### 1

#### Rare earth supply and demand are stable now.

Seeking Alpha 8/29 [Qineqt, Team of investment professionals including former hedge fund manager, trader and analyst at top tier $10 billion hedge fund. Members include investment professionals who oversaw research and trading organization of 50+. Avoid Molycorp Until Its Liquidity Position Improves August 29, 2012 http://seekingalpha.com/article/834711-avoid-molycorp-until-its-liquidity-position-improves]

According to a recent MIT study, the demand for two of these REMs, neodymium and dysprosium, is expected to increase significantly in future, as the world transitions to renewable energy sources. This is because neodymium is an essential ingredient of magnets used in wind turbines, while dysprosium is used in some electric vehicles' motors. The research predicted that the demand for neodymium and dysprosium is expected to increase by as much as 700% and 2,600% over the next 25 years. While these raw materials are abundantly available in the ground, their supply needs to be paced up so as to match the rate of increase in expected demand. However, the development of a mine takes a decade or more, and unless noteworthy steps are taken in the short-term, such as new mines' development and recycling, a bottleneck will very likely lead to severe price hikes in future.

#### Nuclear plants require rare earth – plan creates a resource crisis.

Zyga 11 [Lisa Zyga, PhysOrg.com, Why nuclear power will never supply the world's energy needs May 11, 2011 http://phys.org/news/2011-05-nuclear-power-world-energy.html]

The 440 commercial nuclear reactors in use worldwide are currently helping to minimize our consumption of fossil fuels, but how much bigger can nuclear power get? In an analysis to be published in a future issue of the Proceedings of the IEEE, Derek Abbott, Professor of Electrical and Electronic Engineering at the University of Adelaide in Australia, has concluded that nuclear power cannot be globally scaled to supply the world’s energy needs for numerous reasons. The results suggest that we’re likely better off investing in other energy solutions that are truly scalable. Ads by Google Short Films on Energy - Watch the Energy Film Series That Will Change the Energy Conversation - RationalMiddle.com As Abbott notes in his study, global power consumption today is about 15 terawatts (TW). Currently, the global nuclear power supply capacity is only 375 gigawatts (GW). In order to examine the large-scale limits of nuclear power, Abbott estimates that to supply 15 TW with nuclear only, we would need about 15,000 nuclear reactors. In his analysis, Abbott explores the consequences of building, operating, and decommissioning 15,000 reactors on the Earth, looking at factors such as the amount of land required, radioactive waste, accident rate, risk of proliferation into weapons, uranium abundance and extraction, and the exotic metals used to build the reactors themselves. “A nuclear power station is resource-hungry and, apart from the fuel, **uses many rare metals in** its **construction,”** Abbott told PhysOrg.com. “The dream of a utopia where the world is powered off fission or fusion reactors is simply unattainable. Even a supply of as little as 1 TW stretches resources considerably.” His findings, some of which are based on the results of previous studies, are summarized below. Land and location: One nuclear reactor plant requires about 20.5 km2 (7.9 mi2) of land to accommodate the nuclear power station itself, its exclusion zone, its enrichment plant, ore processing, and supporting infrastructure. Secondly, nuclear reactors need to be located near a massive body of coolant water, but away from dense population zones and natural disaster zones. Simply finding 15,000 locations on Earth that fulfill these requirements is extremely challenging. Lifetime: Every nuclear power station needs to be decommissioned after 40-60 years of operation due to neutron embrittlement - cracks that develop on the metal surfaces due to radiation. If nuclear stations need to be replaced every 50 years on average, then with 15,000 nuclear power stations, one station would need to be built and another decommissioned somewhere in the world every day. Currently, it takes 6-12 years to build a nuclear station, and up to 20 years to decommission one, making this rate of replacement unrealistic. Ads by Google Zenni Optical® Glasses - Shop 5600+ Styles Starting At $6.95 Top Quality Rx Lenses, Order Now! - www.zennioptical.com Nuclear waste: Although nuclear technology has been around for 60 years, there is still no universally agreed mode of disposal. It’s uncertain whether burying the spent fuel and the spent reactor vessels (which are also highly radioactive) may cause radioactive leakage into groundwater or the environment via geological movement. Accident rate: To date, there have been 11 nuclear accidents at the level of a full or partial core-melt. These accidents are not the minor accidents that can be avoided with improved safety technology; they are rare events that are not even possible to model in a system as complex as a nuclear station, and arise from unforeseen pathways and unpredictable circumstances (such as the Fukushima accident). Considering that these 11 accidents occurred during a cumulated total of 14,000 reactor-years of nuclear operations, scaling up to 15,000 reactors would mean we would have a major accident somewhere in the world every month. Proliferation: The more nuclear power stations, the greater the likelihood that materials and expertise for making nuclear weapons may proliferate. Although reactors have proliferation resistance measures, maintaining accountability for 15,000 reactor sites worldwide would be nearly impossible. Uranium abundance: At the current rate of uranium consumption with conventional reactors, the world supply of viable uranium, which is the most common nuclear fuel, will last for 80 years. Scaling consumption up to 15 TW, the viable uranium supply will last for less than 5 years. (Viable uranium is the uranium that exists in a high enough ore concentration so that extracting the ore is economically justified.) Uranium extraction from seawater: Uranium is most often mined from the Earth’s crust, but it can also be extracted from seawater, which contains large quantities of uranium (3.3 ppb, or 4.6 trillion kg). Theoretically, that amount would last for 5,700 years using conventional reactors to supply 15 TW of power. (In fast breeder reactors, which extend the use of uranium by a factor of 60, the uranium could last for 300,000 years. However, Abbott argues that these reactors’ complexity and cost makes them uncompetitive.) Moreover, as uranium is extracted, the uranium concentration of seawater decreases, so that greater and greater quantities of water are needed to be processed in order to extract the same amount of uranium. Abbott calculates that the volume of seawater that would need to be processed would become economically impractical in much less than 30 years. Exotic metals: The nuclear containment vessel is made of a variety of exotic rare metals that control and contain the nuclear reaction: hafnium as a neutron absorber, beryllium as a neutron reflector, zirconium for cladding, and niobium to alloy steel and make it last 40-60 years against neutron embrittlement. Extracting these metals raises issues involving cost, sustainability, and environmental impact. In addition, these metals have **many competing industrial uses**; for example, hafnium is used in microchips and beryllium by the semiconductor industry. If a nuclear reactor is built every day, the global supply of these exotic metals needed to build nuclear containment vessels would **quickly run down and create a mineral resource crisis**. This is a new argument that Abbott puts on the table, which places resource limits on all future-generation nuclear reactors, whether they are fueled by thorium or uranium. As Abbott notes, many of these same problems would plague fusion reactors in addition to fission reactors, even though commercial fusion is still likely a long way off. Of course, not many nuclear advocates are calling for a complete nuclear utopia, in which nuclear power supplies the entire world’s energy needs. But many nuclear advocates suggest that we should produce 1 TW of power from nuclear energy, which may be feasible, at least in the short term. However, if one divides Abbott’s figures by 15, one still finds that 1 TW is barely feasible. Therefore, Abbott argues that, if this technology cannot be fundamentally scaled further than 1 TW, perhaps the same investment would be better spent on a fully scalable technology. “Due to the cost, complexity, resource requirements, and tremendous problems that hang over nuclear power, our investment dollars would be more wisely placed elsewhere,” Abbott said. “Every dollar that goes into nuclear power is dollar that has been diverted from assisting the rapid uptake of a safe and scalable solution such as solar thermal.”

#### High prices devastate manufacturers and deter innovation across all industries.

Epstein 12 [Nicholas Epstein, Chicago Policy Review, Medium Rare: What’s Cooking in the Rare Earth Element Market? Evaluating Rare Earth Element Availability: A case with Revolutionary Demand From Clean Technologies Elisa Alonso, Andrew M. Sherman, Timothy J. Wallington, Mark P. Everson, Frank R. Field, Richard Roth, and Randolph E. Kirchain Environmental Science & Technology. 2012.Jul 12th, 2012 http://chicagopolicyreview.org/2012/07/12/medium-rare-whats-cooking-in-the-rare-earth-element-market/]

REE supplies are vulnerable for several reasons. Most importantly, one nation, China, controls 98 percent of the world’s REE production. Further, REEs are found together in geological formations. As a result, REEs are co-mined, so production is highly concentrated geographically. Lastly, Rare Earth extraction has negative environmental impacts and China’s poor labor standards add social concerns to the supply market. The authors identify circumstances under which REEs may experience revolutionary demand, that is, when new sudden technological innovations sharply increase the demand for REEs. They explain that **revolutionary demand changes** can **lead to supply** and price **instability** in the materials market. This effect is harmful to manufacturers, who depend on a consistent supply-chain, and **deters additional innovation.**

#### China will respond by cutting off rare earth supply – devastates relations.

Cohen 7 [David Cohen, New Scientist, 5-23-7 “Earth's natural wealth: an audit” http://environment.newscientist.com/channel/earth/mg19426051.200-earths-natural-wealth-an-audit.html]

These may sound like drastic solutions, but as Graedel points out in a paper published last year (Proceedings of the National Academy of Sciences, vol 103, p 1209), "Virgin stocks of several metals appear inadequate to sustain the modern 'developed world' quality of life for all of Earth's people under contemporary technology." And **when resources run short, conflict is often not far behind**. It is widely acknowledged that one of the key motives for civil war In the Democratic Republic of the Congo between 1998 and 2002 was the riches to be had from the country's mineral resources, including tantalum mines - the biggest in Africa. The war coincided with a surge in the price of the metal caused by the increasing popularity of mobile phones (New Scientist, 7 April 2001, p 46). Similar **tensions over supplies of other rare metals are not hard to imagine**. The Chinese government is supplementing its natural deposits of rare metals by investing in mineral mines in Africa and buying up high-tech scrap to extract metals that are key to its developing industries. The US now imports over 90 per cent of its so-called "rare earth" metals from China, according to the US Geological Survey. If China decided to cut off the supply, that would create a **big risk of conflict**, says Reller.

#### Relations key to solve north Korean aggression

Glosserman, Director of Research at the CSIS Pacific Forum, ’03 (Brad, October 30, “US-China: The Next Alliance” South China Morning Post, lexis)

But Chinese co-operation is essential to a peaceful resolution of the North Korean crisis. That puts a premium on US efforts to find a modus vivendi for working with China, both in the short and long term. At some point, The US will have to reassess basic assumptions about its presence in the region. Do not expect it any time soon, but it seems inevitable - and the answers may be surprising.

#### Nuclear war—world’s most dangerous hotspot.

IBT 10-6-2012, International Business Times, 10/6/2012, "Reports Say South Korea, US Revise Defense Agreement; North Korean Media Call For ’Great War’", <http://www.ibtimes.com/reports-say-south-korea-us-revise-defense-agreement-north-korean-media-call-great-war-842375>

North Korea’s state-run news agency published sinister warnings of a new war in the Korean peninsula even as South Korean media reported Saturday that Seoul and Washington had reached an agreement on extending the range of South Korean ballistic missiles to counter defense threat from Pyongyang. The KCNA website showed the warnings across its front page. "Let’s realize the nation’s desire for a great war for national reunification,” the message read. "We will mercilessly punish aggressors, provokers through national actions,” the message continued. "U.S. imperialists and South Korean Lee Myung Bak regime should not act reckless.” South Korea’s Chosun Ilbo daily cited an unnamed government official to report an agreement reached by Washington and Seoul on extending the range of the ballistic missiles to 800 kilometers from the current 300 kilometers to cover all of North Korea. The unnamed government source was quoted as saying that the two sides have also agreed to maintain the payload limit at the current level of 500 kilograms as under an agreement signed in 1979, which was revised in 2001 between the two military allies, Reuters reported. However, if South Korea settles for a lesser missile range limit of 550 kilometers, it could increase the payload to one ton, the newspaper said. Yonhap news agency also reported that an agreement had been reached between the two nations. South Korean Foreign Minister Kim Sung-hwan told a parliamentary hearing Friday that negotiation with the U.S. over the missile issue had reached the "final stage,” without furnishing further details. The KCNA warnings of a war and South Korean media reports on a revised defense agreement closely followed North Korean Vice Foreign Minister Pak Kil-yon’s address to the U.N. General Assembly earlier this week lashing out at the U.S. for its “hostile” policy toward Pyongyang that has left the Korean peninsula a “spark” away from a “thermonuclear war.” "Today, due to the continued U.S. hostile policy towards DPRK (Democratic People's Republic of Korea), the vicious cycle of confrontation and aggravation of tensions is an ongoing phenomenon on the Korean peninsula, which has become the world's most dangerous hot spot where a spark of fire could set off a thermonuclear war," Pak said. A Reuters report citing South Korean government data stated that currently every corner of South Korea as well as U.S. military installations in Japan and Guam are within the range of North Korean missile attacks. The two Koreas can still be considered at war since the 1950-1953 Korean War ended with an armistice pact, not a peace treaty, Reuters reported. “No precedent can be found in modem history like the one in which the DPRK and the U.S. remain as warring parties for over 60 years even after the war,” Pak said. He said North Korea had the right to build nuclear arsenal to defend the “nation’s dignity and sovereignty.” “The only way to prevent war and ensure lasting peace on the Korean peninsula is to put an end to the U.S. hostile policy towards the DPRK,” he said. He alleged that the U.S., in an attempt to “eliminate” North Korea, had “already finalized different Korean War scenarios and it is waiting for a chance to implement them.”

### **2**

#### Comprehensive reform has momentum – it’s a top priority for Obama and he has the capital to get it done

Babington 1-16

CHARLES BABINGTON, Associated Press, Jan. 16, 2013, “Obama is flexing his leverage on debt, immigration” http://www.fresnobee.com/2013/01/16/3135694/obama-flexes-his-leverage-on-debt.html

WASHINGTON -- President Barack Obama is assembling an ambitious second-term agenda, pushing aggressively where he thinks he has political leverage but moving more cautiously on issues where he has less control. Obama is hiking pressure on congressional Republicans on the debt ceiling and immigration, two big issues in which public sentiment and political risks seem to favor him. His refusal to negotiate on the debt ceiling is an especially sharp departure from his usually accommodating style. Obama is gambling that Republicans will yield to fears of a ferocious public backlash if they leave the government unable to pay its bills in their push for spending cuts. But it is a risk. Unresolved brinkmanship over the debt ceiling could lead to an economic calamity that would damage Obama's second term and eventual legacy - not to mention Americans' lives. Meanwhile, outrage over the Connecticut grade school massacre forced the president to seek a gun-control package ahead of expectations. Americans have resisted significant gun-limiting bids for years, however, and the pro-gun-rights lobby remains powerful. Also, there's less Democratic unity on this issue than on many others. Obama's allies already are dampening expectations on key components, including an assault weapons ban. Vice President Joe Biden, who stood at Obama's side as the president announced his proposals on Wednesday, said, "I have no illusions about what we're up against or how hard the task is in front of us. ... We should do as much as we can, as quickly as we can." Among the second term's top-tier issues, immigration may be the one in which Obama enjoys the most leverage. That's a dramatic change from his first term, when it was relegated to the background. The White House is hinting at a comprehensive bill this year that would include a path toward citizenship for millions of immigrants now in the country illegally. Many Republicans, stung by heavy losses among Hispanic voters in the last two presidential elections, say they also want to revamp the nation's immigration laws. But a sweeping bill with citizenship provisions is bound to draw some conservative fire. If Obama goes big, it could put GOP leaders in a bind. A CBS News poll last month found that 47 percent of adults felt illegal immigrants working in the U.S. should be allowed to remain and eventually apply for citizenship. An additional 24 percent said they should be allowed to stay as guest workers. The levels of support were higher than a CBS poll found 15 months earlier. Such findings, coupled with Latino voters' rejection of Republican candidates in 2008 and 2012, could enable Obama to drive a hard bargain on immigration if he chooses.

#### Licensing new reactors causes congressional fights

Restuccia, ‘12

Andrew Restuccia, 2-13-12 “Energy Dept. nears approval of $8.3B nuke loan, setting up clash in Congress,” http://thehill.com/blogs/e2-wire/e2-wire/210335-energy-dept-nears-approval-of-83b-nuclear-loan-setting-up-capitol-hill-fight

Chu signaled Monday that the loan guarantee is nearing final approval, less than a week after the Nuclear Regulatory Commission (NRC) greenlighted the license for the project. “We expect that one to close and go forward,” Chu told reporters Monday afternoon, but cautioned that “there are a number of other milestones” the project must achieve before getting the final OK from the Energy Department. NRC’s decision last week to approve the license for the project — allowing construction and conditional operation of two reactors at the existing Vogtle power plant near Waynesboro, Ga. — marked a major milestone for the nuclear industry. It’s the first time the commission has approved construction of new reactors since 1978. But the project faces major resistance from some Democrats in Congress, who are hoping to use Republicans’ eagerness to probe the $535 million loan guarantee to failed solar firm Solyndra against them. Rep. Edward Markey (R-Mass.), a senior member of the House Energy and Commerce Committee, criticized Republicans Monday for not objecting to the pending nuclear loan guarantee, which is more than 15 times larger than the one given to Solyndra in 2009. “The Republican push for a loan guarantee for a nuclear reactor project exponentially riskier than Solyndra proves that their interests are not in financial stewardship but in political game playing,” Markey said. Markey, in a letter Monday, pressed Chu not to finalize the nuclear loan guarantee until the Energy Department makes improvements to its loan program recommended in a White House-mandated report released last week.

#### **Immigration reforms key to the economy**

Beadle 12-10

Amanda Peterson Beadle, Think Progress, Dec 10, 2012, “Top 10 Reasons Why The U.S. Needs Comprehensive Immigration Reform” http://thinkprogress.org/justice/2012/12/10/1307561/top-10-reasons-why-the-us-needs-comprehensive-immigration-reform-that-includes-a-path-to-citizenship/

Legalizing the 11 million undocumented immigrants in the United States would boost the nation’s economy. It would add a cumulative $1.5 trillion to the U.S. gross domestic product—the largest measure of economic growth—over 10 years. That’s because immigration reform that puts all workers on a level playing field would create a virtuous cycle in which legal status and labor rights exert upward pressure on the wages of both American and immigrant workers. Higher wages and even better jobs would translate into increased consumer purchasing power, which would benefit the U.S. economy as a whole. 2. Tax revenues would increase. The federal government would accrue $4.5 billion to $5.4 billion in additional net tax revenue over just three years if the 11 million undocumented immigrants were legalized. And states would benefit. Texas, for example, would see a $4.1 billion gain in tax revenue and the creation of 193,000 new jobs if its approximately 1.6 million undocumented immigrants were legalized. 3. Harmful state immigration laws are damaging state economies. States that have passed stringent immigration measures in an effort to curb the number of undocumented immigrants living in the state have hurt some of their key industries, which are held back due to inadequate access to qualified workers. A farmer in Alabama, where the state legislature passed the anti-immigration law HB 56 in 2011, for example, estimated that he lost up to $300,000 in produce in 2011 because the undocumented farmworkers who had skillfully picked tomatoes from his vines in years prior had been forced to flee the state. 4. A path to citizenship would help families access health care. About a quarter of families where at least one parent is an undocumented immigrant are uninsured, but undocumented immigrants do not qualify for coverage under the Affordable Care Act, leaving them dependent on so-called safety net hospitals that will see their funding reduced as health care reforms are implemented. Without being able to apply for legal status and gain health care coverage, the health care options for undocumented immigrants and their families will shrink. 5. U.S. employers need a legalized workforce. Nearly half of agricultural workers, 17 percent of construction workers, and 12 percent of food preparation workers nationwide lacking legal immigration status. But business owners—from farmers to hotel chain owners—benefit from reliable and skilled laborers, and a legalization program would ensure that they have them. 6. In 2011, immigrant entrepreneurs were responsible for more than one in four new U.S. businesses. Additionally, immigrant businesses employ one in every 10 people working for private companies. Immigrants and their children founded 40 percent of Fortune 500 companies, which collectively generated $4.2 trillion in revenue in 2010—more than the GDP of every country in the world except the United States, China, and Japan. Reforms that enhance legal immigration channels for high-skilled immigrants and entrepreneurs while protecting American workers and placing all high-skilled workers on a level playing field will promote economic growth, innovation, and workforce stability in the United States. 7. Letting undocumented immigrants gain legal status would keep families together. More than 5,100 children whose parents are undocumented immigrants are in the U.S. foster care system, according to a 2011 report, because their parents have either been detained by immigration officials or deported and unable to reunite with their children. If undocumented immigrants continue to be deported without a path to citizenship enabling them to remain in the U.S. with their families, up to 15,000 children could be in the foster care system by 2016 because their parents were deported, and most child welfare departments do not have the resources to handle this increase. 8. Young undocumented immigrants would add billions to the economy if they gained legal status. Passing the DREAM Act—legislation that proposes to create a roadmap to citizenship for immigrants who came to the United States as children—would put 2.1 million young people on a pathway to legal status, adding $329 billion to the American economy over the next two decades. 9. And DREAMers would boost employment and wages. Legal status and the pursuit of higher education would create an aggregate 19 percent increase in earnings for young undocumented immigrants who would benefit from the DREAM Act by 2030. The ripple effects of these increased wages would create $181 billion in induced economic impact, 1.4 million new jobs, and $10 billion in increased federal revenue. 10. Significant reform of the high-skilled immigration system would benefit certain industries that require high-skilled workers. Immigrants make up 23 percent of the labor force in high-tech manufacturing and information technology industries, and immigrants more highly educated, on average, than the native-born Americans working in these industries. For every immigrant who earns an advanced degree in one of these fields at a U.S. university, 2.62 American jobs are created.

#### Economic collapse causes global nuclear war

Merlini, Senior Fellow – Brookings, 11

[Cesare Merlini, nonresident senior fellow at the Center on the United States and Europe and chairman of the Board of Trustees of the Italian Institute for International Affairs (IAI) in Rome. He served as IAI president from 1979 to 2001. Until 2009, he also occupied the position of executive vice chairman of the Council for the United States and Italy, which he co-founded in 1983. His areas of expertise include transatlantic relations, European integration and nuclear non-proliferation, with particular focus on nuclear science and technology. A Post-Secular World? DOI: 10.1080/00396338.2011.571015 Article Requests: Order Reprints : Request Permissions Published in: journal Survival, Volume 53, Issue 2 April 2011 , pages 117 - 130 Publication Frequency: 6 issues per year Download PDF Download PDF (~357 KB) View Related Articles To cite this Article: Merlini, Cesare 'A Post-Secular World?', Survival, 53:2, 117 – 130]

Two neatly opposed scenarios for the future of the world order illustrate the range of possibilities, albeit at the risk of oversimplification. The first scenario entails the premature crumbling of the post-Westphalian system. One or more of the acute tensions apparent today evolves into an open and traditional conflict between states, perhaps even involving the use of nuclear weapons. The crisis might be triggered by a collapse of the global economic and financial system, the vulnerability of which we have just experienced, and the prospect of a second Great Depression, with consequences for peace and democracy similar to those of the first. Whatever the trigger, the unlimited exercise of national sovereignty, exclusive self-interest and rejection of outside interference would likely be amplified, emptying, perhaps entirely, the half-full glass of multilateralism, including the UN and the European Union. Many of the more likely conflicts, such as between Israel and Iran or India and Pakistan, have potential religious dimensions. Short of war, tensions such as those related to immigration might become unbearable. Familiar issues of creed and identity could be exacerbated. One way or another, the secular rational approach would be sidestepped by a return to theocratic absolutes, competing or converging with secular absolutes such as unbridled nationalism

### 3

#### The United States federal government should procure microgrid flywheel energy storage systems that use renewable energy for use in the United States.

#### **Solves emissions – makes renewable energy integration a reality**

NEMA, National Electrical Manufacturers Association, Volume 2, 2011, ”Smart Grid: Building on the Grid” //jchen

An enervore is an energy eater, as defined by NEMA member Lawrence E. Jones. Under this definition, every organism on our planet can be considered an enervore, yet our species sits alone at the top of the food chain. Our ever-growing population is experiencing diminishing resources and significant climate changes demanding new efficient ways to satisfy our energy appetites. Renewable energy, once considered impractical because of inconsistent sources and geographical limitations, is being transformed into a viable solution, thanks to Smart Grid and the NEMA companies working to integrate renewable technology. Its use can reduce our dependence on non-renewable fossil fuels, our production of atmospheric carbon dioxide, and our need to import energy sources. Policy incentives and technology developments influence the functions of generation and transmission. On the policy front, government incentives encourage low-carbon generation. But renewable sources that create electricity without CO2 emissions have limited usefulness for load balancing. On the technology front, a variety of energy storage technologies have been demonstrated to be practical. Energy storage devices adeptly balance load and generation, but do not produce energy on their own. While sources of renewable energy are diverse (e.g., biomass, geothermal, hydro, trash combustion), solar, wind, and marine are prominent on the Smart Grid horizon.

### 4

#### The Aff’s Harms are inherently subjective - their construction of threats marginalize others to legitimize violence

David, Grondin , master of pol sci and PHD of political studies @ U of Ottowa,2004 “(Re) Writing the “National Security State”: How and Why Realists (Re)Built the(ir) Cold War,” online @ http://www.er.uqam.ca/nobel/ieim/IMG/pdf/rewriting\_national\_security\_state.pdf

Adopting a more critical stance, David Campbell points out that "[d] anger is not an objective condition. It (sic) is not a thing which exists independently of those to whom it may become a threat. [...] Nothing is a risk in itself; [...] it all depends on how one analyses the danger, considers the event" (Campbell, 1998: 1-2). In the same vein, national security discourse does not evaluate objective threats; rather, it is itself a product of historical processes and structures in the state and society that produces it. Whoever has the power to define security is then the one who has the authority to write legitimate security discourses and conduct the policies that legitimize them. The realist analysts and state leaders who invoke national security and act in its name are the same individuals who hold the power to securitize threats by inserting them in a discourse that frames national identity and freezes it.9 Like many concepts, realism is essentially contested. In a critical re-interpretation of realism, James Der Derian offers a genealogy of realism that deconstructs the uniform realism represented in IR: he reveals many other versions of realism that are never mentioned in International Relations texts (Der Derian, 1995: 367). I am aware mat there are many realist discourses in International Relations, but they all share a set of assumptions, such as "the state is a rational unitary actor", "the state is the main actor in international relations", "states pursue power defined as a national interest", and so on. I want to show that realism is one way of representing reality, not the reflection of reality. While my aim here is not to rehearse Der Derian's genealogy of realism, I do want to spell out the problems with a positivist theory of realism and a correspondence philosophy of language. Such a philosophy accepts nominalism, wherein language as neutral description corresponds to reality'. This is precisely the problem of epistemic realism and of the realism characteristic of American realist theoretical discourses. And since for poststructuralists language constitutes reality, a re interpretation of realism as constructed in these discourses is called for.10 These scholars cannot refer to the "essentially contested nature of realism" and then use "realism as the best language to reflect a self-same phenomenon" (Der Derian, 1995: 374). Let me be clear: I am not suggesting that the many neorealist and neoclassical realist discourses in International Relations are not useful. Rather, I want to argue that these techniques and scientist forms of realism serve political purposes, used as they are in many think tanks and foreign policy bureaucracies to inform American political leaders. This is the relevance of deconstructing the uniform realism (as used in International Relations): it brings to light its locatedness in a hermeneutic circle in which it is unwittingly trapped (Der Derian, 1995: 371). And as Friedrich Kratochwil argues, "[...] the rejection of a correspondence theory of truth does not condemn us, as it is often maintained, to mere 'relativism' and/or to endless "deconstruction" in which anything goes but it leaves us with criteria that allows us to distinguish and evaluate competing theoretical creations" (Kratochwil, 2000 : 52). Given that political language is not a neutral medium that gives expression to ideas formed independently of structures of signification that sustain political action and thought, American realist discourses belonging to the neorealist or neoclassical realist traditions cannot be taken as mere descriptions of reality We are wrapped in reduction of discourses in which national leaders and security speech acts emanating from realist discourses develop and reinforce a notion of national identity as synonymous with national security U.S. national security conduct should thus be understood through the prism of the theoretical discourses of American political leaders and realist scholars that co-constitute it. Realist discourses depict American political leaders acting in defense of national security, and political leaders act in the name of national security. In the end, what distinguishes realist discourses is that they depict the United States as having behaved like a national security state since World War II, while legitimating the idea that the United States should continue to do so. Political scientists and historians "are engaged in making (poesis), nor merely recording or reporting" (Medhursr, 2000: 17). Precisely in this sense, rhetoric is nor the description of national security conduct; it constitutes it. It is difficult to trace the exact origins of the concept seems however that its currency in policymaking circles corresponds to the American experience of the Second World War and of the early years of what came to be known as the "Cold War". In this light, it is fair to say that the meaning of the American national security state is bound up with the Cold War context. If one is engaged in deciphering the meaning of the Cold War prism for American leaders, what matters is not uncovering the "reality" of the Cold War as such, but how, it conferred meaning and led people to act upon it as "reality". The Cold War can thus be seen as a rhetorical construction, in which its rhetorical dimensions gave meaning to its material manifestations, such as the national security state apparatus. This is not to say that the Cold War never existed per se, nor does it "make [it] any less real or less significant for being rhetorical" (Medhurst, 2000: 6). As Lynn Boyd Hinds and Theodore Otto Windt, Jr. stress, "political rhetoric creates political reality', structures belief systems, and provides the fundamental bases for decisions" (Hinds and Windt, cited in Medhurst, 2000: 6). In this sense, the Cold War ceases to be a historical period which meaning can be written permanently and becomes instead a struggle that is not context-specific and not geared towards one specific enemy. It is "an orientation towards difference in which those acting on behalf of an assumed but never fixed identity' are tempted by the lure of otherness to interpret all dangers as fundamental threats which require the mobilization of a population" (Campbell, 2000: 227). Indeed, if the meaning of the Cold War is not context-specific, the concept of national security cannot be disconnected from what is known as the Cold War, since its very meaning(s) emerged within it (Rosenberg, 1993 : 277).11 If the American national security state is a given for realist analysts,12 it is important to ask whether we can conceive the United States during the Cold War as anything other than a national security state.13 To be clear, I am not suggesting that there is any such essentialized entity as a "national security state".14 When I refer to the American national security' state, I mean the representation of the American state in the early years of the Cold War, the spirit of which is embodied in the National Security Act of 1947 (Der Derian, 1992: 76). The term "national security state" designates both an institutionalization of a new governmental architecture designed to prepare the United States politically and militarily to face any foreign threat and the ideology — the discourse — that gave rise to as well as symbolized it. In other words, to understand the idea of a national security state, one needs to grasp the discursive power of national security' in shaping the reality of the Cold War in both language and institutions (Rosenberg, 1993 : 281). A national security' state feeds on threats as it channels all its efforts into meeting current and future military' or security threats. The creation of the CIA, the Department of Defense, the Joint Chiefs of Staff, and the National Security' Council at the onset of the Cold War gave impetus to a state mentality' geared to permanent preparedness for war. The construction of threats is thus essential to its well-being, making intelligence agencies privileged tools in accomplishing this task. As American historian of U.S. foreign relations Michael Hogan observes in his study on the rise of the national security state during the Truman administration, "the national security' ideology framed the Cold War discourse in a system of symbolic representation that defined America's national identity' by reference to the un-American 'other,' usually the Soviet Union, Nazi Germany, or some other totalitarian power" (Hogan, 1998: 17). Such a binary system made it difficult for any domestic dissent from U.S. policy to emerge — it would have "amounted to an act of disloyalty" (Hogan, 1998: 18).15 While Hogan distinguishes advocates from critics of the American national security state, his view\* takes for granted that there is a given and fixed American political culture that differs from the "new" national security ideology. It posits an "American way", produced by its cultural, political, and historical experience. Although he stresses that differences between the two sides of the discourse are superficial, pertaining solely to the means, rather than the ends of the national security state, Hogan sees the national security state as a finished and legitimate state: an American state suited to the Cold War context of permanent war, while stopping short of a garrison state: Although government would grow larger, taxes would go up, and budget deficits would become a matter of routine, none of these and other transformations would add up to the crushing regime symbolized in the metaphor of the garrison state. The outcome instead would be an American national security' state that was shaped as much by the country's democratic political culture as it was by the perceived military imperatives of the Cold War (Hogan, 1998: 22). I disagree with this essentialist view of the state identity of the United States. The United States does not need to be a national security state. If it was and is still constructed as such by many realist discourses, it is because these discourses serve some political purpose. Moreover, in keeping with my poststructuralist inclinations, I maintain that identity need not be, and indeed never is, fixed. In a scheme in which "to say is to do", that is, from a perspective that accepts the performativity of language, culture becomes a relational site where identity politics happens rather than being a substantive phenomenon. In this sense, culture is not simply a social context framing foreign policy decision-making. Culture is "a signifying part of the conditions of possibility for social being, [...] the way in which culturalist arguments themselves secure the identity of subjects in whose name they speak" (Campbell, 1998: 221). The Cold War national security culture represented in realist discourses was constitutive of the American national security state. There was certainly a conflation of theory and policy in the Cold War military-intellectual complex, which "were observers of, and active participants in, defining the meaning of the Cold War. They contributed to portray the enemy that both reflected and fueled predominant ideological strains within the American body politic. As scholarly partners in the national security state, they were instrumental in defining and disseminating a Cold War culture" (Rubin, 2001: 15). This national security culture was "a complex space where various representations and representatives of the national security state compete to draw the boundaries and dominate the murkier margins of international relations" (Der Derian, 1992: 41). The same Cold War security culture has been maintained by political practice (on the part of realist analysts and political leaders) through realist discourses in the post-9/11 era and once again reproduces the idea of a national security state. This (implicit) state identification is neither accidental nor inconsequential. From a poststructuralist vantage point, the identification process of the state and the nation is always a negative process for it is achieved by exclusion, violence, and margina-lization. Thus, a deconstruction of practices that constitute and consolidate state identity is necessary: the writing of the state must be revealed through the analysis of the discourses that constitute it. The state and the discourses that (re)constitute it thus frame its very identity and impose a fictitious "national unity" on society; it is from this fictive and arbitrary creation of the modernist dichotomous discourses of inside/outside that the discourses (re)constructing the state emerge. It is in the creation of a Self and an Other in which the state uses it monopolistic power of legitimate violence - a power socially constructed, following Max Weber's work on the ethic of responsibility — to construct a threatening Other differentiated from the "unified" Self, the national society (the nation).16 It is through this very practice of normative statecraft,1' which produces threatening Others, that the international sphere comes into being. David Campbell adds that it is by constantly articulating danger through foreign policy that the states very conditions of existence are generated18.

#### Alternative – Reject The Affirmative’s Security Logic – This Allows for *Actual Political Thought* – Accepting Their Descriptions and Responses Colonizes the Debate.

Mark Neocleous, Prof. of Government @ Brunel, 2008 [*Critique of Security*, 185-6]

The only way out of such a dilemma, to escape the fetish, is perhaps to eschew the logic of security altogether - to reject it as so ideologically loaded in favour of the state that any real political thought other than the authoritarian and reactionary should be pressed to give it up. That is clearly something that can not be achieved within the limits of bourgeois thought and thus could never even begin to be imagined by the security intellectual. It is also something that the constant iteration of the refrain 'this is an insecure world' and reiteration of one fear, anxiety and insecurity after another will also make it hard to do. But it is something that the critique of security suggests we may have to consider if we want a political way out of the impasse of security. This impasse exists because security has now become so all-encompassing that it marginalises all else, most notably the constructive conflicts, debates and discussions that animate political life. The constant prioritising of a mythical security as a political end - as the political end constitutes a rejection of politics in any meaningful sense of the term. That is, as a mode of action in which differences can be articulated, in which the conflicts and struggles that arise from such differences can be fought for and negotiated, in which people might come to believe that another world is possible - that they might transform the world and in turn be transformed. Security politics simply removes this; worse, it remoeves it while purportedly addressing it. In so doing it suppresses all issues of power and turns political questions into debates about the most efficient way to achieve 'security', despite the fact that we are never quite told - never could be told - what might count as having achieved it. Security politics is, in this sense, an anti-politics,"' dominating political discourse in much the same manner as the security state tries to dominate human beings, reinforcing security fetishism and the monopolistic character of security on the political imagination. We therefore need to get beyond security politics, not add yet more 'sectors' to it in a way that simply expands the scope of the state and legitimises state intervention in yet more and more areas of our lives. Simon Dalby reports a personal communication with Michael Williams, co-editor of the important text Critical Security Studies, in which the latter asks: if you take away security, what do you put in the hole that's left behind? But I'm inclined to agree with Dalby: maybe there is no hole."' The mistake has been to think that there is a hole and that this hole needs to be filled with a new vision or revision of security in which it is re-mapped or civilised or gendered or humanised or expanded or whatever. All of these ultimately remain within the statist political imaginary, and consequently end up reaffirming the state as the terrain of modern politics, the grounds of security. The real task is not to fill the supposed hole with yet another vision of security, but to fight for an alternative political language which takes us beyond the narrow horizon of bourgeois security and which therefore does not constantly throw us into the arms of the state. That's the point of critical politics: to develop a new political language more adequate to the kind of society we want. Thus while much of what I have said here has been of a negative order, part of the tradition of critical theory is that the negative may be as significant as the positive in setting thought on new paths. For if security really is the supreme concept of bourgeois society and the fundamental thematic of liberalism, then to keep harping on about insecurity and to keep demanding 'more security' (while meekly hoping that this increased security doesn't damage our liberty) is to blind ourselves to the possibility of building real alternatives to the authoritarian tendencies in contemporary politics. To situate ourselves against security politics would allow us to circumvent the debilitating effect achieved through the constant securitising of social and political issues, debilitating in the sense that 'security' helps consolidate the power of the existing forms of social domination and justifies the short-circuiting of even the most democratic forms. It would also allow us to forge another kind of politics centred on a different conception of the good. We need a new way of thinking and talking about social being and politics that moves us beyond security. This would perhaps be emancipatory in the true sense of the word. What this might mean, precisely, must be open to debate. But it certainly requires recognising that security is an illusion that has forgotten it is an illusion; it requires recognising that security is not the same as solidarity; it requires accepting that insecurity is part of the human condition, and thus giving up the search for the certainty of security and instead learning to tolerate the uncertainties, ambiguities and 'insecurities' that come with being human; it requires accepting that 'securitizing' an issue does not mean dealing with it politically, but bracketing it out and handing it to the state; it requires us to be brave enough to return the gift."'

### Prolif

#### **1—Lack of US prolif leadership undermines sanctions on Iran – others won't go along**

Solomon 11 JAY SOLOMON, Wall Street Journal November 17, 2011 "China, Russia Resist Sanctions Against Iran"

<http://online.wsj.com/article/SB10001424052970204517204577042490257658040.html>

VIENNA—A new U.S. and European-led push to censure Iran before the United Nations nuclear agency for alleged efforts to develop atomic weapons is facing resistance from Russia, China and a bloc of developing countries, which threaten to dilute any international punishment.¶ American and European officials on Wednesday said they believed they would reach an agreement with Beijing and Moscow on a resolution condemning Tehran's nuclear work, which will be presented to the International Atomic Energy Agency's 35-nation board of governors in Vienna on Thursday.¶ But they said this statement won't refer Iran to the U.N. Security Council or lead to a fifth, more severe round of U.N.-backed sanctions against Tehran.¶ The fallout, diplomats fear, could allow Iran to emerge largely unscathed after the release of an IAEA report last week that detailed extensive evidence that Iran has been developing the technologies used in producing nuclear bombs.¶ "The diplomacy has been very difficult on this," said a Western official involved in the deliberations. "We've had to balance the desire for tough action with the need to keep China and Russia on board."

#### 2—US leadership would mean complete, international sanctions against Iran

Tau 12 BYRON TAU, reporter 9/14/12 Politico "Clinton touts Iran sanctions policy" http://www.politico.com/politico44/2012/09/clinton-touts-iran-sanctions-policy-135623.html

After a week of tussling with the Israeli government on the issue of Iran, Secretary of State Hillary Clinton reaffirmed the Obama administration's commitment to a dual-track policy to stop the country from acquiring a nuclear weapon.

"The United States is determined to prevent Iran from acquiring a nuclear weapon and has pursued a dual-track policy to do so," Clinton said in a statement championing the sanctions put in place by the administration.

"Iran must cooperate fully and immediately with the IAEA on all outstanding issues. We welcome the resolve of the international community to make clear the onus is on Iran to abide by its international obligations, honor its commitments to the IAEA, and prove that its intentions are peaceful," she said.

The dual-track policy refers to pursing both high-level negotiations and punitive sanctions to keep the regime in Tehran from enriching weapons-grade nuclear material.

Tensions between Washington and Israeli Prime Minister Benjamin Netanyahu spilled out into the open this week, with back-and-forth accusations of a serious snub.

In a speech that was widely interpreted as being aimed at Washington, Netanyahu said that no one had a “moral right” to prevent Israel from acting in self-defense against Iran. Jerusalem also pushed the Obama administration to draw a firm 'red line' against Iranian action.

Israeli officials also said that their efforts to set up a meeting between Netanyahu and President Obama in New York later this month were rebuffed. White House officials denied a snub, saying the two leaders were not in the city on the same day.

The Obama administration has said that their 'red line' is to stop Iran from getting a nuclear weapon — a stance that leaves open the possibility of a civilian nuclear program for Tehran.

#### 3—US leadership would result effective sanctions and risk Iran lash out

Heller 12 Mark A. Heller, principal research associate at the Institute for National Security Studies, Tel Aviv University.

Published: January 25, 2012 New York Times A Europe-Iran War

<http://www.nytimes.com/2012/01/26/opinion/a-europe-iran-war.html?_r=0>

TEL AVIV — This week, the European Union went to war against Iran. There was no formal declaration, of course, nor even any undeclared use of military force. But the E.U. decision to place an embargo on Iranian oil imports, ban new contracts, and freeze Iranian Central Bank assets is effectively an act of war and may very well result in the military hostilities that sanctions are meant to forestall.

Oil exports account for over 50 percent of Iranian government revenue and about 80 percent of its hard currency earnings. And the E.U., as a bloc, is Iran’s second-largest customer, taking about a quarter of Iranian exports. Consequently, unless other customers neutralize E.U. actions by stepping up their own purchases from Iran — and indications from China, Japan and South Korea suggest that this is unlikely to be the case — the E.U. decision, coupled with existing American measures, will come close to imposing the “crippling sanctions” that Secretary of State Hillary Rodham Clinton threatened but could not deliver without European cooperation.

If that turns out to be the case, then the Iranian regime, already coping with high inflation and a rapidly depreciating currency, will feel constrained to react. One possibility is that it will capitulate and essentially dismantle its nuclear weapons program. That is obviously the outcome that Europeans and others hope sanctions (or even the credible threat of sanctions) will bring about.

But it is at least as likely that Iran, feeling trapped, will lash out in a desperate attempt to frighten the Europeans into backing down or at least introduce so much hysteria into the oil market that price spikes will allow it to earn the same revenue from a reduced volume of exports.

One form this might take would be an attempt to close the Strait of Hormuz, which Iran has already threatened to do. But that is probably beyond Iran’s capacity for very long and would in any case also shut down Iran’s own ability to export to whatever markets it manages to retain.

Far less complicated would be sabotage or rocket attacks on refineries, pipelines and other facilities in places like Abqaiq and Ras Tanura in Saudi Arabia. These might be carried out as “false flag” operations by local Shiite insurgents concentrated in Saudi Arabia’s Eastern Province, but nobody would be fooled and the risks of escalation to large-scale conflict with Iran would be significant.

In this scenario, the military confrontation that many Europeans have sought to avoid will become unavoidable, even if Iranian decision makers do not delude themselves into thinking that they would ultimately prevail.

Before such courses of action are discounted as unrealistic scare-mongering or dismissed on grounds that they would be self-defeating, it might be worth recalling that Imperial Japan did not attack the United States because it was physically attacked by the United States but rather because it was being economically squeezed (as Iran may well be squeezed now) to the point where it felt that war was preferable to slow-motion strangulation. And it made no difference that many Japanese military leaders, including Admiral Isoroku Yamamoto, chief planner of the attack on Pearl Harbor, believed that Japan’s ultimate defeat was foreordained.

#### 4—The result is extinction

Chossudovsky 5 Michel Chossudovsky, Centre for Research on Globalisation 1 May 2005 Planned US-Israeli Attack on Iran

<http://globalresearch.ca/articles/CHO505A.html>

The Bush Administration has embarked upon a military adventure which threatens the future of humanity.

Iran is the next military target. The planned military operation, which is by no means limited to punitive strikes against Iran's nuclear facilities, is part of a project of World domination, a military roadmap, launched at the end of the Cold War.

Military action against Iran would directly involve Israel's participation, which in turn is likely to trigger a broader war throughout the Middle East, not to mention an implosion in the Palestinian occupied territories. Turkey is closely associated with the proposed aerial attacks.

Israel is a nuclear power with a sophisticated nuclear arsenal. (See text box below). The use of nuclear weapons by Israel or the US cannot be excluded, particularly in view of the fact that tactical nuclear weapons have now been reclassified  as a variant of the conventional bunker buster bombs and are authorized by the US Senate for use in conventional war theaters. ("they are harmless to civilians because the explosion is underground")

In this regard, Israel and the US rather than Iran constitute a nuclear threat.

The planned attack on Iran must be understood in relation to the existing active war theaters in the Middle East, namely Afghanistan, Iraq and Palestine.

The conflict could easily spread from the Middle East to the Caspian sea basin. It could also involve the participation of Azerbaijan and Georgia, where US troops are stationed.

An attack on Iran would have a direct impact on the resistance movement inside Iraq. It would also put pressure on America's overstretched military capabilities and resources in both the Iraqi and Afghan war theaters. (The 150,000 US troops in Iraq are already fully engaged and could not be redeployed in the case of a war with Iran.)

In other words, the shaky geopolitics of the Central Asia- Middle East region, the three existing war theaters in which America is currently, involved, the direct participation of Israel and Turkey, the structure of US sponsored military alliances, etc. raises the specter of a broader conflict.

Moreover, US military action on Iran not only threatens Russian and Chinese interests, which have geopolitical interests in the Caspian sea basin and which have bilateral agreements with Iran. It also backlashes on European oil interests in Iran and is likely to produce major divisions between Western allies, between the US and its European partners as well as within the European Union.

Through its participation in NATO, Europe, despite its reluctance, would be brought into the Iran operation. The participation of NATO largely hinges on a military cooperation agreement reached between NATO and Israel. This agreement would bind NATO to defend Israel against Syria and Iran. NATO would therefore support a preemptive attack on Iran's nuclear facilities, and could take on a more active role if Iran were to retaliate following US-Israeli air strikes.

#### 5—Proliferation is slow and stable. Their authors exaggerate. Iran proves.

Mueller ’12, [John Mueller, PhD, is a Senior Research Scientist with the Mershon Center for International Security Studies where he is also the Woody Hayes Chair of National Security Studies, Senior Fellow at the Cato Institute, professor of political science at Ohio State University and the author of Atomic Obsession, “Old fears cloud Western views on Iran's nuclear posturing,” 2-18 http://www.smh.com.au/opinion/politics/old-fears-cloud-western-views-on-irans-nuclear-posturing-20120217-1te94.html]

Alarmism about nuclear proliferation is fairly common coin in the foreign policy establishment. And of late it has been boosted by the seeming efforts of Iran or its friends to answer covert assassinations, apparently by Israel, with attacks and attempted attacks of their own in India, Georgia and Thailand.¶ A non-hysterical approach to the Iran nuclear issue is entirely possible. It should take several considerations into account. If the rattled and insecure Iranian leadership is lying when it says it has no intention of developing nuclear weapons, or if it undergoes a conversion from that position (triggered perhaps by an Israeli air strike), it will find, like all other nuclear-armed states, that the bombs are essentially useless and a considerable waste of time, effort, money and scientific talent.¶ Nuclear weapons have had a tremendous influence on our agonies and obsessions since 1945, inspiring desperate rhetoric, extravagant theorising, wasteful expenditure and frenetic diplomatic posturing. However, they have been of little historic consequence. And they were not necessary to prevent a third world war or a major conflict in Europe: each leak from the archives suggests that the Soviet Union never seriously considered direct military aggression against the US or Europe. That is, there was nothing to deter.¶ Moreover, there never seem to have been militarily compelling – or even minimally sensible – reasons to use the weapons, particularly because of an inability to identify targets that were both suitable and could not be effectively attacked using conventional munitions.¶ Iran would most likely "use" any nuclear capacity in the same way all other nuclear states have: for prestige (or ego‑stoking) and to deter real or perceived threats. Historical experience strongly suggests that new nuclear countries, even ones that once seemed hugely threatening, like communist China in the 1960s, are content to use their weapons for such purposes.¶ Indeed, as strategist (and Nobel laureate) Thomas Schelling suggests, deterrence is about the only value the weapons might have for Iran. Such devices, he points out, "would be too precious to give away or to sell" and "too precious to waste killing people" when they could make other countries "hesitant to consider military action".¶ The popular notion that nuclear weapons furnish a country with the capacity to "dominate" its area has little or no historical support – in the main, nuclear threats since 1945 have either been ignored or met with countervailing opposition, not timorous acquiescence. It thus seems overwhelmingly likely that, if a nuclear Iran brandishes its weapons to intimidate others or get its way, it will find that those threatened, rather than capitulating or rushing off to build a compensating arsenal of their own, will ally with others, including conceivably Israel, to stand up to the intimidation – rather in the way an alliance of convenience coalesced to oppose Iraq's invasion of Kuwait in 1990.¶ Iran's leadership, though hostile and unpleasant in many ways, is not a gaggle of suicidal lunatics. Thus, as Schelling suggests, it is exceedingly unlikely it would give nuclear weapons to a group like Hezbollah to detonate, not least because the rational ones in charge would fear that the source would be detected, inviting devastating retaliation.¶ Nor is an Iranian bomb likely to trigger a cascade of proliferation in the Middle East, as many people insist. Decades of alarmist predictions about proliferation chains, cascades, dominoes, waves, avalanches, epidemics and points of no return have proven faulty. The proliferation of nuclear weapons has been far slower than routinely expected because, insofar as most leaders of most countries, even rogue ones, have considered acquiring the weapons, they have come to appreciate several defects: the weapons are dangerous, distasteful, costly and likely to rile the neighbours. And the nuclear diffusion that has transpired has had remarkably limited, perhaps even imperceptible, consequences. As Professor Jacques Hymans has shown, the weapons have also been exceedingly difficult to obtain for administratively dysfunctional countries like Iran.

#### **6—No world nuclear renaissance AND not cost competitive**

Mez, ’12, Lutz Mez, Department of Political and Social Sciences, Freie Universitat Berlin, 5-7-12, “Nuclear Energy—Any Solution for Sustainability and Climate Protection?”, http://www.sciencedirect.com/science/article/pii/S0301421512003527,

Is the entire world really building nuclear power plants? By no means. According to the IAEA, 63 blocks with a rating of 61,032 MW are currently under construction (see Table 1). The building projects are spread out among fourteen countries: China (26), Russia (10), India (6), South Korea (5), the Ukraine (2), Japan (2), Slovakia (2), Bulgaria (2) and Taiwan (2) and one block each in Argentina, Brazil, Finland, France, and the USA. The World Nuclear Association (WNA) only lists 61 reactors under construction, but another 156 reactors in the category ‘planned.’ Actual development of nuclear technology teaches us, however, that planned reactors by no means automatically move into the category of ‘under construction.’ In 1979, before the Three Mile Island accident in Harrisburg, there were 233 reactors under construction in the world, and over 100 cancellations followed (Schneider, Froggatt, Thomas, 2011). In view of these facts, the metaphor ‘renaissance of nuclear power’ must be viewed as an ideological weapon. Examined more closely, it would appear that nuclear power has even taken a nose-dive in the Western industrialized countries. In the European Union there were 177 reactors in 1989, whereas the IAEA only lists 134 operational reactors in February 2012. Of the 192 members of the United Nations, only 31 countries had nuclear power plants in operation at the beginning of 2012. Three countries (Italy, Kazakhstan and Lithuania) have in the meantime closed down their nuclear power plants, while in Austria a reactor was built in Zwentendorf but never connected to the grid. A similar reactor project is the completed but never fueled Bataan Nuclear Power Plant in the Philippines. The six biggest countries operating nuclear power plants (USA, France, Japan, Russia, Germany and South Korea) include several countries possessing nuclear weapons (USA, France and Russia) and produce three-fourths of total nuclear power. In 2009 nuclear power plants only produced 13.4 percent of electrical power worldwide. This corresponds to 5.8 percent of Total Primary Energy Supply and a little more than two percent of global final energy consumption. In comparison to nuclear power, the potential contribution of renewable energies to easing the strain on the environment and tackling climate change is much higher because they account for 19.5 percent of global power production and more than 12 percent of primary energy production (IEA, 2011). The United States has the most nuclear capacity and generation among the 31 countries in the world that have commercial nuclear power plants. There are currently 104 operational nuclear reactors at 65 nuclear sites in 31 states. Most of the commercial reactors are located east of the Mississippi River, near water sources. Illinois has 11 reactors and the most nuclear capacity. Since 1990, the nuclear power share of the total electricity generation has averaged about 20%. Nuclear generation of electricity has roughly tracked the growth in total electricity output. Between 1985 and 1996, 34 reactors were connected to the grid. In addition, nuclear generation has increased as a result of higher utilization of existing capacity and from technical modifications to increase nuclear plant capacity. In 2007 the American construction site Watts Bar-2 overtook first place for years as far as delays in construction were concerned, replacing the Bushehr nuclear power plant in Iran, for which cement was first poured on 1 May 1975. The construction of Watts Bar-2 began 40 years ago on 1 December 1972, with the project then being frozen in 1985. The company which owns the plant, the Tennessee Valley Authority (TVA), announced in October 2007 that it would complete the reactor at a cost of US-$ 2.5 billion. Connection to the electricity grid is scheduled for August 2012. In August 2009, the U.S. Nuclear Regulatory Commission (NRC) issued an Early Site Permit for two new reactors at Southern Nuclear's Vogtle site. The two new units are the reference plant for the Westinghouse AP1000 pressurized water reactor design. In February 2010, President Obama announced that the DOE had offered a loan guarantee up to 80% of the project estimated cost of $14.5 billion. Southern Nuclear will only have to pay a credit subsidy fee for the $11.6 billion loan. On February 9, 2012, the Nuclear Regulatory Commission (NRC) voted 4 to 1 to issue the Combined Operating License for Vogtle units 3 and 4. This is the first license to be approved in the United States in over 30 years. In the European Union thirteen out of the twenty-seven member states do not produce any nuclear power themselves or have abolished this technology for technical or economic reasons following political decisions. Fourteen EU member states are currently using nuclear energy, while three countries have shut down their nuclear power plants. Two countries decided after Fukushima to phase-out nuclear power and the remaining countries do not have a nuclear energy program. Eight high-risk reactors were closed down in the new accession countries in the expansion of the EU to Eastern Europe, with the EU and other Western donor countries contributing more than one billion Euros to meet the costs of closure. Four reactors are labeled “under construction” in all of Eastern Europe at present, although a series of new nuclear power plants are being planned. In spite of liberalization and partial privatization of the electrical power sector, the completion or construction of new nuclear power plants constitutes a virtually insurmountable financing problem. Looking at the historical development, there were still a total of 134 nuclear power blocks in operation in Europe in February 2012–116 of them in Western Europe and, following the closure of Ignalina nuclear power plant in Lithuania, a total of 18 in Central and Eastern European countries. According to the IAEA, there are two reactor blocks under construction in Western Europe: one in Finland and since December 2007 one in France. Construction of the first so-called European Pressurized Reactor (EPR) with a rating of 1,600 MW began in Olkiluoto, Finland on 12 August 2005. Since then the project has been overshadowed by exploding costs and delays: originally slated for 2009, commercial operation will probably not take place before August 2013 and instead of the originally planned € 3.2 billion, the reactor will cost almost € 6 billion. An EPR is also being built in France. Construction officially commenced on 3 December 2007 and it was expected that it would take 54 months to complete the plant, i.e. by May 2012. According to inspection reports from the supervisory authority ASN, a host of problems have also cropped up here. As a result, the ambitious time schedule cannot be met and connection to the grid is now scheduled for the end of 2016. The three biggest emerging market countries—India, China and Brazil—embarked on their nuclear energy programmes decades ago, but have only partially achieved their goals. Nuclear energy only accounts for a small percentage of electrical power production and the energy supply in these countries. The People's Republic of China has the most ambitious plans for expanding nuclear power, operating sixteen nuclear power plants at present generating 71 TWh, which accounted for 1.8 percent of power production in 2010. As of February 2012, 26 additional nuclear power reactors are under construction. China had an estimated total installed electricity generating capacity of over 1,000 GW at the end of 2011 and will expand to 1,600 GW by 2020. According to China's National Development and Reform Commission the installed nuclear capacity shall be 80 GW (6%) by 2020 and a further increase to 200 GW (16%) by 2030. But following the Fukushima accident, the State Council announced that it would suspend approval for new nuclear power stations and halted work on four approved units. “The announcement marked a significant policy change” (Green-Weiskel, 2011). Nuclear has remained a small fraction of China's total energy mix, because government has given priority to solar and wind for future energy growth. While China has invested the equivalent of about $10 billion per year into nuclear power in recent years, in 2010 it spent twice as much on wind energy alone and some $54.5 billion on all renewables combined. There are several reasons for China to shelve its nuclear industry. China's energy sector is competing with agriculture for water, and the country is not immune to a temblor-triggered disaster. In India 20 smaller reactors are in operation, meeting 2.9 percent of electricity needs, with six more under construction. In Brazil two reactors are in operation, producing 3.2 percent of electrical power, with one additional reactor block under construction. A closer look shows, however, that twelve out of the 63 reactors under construction (see Table 1) were already included in the statistics with the status of “under construction” more than 20 years ago. Construction of the reactor blocks Khmelnitski 3 and 4, for instance, began in the Ukraine as far back as 1986 and 1987. These blocks are listed under the category of “planned” in the WNA statistics, however. Three out of the ten Russian nuclear power plant construction projects also began in 1985 and 1986—recently completed after 25 years under construction was Kalinin 4 in November 2011. The Atucha-2 nuclear power plant in Argentina has been under construction since 1981 and still no date has been set for its commissioning. Construction of both of the blocks in Belene, Bulgaria, began in 1987 and no dates are scheduled when they will be connected to the grid. And construction at Mochovce 3 and 4 in the Slovak Republic started in 1987, with commercial operation scheduled for 2013. This shows that the statistics contain a whole host of unfinished plants. In view of all these facts, it is erroneous to speak of any “global renaissance,” all the more so because such long building periods lead to exorbitant cost overruns which scarcely any bank would finance—unless the financial risk is assumed by a government. The complexity of the licensing procedure as well as the risks involved in a building project of this type should at any rate not be underestimated (Mez et al., 2009).

#### 7—New arsenals not destabilizing—small arsenals, no aggression, and deterrence solves

Forsyth ’12 [James Wood Forsyth Jr., PhD, currently serves as professor of national security studies, USAF School of Advanced Air and Space Studies, Maxwell AFB, Alabama. He earned his PhD at the Josef Korbel School of International Studies, University of Denver. He has written on great-power war, intervention, and nuclear issues, “The Common Sense of Small Nuclear Arsenals,” Summer, Strategic Studies Quarterly, http://www.au.af.mil/au/ssq/2012/summer/forsyth.pdf]

Whatever its logical shortcomings, it is important to stress that deterrence worked—it kept the Cold War “cold” and allowed international life to go on without a catastrophic nuclear war. After 70 years, **most analysts agree** on the basic dynamics of deterrence, and the contemporary debate regarding deterrence, when not addressing the problem of nonstate actors, tends to pivot on force structure considerations. 19 Here, the behavior of states with small nuclear arsenals is instructive. As previously mentioned, most states with nuclear arsenals have not acquired large numbers of nuclear weapons. Instead, they appear content with a relatively small arsenal **capable** **of** warding off an attack as well as dissuading others from interfering in their internal and external affairs. But of the two roles nuclear weapons seem to play—deterrence and dissuasion—is one more important than another? For India and Pakistan, nuclear weapons play a decidedly deter­ rent role. But if one were to free Britain of its NATO obligations, who exactly would Britain be deterring today? What about France? Neither of these countries is as hard-pressed in the security arena as India or Pakistan, yet both hold on to nuclear weapons. While nuclear weapons still “hold power at bay,” one must wonder whose power is being held at bay and how. It is important not to overinterpret this. Nuclear weapons serve a purpose. How else can one explain why nine states have them, while others appear to want them? But what purpose do they serve, in general? To answer that question, one must look at what nuclear weapons do for states. Among other things, nuclear weapons socialize leaders **to the dangers of adventurism and**, in effect, halt them from behaving or responding recklessly **to provocation**. 20 Statesmen may not want to be part of an international system that constrains them, but that is the system that results among nuclear powers. Each is socialized to the capabilities of the other, and the relationship that emerges is one tempered by caution **despite** the composition, goals, or **desires** of its leaders. In short, nuclear weapons deter and dissuade.

#### 8—Proliferation solves conventional great power war.

Waltz ’12, Kenneth Waltz, Professor of Political Science at UC Berkeley, Kenneth Waltz, Professor of Political Science (Emeritus) at UC Berkeley, “A conversation with Kenneth Waltz,” <http://www.annualreviews.org/doi/full/10.1146/annurev-polisci-020511-174136>

**JF:** So what does that imply about polarity and the role of power that has traditionally been a central concern in the realist school?¶ **KW:** Well, nuclear weapons have abolished war among their possessors or those who enjoy their protection. I mean, never once—this is the kind of statement you can almost never make in a social science—never once has there been a war between countries both of whom possess nuclear weapons.¶ **JF:** I'm in general on board with you here; but for the heck of it, what do you think about Kargil? The Kargil War was a spat [between India and Pakistan in 1999]—¶ **KW:** Well, yeah. As I've always said, and I think quite a few people agree, you can fight minor wars in peripheral areas even if you have nuclear weapons. I mean, the test does not lie at the periphery. It lies at the center, as both Pakistani and Indian commentators have said subsequently.

#### **9—Alternative causalities to terror – Russian loose nukes, existing power plants, nuclear experts, and rogue states.**

#### 10—No nuclear terror.

Chapman 12 [Stephen, columnist and editorial writer for the Chicago Tribune, CHAPMAN: Nuclear terrorism unlikely May 22, 2012 6:00 AM http://www.oaoa.com/articles/chapman-87719-nuclear-terrorism.html]

Given their inability to do something simple — say, shoot up a shopping mall or set off a truck bomb — it’s reasonable to ask whether they have a chance at something much more ambitious. Far from being plausible, argued Ohio State University professor John Mueller in a presentation at the University of Chicago, “the likelihood that a terrorist group will come up with an atomic bomb seems to be **vanishingly small.”** The events required to make that happen comprise a multitude of Herculean tasks. First, a terrorist group has to get a bomb or fissile material, perhaps from Russia’s inventory of decommissioned warheads. If that were easy, one would have already gone missing. Besides, those devices are probably no longer a danger, since weapons that are not maintained quickly become what one expert calls “radioactive scrap metal.” If terrorists were able to steal a Pakistani bomb, they would still have to defeat the arming codes and other safeguards designed to prevent unauthorized use. As for Iran, no nuclear state has ever given a bomb to an ally — for reasons even the Iranians can grasp. Stealing some 100 pounds of bomb fuel would require help from rogue individuals inside some government who are prepared to jeopardize their own lives. Then comes the task of building a bomb. It’s not something you can gin up with spare parts and power tools in your garage. It requires millions of dollars, a safe haven and advanced equipment — plus people with specialized skills, lots of time and a willingness to die for the cause. Assuming the jihadists vault over those Himalayas, they would have to deliver the weapon onto American soil. Sure, drug smugglers bring in contraband all the time — but seeking their help would confront the plotters with possible exposure or extortion. This, like every other step in the entire process, means expanding the circle of people who know what’s going on, multiplying the chance someone will blab, back out or screw up. That has heartening implications. If al-Qaida embarks on the project, it has **only a minuscule chance** of seeing it bear fruit. Given the formidable odds, **it** probably **won’t bother.**

#### 11—US regulations mean exports are difficult.

Energy Biz, 12 (Cumbersome U.S. rules hobbling nuclear exports, report says. http://www.energybiz.com/article/12/10/cumbersome-us-rules-hobbling-nuclear-exports-report-says)

U.S. firms are missing out on an international nuclear power boom because it takes too long to get necessary government approvals for export of either nuclear products or expertise, according to a report released Oct. 1 for the Nuclear Energy institute (NEI). “Nuclear Export Controls: A Comparative Analysis of National Regimes for the Control of Nuclear Materials, Components and Technology,” was released to reporters at the National Press Club in Washington, D.C. The report was drafted for NEI by the Pillsbury Winthrop Shaw Pittman LLP law firm and endorsed at the press conference by officials for NEI, Exelon (NYSE: EXC) and the National Association of Manufacturers (NAM). Compared to the nuclear export regulatory regimes of Russia, Japan, the Republic of Korea and France, the U.S. regime is, in many respects, more complex, restrictive and time-consuming to navigate, the officials said during the news conference. The U.S. often takes a year or more to process applications done far faster in rival countries, the report said.

#### 12—Prolif fails and is super slow

Hymans ‘12 [Jacques E. C. Hymans, PhD from Harvard, Associate Professor of International Relations at the University of Southern California, his most recent book is Achieving Nuclear Ambitions: Scientists, Politicians, and Proliferation, “Botching the Bomb: Why Nuclear Weapons Programs Often Fail on Their Own-and Why Iran's Might, Too,” Foreign Affairs91. 3 (May/Jun 2012): 44-53, Proquest]

The great proliferation slowdown can be attributed in part to U.S. and international nonproliferation efforts. But it is mostly the result of the dysfunctional management tendencies of the states that have sought the bomb in recent decades. Weak institutions in those states have permitted political leaders to unintentionally undermine the performance of their nuclear **scientists**, engineers, and technicians. The harder politicians have pushed to achieve their nuclear ambitions, **the less productive their nuclear programs** have become. Meanwhile, military attacks by foreign powers have tended to unite politicians and scientists in a common cause to build the bomb. Therefore, taking radical steps to rein in Iran would be not only risky but also potentially counterproductive, and much less likely to succeed than the simplest policy of all: getting out of the way and allowing the Iranian nuclear program's worst enemies-Iran's political leaders-to hinder the country's nuclear progress all by themselves. Nuclear dogs that have not barked "Today, almost any industrialized country can produce a nuclear weapon in four to five years," a former chief of Israeli military intelligence recently wrote in The New York Times, echoing a widely held belief. Indeed, the more nuclear technology and know-how have diffused around the world, the more the timeline for building a bomb should have shrunk. But in fact, rather than speeding up over the past four decades, proliferation **has gone into slow motion. Seven** countries launched dedicated nuclear weapons projects before 1970, and all seven succeeded in relatively short order. By contrast, of the ten countries that have launched dedicated nuclear weapons projects since 1970, only three have achieved a bomb. And only one of the six states that failed-Iraq-had made much progress toward its ultimate goal by the time it gave up trying. (The jury is still out on Iran's program.) What is more, even the successful projects of recent decades have needed a long time to achieve their ends. The average timeline to the bomb for successful projects launched before 1970 was about seven years; **the average timeline** to the bomb for successful projects launched after 1970 **has been about 17 years**. International security experts have been unable to convincingly explain this remarkable trend. The first and most credible conventional explanation is that the Nuclear Nonproliferation Treaty (npt) has prevented a cascade of new nuclear weapons states by creating a system of export controls, technology safeguards, and on-site inspections of nuclear facilities. The npt regime has certainly closed off the most straightforward pathways to the bomb. However, the npt became a formidable obstacle to would-be nuclear states only in the 1990s, when its export-control lists were expanded and Western states finally became serious about enforcing them and when international inspectors started acting less like tourists and more like detectives. Yet the proliferation slowdown started at least 20 years before the system was solidified. So the npt, useful though it may be, cannot alone account for this phenomenon. A second conventional explanation is that although the NPT regime may not have been very effective, American and Israeli bombs have been. Syria's nascent nuclear effort, for instance, was apparently dealt a major setback by an Israeli air raid on its secret reactor construction site in 2007. But the record of military strikes is mixed. Contrary to the popular myth of the success of Israel's 1981 bombing of the Osiraq reactor in Iraq, the strike actually spurred Iraqi President Saddam Hussein to move beyond vague intentions and commit strongly to a dedicated nuclear weapons project, which lasted until the 1990-91 Gulf War. Moreover, the bombs that the United States dropped on Iraq during that conflict mostly missed Saddam's nuclear sites. Finally, some analysts have asserted that nuclear weapons projects become inefficient due to political leaders' **flagging levels of commitment**. But these analysts are reversing cause and effect: leaders **lose interest** when their nuclear programs **are not running well**. And some nuclear weapons projects, such as France's, have performed well despite very tepid support from above. The imperfect correlation between the commitment of leaders and the quality of nuclear programs should not be surprising, for although commentators may speak casually of "Mao's bomb" or "Kim Jong Il's bomb," the real work has to be carried out by other people.

#### 13—Countries won’t give up control over the manufacture of their energy.

Feivson, 01 (Harold, the Secretary-Treasurer of the Federation of American Scientists Council and is a Senior Research Policy Scientist of the Program on Science and Global Security at Princeton University. The Search for Proliferation-Resistant Nuclear Power. FAS Public Interest Report The Journal of the Federation of American Scientists. September/October 2001 Volume 54, Number 5)

This is what is imagined in some of the SIR, or hub-spoke, concepts. Long-life reactor- cores would be assembled at the central facility, perhaps an international center or a center located in a "safe" and stable country with established nuclear power programs. The reactors would be sealed, and then exported to users in other countries where it could be "plugged in" to the remainder of the electric generation system. After 15-20 years, the core/spent fuel would be returned to the central facility or to some international spent fuel repository. During the 15-20 years of operation, there would be no refueling. In such a system, a country would need relatively few research facilities, operators, and other trained nuclear technicians and engineers. This reactor concept has impressive proliferation-resistance credentials. These may be summarized as follows, adopting the analysis presented by engineering teams at the Berkeley Department of Nuclear Engineering, the Lawrence Livermore National Laboratory, the Argonne National Laboratory, and Westinghouse Electric Company for the Encapsulated Nuclear Heat Source (ENHS) Reactor.27 First, appropriation by a sub-national group of the reactor, though it is transportable, would be a daunting challenge. The reactor is roughly 20 meters long, with a 3-meter diameter and weighs during transport approximately 200 tons. The fuel, which could either be 13 percent enriched uranium, or a uranium-plutonium fuel having 11-12 percent plutonium, is embedded in a mass of lead-bismuth (solid during transport, liquid during operation) throughout the core life. It would further be possible to "seed" the reactor with gamma-emitting cesium-137 before shipment, thus surrounding even the fresh fuel in a radiation shield.28 Furthermore, the ENHS does not give a country a useful source of neutrons: it is not possible to insert fertile material for irradiation. As noted, the core life of the reactor would be 15-20 years and during this period there would be no refueling. If operated on the hub-spoke concept, the client country would need no fuel fabrication facility and no fuel management capability. Because the reactor operates "almost autonomously," the client country would need few operators of the nuclear system. Overall, the hub-spoke concept could diminish the rationale and opportunities for a country developing various research facilities and trained cadres of scientists and technicians that could later be diverted to weapons activities. Presumably, the client country, unlike a terrorist group, would be able to break into the sealed reactor - but it should be possible to ensure that such an attempt to obtain nuclear fuel could not be done undetected. Moreover, the acquisition of the fuel after a break-in would probably take days to weeks. Opposed to these advantages, there are some matters of concern. First, the spent fuel of the reactor (using a nominal 40 MWe capacity) will contain roughly 600 kilograms of plutonium if the uranium fuel is used, and 1.4 tons of plutonium if the uranium-plutonium fuel is used. Also, if the fuel is removed from the reactor before its full lifetime, the plutonium could be weapon grade or close to that. The uranium fuel, if obtained by a would-be proliferant, would not be weapons usable, but would require less separative work for production of weapons grade uranium than ordinary light water uranium fuel. However, the buildup of weapon-grade plutonium could be forestalled if, as appears possible, spent light water reactor fuel is used in the initial core, though in this case, some separation technologies applied to the LWR spent fuel would be required which may, in some configurations, allow the separation of plutonium. These problems notwithstanding, a nuclear system based on international energy parks, if it could be developed, does promise an arguably proliferation-resistant strategy for nuclear power in the long run. But are international energy parks realistic alternatives on political and economic grounds? Politically, international energy parks run against the strong wish of many countries to become energy independent. Furthermore, one wonders whether countries will accept the idea of importing sealed nuclear reactors while eschewing any effort to develop a domestic cadre of nuclear engineers and scientists, and at least some nuclear research facilities. After all, the concept involves shipment of 200-ton units into and out of port cities and coastal locations. The safety of such shipments would have to be demonstrated beyond doubt to the public. Above all, the hub-spoke concept will require either that client countries accept discriminatory restrictions on its nuclear activities not accepted by the countries hosting the nuclear parks, or that all countries, including the industrialized countries, accept a high degree of international control over their nuclear energy programs. Beyond these considerations, countries will also be wary of concentrating too much of their energy future in a few places, with their attendant risks of common-mode failures, disruption of transmission lines or shipping, etc. With respect to economics, the SIR hub-spoke system must be compared to other schemes in which substantial activities occur at some central energy park with fuel, or electricity, or technology being sent out to distant places. In particular, consider three such schemes: � The generation of electricity at a central nuclear park, with the electricity then sent out by transmission lines to distant sites. The generation of electricity at a central nuclear park, the electricity used to disassociate water to produce hydrogen, and the hydrogen then sent out to distant sites. The production of hydrogen directly from fossil fuels at a central location with the hydrogen then sent out to distant sites. Of course, here the central park does not have to be under international control or under international safeguards. The first option would probably drive nuclear power to large units rather than the smaller modular units previously discussed. It appears at least as proliferation-resistant as the SIR concept, though its safety and economics would have to be compared to the SIR. There may be circumstances where electricity generation, say within a continent, would in fact be less costly than exporting sealed reactors, while the reactor option would look more attractive for shipments across water. And in the latter case, it may be important whether or not the intended electricity use is on a coast or inland. If for whatever reason, the long-distance transmission of electricity does not look practical in some regions of the world and hydrogen becomes widely used as an energy fuel, the second option might be considered. The nuclear electricity would be used to produce hydrogen either by electrolytic processes or thermo-chemical processes; and the hydrogen then disseminated. Again, this scheme appears as or more proliferation-resistant than the SIR concept. But its economics are questionable. 29 The electrolysis of water to produce hydrogen will look better economically if the electricity used is off-peak and where most of the costs of the electricity production could be charged to the on-peak production. Such a strategy might provide an opening for electrolysis, but under conditions where much of the electricity generated is used directly. (This will be true, of course, also for hydrogen produced from electricity generated by renewables, such as wind or photovoltaics.) Similarly, the prospects appear poor \_ or at least uncertain � that hydrogen could be produced from water through thermo-chemical processes at costs competitive with hydrogen from fossil fuels.30 There is also an issue here of how the hydrogen, if it is produced at a central facility, could be transported. For example, where suitable pipelines could be built, the transport of hydrogen might look more attractive than in instances where pipelines are not (though there might be other ways to transport hydrogen economically - for example, in hydrides carried by tankers). This comparison immediately suggests an alternative energy park concept that does not involve nuclear power - and thus end-runs issues of proliferation-resistance altogether. This is the third option � to produce hydrogen directly from fossil fuels with carbon sequestration. In this case, the scale of the centralized facility would be a matter of economics mostly, though again there might be some issues of energy independence involved. Conclusion The challenge of making nuclear power proliferation-resistant over the long haul is great. Perhaps it will not be necessary to do so, if nuclear power, rather than increasing ten and twenty-fold, is instead gradually phased out. This would be possible only if energy technologies using fossil fuels and renewables can be developed that are economic and do not release appreciable amounts of carbon dioxide to the atmosphere. It is too early to say with confidence that such alternatives will be available. But it is noteworthy that the most recently published World Energy Assessment includes analysis of several relevant technologies on which industry is currently spending considerable development resources.31 If, however, nuclear power does grow to meet the challenge of global warming, some variant of the hub-spoke arrangement appears at present the best hope of developing a proliferation-resistant system. But such an arrangement, as noted, must confront the dilemma that countries (those on the spokes) will be loathe to rely on reactor technologies that they have little capacity to monitor independently. It is uncertain how this dilemma can be fully resolved short of carrying the logic of the hub-spoke arrangement to its extreme conclusion. The arrangement as envisioned requires the countries receiving the sealed reactors to abandon substantial sovereignty over their energy system. But perhaps it is necessary to go still further and to turn all nuclear energy over to international control. In such a system, the central parks and the reactors themselves would come under international management and control. This is indeed the view put forward at the beginning of the nuclear age by the Acheson-Lilienthal Report of 1946. This report (which formed the basis for the Baruch Plan for international control of nuclear weapons submitted to the United Nations by the U.S. in 1946) concluded as follows:

#### **14—US pressure doesn’t prevent prolif**

Reed ’10, [Alexander R. Reed, Master of Arts in Security Studies from Georgetown University, April 14, 2010 “The Role of Denial in Nuclear Nonproliferation,” <https://repository.library.georgetown.edu/bitstream/handle/10822/553565/reedAlexander.pdf?sequence=1>]

Elements of the Bush Administration claimed that the United States’ invasion of Iraq ¶ motivated Libya to give up its nuclear weapons program.¶ 151¶ This would seem to point ¶ toward the importance of US leadership in nonproliferation efforts. While the United ¶ States does play a critical role (as shown in South Korea’s case), its direct participation¶ in nonproliferation efforts is not essential. Despite the Bush administration’s belief in the ¶ Iraq War’s demonstration effect, Colonel Qadhafi may have made the decision to end ¶ his nuclear weapons programs before the Iraq War started.¶ 152¶ In Brazil’s case, US ¶ Government officials have acknowledged that the United States had “little or no ¶ influence.”¶ 153¶ US efforts to stop Brazil’s program reportedly bogged down in larger ¶ bilateral issues, with Brazilian officials bringing up “orange juice and intellectual ¶ property.”¶ 154¶ And in South Africa, Waldo Stumpf, a critical contributor to the South ¶ African nuclear program, said direct US pressure was “counterproductive.”¶ 155

#### **15—Tech controls can’t solve prolif – covert programs won’t be detected.**

Kemp ’12, R. Scott Kemp, Assistant Prof of Nuclear Science and Engineering at MIT, Research Affiliate on the Program of Science and Global Security, July 2012, “Centrifuges: A New Era for Nuclear Proliferation,” http://www.npolicy.org/userfiles/file/oving%20Beyond%20Pretense%20web%20version.pdf#page=182

Even if a regime could be implemented, it is necessary to ask to ¶ what extent banning legitimate enrichment activities helps to prevent nuclear proliferation. In the reprocessing case, the normative ¶ ban prevented large-scale nuclear programs, but states retained an ¶ unattractive quick-and-dirty option. Use of that option still required ¶ the diversion of plutonium-bearing reactor fuel to a makeshift or ¶ clandestine reprocessing plant. The diversion of fuel would almost ¶ certainly be detected by safeguards, so that any breakout attempt ¶ would come with the large political cost of violating the NPT regime. Thus, proliferation via the plutonium route was attractive ¶ only in an emergency situation, and even then only feasible on a ¶ small scale. By contrast, the historical record suggests that indigenous centrifuge programs can be built and kept secret for years, ¶ even decades at a time. Secrecy has even been effective in countries ¶ like Iraq and Libya that were known to have nuclear weapons ambitions and presumably under intense scrutiny. The technology regime ¶ would compound the political costs associated with detection, but ¶ the probability of detection is low to begin with. One must ask if ¶ the extra political risk of getting caught violating the technology ¶ regime—computed as the probability of detection multiplied by the ¶ political cost—is substantial relative to the existing political cost of ¶ overtly violating the NPT with a national facility. If the extra risk ¶ is small relative to an NPT violation, then the technology-control ¶ regime has not added much. Furthermore, this gain then needs to be ¶ weighed against the potential negative consequences of legitimizing proliferation of fuel-cycle facilities or exacerbating the already ¶ contentious inequity in the NPT regime. It is obviously impossible ¶ to quantify these effects and make an actual computation of the relative costs and bene¿ts, but this article has argued that detection rates ¶ are probably small, and that support for a technology-control regime ¶ will be tepid given the legitimate purpose of centrifuges. Both of¶ these arguments lead to the conclusion that the benefit of attempting ¶ to control states’ legitimate access to centrifuge technology is probably small, and may even be negative.

### Warming

#### **1—Thorium faces major feasibility problems.**

Storm and Smith 12 (Storm van Leeuwen, J.W. Senior Scientist Ceedata Consultancy. he also works for the Open University at Heerlen, developing courses for chemistry teachers.. & Smith, P. Prof Emeritus @ university of Groningen. Nuclear power, energy security and CO2 emission <http://www.stormsmith.nl/Media/downloads/nuclearEsecurCO2.pdf>)

Feasibility The feasibility of the thorium-U-233 breeder cycle is questionable, for several reasons: • the separation processes needed to recycle fissionable material are inherently incomplete, so significant losses are unavoidable • the recycling of Th-232/U-233 fuel has yet to be demonstrated • assumed the recycling would be technically feasible, it is still unknown if the cycle would produce sufficient U-233 to expand the Th-232/U-233 capacity, or even to maintain itself • the radioactivity of the spent fuel and recycled U-233 increases with every cycle, while its isotopic quality decreases, consequently its usefulness as fissile material decreases • due to the increasing radioactivity the separation processes deteriorate and the separation will get even more incomplete • due to the increasing radioactivity the fuel handling and fresh fuel fabrication becomes increasingly difficult. Similar problems arise with the uranium-plutonium breeder cycle, causing it to be unfeasible. Some people believe that thorium could be completely fissioned. In their view thorium reactors would open a limitless energy source for mankind, reviving the nuclear dreams from the early 1960s, which were based on the U-Pu breeder concept. These optimistic stories entirely pass over above mentioned inherent difficulties and particularly the Second Law of thermodynamics.

#### 2—Can’t solve warming—electricity sector is only 20% of CO2 emissions—they don’t displace oil

#### 3—Can’t even begin commercialize before 2030.

Abram and Sue 08 (Tim Abram, Westinghouse Professor of Nuclear Fuel Technology, University of Manchester. Sue Ion, UK representative on the International Atomic Energy Agency. Generation-IV nuclear power: A review of the state of the science, Energy Policy, Volume 36, Issue 12, December 2008, Pages 4323-4330, ISSN 0301-4215, 10.1016/j.enpol.2008.09.059.

The MSR (Fig. 7) represents the most ambitious of the Generation-IV systems in terms of its departure from conventional reactor technologies. The system dispenses with conventional solid fuel elements, and instead utilises a halide salt mixture that contains the fissile material—usually a uranium–thorium mixture, although plutonium could also be used. The salt, which performs the role of both fuel and coolant, is continuously circulated through a graphite core, and then through a heat exchanger, where it transfers heat to a secondary salt circuit. A fraction of the salt is then diverted through a processing plant where fission products are removed and new fissile material is introduced. This continual processing of the fuel allows operation without refuelling outages, and the fluid fuel offers a unique safety feature where the entire fuel inventory can be drained from the reactor in the event of an accident. The concept has its origins in the US aircraft reactor experiment that operated for a short time in 1954. Although the MSR was never used for this purpose (the aircraft were too heavy to take off!), a further experimental unit operated at Oak Ridge National Laboratory during the 1960s. The MSR presents several unique challenges, especially in the area of materials performance, where the combination of a corrosive and radioactive salt and a high neutron fluence places extreme requirements on the primary circuit pipework. The core graphite will also receive a high radiation dose and will almost certainly need to be replaced throughout the life of the reactor. Finally, the chemical processing of the highly radioactive salt places extreme demands on the process equipment. The MSR is considered to be at the boundaries of what is possible within the Generation-IV timescales, and may yet be considered too ambitious to achieve a realistic prospect of commercial deployment by 2030.

#### 4—Worst climate impacts take decades to arrive and don’t assume adaptation

Robert O. Mendelsohn 9, the Edwin Weyerhaeuser Davis Professor, Yale School of Forestry and Environmental Studies, Yale University, June 2009, “Climate Change and Economic Growth,” online: http://www.growthcommission.org/storage/cgdev/documents/gcwp060web.pdf

The heart of the debate about climate change comes from numerous warnings from scientists and others that give the impression that human- induced climate change is an immediate threat to society (IPCC 2007a, 2007c; Stern 2006). Millions of people might be vulnerable to health effects (IPCC 2007a), crop production might fall in the low latitudes (IPCC 2007a), water supplies might dwindle (IPCC 2007a), precipitation might fall in arid regions (IPCC 2007a), extreme events will grow exponentially (Stern 2006), and between 20 and 30 percent of species will risk extinction (IPCC 2007a). Even worse, there may be catastrophic events such as the melting of Greenland or Antarctic ice sheets, causing severe sea-level rise, which would inundate hundreds of millions of people (Dasgupta and others 2009). Proponents argue that there is no time to waste. Unless greenhouse gases are cut dramatically today, economic growth and well-being may be at risk (Stern 2006). These statements are largely alarmist and misleading. Although climate change is a serious problem that deserves attention, society’s immediate behavior has an extremely low probability of leading to catastrophic conse- quences. The science and economics of climate change are quite clear that emissions over the next few decades will lead to only mild consequences. The severe impacts predicted by alarmists require a century (or two, accord- ing to Stern 2006) of no mitigation. Many of the predicted impacts assume that there will be no or little adaptation. The net economic impacts from climate change over the next 50 years will be small regardless. Most of the more severe impacts will take more than a century or even a millennium to unfold, and many of these “potential” impacts will never occur because people will adapt. It is not at all apparent that immediate and dramatic policies need to be developed to thwart long-range climate risks. What is needed are long-run balanced responses.

#### 5—We’re past the tipping point – too much CO2 already

Hamilton 10 – Professor of Public Ethics @ ANU

Clive Hamilton, Professor of Public Ethics in Australia, 2010, “Requiem for a Species: Why We Resist the Truth About Climate Change,” pg 27-28

The conclusion that, even if we act promptly and resolutely, the world is on a path to reach 650 ppm is almost too frightening to accept. That level of greenhouse gases in the atmosphere will be associated with warming of about 4°C by the end of the century, well above the temperature associated with tipping points that would trigger further warming.58 So it seems that even with the most optimistic set of assumptions—the ending of deforestation, a halving of emissions associated with food production, global emissions peaking in 2020 and then falling by 3 per cent a year for a few decades—we have no chance of preventing emissions rising well above a number of critical tipping points that will spark uncontrollable climate change. The Earth's climate would enter a chaotic era lasting thousands of years before natural processes eventually establish some sort of equilibrium. Whether human beings would still be a force on the planet, or even survive, is a moot point. One thing seems certain: there will be far fewer of us. These conclusions arc alarming, co say the least, but they are not alarmist. Rather than choosing or interpreting numbers to make the situation appear worse than it could be, following Kevin Anderson and Alice Bows 1 have chosen numbers that err on the conservative side, which is to say numbers that reflect a more buoyant assessment of the possibilities. A more neutral assessment of how the global community is likely to respond would give an even bleaker assessment of our future. For example, the analysis excludes non-CO2, emissions from aviation and shipping. Including them makes the task significantly harder, particularly as aviation emissions have been growing rapidly and are expected to continue to do so as there is no foreseeable alternative to severely restricting the number of flights.v' And any realistic assessment of the prospects for international agreement would have global emissions peaking closer to 2030 rather than 2020. The last chance to reverse the trajectory of global emissions by 2020 was forfeited at the Copenhagen climate conference in December 2009. As a consequence, a global response proportionate to the problem was deferred for several years.

#### 5—Not enough people for nuclear reactor operation

John Ahearne, Executive Director Emeritus at Sigma Xi Scientific Research Society, Fmr. Chairman of the Nuclear Regulatory Commission, 2011 (“Prospects for nuclear energy” Energy Economics 33.4 July 2011)

Building and operating a nuclear plant requires skilled workers and competent personnel. A U.S. utility executive, Art Stall of Florida Power & Light, said, “The euphoria surrounding the nuclear renaissance has been slowed by the realities of the challenges to be faced in building new nuclear power plants…. One of the biggest challenges is finding qualified people…to support construction and operation” (quoted in Power Engineering, “The Nuclear Renaissance's Future,” August 2007). A 2008 review of what is needed to revive nuclear power in the United States found that “potential bottlenecks in constructing a nuclear plant include…shortages of skilled trades people for plant construction and skilled personnel to design and operate plants safely and efficiently” (MacFarlane et al., 2008). The member countries of the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development have expressed concern about human resources in the nuclear field: Recent studies have shown that nuclear education and training have been suffering declines in various degrees. If no action is taken on this issue, the nuclear sector risks facing a shortage of qualified manpower to ensure the appropriate regulation and operation of existing nuclear facilities as well as the construction of new ones in those countries wishing to do so.11 Concern also was expressed in a 2008 U.S. report, which “draws attention to critical shortages in the U.S. nuclear workforce and to problems in maintaining relevant educational modalities and facilities for training new people” (American Physical Society Panel on Public Affairs, 2008, p. 4). Finally, another recent report on the energy sector as a whole states, “The Task Force believes the United States is facing a critical shortage of trained professionals” (National Commission on Energy Policy, 2009, p. 3).

#### 6—No runaway warming.

Revkin 11 [ANDREW C. REVKIN November 25, 2011, 1:38 pm Study Finds Limited Sensitivity of Climate to CO2 http://dotearth.blogs.nytimes.com/2011/11/25/study-finds-limited-sensitivity-of-climate-to-co2/]

Recalling the perils of single-study syndrome, it’s still important to note a new study that appears to go a long way toward narrowing the extent of possible warming projected well into this century from the buildup of carbon dioxide in the atmosphere. Eric Berger of the Houston Chronicle describes the research, published today in Science. The work, led by researchers at Oregon State University, had surfaced earlier but has now survived peer review. Berger provides useful context from Andrew Dessler, a climate scientist at Texas A&M University, who noted that most people publishing on this question have long seen **very low odds of runaway or extreme warming**: My sense is that most scientists consider the very high end of the sensitivity range… to be pretty unlikely (although it cannot be ruled out)…. In other words, I was not terribly worried about runaway climate change before this. After all, we know that the **Earth’s had much higher CO2 in the past** (and the temperature were correspondingly much higher), and the Earth did not turn into Venus. I’ll be doing more on this “sensitive” question soon, drawing in studies taking different approaches. In the meantime, Rachel Nuwer has a post at the Green Blog describing the Science paper.

#### 7—Thorium reactors fail.

Lovins 09 (Amory, Chairman/Chief Scientist of the Rocky Mountain Institute. “New” nuclear reactors, same old story. http://www.rmi.org/Knowledge-Center/Library/2009-07\_NuclearSameOldStory)

Some enthusiasts prefer fueling reactors with thorium—an element 3× as abundant as uranium but even more uneconomic to use. India has for decades failed to commercialize breeder reactors to ü its thorium deposits. But thorium can’t fuel a reactor by itself: rather, a uranium- or plutonium-fueled reactor can convert thorium-232 into fissionable (and plutonium-like, highly bomb-usable) uranium-233. Thorium’s proliferation, waste, safety, and cost problems differ only in detail from uranium’s: e.g., thorium ore makes less mill waste, but highly radioactive U-232 makes fabricating or reprocessing U-233 fuel hard and costly. And with uranium-based nuclear power continuing its decades-long economic collapse, it’s awfully late to be thinking of developing a whole new fuel cycle whose problems differ only in detail from current versions.

#### 8—No modeling – states lack infrastructural capacity

Levi 11 [Michael A. Levi David M. Rubenstein Senior Fellow for Energy and the Environment Why Don’t States Cooperate More on Energy and Climate? Posted on Tuesday, January 18, 2011 http://blogs.cfr.org/levi/2011/01/18/why-dont-states-cooperate-more-on-energy-and-climate/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+mlevi+%28Michael+Levi%27s+Blog%29&utm\_content=Google+Reader]

I spent Friday and Saturday at an excellent (largely academic) workshop on international institutions and global governance. In our discussions about why states do and don’t cooperate, I was struck by how absent states’ capacity to cooperate was from the discussion. In particular, when it comes to energy and climate, it’s one of the bigger blind spots in how both practitioners and scholars think about cooperation. Here’s a simple example of what I’m referring to: People argue that international oil markets would function more smoothly if states would publish basic data on their domestic markets (supply, demand, stocks, etc). They observe that China (among others) doesn’t do that. The immediate conclusion is that Beijing doesn’t want to. The only policy recourse, then, is to pressure or persuade China to change tack. But in more than one recent conversation, people have emphasized to me that Beijing doesn’t have many of the needed statistics itself (though it’s working on developing its capacity). Badgering them won’t change that; until they develop the capacity to collect the right statistics, cooperation will fail. The same thing is true much more broadly. India, for example, won’t be able to force power plants to internalize pollution costs until it develops a serious environmental regulator. Brazil won’t get deforestation properly under control without stronger capacity to enforce the laws that it puts on the books. One might even argue that China won’t improve its IPR protection until its innovation system becomes much more capable of developing technologies itself. Our view of international politics, though, tends to focus much more on pure ambition than on these sorts of features that directly influence results.