Nuclear-Power/Confidence-in-Nuclear-Power-is-on-the-Rise-Again.html>)

This latest survey found that Americans strongly favoring nuclear energy outnumber those strongly opposed by a two-to-one ratio, 29% versus 14%. The new numbers improve on a poll conducted in September 2011, six months after the Fukushima accident, when 62% of American favored nuclear energy, with 35% opposed. The new survey shows confidence is improving. Just over three quarters of respondents agree that nuclear energy facilities operating in the United States are ‘safe and secure,’ while only 19% think they are not. Eighty percent of Americans opposed to 16% believe “we should learn the lessons from the Japanese accident and continue to develop advanced nuclear energy plants to meet America’s growing electricity demand.” In a shock to the political system and the anti nuclear crowd a large majority (81%) of those surveyed favor the renewal of operating licenses of facilities that continue to meet federal safety standards, while 74% believe electric utilities should prepare now so they will be ready to build new nuclear power plants in the next decade if needed. The U.S. is not alone. New nuclear plants are coming in Asia and even in Europe. Nuclear generating capacity is projected to grow 38% in the next eight years. These kinds of numbers wake up the uranium commodities speculators – even while the market is in the doldrums.

#### Nuclear power’s expanding in the U.S. now

Ferguson ’12

(Charles D., Federation of the American Scientists, Public Interest Report, “Making the Case for

Nuclear Power in the United States”, Summer 2012, <http://www.fas.org/pubs/pir/2012summer/Summer2012_PresidentMessage.pdf>)

Will nuclear power in the United States flourish or fade away? To paraphrase Mark Twain, “The news of nuclear power’s demise has been greatly exaggerated.” The United States still has the largest number of nuclear reactors in the world with 104 and almost 20 percent of its electricity is generated from nuclear power. Moreover, four new reactors are under construction: two at the Vogtle plant in Georgia and two at the Summer plant in South Carolina. One big reason these plants are moving forward is because the utilities can recoup some of the costs during construction. The regional regulatory authorities in the Southeastern United States have allowed such cost recovery. Four new reactors, however, will not be enough to keep nuclear power on pace to continue to generate about 20 percent of the nation’s electricity.¶ Zero link to the Aff—all of their evidence is about new nuclear power plant construction

#### Plan not sufficient to trigger the link

EIA ’11

(“Over 90% of uranium purchased by U.S. commercial nuclear reactors is from outside the U.S.”, 7-11-2011, http://www.eia.gov/todayinenergy/detail.cfm?id=2150#)

Owners and operators of U.S. commercial nuclear power reactors purchased nearly 47 million pounds of uranium from U.S. and foreign suppliers during 2010; 92% of this total was of foreign origin.¶ Historically, U.S. owners and operators have purchased the majority of their uranium from foreign sources. Russia, Canada, Australia, Kazakhstan, and Namibia represent the top five countries of origin for U.S. uranium, and together account for 85% of total U.S. uranium purchases in 2010. Owners and operators of U.S. commercial nuclear power plants purchased uranium from a total of 14 different countries in 2010.¶ Preparing uranium for use as fuel in nuclear reactors involves a complex process of mining, refinement, and enrichment. EIA's 2010 Uranium Marketing Annual Report presents data on purchases and sales of uranium contracts and market requirements, enrichment services, and other information pertaining to feed, loaded uranium, and inventories.

#### Oil and nuclear power do not compete with each other—irrelevant markets

Toph and Rogner ‘6

(Ferenc L. Toth\*, Hans-Holger Rogner Planning and Economic Studies Section, Department of Nuclear Energy, International Atomic Energy Agency (IAEA), Oil and nuclear power: Past, present, and future, Energy Economics, 2006)

The current relationship between nuclear power and oil has become distinctly different than it was a few decades ago. At the onset of the 21st century, nuclear and oil for electricity generation are targeting different electricity market segments with little overlap in the longer run. Oil for electricity generation in most industrialized countries serves, where not barred for environmental reasons, more the function of the disposal of residual oil for which no other applications can be found. However, advanced refineries converting larger portions of the barrel into premium products and stringent environmental regulation F.L. Toth, H.-H. Rogner / Energy Economics 28 (2006) 1–25 5constrain the use of residual oil for power generation. Other uses of oil products include peak supply, back-up fuel, and dispersed non-grid generation. These markets have been relative captive for oil but this may change in the future with the advent of fuel cells. Since nuclear power has no role to play in these captive markets, growth prospects for oil are unaffected by a nuclear presence in the electricity generating market.

#### No link – OPEC will try to maintain high prices

LEVI ’12 - David M. Rubenstein senior fellow for energy and the environment at the Council on Foreign Relations and director of its Program on Energy Security and Climate Change (Levi, Michael. “Think Again: The American Energy Boom”. August, 2012. http://www.foreignpolicy.com/articles/2012/06/18/think\_again\_the\_american\_energy\_boom)

"We Can Drill Our Way Out of High Prices."

Don't bet on it. Some people claim that unleashing U.S. oil and gas resources would slash the price of crude. Who can forget the cries of "Drill, Baby, Drill!" that saturated airwaves during the 2008 presidential campaign? Others insist that, because oil is priced on a global market, increased U.S. output wouldn't move the needle. Even Douglas Holtz-Eakin, the top economist for John McCain's 2008 presidential campaign, has written, "Domestic action to increase production will not lower gas prices set on a global market."

The precise truth lies somewhere in between. If U.S. producers were able to massively ramp up output, the ultimate impact would mostly boil down to one big question: How would other big oil producers (mainly the Saudis and the rest of OPEC) respond to a surge in U.S. supplies?

To stop prices from falling, they could cut back their output in response to new U.S. production, much as they've tried to in the past. That's essentially what happens in the much-cited projections by the Energy Information Administration. In one recent exercise, for example, it looked at what would happen to gasoline prices if U.S. oil production grew by about a million barrels a day. The net impact was a mere 4 cents a gallon fall. Why? All but a sliver of the increase in U.S. output was matched by cutbacks in the Middle East, leaving oil prices barely changed.

#### Even if OPEC fails, prices will still stay high

MACKENZIE ’12 - Editor, FT Energy Source at Financial Times (Kate, “Marginal oil production costs are heading towards $100/barrel”. May 2. http://ftalphaville.ft.com/blog/2012/05/02/983171/marginal-oil-production-costs-are-heading-towards-100barrel/)

Bernstein’s energy analysts have looked at the upstream costs for the 50 biggest listed oil producers and found that — surprise, surprise — “the era of cheap oil is over”:

Tracking data from the 50 largest listed oil and gas producing companies globally (ex FSU) indicates that cash, production and unit costs in 2011 grew at a rate significantly faster than the 10 year average. Last year production costs increased 26% y-o-y, while the unit cost of production increased by 21% y-o-y to US$35.88/bbl. This is significantly higher than the longer term cost growth rates, highlighting continued cost pressures faced by the E&P industry as the incremental barrel continues to become more expensive to produce. The marginal cost of the 50 largest oil and gas producers globally increased to US$92/bbl in 2011, an increase of 11% y-o-y and in-line with historical average CAGR growth. Assuming another double digit increase this year, marginal costs for the 50 largest oil and gas producers could reach close to US$100/bbl.

While we see near term downside to oil prices on weaker demand growth, the longer term outlook for higher oil prices continues to be supported by the rising costs of production.

This is important because, as Bernstein analyst Neil Beveridge and colleagues note, the cost of producing marginal barrels of oil plays a big role in determining oil prices.

We’d add that the expectations of said costs also play a big role, but that’s another story… and anyway, the Bernstein team argue their point pretty strongly with this chart:

Also, this research obviously only covers non-Opec producers, and it mostly excludes Russia too. Given Saudi Arabia’s role as the “swing producer”, how are the ex-Opec, ex-Former Soviet Union marginal oil production costs so correlated to Brent prices?

Bernstein argues that it’s because they are, basically, more costly:

While OPEC plays a key role in influencing price through production quotas, in the long run we believe that it is the marginal cost of non-OPEC production which sets the oil price. As global demand has surged over the past decade the marginal cost of production and oil prices have increased, as the industry has venture to increasingly higher cost (smaller, deeper fields) and more marginal regions (deep water, high arctic) to produce the incremental barrel of oil.

## 1AR

### Prizes CP

#### CP leads to government ownership – means the CP gets preempted and violates peaceful use restrictions – can’t use the tritium – 100% solvency takeout

Hochberg et al 8

(ON PETITION FOR A WRIT OF CERTIORARI TO THE¶ UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT¶ USEC INC. and¶ UNITED STATES ENRICHMENT CORPORATION,¶ Petitioners,¶ v.¶ EURODIF S.A.; AREVA NC; AREVA NC, INC.;¶ AD HOC UTILITIES GROUP; and¶ UNITED STATES OF AMERICA,¶ Respondents.¶ SHELDON E. HOCHBERG¶ Counsel of Record¶ ERIC C. EMERSON¶ CHARLES G. COLE¶ MICHAEL A. VATIS¶ JOHN P. NOLAN¶ STEPTOE & JOHNSON LLP¶ 1330 Connecticut Avenue, N.W.¶ Washington, D.C. 20036¶ (202) 429-3000¶ Attorneys for Petitioners¶ USEC Inc. and United States¶ Enrichment Corporation, 2008, http://www.scotusblog.com/wp-content/uploads/2008/04/07-1078\_cert\_rep.pdf)

Similarly, Respondents suggest that the Government¶ could step in and supply the needs of the U.S. military if¶ USEC is forced out of business. Eurodif Br. at 21-22;¶ AHUG Br. at 26-27. But such a nationalization of USEC’s¶ operations would fly in the face of Congressional policy¶ reflected in the USEC Privatization Act, Pub. L. No.¶ 104-134, 110 Stat. 1321-35 (1996), that the production of¶ enriched uranium should be placed in the private sector.¶ Moreover, the Government could not take over USEC’s¶ operations solely to maintain production of fuel for the¶ military without also reinserting itself in the commercial¶ enrichment market.

#### Picking winners are inevitable in other industries and in history- their CP isn’t a true free market

**Lacey ’11** (Free Market Hypocrisy: Why Do We Hold Renewables To Different Standards Than Fossil Fuels And Nuclear? By Stephen Lacey on Aug 29, 2012 at 2:11 pm

Now that renewables are receiving some of the same incentives that fossil fuels have enjoyed for nearly one hundred years, we’re suddenly being inundated with calls for a purely “free-market” approach to energy development from politicians on the right and companies concerned about the growth of clean energy. Their arguments make for good sound bites. But **if we take a look at the history of** energy development in the U.S., it’s very clear that we’ve never had a truly “free” market. In fact, all **of the technologies that dominate our energy system today were given special incentives** by the government in order to get them to commercial scale. According to a recent report from the venture capital firm DBL Investors, the U.S. coal, oil, gas, and nuclear industries have **cumulatively taken in more than $630 billion** in tax credits, land grants, R&D programs, and direct investments from the government. That far surpasses the roughly $50 billion in government renewable energy investments (wind, solar PV, solar thermal, geothermal, biofuels) through these same mechanisms over the decades, according to the report. But when renewable energy is given similar incentives — helping double the penetration of non-hydro renewable electricity since 2008 — **the energy free-marketeers come out of hiding and lament how we’re supposedly “picking winners and losers**.” The Republican party’s platform released this week is a perfect example: Unlike the current Administration, we will not pick winners and losers in the energy market-place. Instead, we will let the free market and the public’s preferences determine the industry out-comes. In assessing the various sources of potential energy, Republicans advocate an all-of-the-above diversified approach, taking advantage of all our American God-given resources. That is the best way to advance North American energy independence. Sounds pretty straightforward. However, the RNC’s platform is very bullish on maintaining use of coal, a resource that is declining in the U.S. because of … current market forces. According to the Energy Information Administration, we’ve seen a 20 percent drop in coal generation over the last year. That decline has been “primarily driven by the increasing relative cost advantages of natural gas over coal for power generation in some regions,” wrote EIA. But when market forces move in the wrong direction for coal supporters, that is apparently when it’s okay for government to intervene. According to the RNC’s platform, the party wants to use the strength of government to “encourage the increased safe development in all regions of the nation’s coal resources.” So there you have it. When the government encourages renewable energy, that’s called picking winners and losers. But when the government encourages coal — an increasingly-expensive resource that has become an environmental nightmare — that’s “the best way to advance North American energy independence.” And the picture becomes even more complicated when looking at the forces behind the boom in gas production. In fact, the fracking technologies people love to hold up as a miracle of the free market were made possible through years of government investment. A 2011 investigation from the Breakthrough Institute showed that the natural gas industry was able to commercialize fracking technologies only after decades of tax credits, government R&D programs, government assistance with mapping, and partnership with companies entering commercial scale. A geologist from Mitchell Energy, a leading company that pioneered fracking put it this way: “I’m conservative as hell. But the “[Department of Energy] did a hell of a lot of work, and I can’t give them enough credit for that.” The examples of government assistance to help commercialize energy technologies goes on and on. And most people only know about the ones that are easy to track. **There are other imbedded subsidies — things like land give-aways to coal companies or tax exemptions — that are hidden below the surface.** Here are a few examples, as illustrated by this subsidies iceberg infographic from Earth Track: This long history of assistance to energy technologies is completely lost in the current debate. The latest political dust-up is over support for wind through the production tax credit, a performance-based incentive crafted by Iowa Republican Senator Chuck Grassley that provides wind farm owners with a credit of 2.2 cents for every kilowatt-hour of electricity produced. The credit is set to expire at the end of the year. Since it was introduced, the U.S. wind industry has been able to drop costs by 90 percent. However, because of suppressed natural gas prices (again, helped by decades of tax credits, commercialization partnerships, and R&D programs) the wind industry says it needs the tax credit for a couple more years in order to give investors certainty. If the credit expires at the end of the year, the industry could shed up to 37,000 jobs, according to a report from Navigant Consulting. Extending the credit has very strong bipartisan support. After all, 81 percent of wind is installed in Republican districts nationwide. But there has been growing resistance from a band of free-marketeers who claim that the tax credit distorts the market, thus preventing Congress from extending the incentive for a year or two more. (Ironically, many of these same critics consistently vote to preserve permanent tax credits worth billions of dollars for the most profitable oil companies in the world). At the same time, companies like the nuclear-heavy utility Exelon are pushing Congress to abandon the tax credit. Here’s what the company’s CEO said in a recent statement: “These groups agree that it is now time for federal government to stop picking energy technology winners and losers through subsidies like the PTC and to allow market forces and state and local renewable portfolio standards to work.” Exelon has a pretty substantial wind portfolio worth 900 megawatts of capacity. However, most of its portfolio — 93 percent — is made up of nuclear power plants. But if it were not for the immense support for nuclear through loan guarantees, government-backed insurance, waste containment programs, and cost-recovery allowances for cost overruns over the last five decades, we wouldn’t have much of a nuclear industry in this country. But here’s something more remarkable: even while warning about “picking winners and losers,” Exelon executives have gone to the government to request loan guarantees and tax credits for its other operations. In 2007, Exelon President Christopher Crane testified to Congress in favor of new loan guarantees for the nuclear industry. Of course, without these loan guarantees and government-backed insurance programs, no private investor would finance a nuclear plant in this country. And just this year — two days after saying the production tax credit for wind should be ended — it was reported that Exelon would receive tax credits for two hydropower projects it had under development. We desperately need an honest conversation about energy incentives. In order to smooth out this complicated picture, **there are some analysts and political leaders who say we should get rid of all subsidies to all technologies and let the free market hash it out. That’s an appealing argument to many. But it completely ignores the embedded impact of a century of support to fossil fuels and 50 years of support to nuclear.**

### Politics

#### You don’t solve – most of the startups will fail

**Kedrosky and Feld, 9** – financial market observer, and managing director at Foundry Group (Paul and Brad, 12/2. “Start-up Visas Can Jump-Start the Economy.” http://online.wsj.com/article/SB10001424052748704402404574525772299940870.html)

One good idea to make this process easier is to create a new visa for entrepreneurs, something that is increasingly being called by venture capitalists, entrepreneurs, and angel investors a "start-up visa." It might work like this: If immigrant entrepreneurs want to start a company in the U.S. and are able to raise a moderate amount of money (perhaps as little as $125,000) from an accredited U.S.-based venture capital firm or qualified U.S.-based angel investors, we should let them start a company here. It could be a couple of founders with an idea—that's it. We would give visas to the founders and welcome them in to our country.

Would it work every time? Of course not. **It would fail more often than not. Start-ups often fail**.

#### House

AFP 3-2-13. www.globalpost.com/dispatch/news/afp/130302/us-mexico-border-obstacle-immigration-reform

Immigration reform is one of President Barack Obama's priorities for his second term, and for a wide-reaching package to pass, lawmakers need to be convinced that the border with Mexico is secure.¶ But that is no easy sell.¶ Apprehensions of undocumented aliens at the frontier have dropped 50 percent since 2008, going to 365,000 people last year, which the Obama administration cites as evidence that border security measures work.¶ And deportations of aliens without residency permits, particularly those with criminal records -- a key government goal -- stand at about 400,000 a year.¶ But the investigative arm of Congress, the Government Accountability Office (GAO), dampened the government's optimism last week.¶ A report submitted to the House of Representatives said the number of apprehensions at the US-Mexico border "provides some useful information but does not position the department to be able to report on how effective its efforts are at securing the border."¶ "The Border Patrol is in the process of developing goals and measures; however, it has not yet set target timeframes and milestones for completing its efforts," it added.¶ Marc Rosenblum, an immigration policy expert with the Congressional Research Service, said that "the size and diversity of the US border mean that no single, quantitative, off-the-shelf indicator accurately and reliably provides a metric or a 'score' for border enforcement."¶ Another report found that southern US cities, in particular El Paso, Texas just across the border from drug violence-plagued Ciudad Juarez, are the safest in the country, with constantly dropping rates of all kinds of crime. That study was based on FBI figures.¶ So far, the Republicans, who control the House, have been adamant that they will not approve major immigration reform until they are convinced the border is secure.

#### Our ev is conclusive

Ortiz 3-1. [Gabe is a San Francisco-based writer. He has contributed to the Mission's bilingual newspaper "El Tecolote," and the political blogs AMERICAblog, AMERICAblog Gay, and Veracity Stew http://americablog.com/2013/03/sequester-immigration-reform-detainees.html]

In the wake of the GOP-created-and-led sequestration threat, Immigration and Customs Enforcement (ICE) have released an “unspecified” number of non-criminal and low-risk immigrants detained in facilities around the nation, in an effort to save money as sequester-related budget cuts approach.¶ Now (southern) Republican lawmakers in Congress are threatening to derail any chance of immigration reform over the move.¶ While releases of immigrants without serious, or any, criminal histories aren’t uncommon, ICE’s actions have pushed obstructionist Republican lawmakers, already unhappy about bipartisan reform, to accuse the Obama administration of bowing to political pressure and catering to pro-immigrant groups.¶ “It’s abhorrent that President Obama is releasing criminals into our communities to promote his political agenda on sequestration,” said Republican Representative Bob Goodlatte of Virginia. “By releasing criminal immigrants onto the streets, the administration is needlessly endangering American lives.”

#### Its predictive- more reports will surface and thump CIR

The Hill 3-2-13 http://thehill.com/homenews/administration/285817-mass-illegal-immigrant-release-could-be-headache-for-obama-tricky-for-gop

The release of hundreds of illegal immigrants into a federal monitoring system this week may be an ongoing headache for the Obama administration, as Republicans focus their scrutiny on uncovering potential missteps.¶ Rep. Bob Goodlatte (R-Va.), the chairman of the House Judiciary Committee, “will be aggressively examining the ramification of this decision,” according to a committee aide.¶ And Sen. Dan Coats (R-Ind.), the top Republican on the Senate Appropriations subcommittee on homeland security, pressed Homeland Security Secretary Janet Napolitano to take more responsibility for the releases, which she says she did not know about beforehand.¶ “I am concerned that you have chosen to distance yourself from the actions of ICE,” said Coats in a letter to Napolitano on Friday. “As Secretary of Homeland Security, you have a responsibility to oversee the proper management of the department’s resources. I believe you should have been on top of this situation and taken steps far earlier to prevent this action.”¶ Napolitano will undoubtedly be pressed on the issue when she comes to testify on cybersecurity next Wednesday before Rep. Mike McCaul’s (R-Texas) House Homeland Security Committee. ICE Director John Morton promised to answer McCaul’s letter to him earlier this week in which he raised questions about exactly how many detainees had been released and what tools ICE was using to track illegal immigrants, a committee aide said.¶ But in the meantime, Republican criticism of the move could gain traction if negative reports about the actions of the illegal immigrants who were released begin to surface.¶ Sen. Chuck Grassley (R-Iowa), the ranking Republican on the Senate Judiciary Committee, said his office has received information that some of the “several hundred” people released into the monitoring program had been previously convicted on fraud, theft, and drunken driving offenses. His office declined to make the specifics of that information available to The Hill.¶ Immigration and Customs Enforcement (ICE), Napolitano, and the White House have said the move was made by career agency officials in an effort to manage ICE’s resources ahead of the automatic spending cuts that went into effect Friday with the sequestration deadline.¶ Although ICE publicly says it is not planning to release any more illegal immigrants into the monitoring program at this time, the Associated Press said it obtained internal budget documents on Friday stating that the agency planned to released as many as 3,000 more illegal immigrants in March. The documents also stated that more than 2,000 illegal immigrants were released this week, far more than the “several hundred” ICE officials have said.¶ But Republicans may run into thorns of their own on the issue, as it was under President George W. Bush that the release program — known as Alternatives to Detention (ATD) — first began. Moreover, it was Congress itself that first mandated the ATD program’s initial creation in fiscal year 2002.¶ According to ICE documents from 2009, the agency launched three ATD programs in 2004 and 2007, which monitor the release of illegal immigrants still in deportation proceedings using a combination of GPS ankle monitors, telephonic reporting, and unannounced home visits. Of the tens of thousands of illegal immigrants who have been placed in the programs, less than 10 percent have run away or escaped, according to the 2009 report.¶ Republican criticism has been steadily growing since the mass release came to light on Monday, with many GOP lawmakers expressing suspicions that the move was a political attempt to spur lawmakers into reaching a sequestration deal. ICE said the decision was made by career officials in preparation for the $85 billion in across-the-board spending cuts, which could limit the number of detainees ICE could pay to house.

#### High skilled reform won’t pass – union opposition.

Witman 3-6. [Luke, "Talks on immigration reform progressing, but hurdles remain" Examiner -- www.examiner.com/article/talks-on-immigration-reform-progressing-but-major-hurdles-remain]

However, despite the shared commitment from Republican and Democratic lawmakers to push forward a bipartisan immigration reform bill, a number of major roadblocks still stand in the way of this actually happening. Earlier today, Ariz. Sen. John McCain stated that the single biggest hurdle Senate Republicans have encountered thus far is working with labor unions on the establishment of viable visa programs both for highly skilled STEM workers and lower skilled agriculture workers. McCain admitted that coming to a compromise with unions could be impossible.

#### Plan builds massive PC – large groups of bipartisan senators have asked for the plan – Obama first move is key

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Both sides say they want the project to move forward. Both support short-term "bridge" funding to keep the project going until the financing can be worked out. Both say the other side has to make the first move.¶ The stakes are high: It's an election year, and Ohio is a swing state. USEC estimates the project at its peak will generate 3,158 jobs in Ohio, and 4,284 elsewhere. Pike County, home to the centrifuges, has a 13% unemployment rate — the highest in Ohio. The median household income is about $40,000. The average job at USEC pays $77,316.¶ Centrifuge parts are stacked up in Piketon. "It's as shovel-ready as they come," says spokeswoman Angela Duduit.¶ Indeed, the project has enjoyed bipartisan support. A USA TODAY review of DOE records shows that no fewer than 46 members of Congress — 32 Republicans and 14 Democrats — have pressured the Obama administration to approve the loan guarantee for USEC. "Quick action is paramount," said one bipartisan letter. "It is imperative that this application move forward now," said another.¶ The congressional support comes from states such as Ohio, Pennsylvania, Tennessee, Kentucky, West Virginia, Missouri, Alabama, Indiana, Maryland, North Carolina and South Carolina— an almost exact overlay of the states that would benefit from the 7,442 jobs the company says would be created.

#### Key GOP leaders want the plan – builds PC – and they don’t care about Solyndra

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

Republican House Speaker John Boehner, who as a member of the Ohio delegation has personally pleaded with Obama to green-light the project, hasn't given that signal. "The speaker believes the president should keep his word to the people of Ohio," said Boehner spokesman Michael Steel.¶ The fallout from Solyndra has some in Congress doing some soul searching about their involvement in those decisions.¶ "A cloud, a big black cloud came over after Solyndra," said Rep. Mike Simpson, R-Idaho, at a recent congressional hearing. He admitted that he put "undue influence" on DOE to approve a $2 billion conditional loan guarantee for Areva and said members of the Ohio delegation were doing the same thing.

# Finals vs Emory CH

## 1AC

### Contention 1 Inherency

#### Funding and Obama’s support for the American Centrifuge Project is strong and increasing now --- no loan gurantee coming

Shesgreen ’13 – congressional correspondent for USA Today

(Deirdre, she has covered campaign finance, health care, and lobbying, and she is a two-time winner of the David Lynch Memorial Reporting Award for regional coverage of Congress, “Fate of Ohio centrifuge project murky in 2nd Obama term”, USA Today, 2-3-2013, Accessed 2-25-2013, http://www.usatoday.com/story/news/politics/2013/02/02/usec-centrifuge-plant-piketon-uranium/1881243/)

As the 113th Congress gets underway and President Obama begins a second term, some possible shifts in federal energy policy could ripple down to affect the American Centrifuge Plant in Piketon, Ohio. For starters, Energy Secretary Steven Chu announced Friday that he was stepping down. And there have been rumors that some of his deputies, who have championed the USEC project, might also be leaving the Department of Energy (DOE). At the same time, the president has emphasized in his new term a desire to reduce greenhouse gas emissions, which boosters of nuclear power say could be a boon to uranium-enrichment initiatives like the one in Piketon. **But those big-picture changes will not be make-or-break for USEC**, a Maryland-based global energy company and a major supplier of enriched uranium fuel. Sen. Sherrod Brown, D-Ohio, said he would make sure a new energy secretary gets "up to speed quickly" on the USEC project. "Whoever the secretary is will know we have bipartisan, strong support in the delegation and in the Congress overall." Sen. Rob Portman, R-Ohio, agreed. "This argument won't be any different" just because there's a new chief at DOE. Indeed, supporters and foes alike say that right now, the ACP's short-term prospects are good, but its **long-term fate remains uncertain** and **USEC's future** will probably hinge more on its **internal financial troubles** and the commercial market for its technology than on any new political reality in Washington. Let's start with the short term: USEC has said it will run out of money to keep the project afloat at the end of February. But Congress is likely to approve **one last batch** of federal funds for USEC in the coming months — at least $50 million, and possibly more, will be needed to complete a current research, development and demonstration program aimed at proving that USEC's uranium-enrichment technology is viable. "I think the commitment is deep from the White House and is deep in Congress and is ongoing," said Brown who, along with Portman, has championed the project. Portman questioned the president's support for the project, saying it might have had more to do with its location, in the critical battleground state of Ohio, than with Obama's dedication to the technology. Still, Portman said, fears he had that the White House might kill the project have faded. "I'm feeling relieved that we still have a lifeline," he said. In the U.S. House of Representatives, the Piketon site has a new booster in freshman Rep. Brad Wenstrup, R-Ohio. "I would really like to see this project move forward," Wenstrup said in an interview. "It's something that needs to be done as a matter of national defense." If successful, USEC officials say the plant will eventually produce enough fuel to power dozens of nuclear power plants around the country. In addition, supporters say it will bolster national security by ensuring the U.S. has a domestic source of enriched uranium. The strong support in Congress for additional federal dollars doesn't mean opponents have given up. The real fight, say critics of the centrifuge project, will come at the end of the year. That's when the research program — part of a cooperative agreement between USEC and the Department of Energy — will end. And USEC will renew its bid for a $2 billion federal loan guarantee, an application DOE officials put on hold in 2011 after glitches at the Piketon site raised concerns inside the department about the viability of USEC's uranium-enrichment technology. USEC used to be part of the DOE, and although Congress privatized it in 1988, USEC and the department still work closely together. Autumn Hanna, senior program director at Taxpayers for Common Sense, a fiscal watchdog group, said USEC's renewed bid for a loan guarantee will ignite fresh skepticism about the project, particularly since it's such a large amount of money. Hanna and other critics note USEC's common stock is trading below $1, and the energy company could be delisted from the New York Stock Exchange if it doesn't rectify that. "Taxpayers shouldn't be putting more money into USEC," she said. "DOE just can't be the lifeline." Rep. Edward Markey, D-Mass., who has led efforts to nix funding for USEC, echoed that argument and signaled he would press hard against the loan guarantee. "The value of the entire company is just over $70 million, it is still rated at below junk bond status, and it is in danger of being delisted from the stock exchange and becoming a penny stock," Markey said. "To continue to subsidize this failing company would be irresponsible." A DOE spokeswoman, Niketa Kumar, said in a statement that the Obama administration would advocate more money to finish the research program, but hinted the loan guarantee was no sure thing. She said the research phase was critical to addressing the "technical and financial risks associated with the ACP project." The energy department's agreement requires USEC to meet "a series of detailed technical milestones and performance metrics that provide significant taxpayer protections," Kumar noted. USEC officials said they would address such concerns in a strengthened loan application come December. The research and development program "will be successful . . . (and) will address any remaining technical issues about the technology," said Paul Jacobson, a spokesman for USEC. "We've been indicating as well . . . that we're working to strengthen our balance sheet." "We would want to put in a strong application, both from a technical and financial perspective," he added. USEC's most vocal supporters in Congress said they were hopeful the political and fiscal obstacles to the loan guarantee could be overcome. But they conceded they could not predict how the next phase would play out. "I think this is going to work for the public and . . . for taxpayers," Brown said. But "there are hurdles they have to jump over . . . (and) I can't evaluate eight months from now and know where we're going" to end up. Portman expressed concern that the Obama administration might be reluctant to "pull the trigger" on the loan guarantee. "It requires leadership from the administration that has been lacking," he said. "The arguments are compelling, and I'm optimistic that they will, in the end, make the right decision. But as folks in Piketon will remind you, time's a wasting."

#### No DAs – DOE loan guarantees for uranium enrichment in the U.S. increasing now

**Korte ’12**

(Gregory Korte, “Politics stands in the way of nuclear plant's future”, USA Today, 4-27-2012, http://www.usatoday.com/money/industries/energy/story/2012-04-13/usec-centrifuges-loan-guarantees/54560118/1)

The DOE has supported other centrifuges. In 2010, it gave a conditional $2 billion loan guarantee to Areva, a conglomerate whose majority shareholder is the French government, to build centrifuges in Idaho. But that project is temporarily stalled because of a cash situation one executive called "growing pains." "Basically, we went in with an application that was based on a proven technology that's been in use in Europe for nearly three decades," said Sam Shakir, president of Areva Enrichment Services. "There was no question about the technology, its viability or its economics." That helped Areva sell $5 billion in preliminary orders for uranium, he said. Still, "The size of the market is large enough for multiple suppliers to be playing in."

#### No perception links – Obama is already perceived to support the plan

**USEC 08**

(“Presidential candidate Barack Obama writing to Ohio Governor Ted Strickland”, 9-2-2008, http://www.usec.com/support/administration/presidential-candidate-barack-obama-writing-ohio-governor-ted-strickland)

"Under my administration, energy programs that promote safe and environmentally-sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my **full support**. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high cost, foreign energy sources."

### Plan

#### The United States Department of Energy should approve the United States Enrichment Corporation’s currently pending application for a $2 billion loan guarantee for energy production from the American Centrifuge Project.

### Contention 2 Solvency

**USEC failure collapses domestic enrichment capability ---- Federal loan guarantee for USEC key to third party financing and credibility—no barriers**

**Schmidt ‘9 – Former U.S. Representative**

**(Jean Schmidt, speech from Congress, “Where are the Jobs?”, 7-29-2009, http://votesmart.org/public-statement/445368/where-are-the-jobs)**

The United States Enrichment Corporation, called USEC, is deploying American Centrifuge technology to provide the dependable, long-term, U.S.-owned and developed **nuclear fuel production capability** needed to support the country's nuclear power plants, nuclear submarines, and a robust nuclear deterrent. Mr. Speaker, we have dozens of nuclear power plants in this country that all require nuclear fuel. And we have a Navy who, as I speak, is sailing in every ocean across the globe. And we have weapons of mass destruction that will become a useless deterrent without fresh tritium. Without the American Centrifuge Plant, in 5 years' time, we will have **no ability** in the United States to enrich uranium to keep our lights on, our ships at sea, or a deterrent potential. In 5 years, we will be forced to purchase uranium from foreign suppliers as we do with most of our oil. I don't want to depend on foreigners for this kind of product. The American Centrifuge Plant holds great promise. Unfortunately, in order to meet this promise, USEC needed a loan guarantee from the **Federal Government**. Now, I want to repeat that. It needed a loan guarantee from the Federal Government. You see, USEC has already invested $1.5 billion and has offered another billion dollars of corporate support. It did this with the **expectation** **that the Department of Energy** would make available a $2 billion loan guarantee needed to finance the full-scale deployment of the American Centrifuge Plants. Now, I want to refer to this chart here. Why were they so confident in that? Well, you see on September 2, 2008, when President Obama was running for election, he wrote a letter to our Governor, Ted Strickland. This is the full letter so you can see it. I'm not taking it out of context. He said, Under my administration, energy programs that promote safe and environmentally sound technologies and are domestically produced, such as the enrichment facility in Ohio, will have my full support. I will work with the Department of Energy to help make loan guarantees available for this and other advanced energy programs that reduce carbon emissions and break the tie to high-cost and foreign-energy sources. This is what this letter said. So you understand that USEC was very, very confident that they were going to get that loan guarantee. But instead, on Monday night, the Department of Energy really pulled the rug out from all of us. I got a phone call asking me to call the White House, and I learned Monday night that the Department of Energy was going to withdraw its promise and they were actually asking USEC to withdraw its application and to try it again in 18 months. I was actually told on the phone that if they did that, then the Department of Energy would give them $45 million, $30 million, and another $15 million if they would rescind this. And that kind of shocked me. The next day it also shocked the folks at USEC because, you see, they had this letter that the President had given to our Governor, Ted Strickland, that said those loan guarantees would be given. Mr. Speaker, the American Centrifuge Plant currently supports more than 5,700 jobs and will help create 2,300 more within a year of commencement of the loan-guarantee funding. That's 2,300 additional jobs to my district. Now, because the Department of Energy has contradicted a promise that our President made in September of last year to our Governor and to those men and women in this area of the State, those jobs are in jeopardy. And I was on the phone with one of my constituents earlier today. Pink slips are being given out at the USEC plant. The Department of Energy has told the media the reasons for their denial were threefold: the cost subsidy estimate, a new requirement for another $300 million of capital, and the questions of technology. Well, the first question offered by the DOE is a little laughable. It turns out that the government isn't really backing these loans. Instead, the Department of Energy is charging a risk-of-failure fee to each of the folks that agrees to back the loans. These fees are pulled together to eliminate any risk to the taxpayers that actually have been given a loan guarantee. They determined that the fee for this loan would be $800 million on a $2 billion loan. So USEC is supposed to come up with $800 million on a $2 billion loan. I don't know about you, but in my neck of the woods, we call that like loan sharking. The second reason for denying the guarantee is a new need to set aside an additional 300 million for contingencies. Well, I can think where you and I see that that is headed. After the risk premium is paid, apparently USEC still has to come up with more money to make the Department of Energy feel more comfortable about giving these loans. But the last question, I think, is the most surprising, because the last reason is one where they say they have got technical questions, and this is the one that is the most absurd of all, because, quite frankly, this technology is out there. France is using it, England is using it. Would it surprise you to know, Mr. Speaker, that Iran is using it? But what I found most disturbing is that the Department of Energy hired a technology expert, as required by law, and they went through the technology and wrote a long report, and in fact the guy ran back to give it to the Department of Energy on Tuesday. That was the day after the Department of Energy made their decision. They made that decision on Monday night. They made it without any regard for the report they were relying on for this very important project. It is not just a project, Mr. Speaker, that continues to help the folks in my district. And it is important to me, because, Mr. Speaker, this is my district, and these are my folks and these are my friends. I have become friends with these people. This is the part of my community that doesn't have a lot of job opportunities, and they welcomed this job opportunity. They embraced it. And I believe that the President believes in this project, as he stated on September 2, 2008. But I think there must be some sort of disconnect with the Department of Energy. There is a chart here, and I would like to go through the chart a little bit again so we can clearly understand what is going on. The issue: credit subsidy cost estimated by the DOE to be $800 million. Well, let me be a little clearer. The estimate was never provided in writing. The methods of calculation were never disclosed or explained. An $800 million subsidy cost is not reasonable. I think it is outrageous, given USEC's fully collateralized $1 billion parent guarantee, standard credit, and, yes, yield exposures of $24 million to $74 million based on credit ratings of C to BB-minus and assets recoveries of only 20 to 30 percent of the cost. The DOE calculation clearly ignores the value of $1.5 billion invested by USEC to date and another billion of non-project collateral offered by USEC, consisting primarily of natural and enriched uranium inventories. The second issue, an additional need for $300 million of additional capital. USEC offered a legally binding capital commitment, which DOE agreed met statutory and regulatory requirements. USEC's fully collateralized $1 billion parent guarantee designed to permit loan to commerce while USEC raised additional equity while fully protecting the taxpayers. USEC's financial adviser stated that with the loan guarantee, $100 million to $150 million of capital could be raised in the public market. USEC has commenced discussions with strategic suppliers to obtain vendor financing for the balance. And the final, the technical readiness of American Centrifuge Technology. The DOE LGPO concluded that ACT was not ready to move to commercial scale operations prior to receiving the independent engineer's written assessment. The independent engineer had only been working for 12 days when DOE acted. DOE was scheduled to review the classified independent engineer report on July 28, and the DOE representative traveled to Tennessee to do so, unaware of the LGPO's decision the night before. American Centrifuge is based on technology which DOE initially developed in the 1970s and the 1980s and subsequently operated it for 10 years. USEC-approved centrifuges have been operating in the Lead Cascade for over 225,000 hours. The DOE has acknowledged that USEC met the milestone under the 2002 agreement between DOE and USEC, which requires obtaining satisfactory reliability and performance data from Lead Cascade operations, the last requirement to be met besides obtaining financing prior to commencing commercial plant construction and operations. Mr. Speaker, I don't understand what is going on here, I don't think that this body understands what is going on here, and I am not even sure that the President even understands what is going on here with the Department of Energy. But I am very confused. More than that, I am very outraged because I believe that we have to have energy independence, but we also have to have security for this Nation. Energy independence depends upon a variety of sources of energy, including nuclear power, but you have to have the stuff to make that nuclear power. In 5 years, we will no longer be the people that are producing the stuff that it takes to make that nuclear power. That is why this project is so important, not just for the 2,000 jobs that will be lost.

**Unconditional plan is key—further delays or roadblocks means USEC would pull out of the project**

**USEC ‘12**

**(“Funding”, 2012, http://www.usec.com/american-centrifuge/what-american-centrifuge/plant/funding)**

USEC needs **significant additional financing** in order to complete the American Centrifuge Plant. USEC believes a loan guarantee under the DOE Loan Guarantee Program, which was established by the Energy Policy Act of 2005, is essential to obtaining the funding needed to complete the American Centrifuge Plant. In July 2008, USEC applied under the DOE Loan Guarantee Program for $2 billion in U.S. government guaranteed debt financing for the American Centrifuge Plant. Instead of moving forward with a conditional commitment for a loan guarantee, in the fall of 2011, DOE proposed a two-year RD&D program for the project. DOE indicated that USEC’s application for a DOE loan guarantee would remain pending during the RD&D program **but has given USEC no assurance that a successful RD&D program will result in a loan guarantee**. Additional capital beyond the $2 billion of DOE loan guarantee funding that USEC has applied for and USEC’s internally generated cash flow will be required to complete the project. USEC has had discussions with Japanese export credit agencies regarding financing up to $1 billion of the cost of completing the American Centrifuge Plant. Additional capital will also be needed and the amount of additional capital is dependent on a number of factors, including the amount of any revised cost estimate and schedule for the project, the amount of contingency or other capital DOE may require as part of a loan guarantee, and the amount of the DOE credit subsidy cost that would be required to be paid in connection with a loan guarantee. USEC has no assurances that it will be successful in obtaining this financing and that the delays it has experienced will not adversely affect these efforts. If **conditions change** and deployment of the American Centrifuge Plant becomes no longer **probable or becomes delayed** significantly from USEC’s current expectations, USEC could expense up to the full amount of previously capitalized costs related to the American Centrifuge Plant of up to $1.1 billion. Events that could **impact USEC’s views** as to the probability of deployment or USEC’s projections include progress in meeting the technical milestones of the RD&D program, the status of continued DOE funding for the RD&D program, changes in USEC’s anticipated ownership of or role in the project, changes in the cost estimate and schedule for the project, and prospects for obtaining a loan guarantee and other financing needed to deploy the project.

**DOE key—without its backing key investors would pull out of the project**

**Duffy ’11 – investment expert at Motley Fool**

**(Aimee, “Will the Government Guarantee Your Uranium Stock?”, The Motley Fool, 10-7-2011, http://www.fool.com/investing/general/2011/10/07/will-the-government-guarantee-your-uranium-stock.aspx#lastVisibleParagraph)**

The U.S. Department of Energy can be such a tease sometimes -- just ask the uranium enrichment outfit USEC (NYSE: USU ) . The company has been in **hurry-up-and-wait mode** for more than two years now, eagerly anticipating a DOE decision on a $2 billion loan guarantee for its American Centrifuge project that has yet to materialize. The company has been **forced to negotiate extensions** **with its two main investors**, Toshiba and Babcock and Wilcox (NYSE: BWC ) , for the second time in two months. The companies have agreed to stay tied to the project, and their respective $100 million investments, until Oct. 31. A key process in the production of nuclear fuel for power plants, uranium enrichment increases the U235 isotope and decreases the U238 isotope in naturally occurring uranium. The U235 isotope is the only one that is fissionable, therefore the only one that can be used as nuclear fuel. USEC plans to use the American Centrifuge to separate the isotopes and sell the U235 to its customers. USEC desperately needs a conditional commitment from the DOE by the end of the month. The company provides more than 50% of enriched uranium in the United States but has issues with liquidity. The new centrifuge project is expected to provide 20% of the U.S. electricity supply but cannot go forward without help from the DOE. **Continued support from Toshiba and Babcock and Wilcox is also contingent on DOE commitment.** As it stands now, USEC has already directed certain suppliers to suspend work and has informed employees that layoffs may or may not be just around the bend.

#### Fed action now key --- solves worker layoffs

Koss ’12 – CQ Staff

(Geof Koss, “Tug of War Over Uranium Prompts Odd Alliances”, Congressional Quarterly, 3-3-2012, http://public.cq.com/docs/weeklyreport/weeklyreport-000004039687.html)

As a result, the Kentuckians’ rescue plan has hit a brick wall, raising questions not just about the Paducah jobs but also about the future of U.S. uranium enrichment. Should the Paducah plant close before its successor plant is completed in Ohio, the United States will lack an indigenous source of enriched uranium and be dependent on suppliers largely controlled by foreign governments. Critics say that could leave the U.S. unable to meet non-proliferation requirements that a key component of its nuclear weapons be generated from homegrown sources. Further complicating matters, the fate of the Ohio plant also is in doubt. Without **congressional approval** for $106 million in research funds by the end of March, layoffs at the plant may begin, says Paul Jacobson, a spokesman for USEC Inc., which runs both the Paducah and Ohio facilities. The predicament has sparked an intense and somewhat ironic debate in Congress, where a bipartisan bloc that includes deficit-focused, small-government conservatives such as Paul, as well as senior House and Senate leaders, is advocating federal intervention to save a company struggling to stay afloat. Many of those same lawmakers have attacked the Obama administration’s backing for similar intervention to assist emerging renewable-energy technologies. Opposing them is an odd coalition that includes a conservative think tank, Western lawmakers from mining states and anti-nuclear liberal Democrats. The administration in January threw a lifeline to USEC when it assumed $44 million of its liability for tailings, radioactive waste produced when uranium is milled, while also requesting $150 million in fiscal 2013 for research funding at the Ohio site. But the company is focused on impending March and May deadlines that Jacobson calls crucial. Within weeks, he says, “the United States could well find itself without any plan for indigenous uranium enrichment for the first time since the dawn of the atomic age.”

#### Free market solutions mean USEC fails and no other commercial entity fills the void—only continued government intervention works

Rothwell ‘9 – professor of economics at Stanford

(Geoffrey, “Market Power in Uranium Enrichment”, Science & Global Security, 17:132–154, 2009)

With the retirement of diffusion capacity during the next decade, the artiﬁcially high price of enrichment could fall. (It is “artiﬁcially” high due to entry barriers: Were there open markets in enrichment, new cheaper capacity would have forced the retirement of diffusion technology much sooner). Entry of new participants into the **enrichment market** is **constrained** by non-proliferation considerations, as well as by commercial interests. Enrichment technology is now being more closely guarded with the discovery of a Pakistani enrichment technology smuggling network, which stole centrifuge technology from Urenco in the 1970s, used that technology to develop nuclear weapons in Pakistan, then sold or traded the technology with several other countries, sparking a nuclear arms race with its neighbors and enabling nuclear weapons development in North Korea. Without market intervention, prices could fall to competitive levels. This implies there might be no economic proﬁt for **anyone but the Russians and Europeans**. Therefore, the ﬁnancial outlook for uranium enrichers has been bleak, prompting a Standard and Poor’s analyst to write: Standard & Poor’s Ratings Services afﬁrmed its “A-/A-2” long- and short-term corporate credit ratings on Europe-based uranium enrichment company Urenco Ltd. . . . The enrichment market is undergoing very drastic changes, as TENEX (Rosatom)—which controls roughly 50% of global enrichment capacity but only 24% market share among end-customers—is looking to increase its share of direct sales to end-customers. The extent to which this will affect Western enrichment suppliers—USEC Inc. (B-/Negative/–), Areva (not rated), and Urenco—over the medium term remains to be seen, but will be strongly inﬂuenced by ongoing political and trade negotiations . . . The other major industry change is an expected phase-out of the non-economical gaseous diffusion plants used by USEC and Areva . . . (These ratings were re-afﬁrmed on April 24, 2008.) 11 “A−” implies that Standard & Poor’s believes that (1) “economic situation can affect ﬁnance” (A) and (2) that the rating is “likely to be downgraded” (−); where A−, BB, BB−, B+, B−, etc., are lower and lower credit ratings for “non-investment” grade bonds. Since 2002, USEC has been forced to pay high bond rates on its rising debt, while trying to ﬁnance a new, First-of-a-Kind technology. This situation has been deteriorating; see Table 2. Therefore, assuring adequate diversity of enrichment capacity could be problematic **without a** more comprehensive **market intervention** (rather than continued subsidization, or not, by national governments). A Russian-European duopoly in enrichment might provide an adequate diversity of supply. But the U.S. Government must determine how many suppliers should be in the enrichment market to maintain market competition or whether any form of market regulation is necessary. The U.S. Government has been **subsidizing** the **USEC since its privatization**; it is unlikely that USEC will survive without a *continuous* infusion of federal capital *until* the ACP is ﬁnished. If USEC does survive, it might not be competitive enough to grow, if only because USEC has so little experience with operating and manufacturing centrifuge technology. **If USEC fails, the U.S**. Government **could be required to** nationalize **the** American Centrifuge Plant to provide services to defense programs (e.g., naval reactors), as well as pay for decommissioning the gaseous diffusion facilities and all other outstanding USEC liabilities. On the other hand, American electric utility demand can be supplied by Americans working at the Areva and Urenco plants in Idaho and New Mexico, and by the Russians through the extension of current contracts. Therefore, while it is not in the American electric utilities’ interest to support USEC’s high prices, it could be in their interest to support the existence of USEC as a hedge against dependence on one or two suppliers. Unregulated enrichment markets will not necessarily lead to a socially optimal diversity of enrichment suppliers: a long-run equilibrium where the industry is necessarily concentrated such that there is no proliferating entry, but is sufﬁciently diverse so that no one national group can dictate prices, contract terms, or non-proliferation policy. United States decision makers should determine (1) whether a Russian-European duopoly is in the United States’ national interest, given the dependence of the U.S. **nuclear navy** on Highly Enriched Uranium (or whether highly enriched uranium stockpiles would be adequate for the foreseeable future), (2) whether to continue to subsidize USEC, or re-nationalize it in the national interest of the United States to facilitate the implementation of non-proliferation policy, and (3) whether some form of enrichment market regulation should be encouraged to assure low-enriched uranium at reasonable prices, particularly for U.S. electric utilities.

### Contention 3 Deterrence

#### Tritium requirements for the nuclear deterrent won’t be met now – only increasing tritium production solves

GAO ’10

(“NUCLEAR WEAPONS National Nuclear Security Administration Needs to Ensure Continued Availability of Tritium for the Weapons Stockpile”, October 2010, http://www.gao.gov/assets/320/311092.pdf)

DOD is responsible for implementing the U.S. nuclear deterrent strategy, which includes establishing the military requirements associated with planning for the nuclear weapons stockpile. NNSA and DOD work together to produce the Nuclear Weapons Stockpile Memorandum. This memorandum outlines a proposed plan for the President to sign to guide U.S. nuclear stockpile activities. This plan specifies the size and composition of the stockpile and other information concerning adjustments to the stockpile for a projected multi-year period. While the exact requirements are classified, NNSA uses the detailed information included in the memorandum on the number of weapons to be included in the stockpile to determine the amount of tritium needed to maintain these weapons. In addition, NNSA maintains a reserve of additional tritium to meet requirements in the event of an extended delay in tritium production. Small quantities of tritium are also needed by the national laboratories and other entities for scientific research and development purposes. According to NNSA officials, NNSA is meeting current requirements through a combination of harvesting tritium obtained from dismantled nuclear warheads and producing lower-than-planned amounts of tritium through the irradiation of TPBARs in the Watts Bar 1 reactor. However, tritium in the stockpile as well as in NNSA’s tritium reserve continues to decay, making increased production of tritium critical to NNSA’s ability to continue meeting requirements. Although the number of nuclear weapons in the U.S. stockpile is decreasing, these reductions are unlikely to result in a significant decrease to tritium requirements. Specifically, the New Strategic Arms Reduction Treaty signed in April 2010, if ratified by the Senate, will reduce the number of deployed strategic nuclear warheads by 30 percent. However, it has not yet been determined whether some or all of these warheads will be maintained in reserve—where the warheads would continue to be loaded with tritium—or dismantled—where the tritium could be removed from the weapons. Moreover, even if some or all of the warheads reduced under the treaty were dismantled, tritium requirements are unlikely to decrease by a significant amount. While the specific reasons for this lack of decrease in tritium requirements are classified, NNSA officials we spoke with said that the additional tritium supply that would be available as a result of increased warhead dismantlements is unlikely to fill what they estimate will be a steady tritium demand in the future.

#### The ACP key to domestic tritium in our nuclear arsenal

**Holt and Nikitin ’12 –** specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

Tritium, produced in nuclear reactors, is an essential ingredient in U.S. nuclear warheads and must be regularly replenished as it radioactively decays. The need for a domestic fuel supplier for tritium production reactors has been cited as a justification for providing government assistance to USEC. USEC Inc. was established in 1998 through the public sale of a government corporation, the U.S. Enrichment Corporation, pursuant to the USEC Privatization Act (P.L. 104-134). The company enriches uranium in the fissile isotope U-235 (increasing the proportion of U-235 from the level found in natural uranium) for use as fuel by nuclear power plants. USEC leases an enrichment plant in Paducah, KY, from the Department of Energy (DOE). Built in the late 1950s, the Paducah plant uses an enrichment technology known as gaseous diffusion, in which uranium hexafluoride gas is pumped through permeable barriers to separate the major isotopes of uranium. As the isotopes are separated, U-235 is concentrated in a product stream, while the non-fissile isotope U-238 becomes more concentrated in a waste stream (or tails). USEC plans to replace the Paducah plant with a new plant at a DOE site near Piketon, OH, that would use advanced centrifuges to separate the isotopes, called the American Centrifuge Plant. The $150 million requested in the FY2013 Department of Energy budget justification is to support R&D activities for the American Centrifuge Plant. DOE currently produces tritium by irradiating lithium-6 in the Watts Bar 1 commercial reactor (in Tennessee) and may expand the program to the two-reactor Sequoyah nuclear plant (also in Tennessee) as well, both of which are owned and operated by the Tennessee Valley Authority (TVA). Because the tritium is to be used in nuclear weapons, the Watts Bar 1 and Sequoyah reactors **may not be allowed to use fuel from foreign sources** or even some domestic uranium. U-234 is necessary for the production of tritium. USEC Inc. is the current supplier of fuel for tritium production. Thus, if USEC were to cease enrichment operations, it has been argued, U.S. tritium production could be jeopardized because of a lack of alternative fuel from a solely domestic source.

#### Foreign suppliers creates uncertainty and vulnerability in the arsenal

Rowny ’12 – retired Lieutenant General

(Edward Rowny, was chief negotiator with the rank of ambassador in the START arms control negotiations with the Soviet Union and has served as an arms control adviser and negotiator for five presidents, Roll Call, 3-29-2012, http://www.rollcall.com/issues/57\_118/edward-rowny-safe-uranium-enrichment-should-be-us-priority-213505-1.html)

Oil may grab headlines, but nuclear power for civilian use is growing, as it should. It is efficient, extremely safe and friendly to the environment. As with oil, the U.S. would be wise to produce its own supply of enriched uranium, the fuel for nuclear power plants. Farming out the process to other nations — or to companies headquartered overseas — is risky and increases our vulnerabilities. The U.S. government should pay more attention than it has in recent years to the nation’s dwindling ability to enrich its own uranium. The consequences of doing otherwise could be dramatic. Our country could **find itself at the mercy** of foreigners who do not have our best interests at heart. Energy independence, a laudable aspiration for oil, is even more essential for nuclear power. Domestically produced supplies of enriched uranium are already running short. The U.S. once produced most of the world’s enriched uranium. Now we’re down to about a quarter of the world’s supply. For reasons of national security, we shouldn’t dip further. That’s why the president should be praised for requesting $150 million in next year’s National Nuclear Security Administration budget to keep uranium enrichment alive on our soil. In the meantime, Chu has asked Congress for the authority to reallocate his current budget resources for that purpose until next year’s budget is enacted. Without this cash infusion, American technology at a major facility in rural Ohio will face an uncertain future. We can’t afford the *uncertainty*. Military considerations also play a role here. Nuclear weapons, while thankfully on the decline, still exist and must be maintained and updated. International treaties mandate that tritium, a rare, radioactive isotope that’s a byproduct of enriched uranium use in nuclear reactors and is critical to the proper, safe functioning of nuclear weapons, must be made with U.S. technology. Unless U.S. technology is available to make the enriched uranium needed to produce tritium, our national security will be at risk.

#### Foreign suppliers can’t and won’t provide the tech

Holt and Nikitin ’12 – specialist in energy policy and specialist in nuclear nonproliferation

(Mark and Mary Beth, “Potential sources for nuclear fuel for tritium production”, Congressional Research Service, 5-15-2012, http://markey.house.gov/sites/markey.house.gov/files/documents/2012\_0515\_CRS\_TritiumFuelOptions.pdf)

The European consortium Urenco is one of USEC’s major competitors. Urenco recently began operating a centrifuge enrichment plant in New Mexico, which is expected to reach a capacity of 5.8 million separative work units (SWU) by 2015. The New Mexico plant is operated by Urenco subsidiary Louisiana Enrichment Service (LES), so named because the facility was originally planned for Louisiana. Construction of Urenco’s New Mexico plant was authorized by the 1992 Washington Agreement between the United States and the three members of the Urenco consortium: Germany, the Netherlands, and the United Kingdom. 2 Article III of the agreement, Peaceful Use, states that the New Mexico plant shall only be used for peaceful, non-explosive purposes. The special nuclear material produced by the plant, enriched uranium, as well as any special nuclear material produced in a reactor using the enriched uranium, such as plutonium, is also restricted to peaceful uses. Urenco has signed a contract with TVA to supply enrichment services from its New Mexico plant to the Watts Bar and Sequoyah reactors. This arrangement raised questions about whether the TVA plants could be used to make tritium for nuclear warheads while being fueled by enriched uranium from Urenco. A 2008 legal memorandum to NNSA concluded that the Washington Agreement did not preclude such use of the Urenco-produced nuclear fuel, because tritium is not defined as special nuclear material, but rather as byproduct material. A Joint Committee of the Urenco consortium, after being briefed on the issue at a 2005 meeting, did not object to the TVA contract. 3 A Urenco official said that although the company does not object to TVA tritium production with its enriched uranium, **current DOE policy would not approve the transfer**. 4 An NNSA official said U.S. treaty obligations prevent fuel enriched by Urenco from being used for tritium production: The answer in general for Urenco is that its enrichment technology has peaceful use restrictions, consistent with section 123(a)(3) of the Atomic Energy Act and our treaty with Euratom [an association of European countries that use nuclear energy], that prevent its deployment in support of nuclear weapons programs or for any military purpose.

#### Perception of federal leadership key to effective nuclear deterrence

Schneider ‘8 – chairman of the Defense Science Board

(Dr. William Jr., “Nuclear Deterrence Skills”, Report of the Defense Science Board Task Force, September 2008, http://www.defense.gov/npr/docs/dsb%20nuclear%20deterrence%20skills%20chiles.pdf)

As long as anyone in the world has or can acquire nuclear weapons, America must have nuclear **deterrence expertise** competent to avoid strategic surprise and respond to present and future challenges. There are many kinds of threats that demand national leadership, but no threat can put the nation’s existence at risk as quickly and as chillingly as nuclear weapons. To say this is not to dismiss the seriousness of other threats. It simply acknowledges that since the dawn of the nuclear age, security from nuclear attack has been in a class of its own, and major national decisions on nuclear deterrence issues have been reserved for the President of the United States. Nuclear deterrence expertise is **uniquely demanding**. It cannot be acquired overnight or on the fly. It resides in a highly classified environment mandated by law, it crosses a number of disciplines and skills, and it involves implicit as well as explicit knowledge. Nuclear weapons **expertise is** **necessary to design and build nuclear weapons, to plan and operate nuclear forces**, and to design defense against nuclear attack. It is also necessary to analyze and understand foreign nuclear weapons programs, devise nuclear policies and strategies, deal with allies who depend on the American nuclear umbrella, prevent and counter nuclear proliferation, defeat nuclear terrorism, and—in the event that a nuclear detonation takes place by accident or cold, hostile intent—cope with the catastrophic consequences. America’s nuclear deterrence and nuclear weapons expertise resides in what this study calls the “nuclear security enterprise.” This enterprise includes nuclear activities in the Department of Defense (DOD), Department of Energy, Intelligence Community (IC), and the Department of Homeland Security.

#### The nuclear deterrent is critical to prevent nuclear war – controls conflict escalation

Blackwill ’13 – special advisor to the Air Force’s assistant Chief of Staff for strategic deterrence and nuclear integration

(James, “Nuclear Weapons Critics Suffer Cold War Brain Freeze; Deterrence Works, Argues Top Air Force Official”, AOL Defense, 2-20-2013, Accessed 2-25-2013, http://defense.aol.com/2013/02/20/nuclear-weapons-critics-suffer-cold-war-brain-freeze-deterrence/)

There is an unsettling paradox in much of the recent debate over nuclear weapons in this country. Some pundits, fixated on purging "Cold War thinking" from those of us with real-world responsibilities for nuclear deterrence, are themselves suffering from thoughts frozen in time. In the midst of this important debate, let me offer some examples of the new strategic concepts emerging from a new generation of deterrence thinkers. The conventional wisdom is that a world with fewer nuclear weapons is inherently a better world. What we are discovering is that less is not less, less is different. US policy has led in reducing nuclear weapons. At its peak in 1967, the US stockpile stood at a staggering 31,255 warheads. Just since 1991, we have disassembled more than 13,000 weapons, and in the past decade taken our stockpile – the total number of weapons -- down from 10,526 in 2001 to 5,113 in 2010. Our nuclear weapons and delivery platforms now number an order of magnitude less than during the Cold War, and this policy continues -- creating new conditions in the global nuclear balance. In this new nuclear environment, potential adversaries are reaching conclusions we did not expect, and **our allies** and partners **are more nervous** about it than we want them to be. This new world of several contending nuclear powers **behaves** **differently than the bi-polar world** that preceded it. Deterrence is no longer (if it ever really was) a rational actor systems model; it works as a mental model. It's more like the "**hot hand" rule in basketball** – players do not keep mental statistics on who has the highest percentage shot for a particular game situation; instead they carry a moving mental image of who at that moment is on a streak and feed the ball to that player instinctively. The same kind of thing happens in crisis and conflict. Behavioral scientists call this "fast, frugal heuristics," and are beginning to explore the empirical dimensions of this 21st century deterrence dynamic. There are some surprising findings and insights. First, just because no one has detonated a nuclear weapon in war since 1945, does not mean they are sitting idly by, with little purpose. Nuclear weapons are in fact "used" **every day** -- not to win a war, but to deter any adversary from thinking they could get away with starting one. As budget pressures rise, many call for not spending more on weapons we cannot use in the kinds of conflicts most likely to occur – presumably counter-terrorism or conventional warfare. But a nuclear war is the conflict we need to make sure remains the least likely to happen. Second, there is **much new research** on 21st century deterrence of rogue actors and terrorists. We now know that, during the 1991 Persian Gulf War, Saddam Hussein was persuaded that if he were to order use of chemical weapons against US troops, the US would have responded with tactical nuclear weapons. Hussein had extensive discussions with his generals – lectures really – and injected that assumption into all their war planning. Such thinking likely resides within the decision-making processes of other states that face a similar calculus. There is merit in reinforcing such fears among others who would harm their neighbors. It turns out that terrorists, even suicide bombers, harbor visceral fears of nuclear weapons, fears that can be exploited to deter them from acting should they ever get one. Islamic terrorists adhere to the Koran's proscriptions against poisoning the earth with radiological effects and creating mass casualties among the innocent. Cyber and psychological campaigns can broadcast messages across terrorists' own social networks to convey this narrative challenge to terrorists' intent. Terrorist cells also fear failure, so technical sabotage, misinformation and deception can magnify doubt about the prospects for a successful detonation. Third, US nuclear weapons serve as a powerful instrument of nonproliferation. Post-Cold War experience reveals that others, from Saddam's Iraq, to North Korea, Libya, Iran and others, pursue nuclear weapons as the centerpiece of an asymmetric counter to the United States' conventional military superiority. As every other nuclear power except the U.S. modernizes their nuclear weapons, and as the number of nuclear armed states continues to grow, our allies and partners who rely on our extended deterrent are increasingly motivated to consider obtaining their own nuclear arsenal. We must actively pursue a flexible strategy that allays such concerns among allies. Some assert that a reliable nuclear deterrent does not require the ability to retaliate immediately, only the assurance that U.S. nuclear forces would survive any attack. Aside from the fact that none of America's nuclear triad is on "hair-trigger" alert, the reality of fewer nuclear weapons is that we cannot rely solely on a super-survivable second strike nuclear force that deters only by threatening retaliation. Such a posture could readily be perceived as threatening our intent to strike first. We must have a resilient nuclear arsenal that deters a nuclear strike in the first place. No president would want to ask the American people to ride out a first strike and then trust him to order a retaliatory strike on behalf of the remaining fraction of our population. What the president needs is a nuclear force that would lead no nuclear armed state, faction or terrorist to conclude that it has less to lose by striking us first, even with just one or a few nuclear weapons. We must not give anyone cause to contemplate such a move. This is a very different form of deterrence than the Cold War. No longer can we rely on the mathematics and purely rational models of nuclear exchange developed in the 20th century. We must understand human perception and decision-making. For 21st century deterrence, the value of first-strike stability is now at least equally important as maintaining an assured retaliation capability. Those of us in the new generation of strategic thinkers have liberated our minds from Cold War thinking to make sure that today, nuclear weapons are never used.

#### Nuclear deterrence deters nuclear conflict with Russia and China

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 134-139)

Any practical scenario involving nuclear weapons looks highly unrealistic except in the context of a conflict with China, the most feared neighbor, which lost part of its territory during the time of Russia’s grandeur with the so-called unequal treaties. But even though Beijing is feared by lucid Russian officials and security experts, such a scenario appears remote. Russia would rather continue developing its anti-Western propaganda and trying to coerce its neighbors—a prospect that is troubling enough, particularly since many of those neighbors are NATO and/or EU members—but nuclear weapons can hardly be contemplated, even to coerce. In the south, Russian nuclear weapons can hardly be used as either a means to deter or a means of warfare. So, again, only a China scenario would make sense, particularly since with fewer nuclear capabilities, China would be much more tolerant of human losses. Moscow knows it. It also knows that deep cuts in nuclear forces after New Start would encourage China’s buildup. Finally, it is worth underlining in the event of future talks with Moscow that it is hard to understand its geostrategic picture as expressed in March 2011 by Military Sciences Academy President General Makhmud Gareyev: “Regarding security, Russia has never been in such a crunch as in the early twenty-first century since perhaps, 1612.”67 Forget 1941, and forget the Cold War, particularly after 1960, when both China and the United States were considered hostile. The delusion of the Russian side will be the most dangerous element to deal with in the coming years. In the 21st century, there is a potential nuclear triangle among the United States, Russia, and China that may be considerably more difficult to handle than the bipolar relationship that existed in the 20th century. Triangles are inherently unstable, particularly when the nations concerned are empowered with ballistic missiles and nuclear weapons.68 Each of the three powers has to make calculations regarding the evolution of the other two; two of the three may combine their forces against the third, and this kind of alliance may only be temporary; and in case of crisis, the **uncertainty** grows with the presence of a third actor. In George Orwell’s novel Nineteen Eighty-Four, the world is divided among “the Big Three,” all of them totalitarian. They combine but switch sides frequently. As Martin Wight recalls, “Triangles tend to be mobile figures of shifting alliances and negotiations.”69 In the case of the United States, Russia, and China, there would be only two dominant powers of different caliber (the United States and China) and a third force (Russia, which can no longer be called a great power). If triangles “are relationships of conflict” that “are resolved by war,”70 what can be expected from this particular triangle? For the time being, Washington has prioritized China and Russia in the 2010 NPR, frequently associating them with “strategic stability.” In the NPR, China and Russia are no longer presented as “contingencies” (even though both nations are still targeted in U.S. nuclear planning) but as partners with whom to discuss strategic stability. The Ballistic Missile Defense Review, for its part, has done its utmost to assure China and Russia of the absence of any U.S. plans to counter China’s or Russia’s deterrence capabilities. Rhetoric aside, how will the United States craft strategic stability with both Russia and China? The NPR offers no answer to this legitimate question. Thinking on the subject is not easy, particularly if government officials are pressed to reach public conclusions. It appears highly probable that strategic stability will be defined by both Russia and China—if they eventually agree to engage in such discussion 71—in wider terms than in terms of nuclear parity. In principle, the United States, which never equated “strategic” with “nuclear,” should have no problem accepting this. But difficulties would start just after this simple recognition. First, both Moscow and Beijing want to constrain advanced U.S. conventional capabilities, U.S. missile defenses, and alliances with the United States in their neighborhood. Washington can make some **gestures** (offer cooperation on missile defense to Moscow72 or reassure Beijing on the value of its nuclear deterrent73), but those **will hardly be enough**. Second, on the American side, it would only be natural to enlarge the concept as well and ask Moscow to clean up its ballistic weapon archipelago for good,74 while China might be asked to adhere to some rules in space and cyberspace. A year from now, the different definitions of strategic stability in the three nations are likely to endanger the optimistic scenario delineated in the NPR.75 On the Russian side, missile defense, Prompt Global Strike, and NATO’s presence in Russia’s periphery are going to remain contentious bilateral issues, while its own clandestine ballistic weapon activities are unlikely to be acknowledged. In addition, the primary source of instability in Moscow’s mind being its own decay, U.S. military and diplomatic superiority are going to be fought with all the available means, including influence, negotiations, intimidation, and espionage. The nostalgic empire perceives any secure neighbor as a threat, as if projecting fear were the only means of ensuring security. While the historical roots of this mind-set are well known, it clashes with stability as defined by most other countries (and certainly by Russia’s neighbors). For example, on the subject of missile defense, Moscow insists it is prepared to shield contiguous Eastern European states from missile threats: “Naturally, Russia should be in charge of the eastern sector encompassing the territories of the contiguous states and seas,” declared Russian Space Forces Commander Lt. Gen. Oleg Ostapenko on April 29 in Moscow.76 Would the Baltic states or Poland consider such a possibility? Unlikely. And Washington will not swallow any of this, either. As for China, stability is satisfactory as long as China’s status, meaning the “Middle Kingdom” under new guise, is restored. More than projecting fear, Beijing wants recognition of its superiority. The bottom line is “China is big” and deserves respect as such. Such was the motivation for Beijing’s totally disproportionate reaction to Tokyo’s decision to detain and charge the captain of a Chinese fishing trawler in September 2010. China needs to learn the measure of a great power, but it may never get there. It apparently enjoys looking like a bully. Beijing may therefore be exploiting the U.S. desire for partnership only to the extent that it buys it an additional decade of breathing room to become really big. Is it in the interest of the United States to endorse this line of thought and conduct? Hardly. In addition, the primary source of instability for China being the United States (in decline in China’s mind but still the big hegemon in China’s speeches), it is hard to imagine what kind of strategic stability can be crafted with Beijing. Sino-Russian relations have improved largely because both nations wish to constrain American power. The border dispute was resolved in 2004, some joint military exercises have been conducted, and China has benefited enormously from Russia’s willingness to export modern weapon systems (aircraft, submarines, cruise missiles, and air defense systems) and advanced technologies (notably in the field of uranium enrichment). In essence, China views the rapprochement as bringing more stability because it increases China’s power and influence. Russian policy is less clear and sometimes debated by Russian experts who worry about China’s military rise. In Central Asia, the two nations are in competition: Their only common goal is related to U.S. withdrawal. What will happen next? In the Middle East and in East Asia, there is some Sino-Russian coordination to constrain Western efforts toward sanctions on Iran and North Korea. From this perspective, both countries bear some responsibility in the advance of both Iran’s and North Korea’s ballistic and nuclear programs, even when technological cooperation between them and the two nuclear aspirants is set aside. With this in mind, how can strategic stability be crafted among the United States, China, and Russia? At the simplest level, strategic stability could mean securing the nuclear peace and preventing escalation in times of crisis. In principle, the Russians could be a satisfactory partner because of historic experience, competence, and a genuine desire to avoid worst-case scenarios. Less is known about the Chinese: Would they reject or favor deliberate escalation in wartime? One thing that is clear is that interest in this topic is growing in the PLA.77 Chinese writings continually emphasize the need to secure and maintain the political and military initiative, highlighting how difficult it is to regain once lost. This is probably the area where escalation with China is a concern. Russia used to state in its doctrine that it would not hesitate to resort to nuclear weapons when faced with possible defeat in a limited conventional conflict. The most recent Russian military doctrine states a more moderate position: The Russian Federation reserves the right to utilize nuclear weapons in response to the utilization of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat.78 The contradiction between the declared Russian doctrine and Russia’s military exercises may provide a different insight, but in practice, nuclear escalation in a limited conventional conflict can be considered unlikely. China, on the contrary, repeatedly states a no-first-use policy in the Second Artillery’s publications. However, first, such a policy may be useful mainly in the diplomatic arena, and second, one wonders whether a probable conventional defeat against Taiwan, China’s most important territorial dispute linked to the legitimacy of the Chinese Communist Party, could be politically acceptable for Beijing. In other terms, on the ground the two nations might behave in ways that contradict their doctrines. This would be consistent with their patterns of behavior, Russia overplaying its hand and China underplaying it. In case of a U.S.-China confrontation over Taiwan, what would Russia do? The most likely answer is nothing. With no clear stake in the conflict, Moscow would not risk becoming a target of either Beijing or Washington. Some would argue, though, that Russia may have a stake in this conflict. A Chinese victory over Taiwan might be followed by the wish in Beijing to recover territories in the eastern part of Siberia. Would this possibility lead Russia to openly challenge China during such a conflict? Most probably not. But the United States may count on a neutral Russia, forgetting any strategic partnership with China. Any serious Russia-China confrontation, on the other hand, may raise questions in Washington about the possibility of intervening on the Russian side because of wider interests. The least that can be said is that Moscow does not facilitate thinking in the direction of such a scenario, which would imply an extraordinary level of rapprochement with Washington. But the reality is there and it is troubling: As President Kennedy understood at a very early stage, China is fundamentally more dangerous than Russia.79 This should be the perception in the West after decades of interaction. We can only imagine what China would be capable of doing if it perceived the United States having serious difficulties accessing the region, starting with the contested Senkaku Islands. From this viewpoint, Richard Nixon may have lost his bet. There is a widening divide between two categories of big nations: those convinced that the main challenge of the 21st century is to prevent major crises from emerging, fight nuclear and biological proliferation, and jointly manage the global commons, and those that continue to engage in power politics and competition. In the latter category, China is the most daring. Russia may continue to harass its neighbors, particularly if Moscow’s reading of the 2008 Georgian war is that it provides a telling example of the West’s lack of reaction, but it will probably pose no major challenge in the foreseeable future. In the former category, one finds European nations, America, and—a good surprise—increasingly India, which is progressively displaying the intent to rise as a responsible global power. These two worlds are hardly reconcilable, and they may collide. More substantial thinking on power politics may be required in the first group of nations, regardless of their preference for a more cooperative and stable world where most states increasingly share the same interests. Stability itself may require such thinking. If strategic engagement integrates a competitive dimension, it may work considerably better because it will be in tune with reality on the ground. A good example is the improvement of U.S.- Chinese relations in 2010, coinciding with a more sober view of China in the Obama administration.

#### China and Russia would exploit weakness in our nuclear deterrent to gain power

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 117-119)

With China now a major rising power, considerably more difficult challenges than those posed by regional powers are starting to appear on the horizon. If experience is any guide, a gradually more powerful China is likely to become not a more responsible stakeholder but rather an increasing challenge to an international order that, in the eyes of Beijing, is unduly protective of the West’s interests, including in Asia. The mood regarding Beijing has darkened after the Copenhagen Summit on climate change in December 2009, numerous cyberattacks, challenges to Internet freedom, ambiguous policy on Iran and North Korea,7 arms sales to Iran and to the Taliban, disregard for maritime law,8 and, finally, lack of common assessment on future challenges and future strategic stability. Beijing appears increasingly self-confident, arrogant, and nationalistic.9 With its imperial culture and its legacy of condescension, China sees itself as the only possible—and probably the only legitimate—successor to the United States on the international scene in the decades to come. In China’s view, it deserves to become number one; it only needs time to prove the point. Its neighbors have few doubts on the subject. And, instructed by experience, Washington itself had far fewer doubts in 2011 than it did in 2009, for good reason. Russia, a fading power, is a different matter of concern. Its rational choice should be to work with the West, with a potential nuclear-armed Islamic power on its southern flank, a collapsing demography, and a dynamic and greedy China in the southeast. But apart from reports written by some Russian experts popular in the West,10 there is no indication that Moscow has come to this conclusion. The 2010 Russian military doctrine still names NATO as the first danger to Moscow’s security, 20 years after the end of the Cold War. Concerning China, there may be fear and awe in Russian minds, but there is not a single word on the subject in Russia’s military doctrine. Whenever questions are raised about relations with China, Russian officials tend to answer that they have dramatically improved. Reluctance to engage in any serious security dialogue— not to mention any initiative—that could threaten bilateral relations with Beijing is obvious.11 When asked, for example, to share data with the United States on Chinese ballistic missile launches—a potential useful bilateral cooperation for both nations— Moscow refused in order to avoid hurting Russian-Chinese relations. According to an April 2010 BBC World Service survey, Russia ranks third in negative feelings toward the United States.12 The main threats coming from Russia are its difficulty in reconciling with the loss of its empire, its resentment toward the West for that reason, the corruption of its political elites, and its current inability to face real threats as opposed to imaginary ones. Big states seldom attempt to balance power, and even more seldom do they cooperate with each other. Most frequently, they simply seek to gain power of their own. The United States is probably a historical exception to this rule because it appeared on the world stage in order to limit the damage brought by its European allies rather than to enlarge its own world influence and power. History, revenge, **misconceptions**, and even suicidal moves can guide the policy of big powers: The 20th century has shown it in a devastating manner.13 An almost unthinkable series of absurdities in Vienna, Saint Petersburg, Berlin, and Paris set all of Europe ablaze as well as a large part of the rest of the world, after the assassination of the nephew of the Austrian emperor by a Serb nationalist. Once the machine had been set in motion, there was no way of holding it back. A lucid analysis of the policy pursued by both Russia and China does not provide a rosy picture for the future. If the challenges come closer, no one will be in a position to speak about any “strategic surprise.” Retrospectively, **the real surprise** for historians will be our blindness: The main elements of future crises are already present for everyone to see.

In the case of **Russia**:

* continuous violation of the BWC,
* disregard of the CFE Treaty,
* a policy of fait accompli in both Abkhazia and South Ossetia,
* a wish to recover as much of its former empire as possible,
* endemic political corruption, and ambiguity vis-à-vis Iran.14

In the case of **China**:

* a will to gain at last the position it believes it deserves in the world (namely number one),
* deployment of more than 1,000 missiles on mainland China facing Taiwan,
* cyberattacks against America and Europe,
* competition with the United States in outer space,
* development of effective antiaccess capabilities,
* confrontation with neighbors on sea lanes and maritime law,
* and an unwillingness to implement sanctions against Iran and North Korea,
* even when Beijing agrees to vote for them.

The triangular nuclear relationship among the United States, China, and Russia took a curious shape in 2010. At the very time when Washington took literally months to decide whether the NPR would use the phrase “sole purpose” or “primary purpose” to describe the objective of U.S. nuclear weapons (and finally settled for “fundamental purpose” in order to include a possible nuclear response to a biological attack), China quietly continued increasing and improving its ballistic and nuclear arsenal as well as its space and cyber capabilities, while in February 2010 Russia adopted an aggressive nuclear doctrine that worried its neighbors (who are also U.S. allies and often EU members).

#### Deterrence between the U.S. China and Russia works – communication and nuclear learning are increasing – just a question of U.S. technical capability to maintain deterrence

Delpech ’12 – former head of strategic studies at France’s Atomic Energy Commission

(Thérèse, expert on nuclear deterrence and non-proliferation, foreign affairs analyst, “Nuclear Deterrence in the 21st Century Lessons from the Cold War for a New Era of Strategic Piracy”, RAND Corporation, 2012, Accessed 2-26-2013, <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1103.pdf>, pg 159-161)

In 1956, Paul Nitze made an interesting analogy between a nuclear world and a chessboard.1 He wrote that even though the atomic queens may never be brought into play, their position may still have a decisive bearing on which side can safely advance a limited-war bishop or a Cold War pawn. More than 50 years later, this may still be true. But while he had in mind mainly U.S. and Soviet atomic queens, with an advantage on the American side, the reality in the 21st century may be essentially about the **shadow of America’s adversaries’ atomic queens**. In the United States, expenditures related to the nuclear enterprise are under increasing scrutiny, making it difficult to modernize the nuclear arsenal.2 Today’s entire Air Force bomber fleet—nuclear and nonnuclear—is 90 percent smaller than it was in 1959, a decline justified in great part first by the deployment of ICBMs, the advent of precision-guided munitions, and the rise in the per-unit cost of combat aircraft, and second by the end of the Cold War. Still, all the remaining bombers are in need of costly upgrades, since the air-launched leg is apparently going to be retained for the foreseeable future.3 The remaining ICBMs are also aging rapidly, with underground silos in need of cost-prohibitive replacement. Among U.S. nuclear allies, the United Kingdom is far from having a clear nuclear policy for both political and financial reasons (in April 2011, for example, part of the UK coalition—LibDem—questioned the need for continuous submarine patrols at sea). Meanwhile in China, where the military budget has been unconstrained for 20 years, nuclear weapons are playing an increasing role. New air, sea, and ground systems are beginning to be deployed there, with great opacity denounced in the region and beyond. The future nuclear force that China has in mind is unknown. Even the number of new ICBMs, dual-capable aircraft, and nuclear submarines is anyone’s guess, though it is probable that the JL-2 will be made capable of carrying three warheads instead of one. At the same time, Beijing is developing space and cyberspace capabilities and testing them in disturbing ways. With significantly fewer financial resources than China, Russia also gives priority to its nuclear holdings because of perceived large conventional imbalances with both NATO and China. The New Start treaty has not led to any reductions in Russia, because its current holdings are already below the ceilings. In South Asia, Pakistan may well be the main strategic beneficiary of the 1998 nuclear tests, since Islamabad’s needs are much more limited than those of New Delhi. When American troops leave Afghanistan, China will have more freedom of maneuver to achieve its overriding regional objective: keeping India down. This has always been the basic tenet of the Sino-Pakistani relationship. Finally, the likelihood of additional nuclear players in the Middle East and in East Asia 20 years from now can hardly be discarded. Some official statements have now been made public. All of these factors will play a role in constraining the United States in the safe advance of what Paul Nitze called a limited-war bishop. At the same time, nuclear deterrence has receded in American minds as well as in European capitals. More urgent business—yesterday in the Balkans and Iraq, today in Afghanistan and Libya—is focusing intellectual and operational efforts. Paradoxically, a fortunate turn of events occurred with two serious nuclear incidents in 2006 and 2007 in the United States. In August 2006, nuclear fuses were mistakenly shipped to Taiwan, and a year later, in August 2007, six air-launched missiles armed with nuclear warheads were mistakenly flown from Minot Air Force Base to Barksdale Air Force Base. Both events led to the creation of Global Strike Command and to a reexamination of the nuclear enterprise. Since the revelations concerning the probable existence of additional clandestine military activities in Iran (beyond Qom) and the advancement in Pyongyang’s enrichment program, troubling questions have surfaced concerning Western intelligence, key challenges to international verification, and export control limits. In stimulating a renaissance of thought on nuclear deterrence, this reexamination should take into account the development of thinking in potentially adversarial nations. In many parts of the world, nuclear weapons are not seen as old-fashioned. The West will **not change this perception** by reducing its nuclear arsenals. Newcomers carefully follow the nuclear debates that are developing mostly in the West. They take part in them, they react to them, they read nuclear doctrines (including NATO’s new nuclear posture), and they occasionally learn from past nuclear crises. An important lesson of the Cold War stems from the high level of professionalism exhibited by those dealing with nuclear weapons on both sides. As General Larry Welch declared at the 2010 U.S. Strategic Command Deterrence Symposium in Omaha, referring to the Western and Eastern nuclear communities, “they kept peace” in part because each side recognized the competence on the other side and respected it.4 Deterrence greatly benefited from this competence and respect. It is worth noting that during the Cold War, such competence was not recognized in Mao and the Chinese. Nikita Khrushchev worried about Mao’s recklessness and his lack of understanding in nuclear matters. Things have changed a great deal in the last 40 years, but there is no doubt in the mind of this author that Beijing remains a risk-taking partner when compared with the USSR. This factor should be taken into account in the West as it already is in the East. Improving mutual understanding among potential nuclear adversaries is an important part of deterrence. Such is the purpose of a number of current bilateral strategic dialogues. Such dialogues with Russia and China have been disappointing so far. Russia, a revisionist state unlike the Soviet Union, is essentially trying to get Western military technology and is not really interested in any substantial dialogue on the most divisive issues—for example, missile defenses, a subject on which the same line of argument is presented over and over again, whatever the systems contemplated to protect Europe and America or the technical explanations provided by Washington to reassure Moscow. China, with increasingly sophisticated and well-read experts, appears reluctant to discuss with Washington its perceived conditions for strategic stability in the 21st century, a crucial topic for deterrence in both America and Europe. Track two meetings may provide different opportunities. The strategic community is now **more internationalized** than it used to be. American, European, Russian, and—increasingly—Asian experts exchange ideas on a daily basis. These meetings improve mutual understanding on key questions: ambitions, interests, sovereignty, stability, and regional crises, as well **as prevention of escalation**. Although they are not meant to replace official bilateral or multilateral meetings, they should be able to deal with part of the “thinking crisis”: With so many questions now open, shaping the intellectual framework of things to come on nuclear matters is not a minor business, especially since the real nuclear debate could well become less about nuclear abolition and more about whether there will even be any rules at all in the nuclear future.

#### North-South Korea tensions are massively escalating – failure to provide reliable nuclear deterrence risks escalation and South Korea prolif – their impact D is no longer relevant, the game has changed

Fackler and Choe 3/10 – Tokyo Bureau Chief of the New York Times and Pulitzer Prize-winning South Korean journalist

(Martin Fackler and Choe Sang-Hun, “As North Korea Blusters, South Flirts With Talk of Nuclear Arms”, The New York Times, 3-10-2013, http://www.nytimes.com/2013/03/11/world/asia/as-north-korea-blusters-south-breaks-taboo-on-nuclear-talk.html?pagewanted=all&\_r=0)

SEOUL, South Korea — As their country prospered, South Koreans have largely shrugged off the constant threat of a North Korean attack. But breakthroughs in the North’s missile and nuclear programs and fiery **threats of war have heightened** fears in the South that even small **miscalculations** by the new and untested leaders of each country could have disastrous consequences. Now this new sense of **vulnerability** is causing some influential South Koreans to break a decades-old taboo by openly calling for the South to develop its own nuclear arsenal, a move that would raise the stakes in what is already one of the world’s most militarized regions.¶ While few here think this will happen anytime soon, two recent opinion polls show that two-thirds of South Koreans support the idea posed by a small but growing number of politicians and columnists — a reflection, analysts say, of hardening attitudes since North Korea’s Feb. 12 underground nuclear test, its third since 2006.¶ “The third nuclear test was for South Korea what the Cuban missile crisis was for the U.S.,” said Han Yong-sup, a professor of security policy at the Korea National Defense University in Seoul. “It has made the North Korean threat seem very close and very real.”¶ In recent weeks, the North has approached a crucial threshold with its weapons programs, with the successful launching of a long-range rocket, followed by the test detonation of a nuclear device that could be small enough to fit on top of a rocket. Those advances were followed by a barrage of apocalyptic threats to rain “pre-emptive nuclear strikes” and “final destruction” on Seoul, the South’s neon-drenched capital. The intensification of North Korea’s typically bellicose language shocked many South Koreans, who had thought the main target of the North’s nuclear program was the United States.¶ Adding to South Koreans’ worries, the North and its nuclear arsenal are in the hands of a young new leader, Kim Jong-un, whose brinkmanship appears to be an effort to ensure the support of his nation’s powerful military.¶ The South also has a new president, Park Geun-hye, the daughter of a military strongman who stood firm against North Korea, who herself also faces pressure to stand fast against the North. Just two weeks after her inauguration, Ms. Park faces a crisis as the North makes vague threats interpreted by many South Koreans as the precursor to some sort of limited, conventional military provocation. Ms. Park has promised to retaliate if her nation is attacked, aware of the public anger directed at her predecessor, Lee Myung-bak, when he showed restraint after the North shelled a South Korean island in 2010, killing four people.¶ That kind of limited skirmish is more likely than a nuclear attack, but such an episode could quickly inflame tensions and escalate out of control. Over the years, North Korea has sent armed spies across the border, dug invasion tunnels under it and infiltrated South Korean waters with submarines.¶ But beyond the immediate fear of a military provocation, analysts say deeper anxieties are also at work in the South. One of the biggest is the creeping resurgence of old fears about the reliability of this nation’s longtime protector, the United States. Experts say the talk of South Korea’s acquiring nuclear weapons is an oblique way to voice the concerns of a small but growing number of South Koreans that the United States, either because of budget cuts or a lack of will, may one day no longer act as the South’s ultimate insurance policy.¶ “The Americans don’t feel the North Korean nuclear weapons as a direct threat,” said Chung Mong-joon, a son of the founder of the Hyundai industrial group and the former leader of the governing party, who has been the leading proponent of South Korea’s development of a nuclear weapons program. “At a time of crisis, we are not 100 percent sure whether the Americans will cover us with its nuclear umbrella.”¶ The United States, which still has 28,500 troops based in South Korea, has sought to assure its ally that it remains committed to the region as part of the Obama administration’s strategic “pivot” to Asia. But analysts say the fact that senior leaders like Mr. Chung and a handful of influential newspaper columnists now call for the need for “nuclear deterrence,” or at least hint at it, reflects widespread frustrations over the inability of the United States and other nations to end North Korea’s nuclear weapons program. Until recently the idea was too radical for most mainstream leaders and opinion makers, including both deeply pro-American conservatives and nationalistic yet antinuclear liberals.¶ Advocacy for a nuclear-armed South Korea has been virtually taboo since the early 1970s, when the country’s military dictator, Park Chung-hee, made a serious bid to develop a nuclear weapon, fearing that the United States might pull out of Asia after its defeat in Vietnam. After catching wind of the program, Washington forced Mr. Park, the new president’s father, to stop, persuading him instead to rely on the United States, an agreement that has held ever since.¶ Mr. Chung and others say that if the United States does not allow South Korea to develop its own nuclear arms, it should at least restore the nuclear balance on the Korean Peninsula by reintroducing American atomic weapons, which were removed from bases in the South in 1991 in a post-cold-war effort to reduce tensions.¶ Many in the South are now convinced that the North may never give up its nuclear weapons. The South’s new level of anxiety is also apparent in the widespread speculation here about when and where the North might carry out another, non-nuclear military provocation.¶ North Korea has stoked those fears by saying that on Monday it will drop out of the 60-year-old armistice that ended the Korean War, in a show of anger at new United Nations sanctions for its nuclear test. North Korea has threatened to terminate the armistice in the past, but the greater worry now is that it might take actions to contravene it. There have been cryptic warnings in North Korea’s state-run news media of coming “counteractions,” which have led South Korean officials to warn of an episode like the bombardment of Yeonpyeong Island in 2010.

#### U.S. extended deterrence DOES work – it’s just a question of South Korea perceptions

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(David, “Cool heads deter North Korea”, Asia Times, 3-1-2013, http://www.atimes.com/atimes/Korea/KOR-01-010313.html)

North Korea's successful launch of a long-range rocket, its third nuclear test, and threats to follow up with even "stronger steps" and the "final destruction" of South Korea are raising serious questions among America's Northeast Asian allies. So is China's growing assertiveness over the Senkaku/Diaoyu Islands in the East China Sea. The most fundamental question is this: is US extended deterrence failing? ¶ The short answer is no. US extended deterrence, which underpins America's alliances with South Korea and Japan, is working well. Its boundaries, however, are being dangerously tested, which demands urgent improvement of alliance coordination and cooperation. ¶ Extended deterrence (ED) is a by-product of deterrence. Deterrence means preventing aggression or coercion against¶ one's vital interests by threatening to defeat or punish an adversary; although it has been mainly conducted with nuclear threats, non-nuclear capabilities have played a greater role over time, particularly missile defense, counterforce assets, and advanced conventional weaponry. ED simply means providing the same level of protection to an ally, with the same deterrent threats. To work, therefore, ED requires the United States to deter its allies' adversaries and to assure its allies that it has the capabilities and intentions to do so. That is why ED is said to have both deterrence and assurance missions. ¶ **Successful deterrence** of adversaries **can only be measured in the negative: the absence of aggression** against US allies' vital interests suggests that deterrence works. Successful assurance of allies is more difficult to measure because it depends on numerous variables. A key indicator of success, however, is allies' readiness to forego certain capabilities, notably nuclear weapons, and rely instead on their US ally to provide them. ¶ Some argue that North Korea's nuclear and missile developments means that deterrence of Pyongyang is failing. They point to the North Korean provocations of 2010, notably the sinking of the Cheonan, a South Korean corvette, and the shelling of Yeonpyeong Island, as proof. ¶ This is misleading and a mistake. Since the Korean Armistice Agreement that ended the fighting on the Peninsula in 1953, North Korea has been deterred from conducting another invasion of the South. ED has been so successful that an invasion appears inconceivable today. Similarly, leaders in Pyongyang know that launching a massive, let alone nuclear, strike campaign on Seoul or Tokyo would be suicidal. Again, ED has kept them in check. ¶ Granted, ED has not prevented the provocations of 2010 (and others before that), but it is a mistake to expect it to prevent low-level attacks. Remember, ED is meant to prevent aggression against allies' vital interests. Of course, as its nuclear and missile capabilities improve, there is a risk that Pyongyang feels increasingly confident that it can launch low-level attacks and control escalation. ¶ This is worrisome because escalation control is never guaranteed and misunderstandings, miscalculations, and mistakes are always possible. The good news, however, is that even this dynamic suggests that ED works. Although its boundaries are being tested, it still deters major conflicts that challenge US allies' vital interests.

#### Extinction

**Hayes and Green ‘10 –** Victoria University and Executive Director of the Nautilus Institute

(Peter and Michael, “The Path Not Taken, the Way Still Open: Denuclearizing the Korean Peninsula and Northeast Asia”, 1/5, http://www.nautilus.org/fora/security/10001HayesHamalGreen.pdf)

The consequences of failing to address the proliferation threat posed by the North Korea developments, and related political and economic issues, are serious, not only for the Northeast Asian region but for the whole international community. At worst, there is the possibility of nuclear attack 1, whether by intention, miscalculation, or merely accident, leading to the resumption of Korean War hostilities. On the Korean Peninsula itself, key population centres are well within short or medium range missiles. The whole of Japan is likely to come within North Korean missile range. Pyongyang has a population of over 2 million, Seoul (close to the North Korean border) 11 million, and Tokyo over 20 million. Even a limited nuclear exchange would result in a holocaust of unprecedented proportions. But the catastrophe within the region would not be the only outcome. New research indicates that even a limited nuclear war in the region would rearrange our global climate far more quickly than global warming. Westberg draws attention to new studies modelling the effects of even a limited nuclear exchange involving approximately 100 Hiroshima-sized 15 kt bombs2 (by comparison it should be noted that the United States currently deploys warheads in the range 100 to 477 kt, that is, individual warheads equivalent in yield to a range of 6 to 32 Hiroshimas).The studies indicate that the soot from the fires produced would lead to a decrease in global temperature by 1.25 degrees Celsius for a period of 6-8 years.3 In Westberg’s view: That is not global winter, but the nuclear darkness will cause a deeper drop in temperature than at any time during the last 1000 years. The temperature over the continents would decrease substantially more than the global average. A decrease in rainfall over the continents would also follow...The period of nuclear darkness will cause much greater decrease in grain production than 5% and it will continue for many years...hundreds of millions of people will die from hunger...To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth’s protective ozone.4 These, of course, are not the only consequences. Reactors might also be targeted, causing further mayhem and downwind radiation effects, superimposed on a smoking, radiating ruin left by nuclear next-use. Millions of refugees would flee the affected regions. The direct impacts, and the follow-on impacts on the global economy via ecological and food insecurity, could make the present global financial crisis pale by comparison. How the great powers, especially the nuclear weapons states respond to such a crisis, and in particular, whether nuclear weapons are used in response to nuclear first-use, could make or break the global non proliferation and disarmament regimes. There could be many unanticipated impacts on regional and global security relationships5, with subsequent nuclear breakout and geopolitical turbulence, including possible loss-of-control over fissile material or warheads in the **chaos of nuclear war**, and aftermath chain-reaction affects involving other potential proliferant states. The Korean nuclear proliferation issue is not just a regional threat but a global one that warrants priority consideration from the international community.

#### U.S. nuclear deterrent is key to maintaining the stability of India-Pakistan deterrence

Chakma ’10 – senior lecturer at the University of Hull and director of the South Asia Project

(Bhumitra, “Deterrence With a Guardian? The U.S. Role in South Asia's Nuclear Deterrence”, Woodrow Wilson Center for International Studies, http://stage-wilson.p2technology.com/event/deterrence-guardian-the-us-role-south-asias-nuclear-deterrence)

U.S. engagement in South Asia is "paradoxical," according to Bhumitra Chakma. The United States is "both hated and loved" in the nuclear-armed states of India and Pakistan, and both nations want America on their side. This **desire for American involvement** in South Asia, says Chakma, has enabled Washington to serve as the "third element" in, and even the "guardian" of, the region's nuclear deterrence. Chakma, a Wilson Center Fellow, was the featured speaker at a February 25 event organized by the Asia Program and co-sponsored by International Security Studies and the Los Alamos National Laboratory. ¶ Chakma asserted that the United States has been a "critical" factor in maintaining nuclear stability in the region. He contended that American interventions during crises in South Asia have helped avert nuclear escalation. In 1999, hostilities broke out between India and Pakistan in the Kargil district of the disputed region of Kashmir. In Chakma's view, Pakistan instigated this conflict in an effort to internationalize the Kashmir problem—and hence to attract U.S. involvement. Once Washington became involved, India reasoned that its interests would be better served through U.S.-mediated diplomacy than through escalation. ¶ Nearly a decade later, when terrorists attacked the Indian city of Mumbai in 2008, many feared an escalation in nuclear tensions between India and Pakistan. However, Washington pushed hard for resolution, because it did not want Pakistan to send more troops to its eastern border with India, thereby diminishing its presence along the western frontier with Afghanistan—a nation where the United States was at war. The United States was also deeply engaged in resolving a military standoff between India and Pakistan in 2001-02, and again because of concerns about the impact of India-Pakistan tensions on the war in Afghanistan. Indeed, Chakma pointed out that U.S. self-interest—and not any sense of altruism—is a core reason why Washington actively seeks to maintain stability in South Asia. ¶ Chakma acknowledged the view of "nuclear optimists" that the mere existence of nuclear weapons has also played a role in preventing nuclear escalation in South Asia. However, he argued that when "military dynamics" spiral out of control—as so often happens in "crisis-prone" South Asia—it becomes difficult to maintain control over nuclear weapons. Chakma concluded that this structural fragility demonstrates why the U.S. role in South Asia's nuclear deterrence is so crucial.

#### India-Pakistan conflict causes extinction

Starr ’11 (Consequences of a Single Failure of Nuclear Deterrence by Steven Starr February 07, 2011 \* Associate member of the Nuclear Age Peace Foundation \* Senior Scientist for PSR)

Only a single failure of nuclear deterrence is required to start a nuclear war, and the consequences of such a failure would be profound. **Peer-reviewed studies predict** that **less than 1% of** the nuclear **weapons** now deployed in the arsenals of the Nuclear Weapon States, if detonated in urban areas, would immediately kill tens of millions of people, and cause long-term, **catastrophic disruptions of the global climate and massive destruction of Earth’s protective ozone layer**. The result would be a global nuclear famine that could kill up to one billion people. A full-scale war, fought with the strategic nuclear arsenals of the United States and Russia, would so utterly devastate Earth’s environment that most humans and other complex forms of life would not survive. Yet no Nuclear Weapon State has ever evaluated the environmental, ecological or agricultural consequences of the detonation of its nuclear arsenals in conflict. Military and political leaders in these nations thus remain dangerously unaware of the existential danger which their weapons present to the entire human race. Consequently, nuclear weapons remain as the cornerstone of the military arsenals in the Nuclear Weapon States, where nuclear deterrence guides political and military strategy. Those who actively support nuclear deterrence are trained to believe that deterrence cannot fail, so long as their doctrines are observed, and their weapons systems are maintained and continuously modernized. They insist that their nuclear forces will remain forever under their complete control, immune from cyberwarfare, sabotage, terrorism, human or technical error. They deny that the short 12-to-30 minute flight times of nuclear missiles would not leave a President enough time to make rational decisions following a tactical, electronic warning of nuclear attack. The U.S. and Russia continue to keep a total of 2000 strategic nuclear weapons at launch-ready status – ready to launch with only a few minutes warning. Yet both nations are remarkably unable to acknowledge that this high-alert status in any way increases the probability that these weapons will someday be used in conflict. How can strategic nuclear arsenals truly be “safe” from accidental or unauthorized use, when they can be launched literally at a moment’s notice? A cocked and loaded weapon is infinitely easier to fire than one which is unloaded and stored in a locked safe. The mere existence of immense nuclear arsenals, in whatever status they are maintained, makes possible their eventual use in a nuclear war. Our **best scientists now tell us** that **such a war would mean the end of human history**. We need to ask our leaders: Exactly what political or national goals could possibly justify risking a nuclear war that would likely cause the extinction of the human race? However, in order to pose this question, we must first make the fact known that existing nuclear arsenals – through their capacity to utterly devastate the Earth’s environment and ecosystems – threaten continued **human existence**. Otherwise, military and political leaders will continue to cling to their nuclear arsenals and will remain both unwilling and unable to discuss the real consequences of failure of deterrence. We can and must end the silence, and awaken the peoples of all nations to the realization that “nuclear war” means “global nuclear suicide”. A Single Failure of Nuclear Deterrence could lead to: \* A nuclear war **between India and Pakistan**; \* 50 Hiroshima-size (15 kiloton) weapons detonated in the mega-cities of both India and Pakistan (there are now 130-190 operational nuclear weapons which exist in the combined arsenals of these nations); \* The deaths of 20 to 50 million people as a result of the prompt effects of these nuclear detonations (blast, fire and radioactive fallout); \* Massive firestorms covering many hundreds of square miles/kilometers (created by nuclear detonations that produce temperatures hotter than those believed to exist at the center of the sun), that would engulf these cities and produce 6 to 7 million tons of thick, black smoke; \* About 5 million tons of smoke that would quickly rise above cloud level into the stratosphere, where strong winds would carry it around the Earth in 10 days; \* A stratospheric smoke layer surrounding the Earth, which would remain in place for 10 years; \* The dense smoke would heat the upper atmosphere, destroy Earth’s protective ozone layer, and block 7-10% of warming sunlight from reaching Earth’s surface; \* 25% to 40% of the protective ozone layer would be destroyed at the mid-latitudes, and 50-70% would be destroyed at northern and southern high latitudes; \* Ozone destruction would cause the average UV Index to increase to 16-22 in the U.S, Europe, Eurasia and China, with even higher readings towards the poles (readings of 11 or higher are classified as “extreme” by the U.S. EPA). It would take 7-8 minutes for a fair skinned person to receive a painful sunburn at mid-day; \* Loss of warming sunlight would quickly produce average surface temperatures in the Northern Hemisphere colder than any experienced in the last 1000 years; \* Hemispheric drops in temperature would be about twice as large and last ten times longer then those which followed the largest volcanic eruption in the last 500 years, Mt. Tambora in 1816. The following year, 1817, was called “The Year Without Summer”, which saw famine in Europe from massive crop failures; \* Growing seasons in the Northern Hemisphere would be significantly shortened. It would be too cold to grow wheat in most of Canada for at least several years; \* World grain stocks, which already are at historically low levels, would be completely depleted; grain exporting nations would likely cease exports in order to meet their own food needs; \* The one billion already hungry people, who currently depend upon grain imports, would likely starve to death in the years following this nuclear war; \* The total explosive power in these 100 Hiroshima-size weapons is less than 1% of the total explosive power contained in the currently operational and deployed U.S. and Russian nuclear forces.

### Contention 4 Navy

#### Time is running out, now is key – USEC is critical to the nuclear navy

Korte ’12 – USA Today Correspondent

(Gregory Korte, “House preserves 'backdoor earmark' for Ohio nuclear facility”, USA Today, 5/18/2012, http://usatoday30.usatoday.com/news/washington/story/2012-05-18/USEC-earmark/55056188/1)

Rep. Michael Turner, R-Ohio, a nuclear supporter who represents a district neighboring USEC, said the issue is one of national security. "This is for our nuclear weapons programs. This is not like for a truck fleet," he said. "If you're not going to be doing domestic, you're going to have the United States be subject to foreign sources, and again these are critical components for our nuclear infrastructure and our **nuclear Navy."** The vote follows a high-stakes, behind-the-scenes lobbying effort this week. Rep. Jean Schmidt, R-Ohio, sent a letter to colleagues this week pointing out URENCO's ties to A.Q. Khan, the nuclear scientist that stole centrifuge technology secrets for Pakistan. URENCO lobbyist Clint Williamson accused USEC supporters — which include Republicans and Democrats — of "picking winners and losers" in the uranium market. The provision still must be negotiated with the Senate, which included similar language in a 2012 transportation bill. The measure wouldn't require the Energy Department to spend the money, but Energy Secretary Steven Chu has already said he would do so if given a "clear signal" from Congress. "Over the last three years, the Obama administration has worked tirelessly to support the American Centrifuge Plant," said DOE spokeswoman Jen Stutsman in a statement before the vote. "The administration is focused on advancing this technology in a way that protects the taxpayers." Time is running out for USEC. In regulatory filings, it has said its ability to borrow money to keep the existing test centrifuges running — about $15 million a month — will run out in June. Its stock price closed at an all-time low 68 cents Thursday, a level that could cause it to be unlisted from the New York Stock Exchange. And credit rating agency Standard & Poor's downgraded its debt this week to CCC+, citing its high debt levels.

#### Unencumbered support key to the nuclear navy

Pike County Daily ’12

(“USEC, DOE sign $350 Million agreement for RD&D program”, 6-15-2012, http://www.pikecountydaily.com/news/article\_9031d71a-b55e-11e1-9ce4-001a4bcf887a.html)

Other elected officials, such as Congresswoman Jean Schmidt, a longtime supporter of the ACP, praised the move. “This is the right thing to do for our country. Jobs are one of my top priorities, and this will support our hardworking, skilled labor force in Southern Ohio," Schmidt said. “But it is also critical to our national security,” Schmidt said. “The American Centrifuge Plant in Piketon will provide an **unencumbered domestic supply** of enriched uranium, which is necessary to support our nuclear arsenal and nuclear Navy. “This agreement and technology will allow the United States to maintain a leadership role in non-proliferation efforts by ensuring an adequate supply of nuclear fuel to encourage countries to forego their own enrichment programs. The American Centrifuge Plant will be our nation’s **only source** of enriched uranium, and it will be the basis of peaceful nonproliferation agreements.” The reaction from Ohio's two Senators, both also supporters of the Piketon-based project, was also positive. “The Department of Energy understands how important the ACP is to our nation’s security and Ohio’s economy,” commented Senator Sherrod Brown. “I commend the Department of Energy and USEC for working together on a path towards job creation and greater accountability. This federal investment will ensure that the Piketon community is on a path towards continued job creation and economic growth.”

#### Top officials agree – USEC is vital to the nuclear navy

Northey and Quinones ’12 – E&E Reporters

(Hannah Northey and Manuel Quinones, “Is Obama's support of Ohio plant securing the nation or his own political position?”, E&E Publishing Inc., 6-26-2012, http://www.eenews.net/public/EEDaily/2012/06/26/1)

The Obama administration and supportive lawmakers on this issue, particularly in Kentucky and Ohio, maintain the plant is key to complying with international treaties and providing a domestic source of uranium enrichment, which is needed to make tritium for nuclear weapons. That position has been affirmed by top federal officials, including the U.S. solicitor general, the Department of State's legal adviser and general counsel for the Commerce, Defense and Energy departments. Without that capability, they say, the United States would be dependent on other countries for nuclear weapons production and fuel for Navy submarines.

#### Foreign suppliers won’t work – only the plan solves

Kramer ’12 – news editor for the American Institute of Physics

(David, “DOE to finance more research on USEC gas centrifuge technology”, Physics Today, 6-15-2012, http://www.physicstoday.org/daily\_edition/politics\_and\_policy/doe\_to\_finance\_more\_research\_on\_usec\_gas\_centrifuge\_technology)

A DOE official, speaking on condition of anonymity, said USEC’s request for $2 billion in DOE loan guarantees to build the plant to full capacity has been put on hold, and he cautioned that a successful outcome for the R&D program won’t result in automatic approval of the loan guarantee. “We’re not trying to supply support for USEC per se,” the official said. But he noted that USEC is the only supplier of uranium enrichment services that DOE can use for “nonpeaceful” purposes—producing tritium for nuclear weapons and fueling the US Navy’s nuclear-powered ships. Treaty obligations stipulate that only domestic material produced with US-origin technology can be used for those purposes. That rules out other enrichment plants currently being constructed in the US; the Urenco plant in New Mexico, which went into small-scale operations in 2010, and the Areva plant due to be built in Idaho both use European centrifuge technology. Nor can low-enriched uranium obtained from blending down Russian weapons-grade material as part of the Megatons to Megawatts program be used for military purposes. In exchange for the R&D funding, DOE clarified its rights to the intellectual property and data generated by the cooperative agreement. The government is immediately taking ownership of the centrifuges that USEC has built and of centrifuges and other equipment that will be produced as part of the R&D program. The plant R&D will be managed under a new governance structure that strengthens the roles of other project partners, including Babcock and Wilcox and Toshiba, which will provide additional project management support and personnel for the program. “We know that the [USEC] technology is promising, and we believe it can work,” the DOE official said. “The question is, can it work at an output that makes sense for USEC on a commercial basis?” **Whether commercially viable or not, it could work for DOE’s needs**, he explained.

#### Nuclear navy is critical to our naval power projection –

#### A) Aircraft carriers

Head ‘12--US Naval Institute member

(Jeff, worked as a manager, director, and consultant for over twenty-five years in the defense and nuclear power industries, "CVN-78 Gerald Ford Class Page," 9-24-12, www.jeffhead.com/usn21/cvn21.htm, accessed 1-22-13)

The new CVN21 aircraft carrier class has been designated the USS Gerald R. Ford class, and the first of class will be CVN-78, USS Gerald R. Ford. The second in class will be CVN-79, USS John F. Kennedy. It is expected that ultimately 9-10 of the class will be built, replacing the US Nimitz class carriers one for one evey 5-6 yearss. They will be the largest warships ever built. They will be the mainstay of the US Navy's **power projection** and sea lane protection capabilities throughout the 21st century. Each of these vessels will carry an airwing of fixed wing aircraft, VSTOL aircraft, helicopters, and unamanned arial vehicles (UAV) that is larger and more powerful than many nation's complete air force. **By having the** resources, the experience, **and** the capability **to operate** 9-10 **such vessels** (where each vessel is surrounded by an extensive force of other surface and sub-surface combatants that make up each Carrier Strike Group (CSG)), the United States will **remain the** unchallenged**, dominant sea force on earth.** The USS George HW Bush, CVN-77, was christened on October 7, 2006, and replaced the USS Kitty Hawk, CV-63 in 2008. Although officially listed as a Nimitz class carrier, CVN-77 also represents a transformation step in US carrier development from the Nimitz class towards the Ford Class. Initial steel cutting for the USS Gerald R. Ford was accomplished in August of 2005. The keel laying occurred in late 2009 and the vessel is expected to be launched in 2013 and commissioned in 2015. As of April, 2012, the vessel was 75% structurally complete. CVN-78 will replace the USS Enterprise, CVN-65, America's first nuclear powered aircraft carrier. First steel for the second in class, USS John F. Kennedy, CVN-79, was cut in February of 2011. They are being built by Newport News Shipbuilding (Now Renamed as Northrup Grumman Shipbuilding), which built the USS Enterprise, and all ten Nimitz class carreirs. Among the innovations that the Ford class carriers will introduce are: A much more efficent nuclear reactor system providing three times more power. Electromagnetic aircraft launch and recovery replacing current steam catapaults and current arrestor systems. A redesigned, more efficent, and more stealthy island. More automated systems, providing for reduced manpower requirements and more efficent aircraft weapons handling, battle management, and damage control operations. Potential exotic defensive weapons systems operating off of the increased electrical power. 20% more sortie capability for the embarked airwing. 25% more operational availability of the carrier. With these innovations, and the many others that will be developed into the new carrier, the US Navy is making a direct statement that its 21st century, next-generation carrier fleet will continue to have as its **centerpiece** large-deck, **nuclear-powered vessels** that can **project power** and protect sea lanes **anywhere** in the world, at **any time**.

#### B) Force flexibility

**Spencer and Spring ‘7** – research fellow in the Thomas A. Roe Institute for Economic Policy Studies and F.M. Kirby Research Fellow in National Security Policy for the Kathryn and Shelby Cullom Davis Institute for International Studies

(“The Advantages of Expanding the Nuclear Navy” http://www.heritage.org/research/homelanddefense/wm1693.cfm

by Jack Spencer and Baker Spring- Jack Spencer is Research Fellow in the Thomas A. Roe Institute for Economic Policy Studies, and Baker Spring is F.M. Kirby Research Fellow in National Security Policy for the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation. November 5, 2007)

Congress is debating whether future naval ships should include nuclear propulsion. The House version of the Defense Authorization Act of 2008 calls for all future major combatant vessels to be powered by an integrated nuclear power and propulsion system; the Senate version does not. While Congress must be careful in dictating how America's armed forces are resourced, it also has a constitutional mandate "to provide and maintain a Navy." Although nuclear-powered ships have higher upfront costs, their many advantages make a larger nuclear navy critical for protecting national security interests in the 21st century. Nuclear Propulsion's Unique Benefits As the defense authorization bill is debated, Members of the House and Senate should consider the following features of nuclear propulsion: \* **Unparalleled Flexibility**. A nuclear surface ship brings **optimum capability** to bear. A recent study by the Navy found the nuclear option to be superior to conventional fuels **in terms of surge ability, moving from one theater to another,** and staying on station. Admiral Kirkland Donald, director of the Navy Nuclear Propulsion Program, said in recent congressional testimony, "Without the encumbrances of fuel supply logistics, our nuclear-powered warships can get to areas of interest quicker, ready to enter the fight, and stay on station longer then their fossil-fueled counterparts."\* High-Power Density. The high density of nuclear power, i.e., the amount of volume required to store a given amount of energy, frees storage capacity for **high value/high impact assets** such as jet fuel, small craft, remote-operated and autonomous vehicles, and weapons. When compared to its conventional counterpart, a nuclear aircraft carrier can carry twice the amount of aircraft fuel, 30 percent more weapons, and 300,000 cubic feet of additional space (which would be taken up by air intakes and exhaust trunks in gas turbine-powered carriers). This means that ships can get to station faster and deliver more impact, **which will be critical to future** **missions**. This energy supply is also necessary for new, power-intensive weapons systems like rail-guns and directed-energy weapons as well as for the powerful radar that the Navy envisions. \* Real-Time Response. **Only a nuclear ship can change its mission and respond to a crisis in real-time**.

#### C) Littoral combat ships – nuclear navy is key

Rubel ‘11 -- Naval War College naval warfare studies dean and professor

(Robert, served on the faculty and as chairman of the War Gaming Department, in the Center for Naval Warfare Studies, before his present appointment, "The Future of Aircraft Carriers," Naval War College Review, 8-11-11, www.usnwc.edu/getattachment/87bcd2ff-c7b6-4715-b2ed-05df6e416b3b/The-Future-of-Aircraft-Carriers, accessed 1-20-13)

Another potential supporting role for the carrier is as a mother ship for the littoral combat ship (LCS). The LCS has limited sea-keeping capability and **must have** a source of logistical support relatively close by, especially if it is to operate at high speed and high combat tempo. If a squadron of LCSs must enter a highthreat area where there are no bases and where regular logistical ships would be at excessive risk, **a nuclear carrier might be the answer**. Having considerable fuel and ammunition-storage capacity, high sustained speeds, and self-defense ability (with its escorts), a carrier could range around undetected or untargeted until a covert rendezvous with one or more LCSs could be arranged. While a logistical support system that employs submarines might be the ideal, this arrangement may be the most feasible in the short term. In conjunction with this role, the carrier, operating both manned and unmanned aircraft, could provide tactical scouting for littoral combat vessels as well as a secure and robust local battle network.

#### D) Subs—nuclear navy key to subs- key to naval power projection

Padgett, 11 -- Rear Admiral (retired)

[John, "Projecting power: The case for maintaining an all-nuclear submarine fleet," Armed Forced Journal, Sept 2011, www.armedforcesjournal.com/2011/09/7558135/, accessed 1-22-13, mss]

Projecting power: The case for maintaining **an all-nuclear sub**marine fleet Defense analysts periodically propose a mix of nuclear and conventionally powered submarines to increase U.S. undersea force structure. They argue that conventional submarines (SSKs) are so affordable the U.S. could acquire multiple boats for the price of a single nuclear-powered attack submarine (SSN). In an era of declining fleets and looming budget cuts, that sounds appealing. However, despite increasing capability, conventional submarines still lack the payload, endurance, mobility and affordability necessary to meet U.S. needs, even when forward-based and equipped with air-independent propulsion (AIP). The modern SSK is a formidable weapon, improved significantly over its World War II predecessors. Mechanically, it still depends on simple and forgiving technologies such as diesel engines, electric motors and large storage batteries. Tactically, it carries advanced sensors, combat systems and payloads — it can deliver a powerful punch. The SSK is among the stealthiest of modern combatants, and designers continue to address signatures associated with snorkeling, when it is most detectable. In recent years, new equipment mounting techniques and better exhaust management have reduced acoustic and infrared snorkel signatures. Operating fully submerged on the battery, the SSK is very difficult to detect and challenges even the most capable anti-submarine warfare (ASW) force. Despite its attributes, the SSK has considerable shortcomings, many of which relate to size. These small ships have limited stores, battery, fuel, payload and crew capacity, which in turn limit their endurance, agility, persistence and combat capability. The modern SSK ranges in size from the 1,500-ton Swedish Gotland class to the 3,350-ton Australian Collins class. Some countries are building even smaller submarines, including the French Andrasta-class coastal SSK (855 tons) and the North Korean Yono-class (130 tons) midget submarine — the same type believed to have torpedoed the South Korean corvette Cheonan in March 2010 Automation has helped reduce SSK crew requirements. Unmanned engineering spaces are common, and propulsion systems are often operated remotely from the control room. However, small crew capacity often places watch teams in extended port and starboard (two-section) rotations — a practice that can quickly reduce a crew’s effectiveness on patrol. To offset these size-related constraints, several countries are considering larger boats. For example, French shipbuilder DCNS plans to offer a larger version of its 1,800-ton Scorpene SSK to India, which wants the added volume to increase endurance and payload capacity. Australia, whose Collins-class ships are already some of the world’s largest conventional submarines, is planning an even larger replacement. It is estimated this follow-on boat will displace in excess of 4,000 tons to meet the endurance, payload and crew requirements outlined in Australia’s 2009 Defence White Paper. To put this in perspective, the U.S. Sturgeon-class SSN — a mainstay of the Cold War — displaced approximately 4,700 tons submerged. As countries incorporate technologies to increase SSK quieting, endurance and other combat capabilities, they are moving toward designs with larger displacements. Notwithstanding this trend, many SSK advocates highlight their small size as a significant advantage when operating in shallow, littoral areas — both in terms of the depth of water they can operate in and their maneuverability. However, this advantage is overstated and supposes a capability gap that does not exist. Specifically, SSK advocates imply there are areas where the U.S. cannot operate a SSN because its navigation draft is too large or it lacks maneuverability. That is not true. The Virginia-class SSN is about 15 feet taller (measured from the keel to top of sail) than a typical SSK. That difference is not significant in the waters U.S. submarines patrol to safeguard our national interests. While an SSN may incur slightly more risk than a SSK in some very shallow areas due to operating closer to the surface or bottom, the SSN can offset that risk by repositioning or evading at higher speeds for an indefinite period. Finally, it’s worth noting the Virginia-class SSN was designed to operate in shallow littoral areas and has a sophisticated depth-keeping and maneuvering system that can match or outperform the most capable SSK. In terms of maneuverability, SSK advocates paint a false picture of undersea navigation. Submarines do not typically operate submerged in areas that require them to turn on a dime or maneuver through narrow undersea canyons. Tom Clancy’s thriller “The Hunt for Red October” contained a scene in which a Soviet ballistic-missile submarine maneuvered deftly between “Thor’s Twins.” That was entertaining, but it was not reality. Stealth is the essence of submarine warfare, and conventional submarines are acoustically stealthy, especially when operating submerged on the battery. However, they need to snorkel periodically to recharge their batteries, making them more vulnerable to ship and airborne ASW forces that are increasingly adept at detecting a submarine’s masts and antennas. Scheduling this evolution to occur at night helps avoid visual detection, but does nothing to avoid radar, which is a more common means of finding snorkeling submarines. If equipped with AIP, an SSK can operate submerged for up to several weeks, but only at slow speeds. However, AIP systems require fuel and oxidizers they cannot recharge at sea. Once they are used, the SSK must return to port to regain its AIP capability. That will likely cause skippers to hold their AIP capability in reserve for dire tactical situations, or where mission accomplishment demands it. Under normal situations, the SSK has to deal with all the vulnerabilities and limitations associated with snorkeling: slow speed, acoustic transients, elevated noise levels, increased infrared signatures and long-term mast exposure. SPEED AND ENDURANCE SSK advocates acknowledge the SSN can operate submerged at high speed for extended periods, which is a significant advantage. They also acknowledge the value of speed in evading threats and repositioning quickly to collect intelligence or engage a target. However, they routinely discount that same speed advantage while transiting to and from mission areas. They assert that forward-basing a U.S. SSK fleet would eliminate the SSN speed advantage. That argument is problematic from several standpoints. First, if forward-basing more submarines were simple, the U.S. would already have more than three SSNs stationed in Guam. However, forward-basing entails considerable costs, including pier infrastructure, maintenance facilities, housing and a range of personnel support requirements. Together, these additions result in a large footprint — something indigenous peoples appear less willing to tolerate and something adversaries can hold at risk with a growing arsenal of ballistic missiles. Even if one ignores the costs and risks associated with expanding overseas facilities, the fact remains that long transits are still required. It is approximately 1,500 miles from Guam to Taiwan. An SSN can easily cover that distance in a few days — even less in a crisis. The SSK, by contrast, needs seven to 10 days, which is highly weather dependent. Unlike their World War II predecessors, today’s SSKs cannot transit any faster on the surface than they can while snorkeling. They can reach speeds up to 20 knots submerged; however, they can do that only for a few hours until the batteries are exhausted. Of course, while snorkeling at higher speed, the SSK is vulnerable to detection not only by the methods discussed earlier, but also because of the larger wake left by its snorkel mast and periscope. Moreover, a round-trip transit of 14 to 20 days represents one-third of the SSK’s overall endurance — it has much less on-station time than an SSN. That would require more ships to meet U.S. deployment needs. SSK advocates also discount the need to reposition deployed submarines within or between theaters during a given patrol, often at great distances. Some claim that operations in shallow littoral waters prevent even the SSN from rapidly repositioning. Current submarine operating area bathymetry does not support that claim, nor is it representative of how combatant commanders are employing submarines. Even when operating in very shallow water, an SSN can increase its transit speed as water depth increases, whereas the SSK can never reposition at high, sustained speeds regardless of available water depth. If a mission requires a submarine to reposition to another theater, an SSK could spend more than half its patrol endurance in transit. Additionally, all ships eventually require periodic depot-level maintenance, which requires returning to Pearl Harbor, Hawaii, or the continental U.S. Over the life of a forward-based SSK, this additional lost transit time would further degrade its operational availability. Considering speed alone, one can reasonably argue it would take two or more SSKs to provide the same on-station time a single SSN can provide. Adding SSKs to the U.S. submarine force would provide realistic and more-effective training targets for our ASW forces. SSK advocates are correct in noting this would be a convenient benefit. However, it is unnecessary. U.S. security partners, especially South American navies, provide conventional submarines in support of fleet readiness events. In 2001, U.S. Fleet Forces Command formalized a partnership called the Diesel-Electric Submarine Initiative (DESI) program. The Commander Submarine Force’s executes DESI and provides the U.S. Navy with an elevated level of ASW training against the growing SSK threat. COST COMPARISONS The most prevalent and, at first glance, most compelling argument for adding SSKs to the Navy is their low acquisition cost. SSK advocates recommend buying them from a foreign builder as the cheapest option, but also consider U.S.-built SSKs as more cost-effective than the nuclear submarines it currently builds. Unfortunately, in the context of the SSK-versus-SSN debate, price itself is obfuscation. SSK supporters often cite brochure prices that do not include sensor and combat-system packages. Additionally, they fail to recognize that these foreign-built submarines lack U.S. Submarine Safety Certification (SUBSAFE) requirements. The SUBSAFE program was born out of the Thresher disaster in 1963, when the nuclear-powered attack sub was lost with all hands due to design and maintenance deficiencies. The SUBSAFE program ensures proper design and materials are used in systems subjected to sea pressure or required for emergency recovery. In addition, it ensures only trained and certified personnel install or repair these systems, and that builders, maintainers and crews maintain auditable certifications for each critical component and system joint. These material, procedural and administrative requirements are vital to ensuring the safe operation of our submarines, and they have real costs associated with them. The lack of similar or as robust programs among SSK manufactures makes the price of their ships — at least superficially — more appealing. Of all the modern SSK producers, the Australian submarine program is probably closest to the U.S. SUBSAFE program and standards. Additionally, in some respects its deployment transit lengths to critical theaters and submarine combat requirements are also most comparable. Interestingly, early projections for its follow-on SSK class calls for a force of 12 boats at a cost of $36 billion. That equates to approximately $3 billion per boat (including nonrecurring costs) and is very different from the $500 million per boat that SSK advocates often cite. Studies assessing the viability and utility of adding SSKs to the Navy have examined a number of attributes. Two of the more significant metrics compared were life-cycle costs and equivalent effectiveness. While SSK advocates often focus on the life-cycle cost of a single SSK versus one SSN, a more useful comparison considers life-cycle costs for the number of platforms that provide equal on-station capability. This is the variable of significance to combatant commanders. Based largely on the factors discussed above, studies indicated it takes 2.2 to six SSKs to obtain the equivalent effectiveness of a single SSN. Even after accounting for the lower SSK cost, an SSK fleet with equal on-station capability as an SSN fleet would have life-cycle costs of 1.3 to 3.5 times that of an SSN fleet. The SSK is simply not an affordable alternative. These platform equivalency comparisons highlight the inadequacy of comparing the acquisition cost of a single SSK to an SSN because there are other factors to consider as well. Adding a mix of SSKs to the U.S. submarine force will increase the associated logistics, maintenance and modernization, and training costs due to having to maintain a second line of parts, repair capabilities and trainers. Some commonality of systems may be possible. However, numerous systems and functions are unique to either submarine class. Additionally, since the U.S. would most likely produce SSKs indigenously, there would be significant added costs to outfit the shipyards to build the conventional submarines. Simultaneously, the costs to build the nuclear submarines would go up due to the reduction in economies of scale associated with building two Virginia-class attack submarines per year. Despite these compelling equivalency comparisons, some SSK advocates continue to focus on the claim that for the same procurement dollars the U.S. could buy more submarines if they included conventional platforms. They emphasize that quantity has a quality and capability all its own. While former Defense Secretary Robert Gates and others have used this argument to discuss programs in general, they were not advocating that capabilities associated with quantity alone should trump all others. It is but one factor to consider. Unfortunately, for those advocating adding SSKs to the U.S. inventory, a comparison of almost every other capability consideration and metric shows that a force of only SSNs is the most cost-effective way to provide our nation the undersea capabilities and capacity it needs. POWER PROJECTION One thing SSK and SSN advocates can agree on is the need for submarines. That need is growing and stems from the proliferation of threats to nonstealthy surface ships and aircraft — the **mainstays of Navy power projection**. Those platforms, along with forward bases, are becoming increasingly vulnerable to precision-guided weapons ranging from man-portable missiles and guided mortars to the most sophisticated surface-to-air missiles and anti-ship ballistic-missile threats. The submarine’s immunity to these threats and the nonprovocative nature of its presence provides commanders with much-needed intelligence preparation of the battle space, as well as strike, anti-submarine warfare, anti-surface warfare, special operations support and other missions. U.S. adherence to an all-SSN fleet stems largely from its defense philosophy, which is to project power overseas and keep conflict far from the continental U.S. Even if forward deployed to Guam, the SSK is a poor investment as a power-projection platform. It lacks the agility, endurance and payload capacity for that mission. As potential competitors build more nuclear-powered submarines, a shift toward a mixed fleet would increase the risk of the U.S. losing undersea dominance. Repeated defense reviews, including those by the United Kingdom, concluded that nuclear-powered submarines were in the best interest of their national defense needs. Emerging powers such as India and Brazil seem to agree with those conclusions, since they have both embarked on their own nuclear-powered submarine programs. Technological advances such as AIP continue to improve SSK capabilities and our country’s security needs continue to change. Consequently, the Navy should periodically revisit this issue and determine if a mix of nuclear and conventionally powered submarines is appropriate. If some future AIP technology can provide the same power, endurance, reliability and safety as naval nuclear reactors provide today, that technology would be a game-changer and worthy of consideration. Short of that, the SSN will remain an **indispensable** element of the Navy’s fighting team. The SSK is a useful and capable platform for many countries seeking to defend their littorals. However, it is still not the right answer for the unique power projection needs of the United States.

#### Naval power is key to solve great power war

**Conway ‘8** (“A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER” James T Conway, Et al. Naval War College Review. Washington: Winter 2008. Vol. 61, Iss. 1; pg. 6, 14 pgs)

States seapower will be globally postured to secure our homeland and citizens from direct attack and to advance our interests around the world. As our security and prosperity are inextricably linked with those of others, U.S. maritime forces will be deployed to protect and sustain the peaceful global system comprised of interdependent networks of trade, finance, information, law, people and governance. We will employ the global reach, persistent presence, and operational flexibility inherent in U.S. seapower to accomplish six key tasks, or strategic imperatives. Where tensions are high or where we wish to demonstrate to our friends and allies our commitment to security and stability, U.S. maritime forces will be characterized by regionally concentrated, forward-deployed task forces with the combat power to **limit regional conflict, deter major power war, and should deterrence fail, win our Nation’s wars** as part of a joint or combined campaign. In addition, persistent, mission-tailored maritime forces will be globally distributed in order to contribute to homeland defense-in-depth, foster and **sustain cooperative relationships with an expanding set of international partners, and prevent or mitigate disruptions and crises**. a cooporative strategy for a 21st century seapower 7 Regionally Concentrated, Credible Combat Power Credible combat power will be continuously postured in the Western Pacific and the Arabian Gulf/Indian Ocean to protect our vital interests, assure our friends and allies of our continuing commitment to regional security, and deter and dissuade potential adversaries and peer competitors. This combat power can be selectively and rapidly repositioned to meet contingencies that may arise elsewhere. These forces will be sized and postured to fulfill the following strategic imperatives: Limit regional conflict with forward deployed, decisive maritime power. Today regional conflict has ramifications far beyond the area of conflict. Humanitarian crises, violence spreading across borders, pandemics, and the interruption of vital resources are all possible when regional crises erupt. While this strategy advocates a wide dispersal of networked maritime forces, we cannot be everywhere, and we cannot act to mitigate all regional conflict. Where conflict threatens the global system and our national interests, maritime forces will be ready to respond alongside other elements of national and multi-national power, to give political leaders a **range of options for deterrence, escalation and de-escalation**. Maritime forces that are persistently present and combat-ready provide the Nation’s primary forcible entry option in **an era of declining access**, even as they provide the means for this Nation to respond quickly to other crises. Whether over the horizon or powerfully arrayed in plain sight, **maritime forces can deter the ambitions of regional aggressors, assure friends and allies, gain and maintain access, and protect our citizens while working to sustain the global order. Critical to this notion is the maintenance of a powerful fleet**—ships, aircraft, Marine forces, and shore-based fleet activities—capable of selectively controlling the seas, projecting power ashore, and protecting friendly forces and civilian populations from attack. Deter major power war. No other disruption is as potentially disastrous to global stability as war among major powers**. Maintenance and extension of this Nation’s comparative seapower advantage is a key component of deterring major power** **war**. While war with another great power strikes many as improbable, the near-certainty of its ruinous effects demands that it be actively deterred using all elements of national power. The expeditionary character of maritime forces—our lethality, global reach, speed, endurance, ability to overcome barriers to access, and operational agility—provide the joint commander with a range of deterrent options. We will pursue an approach to deterrence that includes a credible and scalable ability to retaliate against aggressors conventionally, unconventionally, and with nuclear forces.

#### Naval power key to heg- alternatives don’t solve

Mcmahon 7. [Michael, Captain USN, associate chair of the Political Science Department at the U.S. Naval Academy, where he teaches National Security Policy, “World Disorder and the Decline of Pax Americana, May, Proceedings Magazine, http://www.usni.org/magazines/proceedings/archive/story.asp?STORY\_ID=321]

Max Boot writes in The Savage Wars of Peace (2003): "Many Americans cringe at the notion that their country should play globocop. But this is not a purely altruistic exercise. Without a benevolent hegemon to guarantee order, the international scene can degenerate quickly into chaos and worse. One scholar argues, with great plausibility, that the 1930s turned out as badly as they did because Britain abdicated its international leadership role." Today, it appears that the American "empire" is in decline: Pax Americana is disintegrating. This is a repeat of naval history. It may not require a Cold War-size Navy to reverse the trend, but it will require a Navy that helps sow the seeds of globalization and then continues to do the gardening. It requires a forward-deployed, expeditionary Navy to mind the interests of the United States, just as the Royal Navy minded Britain's in the 19th century. Navies, by their very presence and intercourse in faraway places, protect national interests every day in ways that armies and air forces cannot. The U.S. Navy is the only branch of our government that routinely employs all the elements of national power-diplomatic, informational, military, and economic. This most flexible use of our power advances national interests in important ways. But idealistic plans for collective security and a 1,000-ship navy could, if not executed properly, actually undermine these interests and accelerate American decline. That decline would ensure international chaos. Therefore, for the United States the choice is clear: **maritime supremacy or** international **chaos.**

#### Hegemony prevents global nuclear great power war

Brooks, Ikenberry, and Wohlforth ’13 (Stephen, Associate Professor of Government at Dartmouth College, John Ikenberry is the Albert G. Milbank Professor of Politics and International Affairs at Princeton University in the Department of Politics and the Woodrow Wilson School of Public and International Affairs, William C. Wohlforth is the Daniel Webster Professor in the Department of Government at Dartmouth College “Don’t Come Home America: The Case Against Retrenchment,” International Security, Vol. 37, No. 3 (Winter 2012/13), pp. 7–51)

A core premise of deep engagement is that it prevents the emergence of a far more dangerous global security environment. For one thing, as noted above, the United States’ overseas presence gives it the leverage to restrain partners from taking provocative action. Perhaps more important, its core alliance commitments also deter states with aspirations to regional hegemony from contemplating expansion and make its partners more secure, reducing their incentive to adopt solutions to their security problems that threaten others and thus stoke security dilemmas. The contention that engaged U.S. power dampens the baleful effects of anarchy is consistent with influential variants of realist theory. Indeed, arguably the scariest portrayal of the war-prone world that would emerge absent the “American Pacifier” is provided in the works of John Mearsheimer, who forecasts dangerous multipolar regions replete with security competition, arms races, nuclear proliferation and associated preventive war temptations, regional rivalries, and even runs at regional hegemony and full-scale great power war. 72 How do retrenchment advocates, the bulk of whom are realists, discount this benefit? Their arguments are complicated, but two capture most of the variation: (1) U.S. security guarantees are not necessary to prevent dangerous rivalries and conflict in Eurasia; or (2) prevention of rivalry and conflict in Eurasia is not a U.S. interest. Each response is connected to a different theory or set of theories, which makes sense given that the whole debate hinges on a complex future counterfactual (what would happen to Eurasia’s security setting if the United States truly disengaged?). Although a certain answer is impossible, each of these responses is nonetheless a weaker argument for retrenchment than advocates acknowledge. The first response flows from defensive realism as well as other international relations theories that discount the conflict-generating potential of anarchy under contemporary conditions. 73 Defensive realists maintain that the high expected costs of territorial conquest, defense dominance, and an array of policies and practices that can be used credibly to signal benign intent, mean that Eurasia’s major states could manage regional multipolarity peacefully without the American pacifier. Retrenchment would be a bet on this scholarship, particularly in regions where the kinds of stabilizers that nonrealist theories point to—such as democratic governance or dense institutional linkages—are either absent or weakly present. There are three other major bodies of scholarship, however, that might give decisionmakers pause before making this bet. First is regional expertise. Needless to say, there is no consensus on the net security effects of U.S. withdrawal. Regarding each region, there are optimists and pessimists. Few experts expect a return of intense great power competition in a post-American Europe, but many doubt European governments will pay the political costs of increased EU defense cooperation and the budgetary costs of increasing military outlays. 74 The result might be a Europe that is incapable of securing itself from various threats that could be destabilizing within the region and beyond (e.g., a regional conflict akin to the 1990s Balkan wars), lacks capacity for global security missions in which U.S. leaders might want European participation, and is vulnerable to the influence of outside rising powers. What about the other parts of Eurasia where the United States has a substantial military presence? Regarding the Middle East, the balance begins to swing toward pessimists concerned that states currently backed by Washington— notably Israel, Egypt, and Saudi Arabia—might take actions upon U.S. retrenchment that would intensify security dilemmas. And concerning East Asia, pessimism regarding the region’s prospects without the American pacifier is pronounced. Arguably the principal concern expressed by area experts is that Japan and South Korea are likely to obtain a nuclear capacity and increase their military commitments, which could stoke a destabilizing reaction from China. It is notable that during the Cold War, both South Korea and Taiwan moved to obtain a nuclear weapons capacity and were only constrained from doing so by a still-engaged United States. 75 The second body of scholarship casting doubt on the bet on defensive realism’s sanguine portrayal is all of the research that undermines its conception of state preferences. Defensive realism’s optimism about what would happen if the United States retrenched is very much dependent on its particular—and highly restrictive—assumption about state preferences; once we relax this assumption, then much of its basis for optimism vanishes. Specifically, the prediction of post-American tranquility throughout Eurasia rests on the assumption that security is the only relevant state preference, with security defined narrowly in terms of protection from violent external attacks on the homeland. Under that assumption, the security problem is largely solved as soon as offense and defense are clearly distinguishable, and offense is extremely expensive relative to defense. Burgeoning research across the social and other sciences, however, undermines that core assumption: states have preferences not only for security but also for prestige, status, and other aims, and they engage in trade-offs among the various objectives. 76 In addition, they define security not just in terms of territorial protection but in view of many and varied milieu goals. It follows that even states that are relatively secure may nevertheless engage in highly competitive behavior. Empirical studies show that this is indeed sometimes the case. 77 In sum, a bet on a benign postretrenchment Eurasia is a bet that leaders of major countries will never allow these nonsecurity preferences to influence their strategic choices. To the degree that these bodies of scholarly knowledge have predictive leverage, U.S. retrenchment would result in a significant deterioration in the security environment in at least some of the world’s key regions. We have already mentioned the third, even more alarming body of scholarship. Offensive realism predicts that the withdrawal of the American pacifier will yield either a competitive regional multipolarity complete with associated insecurity, arms racing, crisis instability, nuclear proliferation, and the like, or bids for regional hegemony, which may be beyond the capacity of local great powers to contain (and which in any case would generate intensely competitive behavior, possibly including regional great power war). Hence it is unsurprising that retrenchment advocates are prone to focus on the second argument noted above: that avoiding wars and security dilemmas in the world’s core regions is not a U.S. national interest. Few doubt that the United States could survive the return of insecurity and conflict among Eurasian powers, but at what cost? Much of the work in this area has focused on the economic externalities of a renewed threat of insecurity and war, which we discuss below. Focusing on the pure security ramifications, there are two main reasons why decisionmakers may be rationally reluctant to run the retrenchment experiment. First, overall higher levels of conflict make the world a more dangerous place. Were Eurasia to return to higher levels of interstate military competition, one would see overall higher levels of military spending and innovation and a higher likelihood of competitive regional proxy wars and arming of client states—all of which would be concerning, in part because it would promote a faster diffusion of military power away from the United States. Greater regional insecurity could well feed proliferation cascades, as states such as Egypt, Japan, South Korea, Taiwan, and Saudi Arabia all might choose to create nuclear forces. 78 It is unlikely that proliferation decisions by any of these actors would be the end of the game: they would likely generate pressure locally for more proliferation. Following Kenneth Waltz, many retrenchment advocates are proliferation optimists, assuming that nuclear deterrence solves the security problem. 79 Usually carried out in dyadic terms, the debate over the stability of proliferation changes as the numbers go up. Proliferation optimism rests on assumptions of rationality and narrow security preferences. In social science, however, such assumptions are inevitably probabilistic. Optimists assume that most states are led by rational leaders, most will overcome organizational problems and resist the temptation to preempt before feared neighbors nuclearize, and most pursue only security and are risk averse. Confidence in such probabilistic assumptions declines if the world were to move from nine to twenty, thirty, or forty nuclear states. In addition, many of the other dangers noted by analysts who are concerned about the destabilizing effects of nuclear proliferation—including the risk of accidents and the prospects that some new nuclear powers will not have truly survivable forces—seem prone to go up as the number of nuclear powers grows. 80 Moreover, the risk of “unforeseen crisis dynamics” that could spin out of control is also higher as the number of nuclear powers increases. Finally, add to these concerns the enhanced danger of nuclear leakage, and a world with overall higher levels of security competition becomes yet more worrisome. The argument that maintaining Eurasian peace is not a U.S. interest faces a second problem. On widely accepted realist assumptions, acknowledging that U.S. engagement preserves peace dramatically narrows the difference between retrenchment and deep engagement. For many supporters of retrenchment, the optimal strategy for a power such as the United States, which has attained regional hegemony and is separated from other great powers by oceans, is offshore balancing: stay over the horizon and “pass the buck” to local powers to do the dangerous work of counterbalancing any local rising power. The United States should commit to onshore balancing only when local balancing is likely to fail and a great power appears to be a credible contender for regional hegemony, as in the cases of Germany, Japan, and the Soviet Union in the midtwentieth century. The problem is that China’s rise puts the possibility of its attaining regional hegemony on the table, at least in the medium to long term. As Mearsheimer notes, “The United States will have to play a key role in countering China, because its Asian neighbors are not strong enough to do it by themselves.” 81 Therefore, unless China’s rise stalls, “the United States is likely to act toward China similar to the way it behaved toward the Soviet Union during the Cold War.” 82 It follows that the United States should take no action that would compromise its capacity to move to onshore balancing in the future. It will need to maintain key alliance relationships in Asia as well as the formidably expensive military capacity to intervene there. The implication is to get out of Iraq and Afghanistan, reduce the presence in Europe, and pivot to Asia— just what the United States is doing. 83 In sum, the argument that U.S. **security** commitments are unnecessary **for peace** is countered by a lot of scholarship, including highly influential realist scholarship. In addition, the argument that Eurasian peace is unnecessary for U.S. security is weakened by the potential for a large number of nasty security consequences as well as the need to retain a latent onshore balancing capacity that dramatically reduces the savings retrenchment might bring. Moreover, switching between offshore and onshore balancing could well be difªcult. Bringing together the thrust of many of the arguments discussed so far underlines the degree to which the case for retrenchment misses the underlying logic of the deep engagement strategy. By supplying reassurance, deterrence, and active management, the United States lowers security competition in the world’s key regions, thereby preventing the emergence of a hothouse atmosphere for growing new military capabilities. Alliance ties dissuade partners from ramping up and also provide leverage to prevent military transfers to potential rivals. On top of all this, the United States’ formidable military machine may deter entry by potential rivals. Current great power military expenditures as a percentage of GDP are at historical lows, and thus far other major powers have shied away from seeking to match top-end U.S. military capabilities. In addition, they have so far been careful to avoid attracting the “focused enmity” of the United States. 84 All of the world’s most modern militaries are U.S. allies (America’s alliance system of more than sixty countries now accounts for some 80 percent of global military spending), and the gap between the U.S. military capability and that of potential rivals is by many measures growing rather than shrinking. 85

#### US Naval presence in the Indian ocean is key to prevent an Indo-Chinese War

**Kaplan ‘9** (Robert D. Kaplan, a National Correspondent for The Atlantic and a Senior Fellow at the Center for a New American Security, in Washington, D.C., is writing a book on the Indian Ocean. He recently was the Class of 1960 Distinguished Visiting Professor in National Security at the U.S. Naval Academy., Center Stage for the Twenty-first Century. By: Kaplan, Robert D., Foreign Affairs, 00157120, Mar/Apr2009, Vol. 88, Issue 2, “Power Plays in the Indian Ocean”, LEQ)

For better or worse, phrases such "the Cold War" and "the clash of civilizations" matter. In a similar way, so do maps. The right map can stimulate foresight by providing a spatial view of critical trends in world politics. Understanding the map of Europe was essential to understanding the twentieth century. Although recent technological advances and economic integration have encouraged global thinking, some places continue to count more than others. And in some of those, such as Iraq and Pakistan, two countries with inherently artificial contours, politics is still at the mercy of geography. So in what quarter of the earth today can one best glimpse the future? Because of their own geographic circumstances, Americans, in particular, continue to concentrate on the Atlantic and Pacific Oceans. World War II and the Cold War shaped this outlook: Nazi Germany, imperial Japan, the Soviet Union, and communist China were all oriented toward one of these two oceans. The bias is even embedded in mapping conventions: Mercator projections tend to place the Western Hemisphere in the middle of the map, splitting the Indian Ocean at its far edges. And yet, as the pirate activity off the coast of Somalia and the terrorist carnage in Mumbai last fall suggest, the Indian Ocean--the world's third-largest body of waters--already forms center stage for the challenges of the twenty-first century. The greater Indian Ocean region encompasses the entire arc of Islam, from the Sahara Desert to the Indonesian archipelago. Although the Arabs and the Persians are known to Westerners primarily as desert peoples, they have also been great seafarers. In the Middle Ages, they sailed from Arabia to China; proselytizing along the way, they spread their faith through sea-based commerce. Today, the western reaches of the Indian Ocean include the tinderboxes of Somalia, Yemen, Iran, and Pakistan-- constituting a network of dynamic trade as well as a network of global terrorism, piracy, and drug smuggling. Hundreds of millions of Muslims-- the legacy of those medieval conversions--live along the Indian Oceans eastern edges, in India and Bangladesh, Malaysia and Indonesia. The Indian Ocean is dominated by two immense bays, the Arabian Sea and the Bay of Bengal, near the top of which are two of the least stable countries in the world: Pakistan and Myanmar (also known as Burma). State collapse or regime change in Pakistan would affect its neighbors by empowering Baluchi and Sindhi separatists seeking closer links to India and Iran. Likewise, the collapse of the junta in Myanmar--where competition over energy and natural resources between China and India looms--would threaten economies nearby and require a massive seaborne humanitarian intervention. On the other hand, the advent of a more liberal regime in Myanmar would undermine China's dominant position there, boost Indian influence, and quicken regional economic integration. In other words, more than just a geographic feature, the Indian Ocean is also an idea. It combines the centrality of Islam with global energy politics and the rise of India and China to reveal a multilayered, multipolar world. The dramatic economic growth of India and China has been duly noted, but the equally dramatic military ramifications of this development have not. India's and China's great-power aspirations, as well as their quests for energy security, have compelled the two countries "to **redirect their gazes** from land to the seas," according to James Holmes and Toshi Yoshihara, associate professors of strategy at the U.S. Naval War College. And the very fact that they are focusing on their sea power indicates how much more self-confident they feel on land. And so a map of the Indian Ocean exposes the contours, of power politics in the twenty-first century. Yet this is still an environment in which the United States will have to keep the peace and help guard the global commons--interdicting terrorists, pirates, and smugglers; providing humanitarian assistance; managing the competition between India and China. It will have to do so not, as in Afghanistan and Iraq, as a land-based, in-your-face meddler, leaning on far-flung army divisions at risk of getting caught up in sectarian conflict, but as a sea-based balancer lurking just over the horizon. Sea power has always been less threatening than land power: as the cliché goes, navies make port visits, and armies invade. Ships take a long time to get to a war zone, allowing diplomacy to work its magic. And as the U.S. response to the 2004 tsunami in the Indian Ocean showed, with most sailors and marines returning to their ships each night, navies can exert great influence on shore while leaving a small footprint. The more the United States becomes a maritime hegemon, as opposed to a land-based one, the less threatening it will seem to others. Moreover, **precisely because India and China are emphasizing their sea power,** the job of managing their peaceful rise will fall on **the U.S. Navy** to a significant extent. There will surely be tensions between the three navies, especially as the gaps in their relative strength begin to close. But even if the comparative size of the U.S. Navy decreases in the decades ahead, the United States **will remain the one great power from outside** the Indian Ocean region with a major presence there**--a unique position that will give it the leverage to act as a broker between India and China in their own backyard.** To understand this dynamic, one must look at the region from a maritime perspective. SEA CHANGES Thanks to the predictability of the monsoon winds, the countries on the Indian Ocean were connected well before the age of steam power. Trade in frankincense, spices, precious stones, and textiles brought together the peoples flung along its long shoreline during the Middle Ages. Throughout history, sea routes have mattered more than land routes, writes the historian Felipe Fernández-Armesto, because they carry more goods more economically. "Whoever is lord of Malacca has his hand on the throat of Venice," went one saying during the late fifteenth century, alluding to the city's extensive commerce with Asia; if the world were an egg, Hormuz would be its yolk, went another. Even today, in the jet and information age, 90 percent of global commerce and about 65 percent of all oil travel by sea. Globalization has been made possible by the cheap and easy shipping of containers on tankers, and the Indian Ocean accounts for fully half the world's container traffic. Moreover, 70 percent of the total traffic of petroleum products passes through the Indian Ocean, on its way from the Middle East to the Pacific. As these goods travel that route, they pass through the world's principal oil shipping lanes, including the Gulfs of Aden and Oman--as well as some of world commerce's main chokepoints: Bab el Mandeb and the Straits of Hormuz and Malacca. Forty percent of world trade passes through the Strait of Malacca; 40 percent of all traded crude oil passes through the Strait of Hormuz. Already the world's preeminent energy and trade interstate seaway, the Indian Ocean will matter even more in the future. Global energy needs are expected to rise by 45 percent between 2006 and 2030, and almost half of the growth in demand will come from India and China. China's demand for crude oil doubled between 1995 and 2005 and will double again in the coming 15 years or so; by 2020, China is expected to import 7.3 million barrels of crude per day--half of Saudi Arabia's planned output. More than 85 percent of the oil and oil products bound for China cross the Indian Ocean and pass through the Strait of Malacca. India--soon to become the world's fourth-largest energy consumer, after the United States, China, and Japan--is dependent on oil for roughly 33 percent of its energy needs, 65 percent of which it imports. And 90 percent of its oil imports could soon come from the Persian Gulf. India must satisfy a population that will, by 2030, be the largest of any country in the world. Its coal imports from far-off Mozambique are set to increase substantially, adding to the coal that India already imports from other Indian Ocean countries, such as South Africa, Indonesia, and Australia. In the future, India-bound ships will also be carrying increasingly large quantities of liquefied natural gas (LNG) across the seas from southern Africa, even as it continues importing LNG from Qatar, Malaysia, and Indonesia. As the whole Indian Ocean seaboard, including Africa's eastern shores, becomes a vast web of energy trade, India is seeking to increase its influence from the Plateau of Iran to the Gulf of Thailand--an expansion west and east meant to span the zone of influence of the Raj's viceroys. India's trade with the Arab countries of the Persian Gulf and Iran, with which India has long enjoyed close economic and cultural ties, is booming. Approximately 3.5 million Indians work in the six Arab states of the Gulf Cooperation Council and send home $4 billion in remittances annually. As India's economy continues to grow, so will its trade with Iran and, once the country recovers, Iraq. Iran, like Afghanistan, has become a strategic rear base for India against Pakistan, and it is poised to become an important energy partner. In 2005, India and Iran signed a multibillion-dollar deal under which Iran will supply India with 7.5 million tons of LNG annually for 25 years, beginning in 2009. There has been talk of building a gas pipeline from Iran to India through Pakistan, a project that would join the Middle East and South Asia at the hip (and in the process could go a long way toward stabilizing Indian-Pakistani relations). In another sign that Indian-Iranian relations are growing more intimate, India has been helping Iran develop the port of Chah Bahar, on the Gulf of Oman, which will also serve as a forward base for the Iranian navy. India has also been expanding its military and economic ties with Myanmar, to the east. Democratic India does not have the luxury of spurning Myanmar's junta because Myanmar is rich in natural resources--oil, natural gas, coal, zinc, copper, uranium, timber, and hydropower--resources in which the Chinese are also heavily invested. India hopes that a network of east-west roads and energy pipelines will eventually allow it to be connected to Iran, Pakistan, and Myanmar. India is enlarging its navy in the same spirit. With its 155 warships, the Indian navy is already one of the world's largest, and it expects to add three nuclear-powered submarines and three aircraft carriers to its arsenal by 2015. One major impetus for the buildup was the humiliating inability of its navy to evacuate Indian citizens from Iraq and Kuwait during the 1990-91 Persian Gulf War. Another is what Mohan Malik, a scholar at the Asia-Pacific Center for Security Studies, in Hawaii, has called India's "Hormuz dilemma," its dependence on imports passing through the strait, close to the shores of Pakistan's Makran coast, where the Chinese are helping the Pakistanis develop deep-water ports. Indeed, as India extends its influence east and west, on land and at sea, it is **bumping into China**, which, also concerned about protecting its interests throughout the region, is expanding its reach southward. Chinese President Hu Jintao has bemoaned China's "Malacca dilemma." The Chinese government hopes to eventually be able to partly bypass that strait by transporting oil and other energy products via roads and pipelines from ports on the Indian Ocean into the heart of China. One reason that Beijing wants desperately to integrate Taiwan into its dominion is so that it can redirect its naval energies away from the Taiwan Strait and toward the Indian Ocean. The Chinese government has already adopted a "string of pearls" strategy for the Indian Ocean, which consists of setting up a series of ports in friendly countries along the ocean's northern seaboard. It is building a large naval base and listening post in Gwadar, Pakistan, (from which it may already be monitoring ship traffic through the Strait of Hormuz); a port in Pasni, Pakistan, 75 miles east of Gwadar, which is to be joined to the Gwadar facility by a new highway; a fueling station on the southern coast of Sri Lanka; and a container facility with extensive naval and commercial access in Chittagong, Bangladesh. Beijing operates surveillance facilities on islands deep in the Bay of Bengal. In Myanmar, whose junta gets billions of dollars in military assistance from Beijing, the Chinese are constructing (or upgrading) commercial and naval bases and building roads, waterways, and pipelines in order to link the Bay of Bengal to the southern Chinese province of Yunnan. Some of these facilities are closer to cities in central and western China than those cities are to Beijing and Shanghai, and so building road and rail links from these facilities into China will help spur the economies of China's landlocked provinces. The Chinese government is also envisioning a canal across the Isthmus of Kra, in Thailand, to link the Indian Ocean to China's Pacific coast--a project on the scale of the Panama Canal and one that could further tip Asia's balance of power in China's favor by giving China's burgeoning navy and commercial maritime fleet easy access to a vast oceanic continuum stretching all the way from East Africa to Japan and the Korean Peninsula. All of these activities are unnerving the Indian government. With China building deep-water ports to its west and east and a preponderance of Chinese arms sales going to Indian Ocean states, India fears being encircled by China unless it expands its own sphere of influence. **The two countries' overlapping commercial and political interests are fostering competition, and even more so in the naval realm than on land.** Zhao Nanqi, former director of the General Logistics Department of the People's Liberation Army, proclaimed in 1993, "We can no longer accept the Indian Ocean as an ocean only of the Indians." India has responded to China's building of a naval base in Gwadar by further developing one of its own, that in Karwar, India, south of Goa. Meanwhile, Zhang Ming, a Chinese naval analyst, has warned that the 244 islands that form India's Andaman and Nicobar archipelago could be used like a "metal chain" to block the western entrance to the Strait of Malacca, on which China so desperately depends. "India is perhaps China's most realistic strategic adversary," Zhang has written. "Once India commands the Indian Ocean, it will not be satisfied with its position and will continuously seek to extend its influence, and its eastward strategy will have a particular impact on China." These may sound like the words of a professional worrier from Chinas own theory class, but these worries are revealing: Beijing already considers New Delhi to be a major sea power. **As the competition between India and China suggests, the Indian Ocean is where global struggles will play out in the twenty-first century**. The old borders of the Cold War map are crumbling fast, and Asia is becoming a more integrated unit, from the Middle East to the Pacific. South Asia has been an indivisible part of the greater Islamic Middle East since the Middle Ages: it was the Muslim Ghaznavids of eastern Afghanistan who launched raids on India's northwestern coast in the early eleventh century; Indian civilization itself is a fusion of the indigenous Hindu culture and the cultural imprint left by these invasions. Although it took the seaborne terrorist attacks in Mumbai last November for most Westerners to locate India inside the greater Middle East, the Indian Ocean's entire coast has always constituted one vast interconnected expanse. What is different now is the extent of these connections. On a maritime-centric map of southern Eurasia, artificial land divisions disappear; even landlocked Central Asia is related to the Indian Ocean. Natural gas from Turkmenistan may one day flow through Afghanistan, for example, en route to Pakistani and Indian cities and ports, one of several possible energy links between Central Asia and the Indian subcontinent. Both the Chinese port in Gwadar, Pakistan, and the Indian port in Chah Bahar, Iran, may eventually be connected to oil- and natural-gas-rich Azerbaijan, Kazakhstan, Turkmenistan, and other former Soviet republics. S. Frederick Starr, a Central Asia expert at the Johns Hopkins School of Advanced International Studies, said at a conference in Washington last year that access to the Indian Ocean "will help define Central Asian politics in the future." Others have called ports in India and Pakistan "evacuation points" for Caspian Sea oil. The destinies of countries even 1,200 miles from the Indian Ocean are connected with it. ELEGANT DECLINE The United States faces three related geopolitical challenges in Asia: the strategic nightmare of the greater Middle East, the struggle for influence over the southern tier of the former Soviet Union, and the growing presence of India and China in the Indian Ocean. The last seems to be the most benign of the three. China is not an enemy of the United States, like Iran, but a legitimate peer competitor, and India is a budding ally. And the rise of the Indian navy, soon to be the third largest in the world after those of the United States and China, will function as an antidote to Chinese military expansion. The task of the U.S. Navy will therefore be to quietly leverage the sea power of its closest allies--India in the Indian Ocean and Japan in the western Pacific--to set limits on China's expansion. But it will have to do so at the same time as it seizes every opportunity to incorporate China's navy into international alliances; **a U.S.-Chinese understanding at sea is crucial for the stabilization of world politics in the twenty-first century**. After all, **the Indian Ocean is a seaway for both energy and hashish and is in drastic need of policing**. To manage it effectively, U.S. military planners will have to invoke challenges such as terrorism, piracy, and smuggling to bring together India, China, and other states in joint sea patrols. The goal of the United States must be to forge a global maritime system that can minimize the risks of interstate conflict while lessening the burden of policing for the U.S. Navy. Keeping the peace in the Indian Ocean will be even more crucial once the seas and the coasts from the Gulf of Aden to the Sea of Japan are connected. Shipping options between the Indian Ocean and the Pacific Ocean will increase substantially in the future. The port operator Dubai Ports World is conducting a feasibility study on constructing a land bridge near the canal that the Chinese hope will be dug across the Isthmus of Kra, with ports on either side of the isthmus connected by rails and highways. The Malaysian government is interested in a pipeline network that would link up ports in the Bay of Bengal with those in the South China Sea. To be sure, as sea power grows in importance, the crowded hub around Malaysia, Singapore, and Indonesia will form the maritime heart of Asia: in the coming decades, it will be as strategically significant as the Fulda Gap, a possible invasion route for Soviet tanks into West Germany during the Cold War. The protective oversight of the U.S. Navy there will be especially important. As the only truly substantial blue-water force without territorial ambitions on the Asian mainland, the U.S. Navy may in the future be able to work with individual Asian countries, such as India and China, better than they can with one another. Rather than ensure its dominance, the U.S. Navy simply needs to make itself continually useful. It has already begun to make the necessary shifts. Owing to the debilitating U.S.-led wars in Afghanistan and Iraq, headlines in recent years have been dominated by discussions about land forces and counterinsurgency. But with 75 percent of the earth's population living within 200 miles of the sea, the world's military future may well be dominated by naval (and air) forces operating over vast regions. And to a greater extent than the other armed services, navies exist to protect economic interests and the system in which these interests operate. Aware of how much the international economy depends on sea traffic, U. S. admirals are thinking beyond the fighting and winning of wars to responsibilities such as policing a global trading arrangement. They are also attuned to the effects that a U.S. military strike against Iran would have on maritime commerce and the price of oil. With such concerns in mind, the U.S. Navy has for decades been helping to secure vital chokepoints in the Indian Ocean, often operating from a base on the British atoll of Diego Garcia, a thousand miles south of India and close to major sea-lanes. And in October 2007, it implied that it was seeking a sustained forward presence in the Indian Ocean and the western Pacific but no longer in the Atlantic--a momentous shift in overall U.S. maritime strategy. The document Marine Corps Vision and Strategy 2025 also concluded that the Indian Ocean and its adjacent waters will be a central theater of global conflict and competition this century. Yet as the challenges for the United States on the high seas multiply, it is unclear how much longer U.S. naval dominance will last. At the end of the Cold War, the U.S. Navy boasted about 600 warships; it is now down to 279. That number might rise to 313 in the coming years with the addition of the new "littoral combat ships," but it could also drop to the low 200s given cost overruns of 34 percent and the slow pace of shipbuilding. Although the revolution in precision-guided weapons means that existing ships pack better firepower than those of the Cold War fleet did, since a ship cannot be in two places at once, the fewer the vessels, the riskier every decision to deploy them. There comes a point at which insufficient quantity hurts quality. Meanwhile, by sometime in the next decade, China's navy will have more warships than the United States'. China is producing and acquiring submarines five times as fast as is the United States. In addition to submarines, the Chinese have wisely focused on buying naval mines, ballistic missiles that can hit moving targets at sea, and technology that blocks signals from GPS satellites, on which the U.S. Navy depends. (They also have plans to acquire at least one aircraft carrier; not having one hindered their attempts to help with the tsunami relief effort in 2004-5.) The goal of the Chinese is "sea denial," or dissuading U.S. carrier strike groups from closing in on the Asian mainland wherever and whenever Washington would like. The Chinese are also more aggressive than U.S. military planners. Whereas the prospect of ethnic warfare has scared away U.S. admirals from considering a base in Sri Lanka, which is strategically located at the confluence of the Arabian Sea and the Bay of Bengal, the Chinese are constructing a refueling station for their warships there. There is nothing illegitimate about the rise of China's navy. As the country's economic interests expand dramatically, so must China expand its military, and particularly its navy, to guard these interests. The United Kingdom did just that in the nineteenth century, and so did the United States when it emerged as a great power between the American Civil War and World War I. In 1890, the American military theorist Alfred Thayer Mahan published The Influence of Sea Power Upon History, 1660-1783, which argued that the power to protect merchant fleets had been the determining factor in world history. Both Chinese and Indian naval strategists read him avidly nowadays. China's quest for a major presence in the Indian Ocean was also evinced in 2005 by the beginning of an extensive commemoration of Zheng He, the Ming dynasty explorer and admiral who plied the seas between China and Indonesia, Sri Lanka, the Persian Gulf, and the Horn of Africa in the early decades of the fifteenth century--a celebration that signals China's belief that these seas have always been part of its zone of influence. Just as at the end of the nineteenth century the British Royal Navy began to reduce its presence worldwide by leveraging the growing sea power of its naval allies (Japan and the United States), at the beginning of the twenty-first century, the United States is beginning an elegant decline by leveraging the growing sea power of allies such as India and Japan to balance against China. What better way to scale back than to give more responsibilities to like-minded states, especially allies that, unlike those in Europe, still cherish military power? India, for one, is more than willing to help. "India has never waited for American permission to balance [against] China," the Indian strategist C. Raja Mohan wrote in 2006, adding that India has been balancing against China since the day the Chinese invaded Tibet. Threatened by China's rise, India has expanded its naval presence from as far west as the Mozambique Channel to as far east as the South China Sea. It has been establishing naval staging posts and listening stations on the island nations of Madagascar, Mauritius, and the Seychelles, as well as military relationships with them, precisely in order to counter China's own very active military cooperation with these states. With a Chinese-Pakistani alliance taking shape, most visibly in the construction of the Gwadar port, near the Strait of Hormuz, and an Indian naval buildup on the Andaman and Nicobar Islands, near the Strait of Malacca, the Indian-Chinese rivalry is taking on the dimensions of a maritime Great Game. This is a reason for the United States to quietly encourage India to balance against China, even as the United States seeks greater cooperation with China. During the Cold War, the Pacific and Indian oceans were veritable U.S. lakes. But such hegemony will not last, and the United States must seek to replace it with a subtle balance-of-power arrangement. COALITION BUILDER SUPREME So how exactly does the United States play the role of a constructive, distant, and slowly declining hegemon and keep peace on the high seas in what Fareed Zakaria, the editor of Newsweek International, has called "the post-American world"? Several years ago, Admiral Michael Mullen, then the chief of naval operations (and now chairman of the Joint Chiefs of Staff), said the answer was a "thousand-ship navy… comprised of all freedom-loving nations--standing watch over the seas, standing watch with each other." The term "thousand-ship navy" has since been dropped for sounding too domineering, but the idea behind it remains: rather than going it alone, the U.S. Navy should be a coalition builder supreme, working with any navy that agrees to patrol the seas and share information with it. Already, Combined Task Force 150 (CTF-150), a naval force based in Djibouti and comprising roughly 15 vessels from the United States, four European countries, Canada, and Pakistan, conducts antipiracy patrols around the troubled Gulf of Aden. In 2008, about a hundred ships were attacked by pirates in the region, and over 35 vessels, with billions of dollars worth of cargo, were seized. (As of the end of 2008, more than a dozen, including oil tankers, cargo vessels, and other ships, along with over 300 crew members, were still being held.) Ransom demands routinely exceed $1 million per ship, and in the recent case of one Saudi oil tanker, pirates demanded $25 million. Last fall, after the capture of a Ukrainian vessel carrying tanks and other military equipment, warships from the United States, Kenya, and Malaysia steamed toward the Gulf of Aden to assist CTF-150, followed by two Chinese warships a few weeks later. The force, which is to be beefed up and rechristened CTF-151, is likely to become a permanent fixture: piracy is the maritime ripple effect of land-based anarchy, and for as long as Somalia is in the throes of chaos, pirates operating at the behest of warlords will infest the waters far down Africa's eastern coast. The task-force model could also be applied to the Strait of Malacca and other waters surrounding the Indonesian archipelago. With help from the U.S. Navy, the navies and coast guards of Malaysia, Singapore, and Indonesia have already combined forces to reduce piracy in that area in recent years. And with the U.S. Navy functioning as both a mediator and an enforcer of standard procedures, **coalitions of this kind could bring together rival countries, such as India and Pakistan or India and China, under a single umbrella:** these states' governments would have no difficulty justifying to their publics participating in task forces aimed at transnational threats over which they have no disagreements. Piracy has the potential to unite rival states along the Indian Ocean coastline. Packed with states with weak governments and tottering infrastructure, the shores of the Indian Ocean make it necessary for the United States and other countries to transform their militaries. This area represents an unconventional world, a world in which the U.S. military, for one, will have to respond, expeditionary style, to a range of crises: not just piracy but also terrorist attacks, ethnic conflicts, cyclones, and floods. For even as the United States' armed forces, and particularly its navy, are in relative decline, they remain the most powerful conventional military on earth, and they will be expected to lead such emergency responses. With population growth in climatically and seismically fragile zones today placing more human beings in danger's way than at almost any other time in history, one deployment will quickly follow another. It is the variety and recurrence of these challenges that make the map of the Indian Ocean in the twenty-first century vastly different from the map of the North Atlantic in the twentieth century. The latter illustrated both a singular threat and a singular concept: the Soviet Union. And it gave the United States a simple focus: to defend Western Europe against the Red Army and keep the Soviet navy bottled up near the polar icecap. Because the threat was straightforward, and the United States' power was paramount, the U.S.-led North Atlantic Treaty Organization arguably became history's most successful alliance. One might envision a "NATO of the seas" for the Indian Ocean, composed of South Africa, Oman, Pakistan, India, Singapore, and Australia, with Pakistan and India bickering inside the alliance much as Greece and Turkey have inside NATO. But that idea fails to capture what the Indian Ocean is all about. Owing to the peripatetic movements of medieval Arab and Persian sailors and the legacies of Portuguese, Dutch, and British imperialists, the Indian Ocean forms a historical and cultural unit. Yet in strategic terms, it, like the world at large today, has no single focal point. The Gulf of Aden, the Persian Gulf, the Bay of Bengal--all these areas are burdened by different threats with different players. Just as today NATO is a looser alliance, less singularly focused than it was during the Cold War, any coalition centered on the Indian Ocean should be adapted to the times. Given the ocean's size--it stretches across seven time zones and almost half of the world's latitudes--and the comparative slowness at which ships move, it would be a challenge for any one multinational navy to get to a crisis zone in time. The United States was able to lead the relief effort off the coast of Indonesia after the 2004 tsunami only because the carrier strike group the USS Abraham Lincoln happened to be in the vicinity and not in the Korean Peninsula, where it was headed. A better approach would be to rely on multiple regional and ideological alliances in different parts of the Indian Ocean. Some such efforts have already begun. The navies of Thailand, Singapore, and Indonesia have banded together to deter piracy in the Strait of Malacca; those of the United States, India, Singapore, and Australia have exercised together off India's southwestern coast--an implicit rebuke to China's designs in the region. According to Vice Admiral John Morgan, former deputy chief of U.S. naval operations, the Indian Ocean strategic system should be like the New York City taxi system: driven by market forces and with no central dispatcher. Coalitions will naturally form in areas where shipping lanes need to be protected, much as taxis gather in the theater district before and after performances. For one Australian commodore, the model should be a network of artificial sea bases supplied by the U.S. Navy, which would allow for different permutations of alliances: frigates and destroyers from various states could "plug and play" into these sea bases as necessary and spread out from East Africa to the Indonesian archipelago. Like a microcosm of the world at large, the greater Indian Ocean region is developing into an area of both ferociously guarded sovereignty (with fast-growing economies and militaries) and astonishing interdependence (with its pipelines and land and sea routes). And for the first time since the Portuguese onslaught in the region in the early sixteenth century, the West's power there is in decline, however subtly and relatively. The Indians and the Chinese will enter into a dynamic great-power rivalry in these waters, with their shared economic interests as major trading partners locking them in an uncomfortable embrace. The United States, meanwhile, will serve as a stabilizing power in this newly complex area. Indispensability, rather than dominance, must be its goal.

#### Indo-Sino nuke war would escalate

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However, notwithstanding these stabilizing elements, there are factors that also complicate the Indo-China relations. Firstly, China still does not **officially recognize India as a nuclear weapon state** and hence has refused to undertake any nuclear arms control or nuclear stability negotiations with New Delhi. Secondly, China’s NFU is believed not to apply to territories that it claims as its own (which would include Aksai Chin and the state of Arunachal Pradesh). Thirdly, Beijing is engaged in a process of strategic modernization. Though these developments are perceived to be in response to US moves towards deployment of ballistic missile defence (BMD) and other policies such as those of pre emption and counterproliferation, the upgradation of its nuclear capabilities do cause anxieties in India owing to lack of clarity about Chinese intentions. Would its modernized and informationized strategic capabilities tempt China to alter its nuclear doctrine and strategy from the positions of minimum deterrence and no first use? Theoretically, a more mobile and survivable nuclear force (warhead/delivery/command and control) could provide China with the confidence to engage in ‘limited nuclear war fighting’ – a scenario in which it could use a small number of nuclear weapons on the adversary’s military forces or sites and then deter retaliation against this action by threatening attacks over cities with far greater numbers and higher yields. Therefore, would a credible second-strike capability and the ability to impose intra-war deterrence tempt China to use nuclear weapons in the case of a crisis, especially with India? Would China consider using nuclear weapons in Arunachal Pradesh that it claims as its own territory? Or against other Indian targets to coerce India to leave the region, or, yet again, to ‘teach India a lesson’? Would China be deterred by the fact that it does not have a disarming capability with a first strike, and its action would certainly invoke a nuclear retaliation on some of its own cities? Would ‘reunification’ then be worth the damage and destruction of its own people? Would China’s modernized nuclear capability give it the confidence to keep the border war “limited and local”, or would it be willing to risk a wider war with India? The chapter analyzes these questions by examining three parameters – China’s nuclear doctrine; its ongoing strategic modernization; and the likely impact of the latter on the doctrine. The chapter further assesses the impact of these elements on deterrence credibility and stability between the two countries. On the basis of this examination, the paper explores the functioning of deterrence between two nuclear powers with different capabilities. While China is an established nuclear weapon state since 1964 with an arsenal robust enough to deter even the US, India is a new nuclear power that does not have a de jure nuclear status, and is still in the process of building credible deterrence. The chapter concludes that the establishment of credible nuclear deterrence wherein India develops a reliable and survivable capability to inflict ‘unacceptable damage’ on China would prove to be stabilizing for Indo-China relations and would significantly lower the possibility of war. In fact, given the near parity in their conventional forces, the likelihood of classical conventional war is low in any case. The threat of Mutual Assured Destruction (MAD) with the use of nuclear weapons would further reinforce that stability. Given this, if wars do break out as a result of military incursions (inadvertent or deliberate) into enemy territory, they are likely to be confined to the borders and unlikely to be able to bring about any actual territorial acquisitions or change of boundaries. In fact, as it appears, China has no inclination to agree to a border settlement with India in the near future – neither through negotiations nor through military means. It suits Chinese interest to leave the issue on the back burner and consequently keep India unsettled and unsure of true Chinese intentions even as it aggressively engages economically with the country. […] Given that the borders between India and China remain disputed over several areas, one cannot rule out the possibility of deliberate or inadvertent incursions, graduating into a larger conflict. The rather ambiguous nature of the line of actual control (LAC) has led to frequent allegations of incursions by both sides. These have normally been dealt with at the level of operational commanders. Theoretically though, **the possibility of such an** incident **escalating** to a higher level **always exists.** However, it is most likely that such flare-ups over unclear LAC would remain limited to border regions with both countries working hard to avoid any kind of larger conflict. In fact, unless China escalates deliberately either to prove a point, project power or teach a lesson, it is certain that Beijing will strive equally to keep the conflict local and limited. Deliberate Nuclear War Could China let a local border war escalate to a full-scale conventional conflict and then use its superior nuclear forces to inflict nuclear damage on military targets and enforce deterrence by threatening counter-value strikes? There can be no certain answers to this question. Arguments, in fact, can be made both in support and against such a possibility. For instance, on one hand, it could be said that China might risk a nuclear attack even at the cost of losing one or more of its own cities, for three reasons: one, India does not yet have the capability to target China’s centers of gravity and Beijing may be willing to brook the loss of some of its peripheral cities in exchange of imposing, in its own assessment, far greater punishment on India; secondly, strategic modernization would provide Beijing with confidence that it could engage in an extent of nuclear war-fighting with India without suffering ‘unacceptable damage to itself’, by exercising escalation dominance and bringing about intrawar deterrence; and thirdly, **China would** **do so** **if** it found it **necessary to sustain its great power image.** International status and image is dear to the country and its leadership. It would not hesitate to reclaim what it considers its own in order to teach others a lesson. On the other hand, it could also be argued that a more developed and globally integrated China should be easier to deter. Unlike Mao, who believed that his country was large and populous enough to survive a nuclear war and still carry on propagating Communism worldwide, modern China would have a weaker damage threshold and may not want to risk even a single city to Indian nuclear retaliation. Secondly, despite how it is perceived by the world, Chinese leadership is not a monolith. It should be expected that there would be dissenting views on use of nuclear weapons. And thirdly, given the present strong moral taboo against nuclear use, China may be deterred by fear of international outrage and moral repugnance against itself. Loss of international stature as a responsible, mature international player would be a concern. For rational, reasonable governments, the decision to undertake a deliberate nuclear war is a difficult one, given that there could be nothing worth fighting over – not territory, resources, or even prestige – at the cost of the loss that would have to be borne. The same constraints should apply for India and China too. Accidental War The presence of nuclear weapons creates the theoretical possibility of an accidental nuclear use as a result of human error or mechanical failure, or even unauthorized activation or launch of nuclear weapons. Such a probability is low in the India-China relationship, given that both maintain strict central control over their nuclear assets. Both exercise centralized control over all nuclear use decision-making and have eschewed delegative models that could, in fact, have ensured greater deterrence benefits through enhanced survivability if the controls were a little less stringent and more delegated. As described by Jeffrey Lewis, “Chinese leadership has implemented operational practices that sacrifice readiness to preserve central control”.60 In fact, the Chinese have been more concerned about accidental and unauthorized nuclear exchange rather than a deliberate nuclear war and this is reflected in their choice to invest in survivability measures that did not compromise party control of nuclear weapons. For instance, Chinese missiles are largely silo-based and even the mobile ones that are dispersed are not subject to regular patrols. In India and China, warheads are stored separately from missiles and until now China’s lone SSBN never patrolled regularly.61 China’s operational practices also appear to emphasize safety and security of nuclear weapons even at the expense of pre-launch vulnerability.62 Indian command and control too weighs in favour of negative rather than positive controls. Therefore, the risk of theft, accidental launch or uncontrollable escalation is negligible.

#### Extinction

**Sethi ‘9** (Sethi, PhD in International Studies, 9

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The first factor that is deemed to heighten nuclear dangers in the case of the two dyads under study is geographical proximity and a history of conflict. Located next to one another and sharing disputed boundaries, it is feared that any major breakout of conventional hostilities between India-Pakistan or India-China could increase the **pressures for a pre-emptive strike or a nuclear attack** being launched without proper confirmation. Moreover, since the missile flight times would only be between 8-13 minutes for missile ranges of 600-2000 kms, it would not allow either side to even use the hotline (assuming these were functional) to confirm the veracity (deliberate or accidental) or nature (conventional or nuclear) of launch. Haunted by the thought that the country that waited to use its nuclear assets might end up losing them to a disarming first strike would cause near **immediate nuclear retaliation engulfing the nations in a mindless nuclear exchange.**

## 2AC

### Inherency

#### DOE’s not giving the loan guarantee

NEI ’12

(Nuclear Engineering International, “Transition almost complete”, 10-1-2012, http://www.neimagazine.com/story.asp?storyCode=2063124)

USEC plans to replace the PGDP with a new 3.8 million-SWU-per-year centrifuge enrichment plant known as the American Centrifuge Plant (ACP). Even though USEC received a licence from the NRC in 2007 to build and operate the ACP, USEC continues to **experience delays** in obtaining financing and has acknowledged that it cannot continue to independently fund the project. DOE raised additional concerns about a number of aspects of the project that USEC was not able to overcome to DOE’s satisfaction. As a result, instead of issuing the conditional loan guarantee that USEC had sought from DOE, DOE proposed a two-year cost-share research, development and demonstration (RD&D) programme for the project “to enhance the technical and financial readiness of the centrifuge technology for commercialization.” On 13 June 2012, USEC and DOE executed an agreement to move forward on a cooperative RD&D programme with a total investment of up to $350 million. The agreement calls for DOE to provide 80% ($280 million) and USEC to provide 20% ($70 million) of the total. This RD&D programme will support building, installing, operating and testing commercial plant support systems and a 120-machine cascade that would be incorporated in the full commercial ACP. Initial funding, intended to last through November 2012, will amount to $110 million. DOE will release $87.7 million for the initial phase by taking title to and disposal responsibility for a quantity of depleted uranium tails from USEC; a similar approach was used in March 2012 to provide $44 million in interim funding. Appropriation bills providing FY 2013 (October 2012-September 2013) funding have been approved by the US House of Representatives and the Senate Appropriations Committee, but have not yet been finalized.

#### No seriously, we’re inherent

Lewis ’12

(Frank Lewis, PDT Staff Writer, “USEC reports $92 million loss in second quarter”, Portsmouth Daily Times, 8-8-2012, http://portsmouth-dailytimes.com/bookmark/19717600)

USEC, Inc., reported last week that it had a net loss of $92 million for the second quarter of 2012, compared with a net loss of $21.2 million over the same period last year. According to an interview with five reporters in downtown Washington, in Politico, USEC CEO John Welch said, despite an expected $100 million loss overall for 2012, he is still optimistic about the second half of this year. “As far as we’re concerned, we see a long-term market for our services that’s very strong,” Welch said. Information netted from the interview shows growth projections for the U.S. nuclear industry slowed down, but USEC hopes to get in on the upward movement of nuclear energy overseas, leading to what Welch hopes is a busy 2013 for his company. “The rest of the world is moving on quite aggressively” on nuclear power, Welch said. “So, for us, **the future is focused around transitioning from an old, expensive, gaseous diffusion-type process and transitioning to a cost-competitive technology at American Centrifuge**.” Welch was referring to the American Centrifuge Project in Piketon, which has been put on life support by the infusion of dollars for the Research Development and Deployment (RD&D) project. USEC officials continue to wait and hope for a $2 billion loan guarantee from the U.S. Department of Energy, something they applied for more than four years ago. Since applying for the loan guarantee, USEC has found itself jumping through hoop after hoop, including additional testing of centrifuge units and bringing on two financial partners, Toshiba and Babcock & Wilcox, for fiscal stability. However, despite a promise by a campaigning Barack Obama, to support the loan guarantee, that promise has not come to fruition, and it wasn’t until the DOE decided to fund the RD&D project, that USEC could exhale. Politico said Welch has set as priorities, completion of, and focusing on, the RD&D project at Piketon, where it expects to complete the research program for the ACP by December 2013 and quickly re-apply for the $2 billion DOE loan guarantee it missed out on last year, and the wrap up of operations at the plant in Paducah, Kentucky. A $350 million cost-share agreement between DOE and USEC in June allowed construction at the Ohio project to continue through November.

### T – Energy Production

#### We meet – nuclear fuel cycle counts as energy production, including electricity generation

International Trade Association ’12

(“The Nuclear Fuel Cycle”, http://trade.gov/mas/ian/nuclear/tg\_ian\_003164.asp)

The nuclear fuel cycle is the series of industrial processes which involve the production of uranium 235 for use in nuclear energy power reactors. Uranium 238 (uranium) is a relatively common element that is found throughout the world, and is mined in a number of countries. But before uranium can be used as fuel for a nuclear reactor, it must first go through a number of processes known as “enrichment.”¶ The various activities associated with the production of electricity from nuclear reactions are referred to collectively as the nuclear fuel cycle. The nuclear fuel cycle starts with the mining of uranium and ends with the disposal of nuclear waste (this is called an open fuel cycle). If the fuel is reprocessed after use, this is called a closed fuel cycle (note: even reprocessing produces a small amount of nuclear waste which cannot be re-used and must be disposed of).

#### The Aff specifically is energy production

USEC ’12

(“The American Centrifuge”, 2012, http://www.usec.com/american-centrifuge)

Since 2002, USEC has been developing and demonstrating a highly efficient uranium enrichment gas centrifuge technology called the American Centrifuge. USEC is working to deploy this technology in its American Centrifuge Plant. The American Centrifuge Plant is an advanced uranium enrichment facility in Piketon, Ohio, which will produce low enriched uranium, a key component for the fabrication of commercial nuclear fuel. The American Centrifuge Plant’s capacity will be equal to about one-third of the fuel requirements for the commercial power reactors in the United States, which provide approximately 20% of the U.S. electricity supply today. The American Centrifuge Plant will utilize USEC’s AC100 centrifuge machine, which has been developed, engineered and assembled in the United States. The AC100 design is a disciplined evolution of classified U.S. centrifuge technology originally developed by the U.S. Department of Energy (DOE) and successfully demonstrated during the 1980s. DOE invested $3 billion over 10 years to develop the centrifuge technology, built approximately 1,500 machines and accumulated more than 10 million machine hours of run time. USEC has improved the DOE technology through advanced materials, updated electronics and design enhancements based on highly advanced computer modeling capabilities. Due to these improvements, the AC100 can produce four times the output per machine of any other centrifuge in existence today. USEC has operated centrifuges as part of its Lead Cascade test program since August 2007, demonstrating that the machines can be successfully manufactured and installed for commercial use. USEC has a construction and operating license issued by the U.S. Nuclear Regulatory Commission (NRC) and began construction of the American Centrifuge Plant in May 2007. USEC is deploying the American Centrifuge Plant to replace its gaseous diffusion uranium enrichment plant and to be well positioned to meet future demand for low enriched uranium. Deploying the American Centrifuge technology will substantially reduce USEC’s power costs and will modernize its production capacity, enabling USEC to stay competitive in the long term. In addition to providing economic advantages through energy production and job creation, the American Centrifuge Project will also provide significant environmental, energy security, nonproliferation and national security benefits.

#### Neg interp is unpredictable and arbitrary, and leads to bad debates

Taebi ’10 – assistant professor of philosophy at the Delft University of Technology who concentrates on issues of ethics and nuclear power.

(Behnam Taebi, “The Burden of Nuclear Waste”, The New York Times, 8-29-2010, http://www.nytimes.com/2010/08/30/opinion/30iht-edtaebi.html?pagewanted=all&\_r=0)

DELFT, THE NETHERLANDS — Tensions within Chancellor Angela Merkel’s administration over Germany’s energy policy cut to the heart of a contentious, worldwide debate over the future of nuclear power. The old controversies over nuclear reactors — their dangers, benefits and costs — have been raised to the forefront.¶ But as politicians, energy experts and the general public weigh the pros and cons, one key element in harnessing energy from the atom is being neglected: the link between the different methods of producing nuclear power and the nature — and longevity — of the radioactive waste that each method leaves behind. This in turn raises the issue of intergenerational justice: The technical choices we make today will determine the extent of the burden humanity will face in containing contaminated byproducts that can remain radioactive for tens of thousands of years.¶ While an increasing number of states are being swayed by the fact that nuclear power can enhance domestic energy security, produce large amounts of energy, and emit very low greenhouse gas byproducts, critics nonetheless remain vociferous.¶ They cite the continued risk of reactor accidents, the dangers of transporting nuclear fuel and fears of proliferation — along with the vexing problem of how to deal with the long-lived nuclear waste — as reasons why it should be curtailed.¶ But what is most striking in this controversy is the “missing nuclear debate.” Little is said about the major distinctions between the various production methods, or nuclear fuel cycles. Rather than reducing nuclear power to a simple yes/no, good/bad dichotomy, we need to focus first on the advantages and disadvantages of each nuclear energy production method, including the burdens and benefits they pose now and in generations to come.

#### Counter-interpretation—energy production is the production of electricity for solar or wind and the production combustible or nuclear fuels for other topical energies

NASA ‘11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Production—The production of electricity, combustible fuels, nuclear and thermonuclear fuels, and heating and cooling by renewable resources.

#### Excludes “tech of the week” Affs; those are energy conversion, which is distinct from production

NASA ’11

(NASA Scientific and Technical Information. Scope and Subject Category Guide, http://www.scribd.com/doc/80662465/sscg)

Energy Conversion – The change of a working substance or natural power into a more useable form of energy such as electricity or mechanical motion. NASA Thesaurus, Washington, DC: National Aeronautics and Space Administration.

#### For is a purpose – it’s not exlcusive

#### American Heritage Dictionary 00

a —used as a function word to indicate purpose

#### Only three cases for uranium enrichment

NRC ‘12

(http://www.nrc.gov/materials/fuel-cycle-fac/ur-enrichment.html)

The uranium enriched in uranium-235 (U235) is required in commercial light-water reactors to produce a controlled nuclear reaction. Several different processes may be used to enrich uranium, as described on this page:¶ Enriching Uranium¶ Gaseous Diffusion¶ Gas Centrifuge¶ Laser Separation

#### Only three cases for reprocessing/waste management

IAEA ‘12

(http://www-pub.iaea.org/MTCD/publications/PDF/te\_1587\_web.pdf)

Three types of technologies are considered here:

− Hydrometallurgical processes (aqueous technologies) as the reference route nowadays for

industrial scale spent fuel reprocessing. They have a high potential of optimization to

further address minor actinides, global actinides or fission products partitioning. All these

issues will be covered in different sections of this TECDOC (Sections 3.2, 3.3, 3.4

respectively).

This is the only mature process (fully closed cycle) to deal both with:

• The separation of major actinides such as U and Pu;

• The treatment and conditioning of ultimate waste for long-term storage.

The processes derived from PUREX are able to deal with a large variety of spent fuels

(oxides, carbides, nitrides) whatever are the nature and shape of the fissile composite. They

can also be adapted to the co-laminated fuel (U Mo, U Si, U Al, Pu Al).

− Pyrometallurgical processes (non aqueous technologies) as another promising R&D route

for the reprocessing of:

ƒ Metallic fuel (electro refining process);

ƒ Very radioactive fuels (early-processing of spent fuel) or fuel with a high content of

minor actinides (transmutation fuels for ADS targets in heterogeneous recycling

mode, or fuels assemblies dedicated to transmutation in fast systems in homogeneous

recycling mode)

These methods are also aiming at the global actinide separation. This issue is addressed in a

specific section of this TECDOC (3.3).

− Other non-aqueous technologies: this section is dealing with a fluid (CO2 or Freon)

dissolution and extraction process, fluorination, etc...

### Politics 2AC

#### Immigrants will be employed in jobs that waste their potential.

Bárbara **Castelletti**, economist at the OECD Development Centre, **et al.**, Jeff Dayton-Johnson, head of the OECD development Centre, and Ángel Melguizo, economist at the OECD Development Centre, “Migration in Latin America: Answering old questions with new data,” 3/19/**2010**, http://www.voxeu.org/index.php?q=node/4764

Most research on migration assumes that workers are employed in activities that correspond to their skill level. In practice workers may be employed in sectors characterised by skill requirements different from their educational or training background. In particular, **migrants may be overqualified for the work they do**. As Mattoo et al. (2005) show, this is the case for Mexicans, Central Americans and Andean university-educated migrants working in the US. **Despite their tertiary degrees, these groups rarely hold highly skilled jobs**. Worse, they may even be at the **lower rungs of the skill ladder**; 44% of tertiary-educated Mexicans migrants in the US are working in unskilled jobs. **This equilibrium represents a lose-lose-lose situation**. The home country loses human capital (brain drain), the host country and the migrant him/herself are not fully employed (brain waste), and the low skilled workers in host countries (both earlier migrants and natives) can be pushed out of the market (given that they compete with these higher-educated workers for jobs).

To illustrate this phenomenon for South-South flows, we follow OECD (2007) and compare the education level (primary, secondary and tertiary) of migrants in Argentina, Costa Rica and Venezuela with their category of job qualification (low, intermediate and high skilled). Figure 3 shows the share of over-qualified migrants and native workers, residing in different countries, and the comparison between foreign-born and natives.

Over-qualification rates vary sharply among countries, ranging from 5% in Costa Rica and Venezuela to 14% in Argentina. While lower than in the US, Canada and Spain where the over-qualification rates are above 15%, these results point to a high degree of over-qualification among immigrants compared to the native-born in Latin American countries. While there are possible omitted variables, it is likely that some part of the brain waste observed is because of the non-recognition of foreign qualifications or excessive requalification requirements for foreigners.

**The economy is resilient**

**Lamy ’11**(Pascal Lamy is the Director-General of the World Trade Organization. Lamy is Honorary President of Paris-based think tank Notre Europe. Lamy graduated from the prestigious Sciences Po Paris, from HEC and ÉNA, graduating second in his year of those specializing in economics. “System Upgrade” BY PASCAL LAMY | APRIL 18, 2011)

The bigger test came with the 2008-2009 Great Recession, the first truly **global recession** since World War II. When the international economy went into free fall, trade went right along with it. Production and supply are today thoroughly global in nature, with most manufactured products made from parts and materials imported from many other countries. These global value chains have a multiplier effect on trade statistics, which explains why, as the global economy contracted by 2 percent in 2009, trade volume shrank by more than 12 percent. This multiplier effect works the other way around as well: **Growth returned** to 4.6 percent and trade volume grew by a record 14.5 percent over the course of 2010. **Projections for trade** in 2011 **are** also **strong**, with WTO economists predicting that trade volume will rise 6.5 percent during the current year. This sharp rebound in trade has proved two essential things: **Markets stayed open despite ever-stronger pressures** to close them, and trade is an indispensible tool for economic recovery, particularly for developing countries, which are more dependent on trade. Shortly after the crisis broke out, we in the WTO began to closely monitor the trade policy response of our member governments. Many were fearful that pressures to impose trade restrictions would prove too powerful for governments to resist. But this is not what happened. Instead, the system of rules and disciplines, agreed to over 60 years of negotiations, **held firm**. In **a series of reports** prepared for WTO members and the G-20, we found that governments acted **with great restraint**. At no time did the trade-restrictive measures imposed cover more than 2 percent of world imports. Moreover, the measures used -- anti-dumping duties, safeguards, and countervailing duties to offset export or production subsidies -- were those which, in the right circumstances, are permissible under WTO rules. I am not suggesting that every safeguard measure or countervailing duty imposed during those difficult days was in compliance with WTO rules, but responses to trade pressures were generally undertaken within an internationally agreed-upon framework. Countries by and large resisted overtly noncompliant measures, such as breaking legally binding tariff ceilings or imposing import bans or quotas. As **markets stayed open, trade flows began to shift**, **and countries** that shrugged off the impact of the crisis and **continued to grow** -- notably China, India, and Brazil -- became ever-more attractive markets for countries that were struggling, including those in Europe and North America. Trade has been a powerful engine for growth in the developing world, a fact reflected in the far greater trade-to-GDP ratios we see there. In 2010, developing countries' share of world trade expanded to a record 45 percent, and this trend looks set to continue. Decisions made in Brasilia, Beijing, and New Delhi to open their respective economies to trade have been instrumental in enabling these countries to lift hundreds of millions of people out of poverty.

**US not key to global economy**

**Economist ’10** (The odd decouple Theories about why some rich-world economies are doing better than America’s don’t stand up Sep 2nd 2010 | from the print edition http://www.economist.com/node/16943853

AMERICA is used to making the economic weather. It has the world's largest economy, its most influential central bank and it issues the main global reserve currency. In recent months, however, some rich-world **economies** (**notably Germany's**) **have basked in the sunshine even as the clouds gathered over America**. On August 27th America's second-quarter GDP growth was revised down to an annualised 1.6%. That looked moribund compared with the 9% rate confirmed in Germany a few days earlier. America's jobless rate was 9.5% in July (figures for August were released on September 3rd, after The Economist went to press). But in Germany the unemployment rate is lower even than before the downturn. **Other** rich **countries**, including Britain and Australia, **have enjoyed sprightlier recent GDP growth and lower unemployment** **than America**. This unusual divergence within the rich world has fostered many competing theories to explain it, including differences in fiscal policies, exchange rates and debt levels. Most of these do not quite fit the facts. On one account Germany and, to a lesser extent, Britain have been rewarded for taking a firm grip on their public finances. In this view, the promise to tackle budget deficits has had a liberating effect on private spending by reducing uncertainty. In America, by contrast, anxiety about public debt is making businesses and consumers tighten their purse strings. The theory is a little too neat. Although credible plans to curb deficits are helpful to medium-term growth, they are unlikely to explain sudden spurts. Britain's budget plans were announced towards the end of the quarter, on June 22nd. Germany's were set out two weeks earlier. They could scarcely explain why GDP growth was strong. Indeed for most of the second quarter, fiscal uncertainty hung over both countries: in Britain because of a close election, in Germany because of commitments to help Greece and other countries. And the immediate impact of austerity is to dampen growth: witness the slump in Greece. Perhaps the explanation is found in currency movements. One effect of the euro-area crisis was to push the euro down against the dollar in the early months of this year—helping German firms but harming American exporters. Much of Germany's second-quarter GDP growth came from trade, even as a wider trade gap sapped America's economy. A weak pound could also explain Britain's renewed economic strength, much as a surge in the yen has increased worries about Japan. On August 30th Japan's central bank said it would offer banks ¥10 trillion ($118 billion) of six-month secured loans at its benchmark interest rate of 0.1%, on top of the ¥20 trillion of three-month loans it had already pledged. It hopes that this flood of money will push down borrowing costs, cap the yen's rise and help exporters. The currency theory also has holes in it. The yen's surge is too recent to explain why Japan's GDP barely rose in the second quarter. Net trade added almost nothing to Britain's GDP growth in the last quarter. Indeed America's export growth has been much stronger (a sudden surge in imports was behind the second-quarter trade gap). And demand for the sort of exports Germany has done well with, mostly luxury cars and specialist capital goods, tends to be insensitive to shifts in the exchange rate. Britain is an awkward challenger to another theory: that a debt hangover is holding back consumers in countries that had housing booms. Consumer spending in Britain (and in America) rose at about the same rate as in thriftier Germany during the second quarter. Britain stands out in another respect, too: its unemployment rate has risen by far less than in other places that had also racked up big mortgage debts. Divergent trends in unemployment may be better explained by the sort of recession each country had than by variations in jobs-market flexibility, says Kevin Daly at Goldman Sachs. In America, Ireland and Spain, the collapse of labour-intensive construction swelled the dole queues. Britain also had a housing boom but its tight planning laws kept its construction industry small, so fewer jobs were lost when the bust came. The downturns in Japan and Germany, deeper than America's (see chart), were mainly caused by the collapse in world trade. That hurt capital-intensive export industries—which were also more likely to rebound quickly—so fewer jobs disappeared. Some think America's slowness to create new jobs is leading to **undue pessimism** **about the rest of the world's prospects. “**If US growth is not enough to give us a big payrolls figure, **it's deemed a disaster**,” says Marco Annunziata at UniCredit. **But fast-growing emerging markets,** such as China**, have kept the world economy ticking over.** Germany has done well because its exporters have made headway there. China's vibrancy also explains why Australia's GDP rose at its fastest rate for three years in the second quarter.

#### Won’t pass – no bill or consensus.

Alonso 3/6

(Basilisa, “President Obama and Congress are still far apart on immigration reform”, Hispanic News Service, 3-6-2013, http://www.voxxi.com/obama-congress-apart-immigration-reform/)

President Barack Obama and Congress have yet to address seriously, let alone find much common ground, on major differences in shaping comprehensive immigration reform legislation this year. They remain ideologically and politically far apart on a myriad of issues, most prominently border enforcement, a path to citizenship and family reunification.¶ The latest move by the Administration is the probationary release of several hundred immigrants from detention centers over the country who are awaiting disposition of their deportation orders. White House press secretary Jay Carney says they are ”low-risk, non-criminal detainees” being shifted to a less-expensive form of monitoring to ensure detention levels stay within ICE’s overall budget.¶ More than 400,000 immigrants are held annually in 250 federal immigration prisons. House Judiciary Committee chairman Robert Goodlatte (R- Virginia) calls it “abhorrent that President Obama is releasing criminals into our communities.” He adds that achieving an overhaul of immigration laws would have better odds if Congress, rather than the President, takes the lead.¶ President Obama’s leaked immigration bill¶ The buoyancy from the president’s Feb. 12 State of the Union immigration reform message turned flat five days later, when USA Today obtained a copy and revealed it. The leaked proposal included his intended roadmap to citizenship for nearly 11 million undocumented immigrants who meet stringent requirements in order to qualify. Although the White House has not confirmed the report, qualifying immigrants would be granted renewable “lawful prospective immigrant” visas.¶ Much like the Deferred Action for Childhood Arrival (DACA) program, the plan would allow currently undocumented immigrants to live and work here temporarily within a four-year timeframe. After that, the visa could be renewed. Immigrants would have to pass criminal background checks, submit biometrics and pay any back taxes and fees due. The current non-refundable fee is $685 to take the citizenship test is $685.¶ Applicants would then have a minimum eight-year wait before they could apply for a green card, which grants permanent residency. Some persons already in deportation proceedings would be allowed to apply. The New York Times reported that none of the 11 million undocumented immigrants currently in the country would be granted permanent resident status or a green card before the earlier of two dates: either eight years after the bill is enacted or 30 days after visas have been awarded to everyone who applied legally before they did.¶ During the State of the Union address the President entreated, “Let’s get this done. Send me a comprehensive immigration reform bill in the next few months, and I will sign it right away.” The bipartisan exuberance that filled the House chamber has visibly retracted. Senator John McCain (R-Ariz.) told NBC’s Meet the Press that if the president proposes the leaked plan as legislation it would fail. “Leaks don’t happen in Washington by accident,” he added.¶ U.S. Rep. Paul Ryan (R-Wisc.,) who had earlier praised Obama’s State of the Union immigration rhetoric, said on ABC’s This Week that by leaking his proposal the president was “looking for a partisan advantage and not a bipartisan solution.”¶

#### No comprehensive bill – it’ll be watered down

Politico 3-5-13. dyn.politico.com/printstory.cfm?uuid=12207C2F-7F94-479F-959C-F539B631CDF1

“More likely that we deal with one bill at a time, more likely that the Senate slams them all together,” said Oklahoma Rep. James Lankford, chairman of the Republican Policy Committee, who is involved with immigration strategy. “They do so few bills over there, they’re going to do one big giant, we may do a few small [bills] and see what we work on in conference together.”¶ Still, as Washington is a-twitter about immigration reform, and President Barack Obama is corralling support on Capitol Hill, the GOP leadership is staring at a daunting statistic: More than 140 Republicans represent districts with nearly no Hispanics. So many of them look at immigration reform through a parochial lens, not as a national political imperative like the party bigwigs.¶ The uptick in private action tells a more hopeful story for reform than was previously understood. Of course, passing any immigration reform bills is a political risk because if the House is seen even temporarily as moving minor proposals while the Senate moves a massive bill, that action could be seen as insufficient.¶ For instance, the piecemeal approach could risk putting some House Republicans crosswise with national party apparatus — who see comprehensive immigration reform as a pathway toward maintaining power in Washington.¶ “I don’t like how some people on our side who are pushing a comprehensive plan who say, ‘The reason we have to do this if because we’re not getting enough of the Hispanic vote at the presidential level,’” said Rep. Tom Rooney (R-Fla.) . “For me, policy should be driven because of policy, not politics, and I know that’s wishful thinking.”¶ Ryan’s office did not answer an email about the private conversations. Gowdy told reporters he would talk about anything except immigration.¶ The desire to avoid comprehensive movement on immigration is so widespread, so geographically diverse, that it’s hard to ignore and might be impossible for leadership to circumvent.¶ Rep. Reid Ribble (R-Wis.) said he is “hopeful … that rather than trying to do a major comprehensive reform, we will try and do it sequentially.”¶ “Everyone agrees on certain things,” Ribble said.¶ Rooney said Republicans would “lose a group of people right off the bat” if they try to cobble together a comprehensive bill.

#### Minimum wage, infrastructure stimulus and preschool thump the DA and spending link

The Hill, 2-16-2013 http://thehill.com/blogs/on-the-money/economy/283579-obama-pushes-stimulus-minimum-wage-increase-in-weekly-address

President Obama used his weekly address on Saturday to recap ideas from the State of the Union that have little chance of passing Congress anytime soon, including more stimulus spending proposals and a pitch to increase the federal minimum wage to $9 an hour.¶ The president said that, taken as a package, his ideas will lead to a thriving middle class.¶ “Every day, we should ask ourselves three questions: How do we bring good jobs to America? How do we equip people with the skills those jobs require? And how do we make sure your hard work leads to a decent living?,” he said.¶ Obama said that to boost manufacturing, the United States should “launch manufacturing hubs,” increase investments in research and technology and increase infrastructure spending.¶ Obama also reiterated his call for guaranteeing high-quality preschool for all, a proposition that could cost billions of dollars.¶ “No one in America should work full-time and raise their children in poverty. So let’s raise the minimum wage so that it’s a wage you can live on,” he said.¶ Speaker John Boehner (R-Ohio) this week ruled out an increase of the minimum wage.¶ Obama reiterated that that the new investments can be done while reducing the deficit and that the goal should be some $1.5 trillion in additional deficit reduction.¶ “We don’t have to choose between the two – we just have to make smart choices,” Obama said. “Over the last few years, both parties have worked together to reduce the deficit by more than $2.5 trillion – which puts us more than halfway towards the goal of $4 trillion in deficit reduction that economists say we need to stabilize our finances. Now we need to finish the job.”

#### Obama pushing gun control- it’s controversial

The Hill 2-15-13 http://thehill.com/homenews/administration/283563-obama-pushes-gun-control-in-personal-speech-in-chicago

President Obama on Friday underlined his call for Congress to allow a vote on gun control by traveling to Chicago, his hometown and the city with the second-highest murder rate in the country.¶ “Too many of our children are being taken away from us,” Obama said in an intensely personal speech delivered in his old neighborhood that focused on the concerns of the urban poor.¶ Obama discussed the hardships of being raised by a single mom and the importance of fatherhood, and his speech included nods to gun control and other proposals from his State of the Union address meant to help the poor move up to middle-class lives.¶ Speaking in Hyde Park, where a 17-year-old was recently gunned down just days after performing at his inauguration, Obama said that no law or set of laws “can prevent every senseless act of violence in this country.”¶ And he emphasized putting forth as much focus on the social aspects of communities, saying that this is “not just a gun issue.”¶ “When a child opens fire on another child, there is a hole in that child’s heart that government can’t fill, only community and parents and teachers and clergy can fill that hole,” he said, speaking before students, faculty and community leaders. “There are entire neighborhoods where young people, they don’t see an example of somebody succeeding. For a lot of young boys and young men in particular, they don’t see an example of fathers or grandfathers, uncles who are in a position to support families and be held up and respected.”¶ Obama acknowledged the obstacles before him in pushing for gun-control, which is seen in dramatically different lights in different parts of the country.¶ “The experience of gun ownership is different in urban areas than it is in rural areas,” Obama said. “But these proposals deserve a vote in Congress. They deserve a vote.¶ “We all share a responsibility as citizens to fix it,” he added.¶ Obama’s proposals include expanded background checks and bans on certain semi-automatic weapons and high-capacity clips. He made an impassioned plea for a vote the dramatic conclusion of his State of the Union address, which was attended by many victims of gun violence, including the parents of the teenager slain in Chicago a week after performing at his inauguration.

#### ICE releases thump immigration

Noah Rothman, Editor at Mediaite 3-1-2013 http://www.mediaite.com/tv/geraldo-calls-release-of-immigrants-a-spiteful-move-by-obama-hes-throwing-a-tantrum-over-budget-cuts/

In a discussion about the White House’s efforts to intimidate their critics, Rivera brought up ICE’s decision to release illegal immigrants from detention centers in order to prepare for budget cuts contained within the sequester.¶ “They were scheduled to begin in Arizona,” Rivera noted. “Who presides over the state Arizona? Gov. Jan Brewer, who famously scolded the president with her finger. Sheriff Joe Arpiao there in Maricopa County.”¶ “This was the White House saying, ‘you want to see what this sequester is going to do? I’m going to show you,’” Rivera suggested.¶ “But they overplayed their hand,” Brian Kilmeade interjected, “because now there’s such backlash, they distanced themselves from it.”¶ “They declared war on the people who were opposing the president,” Rivera determined. “I think history will come to regard this as President Obama’s hold your breath tantrum period.”¶ “What if something happens to other American citizens because these illegals were released?” Gretchen Carlson asked. “What if something happens – a violent crime?”¶ Rivera replied that it is his impression that those undocumented immigrants released were non-violent offenders and they are going to be closely monitored. He said that he hopes this “spiteful move” on the part of the administration does not threatened the passage of a comprehensive immigration reform bill this year.

#### PC theory is wrong- winners win

Hirsh, 2-7 – National Journal chief correspondent, citing various political scientists

[Michael, former Newsweek senior correspondent, "There’s No Such Thing as Political Capital," National Journal, 2-9-13, www.nationaljournal.com/magazine/there-s-no-such-thing-as-political-capital-20130207, accessed 2-8-13, mss]

**There’s No Such Thing as Political Capital**

The idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get itwrong. On Tuesday, in his State of the Union address, President Obama will do what every president does this time of year. For about 60 minutes, he will lay out a sprawling and ambitious wish list highlighted by gun control and immigration reform, climate change and debt reduction. In response, the pundits will do what they always do this time of year: They will talk about how unrealistic most of the proposals are, discussions often informed by sagacious reckonings of how much “political capital” Obama possesses to push his program through. Most of **this** talk **will have no bearing on what actually happens** over the next four years. Consider this: Three months ago, just before the November election, if someone had talked seriously about Obama having enough political capital to oversee passage of both immigration reform and gun-control legislation at the beginning of his second term—even after winning the election by 4 percentage points and 5 million votes (the actual final tally)—this person would have been called crazy and stripped of his pundit’s license. (It doesn’t exist, but it ought to.) In his first term, in a starkly polarized country, the president had been so frustrated by GOP resistance that he finally issued a limited executive order last August permitting immigrants who entered the country illegally as children to work without fear of deportation for at least two years. Obama didn’t dare to even bring up gun control, a Democratic “third rail” that has cost the party elections and that actually might have been even less popular on the right than the president’s health care law. And yet, for reasons that have very little to do with Obama’s personal prestige or popularity—variously put in terms of a “mandate” or “political capital”—chances are fair that both will now happen. What changed? In the case of gun control, of course, it wasn’t the election. It was the horror of the 20 first-graders who were slaughtered in Newtown, Conn., in mid-December. The sickening reality of little girls and boys riddled with bullets from a high-capacity assault weapon seemed to precipitate a sudden tipping point in the national conscience. One thing changed after another. Wayne LaPierre of the National Rifle Association marginalized himself with poorly chosen comments soon after the massacre. The pro-gun lobby, once a phalanx of opposition, began to fissure into reasonables and crazies. Former Rep. Gabrielle Giffords, D-Ariz., who was shot in the head two years ago and is still struggling to speak and walk, started a PAC with her husband to appeal to the moderate middle of gun owners. Then she gave riveting and poignant testimony to the Senate, challenging lawmakers: “Be bold.” As a result, momentum has appeared to build around some kind of a plan to curtail sales of the most dangerous weapons and ammunition and the way people are permitted to buy them. It’s impossible to say now whether such a bill will pass and, if it does, whether it will make anything more than cosmetic changes to gun laws. But one thing is clear: The **political tectonics** have **shift**ed **dramatically in very little time**. Whole new possibilities exist now that didn’t a few weeks ago. Meanwhile, the Republican members of the Senate’s so-called Gang of Eight are pushing hard for a new spirit of compromise on immigration reform, a sharp change after an election year in which the GOP standard-bearer declared he would make life so miserable for the 11 million illegal immigrants in the U.S. that they would “self-deport.” But this turnaround has very little to do with Obama’s personal influence—his political mandate, as it were. It has almost entirely to do with just two numbers: 71 and 27. That’s 71 percent for Obama, 27 percent for Mitt Romney, the breakdown of the Hispanic vote in the 2012 presidential election. Obama drove home his advantage by giving a speech on immigration reform on Jan. 29 at a Hispanic-dominated high school in Nevada, a swing state he won by a surprising 8 percentage points in November. But the movement on immigration has mainly come out of the Republican Party’s recent introspection, and the realization by its more thoughtful members, such as Sen. Marco Rubio of Florida and Gov. Bobby Jindal of Louisiana, that without such a shift the party may be facing demographic death in a country where the 2010 census showed, for the first time, that white births have fallen into the minority. It’s got nothing to do with Obama’s political capital or, indeed, Obama at all. The point is not that “political capital” is a meaningless term. Often it is a synonym for “mandate” or “momentum” in the aftermath of a decisive election—and just about every politician ever elected has tried to claim more of a mandate than he actually has. Certainly, Obama can say that because he was elected and Romney wasn’t, he has a better claim on the country’s mood and direction. Many pundits still defend political capital as a useful metaphor at least. “It’s an unquantifiable but meaningful concept,” says Norman Ornstein of the American Enterprise Institute. “You can’t really look at a president and say he’s got 37 ounces of political capital. But the fact is, it’s a concept that matters, if you have popularity and some momentum on your side.” The real problem is that the idea of political capital—or mandates, or momentum—is so poorly defined that presidents and pundits often get it wrong. “Presidents usually over-estimate it,” says George Edwards, a presidential scholar at Texas A&M University. “The best kind of political capital—some sense of an electoral mandate to do something—is very rare. It almost never happens. In 1964, maybe. And to some degree in 1980.” For that reason, **political capital** is a concept that **misleads** far more than it enlightens. **It is** **distortionary**. It conveys the idea that we know more than we really do about the ever-elusive concept of political power, and it discounts the way unforeseen events can suddenly change everything. Instead, it suggests, erroneously, that a political figure has a concrete amount of political capital to invest, just as someone might have real investment capital—that a particular leader can bank his gains, and the size of his account determines what he can do at any given moment in history. Naturally, any president has practical and electoral limits. Does he have a majority in both chambers of Congress and a cohesive coalition behind him? Obama has neither at present. And unless a surge in the economy—at the moment, still stuck—or some other great victory gives him more momentum, it is inevitable that the closer Obama gets to the 2014 election, the less he will be able to get done. Going into the midterms, Republicans will increasingly avoid any concessions that make him (and the Democrats) stronger. But the abrupt emergence of the immigration and gun-control issues illustrates how suddenly shifts in mood can occur and how political interests can align in new ways just as suddenly. Indeed, the pseudo-concept of political capital masks a larger truth about Washington that is kindergarten simple: You just don’t know what you can do until you try. Or as Ornstein himself once wrote years ago, “**Winning wins.”** In theory, and in practice, depending on Obama’s handling of any particular issue, even in a polarized time, he could still deliver on a lot of his second-term goals, depending on his skill and the breaks. Unforeseen catalysts can appear, like Newtown. Epiphanies can dawn, such as when many Republican Party leaders suddenly woke up in panic to the huge disparity in the Hispanic vote. Some **political scientists** **who study** the elusive calculus of **how to pass legislation** and run successful presidencies **say** that **political capital is**, at best, **an empty concept**, and that **almost nothing in** the **academic literature** successfully quantifies or even defines it. “It can refer to a very abstract thing, like a president’s popularity, but there’s no mechanism there. That makes it kind of useless,” says Richard Bensel, a government professor at Cornell University. Even Ornstein concedes that the calculus is far more complex than the term suggests. **Winning** on one issue often **changes the** **calculation** for the next issue; there is never any known amount of capital. “The idea here is, if an issue comes up where **the conventional wisdom is that president is not going to get what he wants**, and [they]he gets it, then each time that happens, it changes the calculus of the **other actors**” Ornstein says. “If they think he’s going to win, they may **change positions to get on the winning side**. **It’s a bandwagon effect**.”

ALL THE WAY WITH LBJ Sometimes, a clever practitioner of power can get more done just because [they’re]he’s aggressive and knows the hallways of Congress well. Texas A&M’s Edwards is right to say that the outcome of the 1964 election, Lyndon Johnson’s landslide victory over Barry Goldwater, was one of the few that conveyed a mandate. But one of the main reasons for that mandate (in addition to Goldwater’s ineptitude as a candidate) was President Johnson’s masterful use of power leading up to that election, and his ability to get far more done than anyone thought possible, given his limited political capital. In the newest volume in his exhaustive study of LBJ, The Passage of Power, historian Robert Caro recalls Johnson getting cautionary advice after he assumed the presidency from the assassinated John F. Kennedy in late 1963. Don’t focus on a long-stalled civil-rights bill, advisers told him, because it might jeopardize Southern lawmakers’ support for a tax cut and appropriations bills the president needed. “One of the wise, practical people around the table [said that] the presidency has only a certain amount of coinage to expend, and you oughtn’t to expend it on this,” Caro writes. (Coinage, of course, was what political capital was called in those days.) Johnson replied, “Well, what the hell’s the presidency for?” Johnson didn’t worry about coinage, and he got the Civil Rights Act enacted, along with much else: Medicare, a tax cut, antipoverty programs. He appeared to understand not just the ways of Congress but also the way to maximize the momentum he possessed in the lingering mood of national grief and determination by picking the right issues, as Caro records. “Momentum is not a mysterious mistress,” LBJ said. “It is a controllable fact of political life.” Johnson had the skill and wherewithal to realize that, at that moment of history, he could have unlimited coinage if he handled the politics right. He did. (At least until Vietnam, that is.)

[Matt note: gender paraphrased]

#### Key GOP members want the plan – they think it’s a way to FIX Solyndra cred

Schor and Northey ‘11

(Elana Schor and Hannah Northey, E&E reporters, “Will Solyndra scandal spill over to scald nuclear loan guarantees?”, http://www.eenews.net/public/EEDaily/2011/10/07/1)

Perhaps the most high-profile example of a DOE loan winning Republican favor is the U.S. Enrichment Corp. (USEC), which warned last month that it would significantly slash investment and cut jobs at an Ohio uranium enrichment facility if the Obama administration did not come through with a $2 billion guarantee commitment by November (Greenwire, Sept. 30).¶ House Speaker John Boehner's (R-Ohio) office followed that announcement with a blog post pressing the White House to rebuild post-Solyndra credibility by expediting the USEC guarantee.¶ "[I]n stark contrast to the 'stimulus'-centric Solyndra saga, the Piketon project offers the chance to bring thousands of good-paying, long-term jobs to an area suffering from the Buckeye State's highest jobless rate," Boehner aide Michael Ricci wrote.

#### It’s massively popular, even AFTER the sequester – it still has massive support in Congress

Lewis ’13 – reporter for the Westville Reporter

(Frank, “Good news comes in bunches for USEC”, Westville Reporter, Energy Central, 3-6-2013, <http://www.energycentral.com/news/en/27816039/Good-news-comes-in-bunches-for-USEC>, DOA: 3-8-2013)

The good news continues to roll in for the funding of the research, development, and demonstration (RD&D) program at the American Centrifuge Project (ACP) in Piketon. News from Capitol Hill is that $150 million is included in the House Continuing Resolution (CR) to fund the USEC RD&D process which is a joint effort by USEC and the U.S. Department of Energy.¶ Section 1402 of the CR reads -- "In addition to amounts otherwise made available by this division, $150,000,000 is appropriated for 'Department of Energy, Atomic Energy Defense Activities, National Nuclear Security Administration, Defense Nuclear Nonproliferation' for domestic uranium enrichment research, development, and demonstration."¶ "Obviously we have been working to complete the funding for the RD&D program, which is an important program for demonstrating the technology, and laying the groundwork for commercialization," Paul Jacobson, Vice President of Communications for USEC told the Daily Times Tuesday. "I think the inclusion of the funds reflects a continued bi-partisan support in Congress and from the administration as well, for the national and energy security merits of this project. I think it's important to underscore that this proposed funding is to support the centrifuge project, and the national goals that the decision makers in Washington have decided are important to support. So obviously it is good news but there is a way to go with action in the House and action in the Senate, but it certainly is encouraging."

### Japan Do The Plan CP 2AC

#### DOE stamp of approval key

Jennetta ’12 – publisher of Fuel Cycle Weekly

(Andrea Jennetta, “DOE Calls in the experts”, Fuel Cycle Weekly, Vol.10, No.414 3-3-11, http://fuelcycle.blogspot.com/2011/03/doe-calls-in-experts.html)

The only reason to mention his (and BWEC’s) credentials is to make the point that when it comes to USEC and the ACP loan guarantee application, the Energy Department really needs to be prepared. Regardless of the final outcome of the evaluation, everyone—EVERYONE—will be criticized.¶ With a “yes” decision, DOE is saying there are enough positive vectors in terms of USEC’s enrichment order book and ability to execute, despite financial weakness and questionable technology.¶ With a “no” decision, DOE is saying there are justifiable doubts about USEC’s finances and technology, and that granting the loan guarantee is too risky for U.S. taxpayers.

### Uranium DA 2AC

#### Powers will cooperate - contains the impact - empirically proven

**Collins and Wohlforth 4** (Kathleen, Professor of Political Science – Notre Dame and William, Professor of Government – Dartmouth, “Defying ‘Great Game’ Expectations”, Strategic Asia 2003-4: Fragility and Crisis, p. 312-313)

Conclusion **The** popular **great game lens for analyzing Central Asia fails to capture the declared interests of the great powers as well as the best reading of their objective interests** **in security and economic growth**. Perhaps **more importantly, it fails to explain their actual behavior on the ground, as well the specific reactions of the Central Asian states themselves. Naturally, there are competitive elements** in great power relations. Each country’s policymaking community has slightly different preferences for tackling the challenges presented in the region, and the more influence they have the more able they are to shape events in concordance with those preferences. **But these clashing preferences concern the means to serve ends that all the great powers share.** To be sure, policy-makers in each capital would prefer that their own national firms or their own government’s budget be the beneficiaries of any economic rents that emerge from the exploitation and transshipment of the region’s natural resources. But the scale of these rents is marginal even for Russia’s oil-fueled budget. And for taxable profits to be created, the projects must make sense economically—something that is determined more by markets and firms than governments. Does it matter? The great game is an arresting metaphor that serves to draw people’s attention to an oft-neglected region. The problem is the great-game lens can distort realities on the ground, and therefore bias analysis and policy. For when great powers are locked in a competitive fight, the issues at hand matter less than their implication for the relative power of contending states. Power itself becomes the issue—one that tends to be nonnegotiable. Viewing an essential positive-sum relationship through zero sum conceptual lenses will result in missed opportunities for cooperation that leaves all players—not least the people who live in the region—poorer and more insecure. While cautious realism must remain the watchword concerning an impoverished and potentially unstable region comprised of fragile and authoritarian states, our analysis yields at least conditional and relative optimism**. Given the confluence** of **their** **chief strategic interests, the major powers are in a better position to serve as a stabilizing force than analogies to the Great Game** or **the Cold War** would **suggest**. It is important to stress that **the region’s response to the profoundly destabilizing shock of** coordinated **terror attacks was increased cooperation** between local governments and China and Russia, and—multipolar rhetoric notwithstanding—between both of them and the United States. If this trend is nurtured and if the initial signals about potential SCO-CSTO-NATO cooperation are pursued, **another destabilizing shock might generate more rather than less cooperation** among the major powers. Uzbekistan, Kyrgyzstan, Tajikistan, and Kazakhstan [The Stans] are clearly on a trajectory that portends longer-term cooperation with each of the great powers. As military and economic security interests become more entwined, there are sound reasons to conclude that “great game” politics will not shape Central Asia’s future in the same competitive and destabilizing way as they have controlled its past. To the contrary, mutual interests in Central Asia may reinforce the broader positive developments in the great powers’ relations that have taken place since September 11, as well as reinforce regional and domestic stability in Central Asia.

#### Public wants more nuclear power and it’s expanding globally

Westenhaus 9/30

(Brian, “Confidence in Nuclear Power is on the Rise Again”, Oil Price, 9-30-2012, <http://oilprice.com/Alternative-Energy/Nuclear-Power/Confidence-in-Nuclear-Power-is-on-the-Rise-Again.html>)

This latest survey found that Americans strongly favoring nuclear energy outnumber those strongly opposed by a two-to-one ratio, 29% versus 14%. The new numbers improve on a poll conducted in September 2011, six months after the Fukushima accident, when 62% of American favored nuclear energy, with 35% opposed. The new survey shows confidence is improving. Just over three quarters of respondents agree that nuclear energy facilities operating in the United States are ‘safe and secure,’ while only 19% think they are not. Eighty percent of Americans opposed to 16% believe “we should learn the lessons from the Japanese accident and continue to develop advanced nuclear energy plants to meet America’s growing electricity demand.” In a shock to the political system and the anti nuclear crowd a large majority (81%) of those surveyed favor the renewal of operating licenses of facilities that continue to meet federal safety standards, while 74% believe electric utilities should prepare now so they will be ready to build new nuclear power plants in the next decade if needed. The U.S. is not alone. New nuclear plants are coming in Asia and even in Europe. Nuclear generating capacity is projected to grow 38% in the next eight years. These kinds of numbers wake up the uranium commodities speculators – even while the market is in the doldrums.

#### Nuclear power’s expanding in the U.S. now

Ferguson ’12

(Charles D., Federation of the American Scientists, Public Interest Report, “Making the Case for

Nuclear Power in the United States”, Summer 2012, <http://www.fas.org/pubs/pir/2012summer/Summer2012_PresidentMessage.pdf>)

Will nuclear power in the United States flourish or fade away? To paraphrase Mark Twain, “The news of nuclear power’s demise has been greatly exaggerated.” The United States still has the largest number of nuclear reactors in the world with 104 and almost 20 percent of its electricity is generated from nuclear power. Moreover, four new reactors are under construction: two at the Vogtle plant in Georgia and two at the Summer plant in South Carolina. One big reason these plants are moving forward is because the utilities can recoup some of the costs during construction. The regional regulatory authorities in the Southeastern United States have allowed such cost recovery. Four new reactors, however, will not be enough to keep nuclear power on pace to continue to generate about 20 percent of the nation’s electricity.¶ Zero link to the Aff—all of their evidence is about new nuclear power plant construction

#### Plan’s not sufficient to trigger the link

EIA ’11

(“Over 90% of uranium purchased by U.S. commercial nuclear reactors is from outside the U.S.”, 7-11-2011, http://www.eia.gov/todayinenergy/detail.cfm?id=2150#)

Owners and operators of U.S. commercial nuclear power reactors purchased nearly 47 million pounds of uranium from U.S. and foreign suppliers during 2010; 92% of this total was of foreign origin.¶ Historically, U.S. owners and operators have purchased the majority of their uranium from foreign sources. Russia, Canada, Australia, Kazakhstan, and Namibia represent the top five countries of origin for U.S. uranium, and together account for 85% of total U.S. uranium purchases in 2010. Owners and operators of U.S. commercial nuclear power plants purchased uranium from a total of 14 different countries in 2010.¶ Preparing uranium for use as fuel in nuclear reactors involves a complex process of mining, refinement, and enrichment. EIA's 2010 Uranium Marketing Annual Report presents data on purchases and sales of uranium contracts and market requirements, enrichment services, and other information pertaining to feed, loaded uranium, and inventories.

#### No uranium spikes

MIT 11

[“The Future of the Nuclear Fuel Cycle”, 2011, http://web.mit.edu/mitei/research/studies/documents/nuclear-fuel-cycle/The\_Nuclear\_Fuel\_Cycle-all.pdf]

We developed a price elasticity model to estimate the future costs of uranium as a function of the cumulative mined uranium. The details of this model are in the appendix. The primary input is the model of uranium reserves as a function of ore grade [14] developed in the late 1970s by Deffeyes. The results of this model are shown in Figure 3.2. For uranium ores of practical interest, the supply increases about 2% for every 1% decrease in average grade mined down to an ore grade of ~1000 ppm. His work extended models previously applied to individual mined deposits (e.g., by Krige for gold) [15] to the worldwide ensemble of deposits of uranium. The region of interest in the figure is on the left-hand side, above about 100 ppm uranium, below which grade the energy expended to extract the uranium will approach a significant fraction of that recoverable by irradiation of fuel in LWRs. The resources of uranium increase significantly if one is willing to mine lower-grade resources. An important factor not accounted for here in prediction of uranium resources is the recovery of uranium as a co-product or by-product of other mining operations. The most important category here is phosphate deposits. A recent CEA assessment [8] projects 22 million MT from this source: by itself enough for 1000 one-GWe reactors for 100 years, subject to the caveat that co-production is fully pursued.Finally, several authors have noted that Deffeyes’ assessment was completed before the rich ore deposits in Canada, at grades in excess of 3% (30,000 ppm) were discovered. This could imply that the projected cost escalation based on his results would, in effect, be postponed for a period. Our model included three other features in addition to uranium supply versus ore grade elasticity: p Learning curve. In all industries there is a learning curve where production costs go down with cumulative experience by the industry. p Economics of scale. There are classical economics of scale associated with mining operations. p Probabilistic assessment. Extrapolation into an ill-defined future is not properly a deterministic undertaking—we can not know the exact answer. Hence, following the lead in a similar effort in 1980 by Starr and Braun of EPRI, a probabilistic approach was adopted [16] in our models. The results of our model are shown in Figure 3.3 where the relative cost of uranium is shown versus the cumulative electricity produced by LWRs of the current type. The unit of electricity is gigawatt-years of electricity generation assuming that 200 metric tons of uranium are required to produce a gigawatt-year of electricity—the amount of uranium used by a typical light water reactor. The horizontal axis shows three values of cumulative electricity production: p G1 = 100 years at today’s rate of uranium consumption and nuclear electric generation rate p G5 = 100 years at 5 times today’s uranium consumption and nuclear electricity generation rate p G10 = 100 years at 10 times today’s uranium consumption and nuclear electricity generation rate. Three lines are shown based on the probabilistic assessment described in the appendix of Chapter 3. The top line is to be interpreted as an 85% probability that the cost relative to the baseline cost will be less than the value on the trace plotted as a function of the cumulative electricity production using today’s LWR once-through fuel cycle. The three lines meet at the far left where the baseline cost of uranium is taken as 100 $/kg, and the baseline total cumulative nuclear electricity production is (somewhat arbitrarily) taken as 10 4 GWe-yr using 2005 as the reference year. The other lines correspond to 50% and 15% probabilities. As one example at 10 GWe-yr cumulative production, there is an 85% probability that uranium will cost less than double 2005 costs (i.e., less than $200/kg), a 50% probability that it will cost less than 30% greater than 2005 costs, and a 15% probability that it will be 20% or lower in cost. As another example, if there were five times as many nuclear plants (G5) and they each operated for 100 years, we would expect (at 50% probability) uranium costs to increase by less than 40%. Because uranium is ~4% of the production cost of electricity, an increase to 6% of the production costs would not have a large impact on nuclear power economics. The two points plotted on Figure 3.3 correspond to 2007 Red Book values for identified (RBI) and identified-plus-undiscovered (RBU) resources at under 130 $/kg: 5.5 and 13.0 million metric tons. These benchmarks support the expectation that uranium production costs should be tolerable for the remainder of the 21st century – long enough to develop and smoothly transition to a more sustainable nuclear energy economy.

## 1AR

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**Our interpretation opens the best and most real world discussions on nuclear power because each stage of the fuel cycle has different consequences. This turn any marginal limit they create**

**MIT ’11**

(“The Future of Nuclear Power”, Chapter 4 – Fuel Cycles, 2011, <http://web.mit.edu/nuclearpower/pdf/nuclearpower-ch4-9.pdf>)

The description of a possible global growth scenario for nuclear power with 1000 or so GWe deployed worldwide **must begin with some specification of the nuclear fuel cycles** that will be in operation. **The nuclear fuel cycle refers to all activities that occur in the production of nuclear energy**. It is **important to emphasize** that producing nuclear energy requires more than a nuclear reactor steam supply system and the associated turbine-generator equipment required to produce electricity from the heat created by nuclear fission. The process includes ore mining, enrichment, fuel fabrication, waste management and disposal, and finally decontamination and decommissioning of facilities. All steps in the process must be specified, because each involves different technical, economic, safety, and environmental consequences. A vast number of different fuel cycles appear in the literature, and many have been utilized to one degree or another. We review the operating characteristics of a number of these fuel cycles, summarized in Appendix 4. In this report, our concern is not with the description of the technical details of each fuel cycle. Rather, we stress the importance of aligning the different fuel cycle options with the global growth scenario criteria that we have specified in the last section: cost, safety, nonproliferation, and waste. This is by no means an easy task, because objective quantitative measures are not obvious, there are great uncertainties, and it is difficult to harmonize technical and institutional features. Moreover, different fuel cycles will meet the four different objectives differently, and therefore the selection of one over the other will inevitably be a matter of judgment. All too often, advocates of a particular reactor type or fuel cycle are selective in emphasizing criteria that have led them to propose a particular candidate. We believe that detailed and thorough analysis is needed to properly evaluate the many fuel cycle alternatives. We do not believe that a new technical configuration exists that meets all the criteria we have set forth, e.g. there is not a technical ‘silver bullet’ that will satisfy each of the criteria. Accordingly, the choice of the best technical path requires a judgment balancing the characteristics of a particular fuel cycle against how well it meets the criteria we have adopted. Our analysis separates fuel cycles into two classes: “open” and “closed.” In the open or once-through fuel cycle, the spent fuel discharged from the reactor is treated as waste. See Figure 4.1. In the closed fuel cycle today, the spent fuel discharged from the reactor is reprocessed, and the products are partitioned into uranium (U) and plutonium (Pu) suitable for fabrication into oxide fuel or mixed oxide fuel (MOX) for recycle back into a reactor. See Figure 4.2. The rest of the spent fuel is treated as high-level waste (HLW). In the future, closed fuel cycles could include use of a dedicated reactor that would be used to transmute selected isotopes that have been separated from spent fuel. See Figure 4.3. The dedicated reactor also may be used as a breeder to produce new fissile fuel by neutron absorption at a rate that exceeds the consumption of fissile fuel by the neutron chain reaction.2 In such fuel cycles the waste stream will contain less actinides,3 which will significantly reduce the long-term radioactivity of the nuclear waste.4