### DA 1

#### Recoverable oil is increasing faster than we can deplete it

David Deming 4-7-2012; American geologist and geophysicist, associate professor of Arts and Sciences at the University of Oklahoma in Norman, Ph.D geophysics from the University of Utah “The petroleum age is just beginning,” <http://newsok.com/the-petroleum-age-is-just-beginning/article/3664151>

It's time to consign Peak Oil theory to the dust bin of history. The flaw of the theory is that it assumes the amount of a resource is a static number determined solely by geological factors. But the size of an exploitable resource also depends upon price and technology. These factors are difficult to predict.¶ The U.S. oil industry began in 1859 when Edwin Drake hired blacksmith Billy Smith to drill a 69-foot-deep well. Subsequent technological advances have opened up resources beyond the limits of our ancestors' imaginations. We can drill offshore in water up to 8,000 feet deep. We have enhanced recovery techniques, horizontal drilling and four-dimensional seismic imaging. Oklahoma oilman Harold Hamm is turning North Dakota into Saudi Arabia by using hydraulic fracturing technology. U.S. oil production has reversed its 40-year decline. By the year 2020, it is anticipated that the U.S. will be the world's top oil producer.¶ For at least 100 years, people have repeatedly warned that the world is running out of oil. In 1920, the U.S. Geological Survey estimated that the world contained only 60 billion barrels of recoverable oil. But to date we have produced more than 1,000 billion barrels and currently have more than 1,500 billion barrels in reserve. World petroleum reserves are at an all-time high. The world is awash in a glut of oil. Conventional oil resources are estimated to be in the neighborhood of 10 trillion barrels. The resource base is growing faster than production can deplete it!¶ Nine years ago, I predicted that the age of petroleum has only just begun. I was right. The Peak Oil theorists, the malthusians and the environmentalists were all wrong. They've been proven wrong, over and over again, for decades. A tabulation of every failed prediction of resource exhaustion would fill a library.

#### Oil is abiotic and unlimited – the earth will keep producing more

Gregg Laskoski 9-14-2011; senior petroleum analyst for GasBuddy.com Abiotic Oil a Theory Worth Exploring <http://www.usnews.com/opinion/blogs/on-energy/2011/09/14/abiotic-oil-a-theory-worth-exploring>

And there's a third group you may not know. These people are deeply interested in oil and its origins, but their advocacy of "abiotic theory" has many dismissing them as heretics, frauds, or idealists. They hold that oil can be derived from hydrocarbons that existed eons ago in massive pools deep within the earth's core. That source of hydrocarbons seeps up through the earth's layers and slowly replenishes oil sources. In other words, it turns the fossil-fuel paradigm upside down. Perhaps the breakthrough for this theory came when Chris Cooper's story appeared April 16, 1999, in The Wall Street Journal about an oil field called Eugene Island. Here's an excerpt: Production at the oil field, deep in the Gulf of Mexico off the coast of Louisiana, was supposed to have declined years ago. And for a while, it behaved like any normal field: Following its 1973 discovery, Eugene Island 330's output peaked at about 15,000 barrels a day. By 1989, production had slowed to about 4,000 barrels a day. Then suddenly—some say almost inexplicably—Eugene Island's fortunes reversed. The field, operated by PennzEnergy Co., is now producing 13,000 barrels a day, and probable reserves have rocketed to more than 400 million barrels from 60 million. Stranger still, scientists studying the field say the crude coming out of the pipe is of a geological age quite different from the oil that gushed 10 years ago. According to Cooper, Thomas Gold, a respected astronomer and professor emeritus at Cornell University in Ithaca, NY, has held for years that oil is actually a renewable, primordial syrup continually manufactured by the Earth under ultrahot conditions and tremendous pressures. As this substance migrates toward the surface, it is attacked by bacteria, making it appear to have an organic origin dating back to the dinosaurs, he says. All of which has led some scientists to a radical theory: Eugene Island is rapidly refilling itself, perhaps from some continuous source miles below the Earth's surface. That, they say, raises the tantalizing possibility that oil may not be the limited resource it is assumed to be. More recently, Forbes presented a similar discussion. In 2008 it reported a group of Russian and Ukrainian scientists say that oil and gas don't come from fossils; they're synthesized deep within the earth's mantle by heat, pressure, and other purely chemical means, before gradually rising to the surface. Under the so-called abiotic theory of oil, finding all the energy we need is just a matter of looking beyond the traditional basins where fossils might have accumulated. The idea that oil comes from fossils "is a myth" that needs changing according to petroleum engineer Vladimir Kutcherov, speaking at the Royal Institute of Technology in Sweden. "All kinds of rocks could have oil and gas deposits." Alexander Kitchka of the Ukrainian National Academy of Sciences estimates that 60 percent of the content of all oil is abiotic in origin and not from fossil fuels. He says companies should drill deeper to find it.

**High prices are key to the Russian economy and domestic stability**

Michael **Schuman** 7-5-20**12** ; writes about Asia and global economic issues as a correspondent for TIME in Hong Kong. B.A. in Asian history and political science from the University of Pennsylvania and a master of international affairs from Columbia; “Why Vladimir Putin Needs Higher Oil Prices” http://business.time.com/2012/07/05/why-vladimir-putin-needs-higher-oil-prices/

But Vladimir Putin is not one of them. **The economy that the Russian President has built not only runs on oil, but runs on oil priced extremely high. Falling oil prices means rising problems for Russia – both for the strength of its economic performance, and possibly, the strength of Putin himself.** Despite the fact that Russia has been labeled one of the world’s most promising emerging markets, often mentioned in the same breath as China and India, the Russian economy is actually quite different from the others. While India gains growth benefits from an expanding population, Russia, like much of Europe, is aging; while economists fret over China’s excessive dependence on investment, Russia badly needs more of it. Most of all, **Russia is little more than an oil state in disguise**. **The country is the largest producer of oil in the world** (yes, bigger even than Saudi Arabia), **and Russia’s dependence on crude has been increasing**. **About a decade ago, oil and gas accounted for less than half of Russia’s exports; in recent years, that share has risen to two-thirds**. **Most of all, oil provides more than half of the federal government’s revenues. What’s more, the economic model Putin has designed in Russia relies heavily not just on oil, but high oil prices**. **Oil lubricates the Russian economy by making possible the increases in government largesse that have fueled Russian consumption**. Budget spending reached 23.6% of GDP in the first quarter of 2012, up from 15.2% four years earlier. What that means is Putin requires a higher oil price to meet his spending requirements today than he did just a few years ago. Research firm Capital Economics figures that the government budget balanced at an oil price of $55 a barrel in 2008, but that now it balances at close to $120. Oil prices today have fallen far below that, with Brent near $100 and U.S. crude less than $90. **The farther oil prices fall, the more pressure is placed on Putin’s budget, and the harder it is for him to keep spreading oil wealth to the greater population through the government**. **With a large swath of the populace angered by his re-election to the nation’s presidency in March, and protests erupting on the streets of Moscow, Putin can ill-afford a significant blow to the economy, or his ability to use government resources to firm up his popularity.** That’s why **Putin hasn’t been scaling back even as oil prices fall**. His government is earmarking $40 billion to support the economy, if necessary, over the next two years. He does have financial wiggle room, even with oil prices falling. Moscow has wisely stashed away petrodollars into a rainy day fund it can tap to fill its budget needs. But **Putin doesn’t have the flexibility he used to have. The fund has shrunk**, from almost 8% of GDP in 2008 to a touch more than 3% today. **The package**, says Capital Economics, **simply highlights the weaknesses of Russia’s economy:** This cuts to the heart of a problem we have highlighted before – namely that Russia is now much more dependent on high and rising oil prices than in the past… The fact that the share of ‘permanent’ spending (e.g. on salaries and pensions) has increased…creates additional problems should oil prices drop back (and is also a concern from the perspective of medium-term growth)…The present growth model looks unsustainable unless oil prices remain at or above $120pb.

**Russian economic collapse causes global nuclear war**

Steven **David**, January/February 19**99**;Professor of International Relations and Associate Dean of Academic Affairs at the Johns Hopkins University, FOREIGN AFFAIRS, **,** http://www.foreignaffairs.org/19990101faessay955/steven-r-david/saving-america-from-the-coming-civilwars.html

**I**f internal war does strike Russia, economic deterioration will be a prime cause. From 1989 to the present, the GDP has fallen by 50 percent. In a society where, ten years ago, unemployment scarcely existed, it reached 9.5 percent in 1997 with many economists declaring the true figure to be much higher. Twenty-two percent of Russians live below the official poverty line (earning less than $ 70 a month). Modern Russia can neither collect taxes (it gathers only half the revenue it is due) nor significantly cut spending. Reformers tout privatization as the country's cure-all, but in a land without well-defined property rights or contract law and where subsidies remain a way of life, the prospects for transition to an American-style capitalist economy look remote at best. As the massive devaluation of the ruble and the current political crisis show, Russia's condition is even worse than most analysts feared. If conditions get worse, even the stoic Russian people will soon run out of patience.  A future conflict would quickly draw in Russia's military. In the Soviet days civilian rule kept the powerful armed forces in check. But with the Communist Party out of office, what little civilian control remains relies on an exceedingly fragile foundation -- personal friendships between government leaders and military commanders. Meanwhile, the morale of Russian soldiers has fallen to a dangerous low. Drastic cuts in spending mean inadequate pay, housing, and medical care. A new emphasis on domestic missions has created an ideological split between the old and new guard in the military leadership, increasing the risk that disgruntled generals may enter the political fray and feeding the resentment of soldiers who dislike being used as a national police force. Newly enhanced ties between military units and local authorities pose another danger. Soldiers grow ever more dependent on local governments for housing, food, and wages. Draftees serve closer to home, and new laws have increased local control over the armed forces. Were a conflict to emerge between a regional power and Moscow, it is not at all clear which side the military would support.  Divining the military's allegiance is crucial, however, since the structure of the Russian Federation makes it virtually certain that regional conflicts will continue to erupt. Russia's 89 republics, krais, and oblasts grow ever more independent in a system that does little to keep them together. As the central government finds itself unable to force its will beyond Moscow (if even that far), power devolves to the periphery. With the economy collapsing, republics feel less and less incentive to pay taxes to Moscow when they receive so little in return. Three-quarters of them already have their own constitutions, nearly all of which make some claim to sovereignty. Strong ethnic bonds promoted by shortsighted Soviet policies may motivate non-Russians to secede from the Federation. Chechnya's successful revolt against Russian control inspired similar movements for autonomy and independence throughout the country. If these rebellions spread and Moscow responds with force, **civil war is likely**.  Should Russia succumb to internal war, the consequences for the United States and Europe will be severe. **A major power** like Russia -- even though in decline -- **does not suffer civil war quietly or alone**. An embattled **Russia**n Federation might provoke **opportunistic attacks from enemies such as China.** Massive flows of refugees would pour into central and western Europe. Armed struggles in Russia could easily spill into its neighbors. Damage from the fighting, particularly attacks on nuclear plants, would poison the environment of much of Europe and Asia. Within Russia, the consequences would be even worse. Just as the sheer brutality of the last Russian civil war laid the basis for the privations of Soviet communism, a second civil war might produce another horrific regime.

### DA 2

**Obama is winning but its close and reversible – the average of recent polls puts Obama ahead**

**Cook, 10/4**/12 – editor and publisher of the Cook Political Report for National Journal (Charlie, “Mitt Romney Breaks His Losing Streak” <http://www.nationaljournal.com/columns/cook-report/the-cook-report-romney-breaks-his-losing-streak-20121004?mrefid=mostViewed>)

Too many political observers see politics in an entirely binary way: Everything has to be either a “0” or a “1”; a race is either tied or it’s over; every election is either won or stolen. Some people never want to admit that their side lost. And some people think that a poll either tells them what they want to hear or is methodologically flawed—or crooked. It’s like an obnoxious sports fan (often found in Philadelphia) who views a ruling by a referee or umpire as either favorable or a bad call. Denial and simplicity reign.

The presidential election is neither tied nor over. Of the 16 most recent national polls using live telephone interviewers calling both respondents with landlines and those with cell phones (between 30 and 40 percent of voters do not have landlines and cannot legally be called by robo-pollsters), one has the race even, two have Obama with a narrow 2-point edge, five have 3-point Obama margins, two have 5-point Obama advantages, another pair have 6-point Obama leads, two have 7-point leads, and one has an 8-point Obama lead. This would strongly suggest that the Obama lead is between 3 and 6 percentage points; such brand-name polls as those by CNN, Fox News, and NBC News/Wall Street Journal are among those in that 3- to 6-point range.

Conversations with Democratic and Republican pollsters and strategists suggest that Colorado, Florida, North Carolina, and Virginia are the most competitive swing states. Some high-quality private polling shows Romney with very narrow leads in both North Carolina and Virginia, but a few other equally sophisticated surveys show Obama with narrow advantages in those two states. At least one private survey shows Florida even, but most show the Sunshine State and Colorado with narrow Obama leads, in the small- to mid-single-digit range. Just a hair or two better for Obama but still quite close are Nevada and Wisconsin, followed by Iowa. Things really get ugly for Romney in Ohio and Michigan, and, finally, in Pennsylvania, which is no longer competitive. Ohio shows a 5- to 8-point lead for Obama in private polling. In Michigan, Obama’s lead is slightly wider, and in Pennsylvania, Romney faces close to a 10-point deficit. It is mathematically possible for Romney to reach 270 electoral votes without Michigan, Ohio, or Pennsylvania, but it is in reality exceedingly unlikely.

It would take a very consequential event to change the trajectory of this race. Time will tell whether Romney’s strong debate performance on Wednesday night was the event that he needed—particularly in swing states such as Ohio. But at least he energized his supporters and sent a clear message that the race is not over.

**Nuclear power is unpopular with the public – multiple reasons**

Mariotte 12 – executive director and the chief spokesperson for NIRS, has testified in the United States Senate and before the U.S. House of Representatives on nuclear power, a graduate of Antioch College. (Michael, Jun 5th, “Nuclear Power and Public Opinion: What the polls say” http://www.dailykos.com/story/2012/06/05/1097574/-Nuclear-Power-and-Public-Opinion-What-the-polls-say) Jacome

These are all fundamental questions, the answers to which could affect our future far more than, say, who will be the next Senator from Indiana. Yet, perhaps surprisingly, until recently—really the past two or three years—other than regularly-conducted, loudly-trumpeted and rarely relevant industry-sponsored polls, polling of public opinion on nuclear power (and a lot of other energy issues) was haphazard at best.

Gallup, for example, over the past 18 years as best as we can find out, has conducted only 10 polls (and most of these only asked a half-sample, putting their numbers into question) asking people their opinion on nuclear power. But beginning in 2009, Gallup has begun polling annually. Unfortunately, Gallup asks the exact same question, with the same wording, that the Nuclear Energy Institute’s (NEI) own well-tested polling does. And the NEI doesn’t ask questions that it doesn’t want the answers to. Even so, Gallup’s answers don’t quite match those NEI gets, and which are usually heavily promoted in the media by NEI.

To try to get a better sense of what the public really thinks about nuclear power (and since we can’t afford to conduct our own polling), we took a look at every poll we could find on the issue, and related energy issues, over the past two years, and in some cases further back. Yes, that includes GOP/Fox News favorite Rasmussen.

As DailyKos readers know, if not the general public, examining all the possible polls leads to a much greater confidence in conclusions than relying on a single poll. Thus, we have a fairly strong confidence that our conclusions are a good statement of where the American public is at on nuclear power and our energy future in the Spring of 2012.

Conclusion 1: The public does NOT want to pay for new nuclear power. It IS willing to pay for renewable energy.

This one is a slam dunk.

New nuclear reactors are simply too expensive for utilities to build with their own assets. Nor are banks willing to lend money for most nuclear projects; they’re considered too risky given the long history of cost overruns, defaults, cancellations and other problems. Thus, the only two means of financing a new reactor are to either get money from taxpayers, through direct federal loans or taxpayer-backed loan guarantees, or from ratepayers in a few, mostly Southern states, which allow utilities to collect money from ratepayers before reactors are built—a concept known either as “early cost recovery” or Construction Work in Progress (CWIP).

ORC International (which polls for CNN, among others) has asked a straightforward question for the past two years (March 2011 and February 2012) in polls commissioned by the Civil Society Institute: “Should U.S. Taxpayers Take on the Risk of Backing New Nuclear Reactors?” The answer? Basically identical both years: 73% opposed in 2011, 72% opposed in 2012.

Maybe using the work “risk” skews the poll, you think? So ORC also asked, “Do you favor or oppose shifting federal loan guarantees from nuclear energy to clean renewables?” The answer was basically the same: 74% said yes in 2011, 77% in 2012 with 47% “strongly” holding that opinion both years.

A third poll conducted by ORC for Civil Society Institute in March 2012 asked this question:

“Utilities in some states are allowed to charge electricity ratepayers for “Construction Work in Progress” for new power plants. This means that ratepayers – instead of the companies – pay for construction of new nuclear reactors and other major power plants before any electricity ever reaches customers, thereby lowering the financial risks to shareholders. Knowing this, which of the following statements about “Construction Work in Progress” most closely reflects your view?”

The answer: fully 80% opposed CWIP.

Most pollsters have not asked similar questions; interestingly though, Rasmussen did in May 2012 for an undisclosed client. Their question: “The government is providing billions in loan guarantees to help the development of new nuclear plants. Would that money be better spent on the development of alternative new energy sources?” Unfortunately, Rasmussen did not publicize the results and hid them behind a paywall, which we were not inclined to pursue. But if anyone has access to that, we’d love to know what Rasmussen found.

Conclusion 2: Americans do not think nuclear power is “clean” energy, and still don’t want to pay for it.

Jumping back to ORC International, their March 2012 poll found this:

About two out of three Americans (66 percent) – including 58 percent of Republicans, 65 percent of Independents, and 75 percent of Democrats -- agree that the term “‘clean energy standard’ should not be used to describe any energy plan that involves nuclear energy, coal-fired power, and natural gas that comes from hydraulic fracturing, also known as ‘fracking.’”

and this:

About three out of four Americans (73 percent) agree that “federal spending on energy should focus on developing the energy sources of tomorrow, such as wind and solar, and not the energy sources of yesterday, such as nuclear power.” Fewer than one in four (22 percent) say that “federal spending on energy should focus on existing energy sources, such as nuclear, and not emerging energy sources, such as wind and solar.”

Meanwhile, the New York Times in May reported on a Harvard/Yale poll (also behind a paywall), conducted in 2011 but released in May 2012, that found that Americans are willing to pay an average of $162/year more for clean energy than they are paying now—an average 13% increase in electric bills. But when clean energy was defined as including nuclear power or natural gas, that support plummeted.

This is consistent with findings over the past decade, which have shown that nuclear power has typically ranked well below renewable energy sources, especially solar and wind, in public opinion, at times battling with coal for least-favorite U.S. energy source.

A March 2012 Gallup poll found that 69% of Americans support spending more government money on solar and wind power—with majorities among Democrats (84%) and Republicans (51%) alike. But support for “expanding the use of nuclear power” barely received a majority (52%) and then only due to Republican support: 64% of Republicans supported that idea, only 41% of Democrats.

Conclusion 3: On new reactors, how one asks the question matters.

Gallup and the Nuclear Energy Institute ask the same question: “Overall, do you strongly favor, somewhat favor, somewhat oppose or strongly oppose the use of nuclear energy as one of the ways to provide electricity in the U.S.?”

This question doesn’t really get to the issue of support for new nuclear reactors, although NEI typically tries to spin it that way. Although a question of support for current reactors wasn’t asked in any recent poll we saw, the public traditionally has been more supportive of existing reactors than new ones, and the question above could easily be interpreted as support for existing reactors, or even simple recognition that they exist. The results may also be skewed by the pollsters throwing nuclear in as “one of the ways,” without a context of how large a way.

Nonetheless, despite asking the same question, Gallup and NEI can’t agree on the answer. NEI, for example, in November 2011 asserted that 28% of the public strongly favors nuclear power with an additional 35% somewhat in favor. NEI found only 13% strongly opposed and another 21% somewhat opposed. A May 2012 NEI poll did not publicly break down the numbers into strongly vs somewhat, but claimed a similar 64-33% split between support for nuclear power and opposition.

Gallup, asking the same question in March 2012, found a narrower split. A smaller number was strongly in favor (23%, a drop of 5%) and a larger number strongly opposed (24%, increase of 3%)—overall an 8-point anti-nuclear swing among those with strong opinions. Those in the middle were 34% somewhat favor vs 16% somewhat opposed. The 2012 numbers were slightly worse for nuclear power than the identical question asked in March 2011, just before Fukushima.

But other polls suggest that Gallup and NEI may be asking the wrong question. For example, the LA Times reported on a Yale-George Mason University poll in April 2012 that found that support for new nuclear power had dropped significantly, from 61% in 2008 to 42% today.

Even Rasmussen in its May 2012 poll found that only 44% support building new reactors. That was good news for Rasmussen since it found that only 38% oppose them, with a surprising 18% undecided (surprising because no other poll we saw had such a high undecided contingent for any nuclear-related question).

Meanwhile the March 2012 ORC International poll found that:

“Nearly six in 10 Americans (57 percent) are less supportive of expanding nuclear power in the United States than they were before the Japanese reactor crisis, a nearly identical finding to the 58 percent who responded the same way when asked the same question one year ago. Those who say they are more supportive of nuclear power a year after Fukushima account for well under a third (28 percent) of all Americans, little changed from the 24 percent who shared that view in 2011.”

But perhaps the most telling, and easily the most interesting, poll comes from a March 2012 poll from the Yale Project on Climate Change Communications. Participants were asked, “When you think of nuclear power, what is the first word or phrase that comes to your mind?”

29% of those polled said “disaster.” Another 24% said “bad.” Only about 15% said “good” and that was the only measurable group that had anything positive to say. That poll also found that, “…only 47 percent of Americans in May 2011 supported building more nuclear power plants, down 6 points from the prior year (June 2010), while only 33 percent supported building a nuclear power plant in their own local area.”

Conclusions

Americans are not exactly wild about the idea of building new nuclear reactors. Polls asking the question different ways arrive at different results; at the lowest common denominator it is safe to say the country is divided on the issue. But Americans clearly don’t want to pay for construction of new reactors. And the reality is that no utility wants to or even can spend its own money building new reactors—they’re just too expensive. Congress, State legislatures and Public Service Commissions would do well to heed that warning, especially since it crosses all party and political lines.

**Obama election defeat and Mitt Romney presidency will trigger a trade war with China**

**Associated Press, 10-5-11,** p. http://www.boston.com/news/local/massachusetts/articles/2011/10/05/in\_gop\_campaign\_foreign\_policy\_becomes\_economic/?page=1

The Senate moved forward Monday with a bipartisan bill to punish China over its currency, but the legislation faces considerable hurdles before it becomes law. The Obama White House, while agreeing that the yuan is undervalued, has been wary of unilateral sanctions against Beijing. Major U.S. business groups share that concern and House GOP leaders have shown no interest in bringing the bill to a vote.

Three years ago, candidate Obama said the U.S. should "never hesitate" to confront China on issues such as copyright infringement and currency manipulation, yet his administration has largely limited itself to narrowly defined trade cases against Beijing and a series of threats aimed at pressuring China to revalue its money. Like President George W. Bush before him, Obama can cite small successes if not an overall solution to the problem.

Yet Romney's -- and the Senate's -- alternative path could risk a trade war between the U.S., the world's top importer, and China, the largest exporter and a holder of more than $1 trillion in U.S. debt. Its ability to retaliate against the United States could hamper U.S. exports, and mean even more lost American jobs.

**A trade war kills the global economy and escalates to a shooting/hot war**

**Droke, 10** – Editor of the Momentum Strategies Report (3/29/10, Green Faucet, “America and the Next Major War,” <http://www.greenfaucet.com/technical-analysis/america-and-the-next-major-war/79314>)

In the current phase of relative peace and stability we now enjoy, many are questioning when the next major war may occur and speculation is rampant as to major participants involved. Our concern here is strictly of a financial nature, however, and a discussion of the geopolitical and military variables involved in the escalation of war is beyond the scope of this commentary. But what we can divine from financial history is that "hot" wars in a military sense often emerge from trade wars. As we shall see, the elements for what could prove to be a trade war of epic proportions are already in place and the key figures are easily identifiable.

Last Wednesday the lead headline in the Wall Street Journal stated, "Business Sours on China." It seems, according to WSJ, that Beijing is "reassessing China's long-standing emphasis on opening its economy to foreign business....and tilting toward promoting dominant state companies." Then there is Internet search giant Google's threat to pull out of China over concerns of censorship of its Internet search results in that country.

The trouble started a few weeks ago Google announced that it no longer supports China's censoring of searches that take place on the Google platform. China has defended its extensive censorship after Google threatened to withdraw from the country.

Additionally, the Obama Administration announced that it backs Google's decision to protest China's censorship efforts. In a Reuters report, Obama responded to a question as to whether the issue would cloud U.S.-China relations by saying that the human rights would not be "carved out" for certain countries. This marks at least the second time this year that the White House has taken a stand against China (the first conflict occurring over tire imports).

Adding yet further fuel to the controversy, the U.S. Treasury Department is expected to issue a report in April that may formally label China as a "currency manipulator," according to the latest issue of Barron's. This would do nothing to ease tensions between the two nations and would probably lead one step closer to a trade war between China and the U.S.

Then there was last week's Wall Street Journal report concerning authorities in a wealthy province near Shanghai criticizing the quality of luxury clothing brands from the West, including Hermes, Tommy Hilfiger and Versace. This represents quite a change from years past when the long-standing complaint from the U.S. over the inferior quality of Chinese made merchandise.

On Monday the WSJ ran an article under the headline, "American Firms Feel Shut Out In China." The paper observed that so far there's little evidence that American companies are pulling out of China but adds a growing number of multinational firms are "starting to rethink their strategy." According to a poll conducted by the American Chamber of Commerce in China, 38% of U.S. companies reported feeling unwelcome in China compared to 26% in 2009 and 23% in 2008.

As if to add insult to injury, the high profile trial of four Rio Tinto executives in China is another example of the tables being turned on the West. The executives are by Chinese authorities of stealing trade secrets and taking bribes. There's a touch of irony to this charge considering that much of China's technology was stolen from Western manufacturing firms which set up shop in that country.

It seems China is flexing its economic and political muscle against the West in a show of bravado. Yet one can't help thinking that this is exactly the sort of arrogance that typically precedes a major downfall. As the Bible states, "Pride goeth before destruction, and an haughty spirit before a fall."

In his book, "Jubilee on Wall Street," author David Knox Barker devotes a chapter to how trade wars tend to be common occurrences in the long wave economic cycle of developed nations. Barker explains his belief that the industrial nations of Brazil, Russia, India and China will play a major role in pulling the world of the long wave deflationary decline as their domestic economies begin to develop and grow. "The are and will demand more foreign goods produced in the United States and other markets," he writes. Barker believes this will help the U.S. rebalance from an over weighted consumption-oriented economy to a high-end producer economy.

Barker adds a caveat, however: if protectionist policies are allowed to gain force in Washington, trade wars will almost certainly erupt and. If this happens, says Barker, "all bets are off." He adds, "The impact on global trade of increased protectionism and trade wars would be catastrophic, and what could prove to be a mild long wave [economic] winter season this time around could plunge into a global depression."

Barker also observes that the storm clouds of trade wars are already forming on the horizon as we have moved further into the long wave economic "winter season." Writes Barker, "If trade wars are allowed to get under way in these final years of a long wave winter, this decline will be **far deeper and darker** than necessary, just as the Great Depression was far deeper and lengthier than it should have been, due to growing international trade isolationism.

He further cautions that protectionism in Washington will certainly bring retaliation from the nations that bear the brunt of punitive U.S. trade policies. He observes that the reaction from one nation against the protectionist policies of another is typically far worse than the original action. He cites as an example the restriction by the U.S. of $55 million worth of cotton blouses from China in the 1980s. China retaliated by cancelling $500 million worth of orders for American rain. "As one nation blocks trade, the nation that is hurt will surely retaliate and the entire world will suffer," writes Barker.

**Impact is extinction  
Johnson, 1** (5/14/01, The Nation, “Time to Bring the Troops Home,” <http://www.thenation.com/article/time-bring-troops-home>)

In East Asia, the United States maintains massive and expensive military forces poised to engage in everything from nuclear war to sabotage of governments that Washington finds inconvenient (for example, the government of former President Suharto in Indonesia, which in May 1998 the US government helped to bring down via troops its Special Forces had trained). At the beginning of the twenty-first century, the United States still deploys some 100,000 military personnel and close to an equal number of civilian workers and dependents in Japan and South Korea. These forces include the Third Marine Expeditionary Force in Okinawa and Japan; the Second Infantry Division in South Korea; numerous Air Force squadrons in both countries (Kadena Air Force Base in Okinawa is the largest US military installation outside the United States); the Seventh Fleet, with its headquarters in Yokosuka, Japan, patrolling the China coast and anywhere else that it wants to go; and innumerable submarine pens (for example, White Beach, Okinawa), support facilities, clandestine eavesdropping and intelligence-collecting units, Special Forces and staff and headquarters installations all over the Pacific.

From approximately 1950 to 1990, the US government invoked the cold war to justify these so-called forward deployments--actually, in less euphemistic language, imperialist outposts. During the late 1940s, when it became apparent that the Chinese Communist Party was going to win the Chinese civil war, the United States reversed its policy of attempting to democratize occupied Japan and devoted itself to making Japan Washington's leading satellite in East Asia. The United States entered into an informal economic bargain with Japan: In return for Japan's willingness to tolerate the indefinite deployment of US weapons and troops on its soil, the United States would give it preferential access to the American market and would tolerate its protectionism and mercantilism. These were advantages the United States did not extend to its European allies or Latin American neighbors in the cold war.

Oddly enough, this policy is still in effect some fifty-four years after it was first implemented. In return for hosting 40,000 US troops and an equal number of dependents in ninety-one US-controlled bases, Japan still has privileged access to the US economy and still maintains protectionist barriers against US sales and investment in the Japanese market. The overall results of this policy became apparent in the 1970s and led to acute problems for the US economy in the 1980s--namely, huge excess manufacturing capacity in Japan and the hollowing out of US manufacturing industries. The costs for the United States have been astronomical. During the year 2000 alone, it recorded its largest trade deficit ever, of which $81 billion was with Japan. During the mid-1980s, Japan became the world's largest creditor nation and the United States became the world's largest debtor nation, thereby turning upside down the original assumptions on which US economic policies toward Japan were based. But neither the United States nor Japan made any changes in its old trade-for-bases deal, despite occasional and futile protests by US business interests.

Meanwhile, from the point of view of US elites committed to maintaining hegemony on a global basis, the sudden and unpredicted collapse of the Soviet Union in the period 1989 to 1991 was a disaster. They had to find some new justifications for their overseas presence, particularly in East Asia, where Japan's inherent power and the emergence of a commercially oriented China offered implicit challenges to the old American order. Among these justifications, one of the cleverest was the so-called two-war strategy, which requires the US military establishment to be able to fight two large wars on opposite sides of the globe at the same time. The beauty of this formulation is that it avoids specifying which nations might conceivably want to go to war with the United States and ignores the historical fact that in America's most recent wars--Korea, Vietnam, the Persian Gulf and Yugoslavia--no second nation (on the other side of the globe or nearby) challenged it.

More concretely, Pentagon strategists have tried to find replacement enemies for the former USSR by demonizing North Korea and muttering ominously about China's successful transition from a Leninist command economy to a state-guided market system resembling the other successful capitalist countries of East Asia. Until June 2000, North Korea was routinely described as an extremely threatening "rogue state." Then, on the initiative of the South Korean president, the two Koreas began to negotiate their own reconciliation without asking for US permission. The possibility that North and South Korea might achieve some form of peaceful coexistence totally undercuts the main US rationale for a "national missile defense" and a "theater missile defense."

Regardless of which ventriloquist is in charge of him on any given day, George W. Bush shows no sign of comprehending these matters. In March, when South Korean President Kim Dae Jung, last year's winner of the Nobel Peace Prize, visited Washington to ask for help in pursuing his country's rapprochement with the North, the newly designated "leader of the free world" rudely brushed him off. Korea policy has become a plaything of Congressional Republican mastodons, and the Bush White House seems much more interested in pleasing them than in the situation in East Asia. It is easy for the United States to attempt to bully both the North and South Koreas; it has been doing so since 1945.

China is another matter. No sane figure in the Pentagon wants a war with China, and all serious US militarists know that China's minuscule nuclear capacity is not offensive but a deterrent against the overwhelming US power arrayed against it (twenty archaic Chinese warheads versus more than 7,000 US warheads). Taiwan, whose status constitutes the still incomplete last act of the Chinese civil war, remains the most dangerous place on earth. Much as the 1914 assassination of the Austrian crown prince in Sarajevo led to a war that no one wanted, a misstep in Taiwan by any side could bring the United States and China into a conflict that neither wants. Such a war would bankrupt the United States, deeply divide Japan and probably end in a Chinese victory, given that China is the world's most populous country and would be defending itself against a foreign aggressor. More seriously, it could **easily escalate into a nuclear holocaust**.

### DA 3

#### No renaissance now

**Rose, 11** [Michael, Michael Rose has directed, written, and or produced over two hundred television programs that have aired around the world. His most recent film, Elvis: Return to Tupelo, premiered last Fall on the bio channel and will be shown on PBS starting this Spring. March 15th, Too Cheap to Meter: The Top 10 Myths of Nuclear Power, <http://www.huffingtonpost.com/michael-rose/too-cheap-to-meter-the-to_b_835730.html>]

Myth #4: The U.S. is in the midst of a nuclear renaissance. We've had a nuclear bubble but "when builders came to realize the costs it started to dissolve," said Bradford. The myth of the nuclear renaissance has been an effective public relations ploy of the nuclear industry but we've seen the operators at the Calvert Cliffs, Maryland reactor pull out and the backers behind a proposed reactor in Houston, Texas have also pulled out. Things are sputtering. "If this is what the original renaissance looked like then we never would have had Michelangelo or Leonardo da Vinci," said Hirsch.

#### Energy efficiency is coming now and will stabilize the climate

**Lovins 10** \*Amory B. Lovins (&) is Chairman and Chief Scientist of Rocky Mountain Institute and Chairman Emeritus of Fiberforge Corporation, he advises governments and major firms worldwide on advanced energy and resource efficiency, In 2009, Time named him one of the 100 most influential people in the world, and Foreign Policy, one of the 100 top global thinkers [“Profitable Solutions to Climate, Oil, and Proliferation, Amory B. Lovins, June 10th 2010, PDF]

INTRODUCTION Fortunately, many companies understand this and are investing in energy efficiency. whether or not they are concerned about climate. IBM and STMicroelectronics have long cut their carbon emissions 6% yeaf with 2- to 3-year paybacks from making their factories more energy efficient. DuPont said it would cut its 2010 global green house emissions to 60% below 1990’s; by 2006, it had achieved an 80% reduction at a S3.000-million profit. Presentation at 15 June 2009 to 9th Royal Colloquium “Climate Action: Tuning in on energy, water and food security,” Bönliamn, Sweden. Dow’s $1,000-million investment in energy efficiency has so far returned $9,000 million in savings. BP met its operational carbon reduction goals 8 years early at a $2,000-million profit. United Technologies cut its energy use per dollar 45% during 2003–07. GE is cutting its energy intensity 30% during 2005–2012 to build shareholder value. Interface may hold the record with 1996– 2008 reductions of 71% in absolute greenhouse-gas emissions while offsetting the rest, growing the company twothirds, and doubling profits. Even these achievements just scratch the surface of what is possible and worthwhile: McKinsey&Company showed (McKinsey&Company 2009) how to cut forecast 2030 global greenhouse-gas emissions by 70% at an average cost of just $6 per tonne of CO2 equivalent. Including the newer technologies and integrative designs described below would have made that potential bigger and much cheaper (less than zero). If global energy intensity—primary energy used per dollar of real GDP—continued to drift down by just 1% year-1 under canonical long-term trends of population and economic growth and of decarbonizing fuels, then global CO2 emission rates would about triple by 2100, so we would all be toast. However, can we make toast, not be toast? If energy intensity fell not by 1% but by 2% year-1, emissions would stabilize, and if intensity fell by 3–4% year-1, climate could stabilize (to the extent irreversible changes aren’t already underway). Is this conceivable? Yes: the US has spontaneously cut its energy intensity by 2–4% year-1 for most of the past few decades, under both high and low energy prices. Denmark in 1980–2006 shrank its carbon intensity 2.7% year-1. China cut its energy intensity over 5% year-1 for a quarter century through 2001.2 Attentive Western firms are profitably cutting their energy intensity 6–16% year-1. Therefore, why should 3–4% year-1 be difficult—especially since most of the forecast growth is in countries like China and India that are building their infrastructure from scratch, and can more easily build it right than fix it later? And since virtually everyone who does energy efficiency makes money, why should this be costly? Detailed analyses cited below show how the US, for example, can save about half its oil and gas use at about one-fifth of their current price, and about three-fourths of its electricity use at about one-eighth the electricity’s price. Even Japan, with 2- to 3-fold lower energy intensity, has found ways to save two-thirds of the remaining energy (National Institute for Environmental Studies 2009). These opportunities are best described in two main themes: burning oil and producing electricity. These, respectively, cause 43 and 41% of US, and roughly 45 and 30% of global, fossil-fuel carbon emissions. Electricity generation is \*50% coal fired in the US, 42% in the world, so each unit of electricity saved displaces 3–4 units of especially carbon-intensive fuel—huge climate leverage.

#### Construction of nuclear activities causes warming – trades off with energy efficiency

**Roche\* 7 – \***Site editor, no direct author given, but N02 Nuclear Power.org is a site created and run by Pete Roche who is an energy consultant based in Edinburgh and policy adviser to the Scottish Nuclear Free Local Authorities, and the National Steering Committee of [UK NFLA](http://nfznsc.gn.apc.org/). Pete was co-founder of the Scottish Campaign to Resist the Atomic Menace (SCRAM), he has represented Greenpeace at international meetings and is active in several other areas relating to environmental protection and nuclear power [http://www.no2nuclearpower.org.uk/reports/Opportunity\_Costs\_Nuclear.pdf, January 2007 “Opportunity Costs of Nuclear Power]

Introduction The opportunity cost of any investment is the cost of forgoing the alternative outcomes that could have been purchased with the same money. So, of course all investments will forego other opportunities, but this briefing looks at those potential investments, which would be foregone, if we invest in nuclear power. Many advocates of new nuclear construction call for a “balanced energy policy” and promote the idea that ‘we need every energy technology’ in order to successfully tackle the climate change problem. This idea suggests that we have infinite amounts of money to spend on energy projects, which is obviously nonsense. Resources are scarce, so we need to make choices. Because climate change is a serious and urgent problem then we must spend our limited resources as effectively and quickly as possible - best buys first, not the more the merrier. For each dollar we spend we need to buy the maximum amount of “solution” possible. (The “least cost” solution) On both criteria, cost and speed, nuclear power is probably the least effective climate-stabilizing option on offer. As well as being more expensive, and taking longer to implement, the problem with spending on nuclear power is that it will detract from spending on other more effective options. Not only does nuclear power drain resources away from other options, but it also distracts attention from important decisions that have to be made to support those other options. And because there are so many problems associated with getting new reactor construction off the ground, it might not work. So in the worst case we might find that efforts to tackle climate change are seriously damaged by a decision to go ahead with reactor construction. Although the nuclear industry likes to give the impression that it can now finance new reactors without taxpayer subsidies, there are still large uncertainties about how the waste and decommissioning liabilities will be financed in many countries. Thus building new reactors could be potentially storing up future opportunity costs for taxpayers which they will have to accept whether they like it or not. Catastrophic opportunity cost Since we do not have unlimited resources, we have to choose how we spend. If we buy more of one thing, then it will be necessary for us to have less of another. Because of the seriousness of the climate change threat, it is essential that we spend our limited resources on the fastest and most effective climate solutions. Nuclear power is just the opposite. Investment in more expensive nuclear power will, in effect, worsen climate change because each dollar we spend is buying less solution than it would do if we were to spend it on energy efficiency. (1) Amory Lovins, of the respected Rocky Mountain Institute, says investing in nuclear power would be the worst thing we could do for climate change, because efforts to ‘revive’ this moribund technology will divert investment from cheaper market winners – cogeneration, renewables, and efficiency. Standard studies tend to compare the cost of new reactors with alternative centralised fossil-fuelled plants. They conclude that it might be possible to revive nuclear power if construction and operation is heavily subsidised or if carbon is heavily taxed. Lovins says these efforts would be futile, because large centralised power stations are not the real competition. Neither fossil-fuel or nuclear can compete with windpower, some other renewables, combined heat and power (CHP) and energy efficiency. We should not allow fears of a looming energy gap, or the urgency of tackling climate change to stampede us into making irrational decisions. Diversification has its merits, but the strategic value of a diversified portfolio would not be enough to justify buying every technology on offer at whatever cost. Lovins calculates that one US dollar buys roughly:- • 10kWh of new nuclear electricity (at its 2004 subsidised level) • 12-17kWh of wind powered electricity • 9-17kWh of gas-fired industrial cogeneration (adjusted for carbon emissions) • 20-65kWh of residential building cogeneration (again adjusted for carbon) • anything up to 100kWh of savings from energy efficiency A portfolio of least-cost investments in energy efficiency and decentralised generation will beat nuclear power by a large and rising margin.

#### Warming causes extinction

**Costello 11 –**, Anthony, Institute for Global Health, University College London, Mark Maslin, Department of Geography, University College London, Hugh Montgomery, Institute for Human Health and Performance, University College London, Anne M. Johnson, Institute for Global Health, University College London, Paul Ekins, Energy Institute, University College London [“Global health and climate change: moving from denial and catastrophic fatalism to positive action” May 2011 vol. 369 no. 1942 1866-1882 Philosophical Transactions of the Royal Society]

Advocacy about the health consequences will ensure that climate change is a high priority. The United Nations Convention on Climate Change was set up in 1992 to ensure that nations worked together to minimize the adverse effects, but McMichael and Neira noted that, in preparation for the Copenhagen conference in December 2009, only four of 47 nations mentioned human health as a consideration [1]. With business as usual, global warming caused by rising greenhouse gas (GHG) emissions will threaten mass populations through increased transmission of some infections, heat stress, food and water insecurity, increased deaths from more frequent and extreme climate events, threats to shelter and security, and through population migration [2]. On the one hand it is necessary in the media to counter climate change sceptics and denialists, but on the other it is also important not to allow climate catastrophists, who tell us it is all too late, to deflect us from pragmatic and positive action. Catastrophic scenarios are possible in the longer term, and effective action will be formidably difficult, but evidence suggests that we do have the tools, the time and the resources to bring about the changes needed for climate stability. 2. Climate change evidence and denial Given the current body of evidence, it is surprising that global warming and its causal relationship with atmospheric GHG pollution is disputed any more than the relationship between acquired immune deficiency syndrome (AIDS) and human immunodeficiency virus (HIV) infection, or lung cancer and cigarette smoking. The basic principles that determine the Earth’s temperature are, of course, relatively simple. Some of the short-wave solar radiation that strikes the Earth is reflected back into space and some is absorbed by the land and emitted as long-wave radiation (heat). Some of the long-wave radiation is trapped in the atmosphere by ‘greenhouse gases’, which include water vapour, carbon dioxide and methane. Without GHGs the Earth would be on average 33◦C colder. Over the last 150 years, since the Industrial Revolution, humans have been adding more carbon dioxide and methane into the atmosphere. The result is that the Earth’s atmosphere, ocean and land are indeed warming—due to increased atmospheric ‘greenhouse gas’ concentrations [3]. Gleick et al. [4], from the US National Academy of Sciences, wrote a letter to Science stating ‘There is compelling, comprehensive, and consistent objective evidence that humans are changing the climate in ways that threaten our societies and the ecosystems on which we depend’. The most recent report by the Intergovernmental Panel on Climate Change (IPCC) [5], amounting to nearly 3000 pages of detailed review and analysis of published research, also declares that the scientific uncertainties of global warming are essentially resolved. This report states that there is clear evidence for a 0.75◦C rise in global temperatures and 22 cm rise in sea level during the twentieth century. The IPCC synthesis also predicts that global temperatures could rise further by between 1.1◦C and 6.4◦C by 2100, and sea level could rise by between 28 and 79 cm, or more if the melting of Greenland and Antarctica accelerates. In addition, weather patterns will become less predictable and the occurrence of extreme climate events, such as storms, floods, heat waves and droughts, will increase. There is also strong evidence for ocean acidification driven by more carbon dioxide dissolving in the oceans [6]. Given the current failure of international negotiations to address carbon emission reductions, and that atmospheric warming lags behind rises in CO2 concentration, there is concern that global surface temperature will rise above the supposedly ‘safe limit’ of 2◦C within this century. Each doubling of atmospheric carbon dioxide concentration alone is expected to produce 1.9–4.5◦C of warming at equilibrium [7]. Of course, climate modelling is an extremely complex process, and uncertainty with projections relating to future emissions trajectories means that the time scale and magnitude of future climate change cannot be predicted with certainty [8]. These uncertainties are magnified when future climate predictions are used to estimate potential impacts. For example, the environmental impacts of climate change are also uncertain, but could underestimate such impacts because they detrimentally interact with habitat loss, pollution and loss of biodiversity due to other causes. There is also the additional problem that switching from biome to biome may not be directly reversible. For example, rainforest recycles a huge amount of water so it can survive a significant amount of aridification before it burns and is replaced by savannah. But the region then has to get much wetter before rainforest can return, as there is greatly reduced water cycling in savannah [9]. In the policy arena, further uncertainty surrounds the desire for international agreements on emission cuts, and the possible routes to such agreement and implementation. The feasible speed of technological innovation in carbon capture and provision of renewable/low-carbon energy resources is also uncertain. Denying the causes or the current weight of evidence for anthropogenic climate change is irrational, just as the existence of ‘uncertainties’ should not be used to deny the need for proportionate action, when such uncertainties could underestimate the risks and impact of climate change. There is no reason for inaction and there are many ways we can use our current knowledge of climate change to improve health provision for current and future generations. 3. Catastrophism At the other end of the scale are doom-mongers who predict catastrophic population collapse and the end of civilization. In the early nineteenth century, the French palaeontologist Georges Cuvier first addressed catastrophism and explained patterns of extinction observed in the fossil record through catastrophic natural events [10]. We know now of five major extinctions: the Ordovician–Silurian extinction (439 million years ago), the Late Devonian extinction (about 364 million years ago), the Permian–Triassic extinction (about 251 million years ago), the End Triassic extinction (roughly 199 million to 214 million years ago) and the Cretaceous– Tertiary extinction (about 65 million years ago). These mass extinctions were caused by a combination of plate tectonics, supervolcanism and asteroid impacts. The understanding of the mass extinctions led Gould & Eldredge [11] to update Darwin’s theory of evolution with their own theory of punctuated equilibrium. Many scientists have suggested that the current human-induced extinction rates could be as fast as those during these mass extinctions [12,13]. For example, one study predicted that 58 per cent of species may be committed to extinction by 2050 due to climate change alone [14], though this paper has been criticized [15,16]. Some people have even suggested that human extinction may not be a remote risk [17–19]. Sherwood & Huber [7] point to continued heating effects that could make the world largely uninhabitable by humans and mammals within 300 years. Peak heat stress, quantified by the wet-bulb temperature (used because it reflects both the ambient temperature and relative humidity of the site), is surprisingly similar across diverse climates and never exceeds 31◦C. They suggest that if it rose to 35◦C, which never happens now but would at a warming of 7◦C, hyperthermia in humans and other mammals would occur as dissipation of metabolic heat becomes impossible, therefore making many environments uninhabitable.

### CP 1

**The 50 state governments and relevant subnational actors should establish energy financing banks to [do the plan].**

#### States should establish energy finance banks to do the plan – solves all the case and doesn’t require new spending

**Muro and Berlin, 9/12**/12 – \*senior fellow and policy director of the Metropolitan Policy Program at Brookings AND \*\* Senior Vice President for Policy and Planning, and General Counsel at the Coalition for Green Capital (Mark and Ken, “State Clean Energy Finance Banks: New Investment Facilities for Clean Energy Deployment”, <http://www.brookings.edu/~/media/research/files/papers/2012/9/12%20state%20energy%20investment%20muro/12%20state%20energy%20investment%20muro>)

Given these challenges, states that want to realize the benefits of clean energy deployment should consider a new approach to funding clean energy programs. Specifically, they should investigate the possibility of developing state clean energy finance banks that use limited public dollars and leverage private capital to provide a combination of low-interest rate funding that makes clean energy projects competitive and low-cost 100-percent up-front loans for energy efficiency projects.

Such an approach would address the deployment and diffusion challenges faced by clean energy

technologies while recognizing that federal and state appropriations, tax credits, and other incentives

and subsidies will be sharply diminished in the years ahead because of the budget crisis at all levels of

government. Likewise, the development of such finance entities would address the need for states to

develop a new paradigm for financing strong clean energy and energy efficiency projects as part of a

push to develop strong regional industries.

So-called “clean energy finance banks” or “green banks” are ideally suited to solve the present

problems because they offer a practical way for states to make available leveraged, low-cost financing

for project developers in their states. First, they can be developed out of existing state programs while

bringing into the enterprise the equivalent of substantial new resources given their ability to leverage

funds. Likewise, because the banks would provide debt financing, they would be repaid on their loans,

putting them in the position to borrow funds and to establish revolving loan funds that would provide

funds that could be reinvested without new sources of financing. Furthermore, clean energy finance

banks, if established as independent institutions, would be able to issue revenue bonds without the full

faith and credit of the state and without the restrictions facing states, which have limited borrowing

capacity. Finally, clean energy finance banks could efficiently seek large investors with patient, longterm capital who are seeking a long-term, conservative rate of return, such as pension fund investors.

#### It’s legitimate and politics is a net benefit

**Harvard Law Review, 6** – the author isn’t named but the qualifications are: John M. Olin Fellow in Law, Economics, and Business at Harvard Law School (119 Harv. L. Rev. 1855, “STATE COLLECTIVE ACTION\*”, April, lexis)

Consider now the reasons why states may act collectively. In the simplest terms, collective action may be more desirable than individual state action because it opens a panoply of otherwise unavailable policy choices and may be more desirable than federal action because it allocates power to a better-positioned actor. n12 These advantages may exist **[\*1859]** because regional organizations have better information, are better positioned to act on that information, or avoid duplicative costs or coordination problems. n13 Also, collective action may be desirable politically because it may make certain programs either more or less politically salient. n14 Similarly, political actors may want to act collectively because doing so spreads or diversifies political risk. n15 Lastly, collective action may provide opportunities for economies of scale or rent-seeking behavior that states cannot achieve independently. n16

Some brief examples of how states may act collectively illustrate the importance of the topic. n17 As in the stylized examples, states may act collectively to reduce pollution. Groups of states also could develop plans to use common reserves of natural resources, including oil fields or aquifers that cross state lines, or plans to allocate the use of rivers, lakes, forests, or other natural resources. They may also regulate wildlife that lives in multiple states, either to protect that wildlife or to use it for commercial purposes. States may take similar action to regulate or allocate energy or to develop interstate transit infrastructure, such as highways, rail lines, or regional airports. States may regulate the production or distribution of goods or create economic development organizations organized either geographically or by some other trait, such as agricultural or oil and gas production. They also may wish to regulate certain industries or set labor standards in common ways or may wish to regulate products commonly by adopting similar production standards or tort rules. As a final example - although one can imagine many other motivations for state collective action - states may collectivize to provide better social welfare or governmental insurance programs.

### CP 2

**The United States federal government should provide a diminishing twenty-percent investment tax credit for the deployment of domestic nuclear fuel recycling but the recipients must become cost competitive and must improve in price and performance in order to continually receive this incentive**

**Temporary, diminishing incentives are vital to inducing competition, technological innovation and ending subsidy dependence**

**Jenkins, 12** – Director of Energy and Climate Policy at the Breakthrough Institute (Jesse, Congressional Testimony before the Senate Committee on Energy and Natural Resources, 5/22, <http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=31b79a1a-83a0-4ae6-8c80-30fe754ad0ea>)

Recognizing that investment horizons, technology development cycles, and market conditions vary across advanced energy technology segments, precise policy mechanisms will likely differ from sector to sector. Yet whether through production or investment subsidies, consumer rebates, market-­‐creating regulations or standards, or other market incentives, we recommend that any advanced energy deployment subsidies meet the following policy design criteria. Reformed policies should:

1. ESTABLISH A COMPETITIVE MARKET. Deployment policies should create market opportunities for advanced clean energy technologies while fostering competition between technology firms.

2. DRIVE COST REDUCTIONS AND PERFORMANCE IMPROVEMENTS. Deployment policies should create market incentives and structures that demand and reward continual improvement in technology performance and cost.

3. PROVIDE TARGETED AND TEMPORARY SUPPORT FOR MATURING TECHNOLOGIES. Deployment policies must not operate in perpetuity, but rather should be terminated if technology segments either fail to improve in price and performance or become competitive without subsidy.

4. REDUCE SUBSIDY LEVELS IN RESPONSE TO CHANGING TECHNOLOGY COSTS. Deployment incentives should decline as technologies improve in price and performance to both conserve limited taxpayer and consumer resources and provide clear incentives for continued technology improvement.

5. AVOID TECHNOLOGY LOCK-OUT AND PROMOTE A DIVERSE ENERGY PORTFOLIO. Deployment incentives should be structured to create market opportunities for energy technologies at different levels of maturity, including new market entrants, to ensure that each has a chance to mature while allowing technologies of similar maturity levels to compete amongst themselves.

6. PROVIDE SUFFICIENT BUSINESS CERTAINTY. While deployment incentives should be temporary, they must still provide sufficient certainty to support key business decisions by private firms and investors.

7. MAXIMIZE THE IMPACT OF TAXPAYER RESOURCES AND PROVIDE READY ACCESS TO AFFORDABLE PRIVATE CAPITAL. Deployment incentives should be designed to avoid creating unnecessarily high transaction costs while opening up clean tech investment to broader private capital markets.

**Conditioning new incentives on price competition solves the aff better and avoids our disads**

**Hayward, 10** – resident scholar at the American Enterprise Institute (Steven, “Post-Partisan Power: How a Limited and Direct Approach to Energy Innovation Can Deliver Clean, Cheap Energy, Economic Productivity and National Prosperity”, October, <http://thebreakthrough.org/blog/Post-Partisan%20Power.pdf>)

The government has a long history of successfully driving innovation and price declines in emerging technologies by acting directly as a demanding customer to spur the early commercialization and largescale deployment of cutting-edge technologies. From radios and microchips to lasers and camera lenses, the federal government, in particular the DOD, has helped catalyze the improvement of countless innovative technologies and supported the emergence of vibrant American industries in the process. 67

Yet today’s mess of open-ended energy subsidies reward production of more of the same product, not innovation. The federal government showers subsidies across many energy options, from oil and coal to ethanol and wind power. None of these efforts, however, are designed or optimized to drive and reward innovation and ensure the prices of these technologies fall over time, making the subsidies effectively permanent. This must change.

Competitive Deployment Incentives

The current energy subsidy and deployment framework should be turned on its head. Government investments succeed not when they are blanket subsidies but rather when they are narrowly targeted to specific outcomes, such as developing computers to allow for rocket systems, building a communications network to survive a nuclear attack, or creating increasingly efficient and powerful jet engines. These public investments paid off handsomely in personal computers, the Internet, and gas turbines used in both commercial air travel as well as modern natural gas power plants. 68

In an era of expanding federal debt, across-the-board energy subsidy reform should be pursued. Incentives for energy technology deployment should be targeted and disciplined. Technologies should receive competitive deployment incentives only to the extent that they are becoming cheaper in unsubsidized terms over time.

The strategy that we propose would be aimed at low-carbon technologies that, at a minimum, satisfy the following criteria:

 The technology has been demonstrated and has proven technical feasibility at commercial scale;

 Is currently priced above normal market rates and is locked out of markets by more mature,

entrenched technology competitors;

 Has potential for significant and sustained cost and performance improvements during deployment

and scale-up;

#Has strong prospects for significant market penetration once the technology reaches competitive

prices.

Targeted and competitive deployment incentives could be created for various classes of energy technologies to ensure that each has a chance to mature. Incentive levels should fall at regular intervals, terminating if the technology class either fails to improve in price or reaches cost parity in the absence of any further incentives.

Structured in this manner, reformed national energy deployment incentives will not select winners and losers, nor will it create permanently subsidized industries. These public investments will instead provide opportunity for all emerging low-carbon energy technologies to demonstrate progress toward competitive costs while increasing the rate at which early-stage clean and affordable energy technologies are commercialized.

**The CP prevents the collapse of the energy bubble – solves competitiveness**

**Swezey, 11** – project director for The Breakthrough Institute (Devon, “Clean Tech Sector Heading for a Major Crash” 7/11, <http://blacklistednews.com/?news_id=14600&print=1>)

The global clean energy industry is set for a major crash. The reason is simple. Clean energy is still much more expensive and less reliable than coal or gas, and in an era of heightened budget austerity the subsidies required to make clean energy artificially cheaper are becoming unsustainable.

Clean tech crashes are nothing new. The U.S. wind energy industry has collapsed three times before, first in the mid 1990s and most recently in 2002 and 2004 when Congress failed to extend the tax credit that made it profitable. But the impact and magnitude of the coming clean tech crash will far outstrip those of past years.

As part of its effort to combat the economic recession, the federal government pumped nearly $80 billion in direct investment and tax credits into the clean energy sector, catalyzing an unprecedented industry expansion. Solar energy, for example, grew 67% in the United States in 2010. The U.S. wind energy industry also experienced unprecedented growth as a result of the generous Section 1603 clean energy stimulus program. The industry grew by 40% and added 10 GW of new turbines in 2009. Yet many of the federal subsidies that have driven such rapid growth are set to expire in the next few years, and clean energy remains unable to compete without them.

The crash won't be limited to the United States. In many European countries, clean energy subsidies have become budget casualties as governments attempt to curb mounting deficits. Spain, Germany, France, Italy and the Czech Republic have all announced cuts to clean energy subsidies.

Such cuts are not universal, however. China, flush with cash, is bucking the trend, committing $760 billion over 10 years for clean energy projects. China is continuing to invest in low-carbon energy as a way of meeting its voracious energy demand, diversifying its electricity supply, and alleviating some of the negative health consequences of its reliance on fossil energy.

If U.S. and European clean energy markets collapse while investment continues to ramp up in China, the short-term consequences will likely be a migration of much of the industry to Asia. As we wrote in our 2009 report, "Rising Tigers, Sleeping Giant," this would have significant economic consequences for the United States, as the jobs, revenues and other benefits of clean tech growth accrue overseas.

In the long-term, however, clean energy must become much cheaper and more reliable if it is to widely displace fossil fuels on the scale of national economies and become a commercially viable industry.

Breaking the Boom-Bust Cycle

Why is the United States still locked in this self-perpetuating boom-bust cycle in clean energy? The problem, according to a new essay by energy experts David Victor and Kassia Yanosek in this week's Foreign Affairs, is that our system of clean energy subsidization is jury-rigged to support the deployment of only the least-risky and most mature clean energy technologies, while lacking clear incentives for continual innovation that could make clean energy competitive on cost with conventional energy sources. Rather, we should "invest in more innovative technologies that stand a better chance of competing with conventional energy sources over the long haul." According to Victor and Yanosek, nearly seven-eighths of global clean energy investment goes toward deploying existing technologies that aren't competitive without subsidy, while only a small share goes to encouraging innovation in existing technologies or developing new ones.

This must change. Rather than simply subsidize production of current technologies, we need a comprehensive energy innovation strategy to develop, manufacture, and deploy riskier but more promising clean energy technologies that may eventually compete with fossil energy at scale. Instead of rewarding companies for building the same product, we should reward companies who continuously improve designs and cut costs over time.

Such a federal strategy will require major federal investments, but of a different kind than the subsidies that have driven the clean tech industry in years past. For starters, we must dramatically ramp up funding for early-stage clean energy research and development. A growing bipartisan group of think tanks and business leaders have pushed an investment of at least $15 billion annually in energy R&D, up from its current $4 billion level.

Targeted funding is needed to solve technology challenges and ensure that innovative technologies can develop and improve. One key program that helps fulfill this need is ARPA-E, which funds a portfolio of innovative technology companies and helps connect them with private investors. But ARPA-E's budget has continually been under assault in budget negotiations, hampering its ability to catalyze innovation in the energy sector and limiting its impact.

We also need to invest in cutting-edge advanced manufacturing capabilities and shared technology infrastructure that would help U.S. companies cut costs and improve manufacturing processes. As the President's Council of Advisors on Science and Technology wrote in a report released last week, manufacturing is vital to innovation, "because of the synergies created by locating production processes and design processes near to each other." Furthermore, bringing down manufacturing costs, such as by supporting shared infrastructure for small firms, or offering financing for the adoption of innovative technologies in manufacturing, will be a key component of reducing the costs of new clean energy innovations.

Lastly, the nation's hodgepodge of energy deployment subsidies is in dire need of reform. As Breakthrough and colleagues wrote in "Post-Partisan Power," we need an energy deployment regime that demands and rewards innovation, rather than just supporting more of the same. Brookings' Mark Muro (a co-author or PPP) expands, "targeted and competitive deployment incentives could be created for various classes of energy technologies that would ensure that each has a chance to mature even as each is challenged to innovate and locate price declines." Rather than create permanently subsidized industries, such investments would "provide the opportunity for opportunity for all emerging low-carbon energy technologies to demonstrate progress toward competitive costs," while speeding commercialization.

It is clear that the current budgetary environment in the United States presents challenges to the viability of the fast-growing clean energy industry. But it also presents an opportunity. By repurposing existing clean energy policies and investing in clean energy innovation, the United States can be the first country to make clean energy cheap and reliable, a distinction that is sure to bring major economic benefits in a multi-trillion dollar energy market.

**Competitiveness key to heg prevents great power war**

**Baru 9** - Visiting Professor at the Lee Kuan Yew School of Public Policy in Singapore (Sanjaya, “Year of the power shift?,” http://www.india-seminar.com/2009/593/593\_sanjaya\_baru.htm

**T**here is no doubt that economics alone will not determine the balance of global power, but there is no doubt either that economics has come to matter for more.

The management of the economy, and of the treasury, has been a vital aspect of statecraft from time immemorial. Kautilya’s *Arthashastra* says, ‘From the strength of the treasury the army is born. …men without wealth do not attain their objectives even after hundreds of trials… Only through wealth can material gains be acquired, as elephants (wild) can be captured only by elephants (tamed)… A state with depleted resources, even if acquired, becomes only a liability.’4 Hence, economic policies and performance do have strategic consequences.5

In the modern era, the idea that strong economic performance is the foundation of power was argued most persuasively by historian Paul Kennedy. ‘Victory (in war),’ Kennedy claimed, ‘has repeatedly gone to the side with more flourishing productive base.’6 Drawing attention to the interrelationships between economic wealth, technological innovation, and the ability of states to efficiently mobilize economic and technological resources for power projection and national defence, Kennedy argued that nations that were able to better combine military and economic strength scored over others.

‘The fact remains,’ Kennedy argued, ‘that all of the major shifts in the world’s *military-power* balance have followed alterations in the *productive* balances; and further, that the rising and falling of the various empires and states in the international system has been confirmed by the outcomes of the major Great Power wars, where victory has always gone to the side with the greatest material resources.’7

**I**n Kennedy’s view the geopolitical consequences of an economic crisis or even decline would be transmitted through a nation’s inability to find adequate financial resources to simultaneously sustain economic growth and military power – the classic ‘guns vs butter’ dilemma.

Apart from such fiscal disempowerment of the state, economic under-performance would also reduce a nation’s attraction as a market, a source of capital and technology, and as a ‘knowledge power’. As power shifted from Europe to America, so did the knowledge base of the global economy. As China’s power rises, so does its profile as a ‘knowledge economy’.

Impressed by such arguments the China Academy of Social Sciences developed the concept of Comprehensive National Power (CNP) to get China’s political and military leadership to focus more clearly on economic and technological performance than on military power alone in its quest for Great Power status.8

While China’s impressive economic performance and the consequent rise in China’s global profile has forced strategic analysts to acknowledge this link, the recovery of the US economy in the 1990s had reduced the appeal of the Kennedy thesis in Washington DC. We must expect a revival of interest in Kennedy’s arguments in the current context.

**A** historian of power who took Kennedy seriously, Niall Ferguson, has helped keep the focus on the geopolitical implications of economic performance. In his masterly survey of the role of finance in the projection of state power, Ferguson defines the ‘square of power’ as the tax bureaucracy, the parliament, the national debt and the central bank. These four institutions of ‘fiscal empowerment’ of the state enable nations to project power by mobilizing and deploying financial resources to that end.9

Ferguson shows how vital sound economic management is to strategic policy and national power. More recently, Ferguson has been drawing a parallel between the role of debt and financial crises in the decline of the Ottoman and Soviet empires and that of the United States of America. In an early comment on the present financial crisis, Ferguson wrote:

‘We are indeed living through a global shift in the balance of power very similar to that which occurred in the 1870s. This is the story of how an over-extended empire sought to cope with an external debt crisis by selling off revenue streams to foreign investors. The empire that suffered these setbacks in the 1870s was the Ottoman empire. Today it is the US… It remains to be seen how quickly today’s financial shift will be followed by a comparable geopolitical shift in favour of the new export and energy empires of the east. Suffice to say that the historical analogy does not bode well for America’s quasi-imperial network of bases and allies across the Middle East and Asia. Debtor empires sooner or later have to do more than just sell shares to satisfy their creditors*. …*as in the 1870s the balance of financial power is shifting. Then, the move was from the ancient Oriental empires (not only the Ottoman but also the Persian and Chinese) to Western Europe. Today the shift is from the US – and other western financial centres – to the autocracies of the Middle East and East Asia.’10

An economic or financial crisis may not trigger the decline of an empire. It can certainly speed up a process already underway. In the case of the Soviet Union the financial crunch caused by the Afghan war came on top of years of economic under-performance and the loss of political legitimacy of the Soviet state. In a democratic society like the United States the political legitimacy of the state is constantly renewed through periodic elections. Thus, the election of Barack Obama may serve to renew the legitimacy of the state and by doing so enable the state to undertake measures that restore health to the economy. This the Soviet state was unable to do under Gorbachev even though he repudiated the Brezhnev legacy and distanced himself from it.

Hence, one must not become an economic determinist and historic parallels need not always be relevant. Politics can intervene and offer solutions. Political economy and politics, in the form of Keynesian economics and the ‘New Deal’, did intervene to influence the geopolitical implications of the Great Depression. Whether they will do so once again in today’s America remains to be seen.

### Solvency

**Yucca got canceled**

**Loris 10/1/12** \*Nicolas Loris is a Policy Analyst at The Heritage Foundation's Roe Institute for Economic Policy Studies [http://blog.heritage.org/2012/10/01/10-ways-the-obama-administration-is-hurting-americas-energy-economy/, 10 Ways the Obama Administration Is Hurting America’s Energy Economy]

Shutting down Yucca Mountain. The Obama Administration says it wants to pursue nuclear power, but its rhetoric does not match its nuclear policy. Its decision to abandon the Yucca Mountain nuclear waste repository project without any technical or scientific data is a case in point. With nearly $15 billion spent on the project, the data indicates that Yucca would be a safe place to store America’s used nuclear fuel. Yet the Obama Administration decided to terminate the program without having anything to replace it. Absent any nuclear waste disposal options, the U.S. simply will not significantly expand nuclear energy. In fact, the Nuclear Regulatory Commission has [suspended its reactor licensing activities](http://www.world-nuclear-news.org/-RS_NRC_suspends_final_licensing_decisions_080812a.html) as a result of this failed policy.

#### Governments don’t have ready access to information necessary to direct energy markets

**Gordon, 8** - professor emeritus of mineral economics at the Pennsylvania State University (Richard, “The Case against Government Intervention in Energy Markets Revisited Once Again” CATO Policy Analysis, 12/1, <http://www.cato.org/pubs/pas/pa-628.pdf>)

A key aspect of the modern economic theory of intervention is skepticism about whether governments in fact have the ability and desire to remedy market failures and increase efficiency. As a result, theories of government failure have proliferated. Columbia economist Jagdish Bhagwati has neatly summed up the standard uses of market-failure arguments as the “puppet government approach.” 91 The old-fashioned textbook government possesses far more prescience and acceptance of economic principles than do actual governments. Real governments lack the competence and the motivation to increase efficiency. Moreover, intervention is expensive to design and operate properly. Thus, the inefficiencies must be great for regulation to be desirable.

A remarkable article by Ronald Coase, “The Problem of Social Cost,” is the critical source of the last point and a much more modern appraisal of intervention. 92 In the essay, Coase dealt with a much-discussed but badly dated analysis of “externalities” by A.C. Pigou, a longtime professor of economics at Cambridge University. Externalities are the incidental effects of economic actions on people who are not directly involved. These can be harmful, as with pollution and noise, or beneficial, as with pollination of plants by bees.

Coase emphasized two defects of Pigou’s analysis. First, Pigou presumed that government intervention always was needed, but Coase provided numerous examples of how cures to externality problems were secured privately. Second, Pigou asserted that, when confronting positive externalities (where by definition the costs to society were lower than the costs to the private producers or consumer), a subsidy to the producer or consumer was appropriate. Conversely, negative externalities should be taxed. Coase showed that this also was wrong; subsidizing the abatement of a detrimental externality would produce the same result as a Pigouvian tax. Coase’s insights proved remarkably impervious to criticism. Two potential problems, however, are evident. First, Coase tacitly assumes that the beneficiaries of the tax are not so different from the beneficiaries of the subsidy that demands shift. Second, an implicit further condition of optimum externality response is that the response should ensure that only firms whose total social value exceeds their total social costs should survive. The correct social policy requires additional measures to attain this goal. 93

Coase is well aware that the choice of policy response affects the welfare of those involved. By example, he shows that those harmed by the externality are not always the ones whom it is appropriate to compensate. In some cases, these victims knowingly moved near an existing externality-producing entity, about which the newcomer should have been aware.

Coase moves so tersely through the arguments that many commentators overlooked or misunderstood his discussion of why private action may not resolve the externality problem. 94 Coase argued that when a large number of people are involved, the transaction costs associated with providing for a remedy could prove to be so steep that private action would be difficult to implement. However, he presented two objections to the presumption that such high transaction costs justified government action. First, with sufficiently high transaction costs, even if the government can act more cheaply than private groups, the total costs of intervention will still exceed the benefits. High enough transaction costs can be a barrier to both private and public externality remedies. Second, even if this is not true, a public solution is not necessarily preferable to a private solution. Given the limitations of governments, the inefficiencies of a private solution may be less than those of a public one. In a follow-up article, “The Lighthouse in Economics,” Coase showed that the traditional assertion that lighthouses were a clear example of a good that had to be supplied by government was historically invalid. In the United Kingdom, the government took over lighthouses only after a private association successfully established a system of lighthouses. 95

George Stigler observed that Coase’s analysis applied to all market failures. 96 Stigler stressed that with low enough transaction costs, market failures could all be overcome privately. Coase’s caveats about the implications of high transactions also apply to all interventions.

While Coase seems never to have made the links explicit, these arguments are closely related to another celebrated contribution to the literature—Paul Samuelson’s 1954 analysis of the justification of government action. 97 Samuelson employed the concept of “publicness,” in which a good could not be made available exclusively to individuals; if one person received it, everyone did. Everyone in society then would benefit from the private consumption of a public good. Private solutions, however, would fail to adequately recognize all of these benefits. Thus, the government should provide the goods.

Coase’s analysis can be restated as indicating that it is only when publicness was involved that government intervention to address externalities might be justified. Coase can then be credited with creating a different and superior theory of government action: it is only when transaction costs are high (but not by a degree to render action unprofitable)that government intervention might be desirable.

The advantage of Coase’s approach is that it leads to a consideration of critical problems that the Samuelson analysis ignores. First, considerable evidence exists that politicians have motivations far different from attaining an efficient supply of public goods. 98 Second, the Coase problem of attaining an optimum is formidable. Governments often lack the competence to identify and optimally correct inefficiencies. Both these difficulties are extensively reviewed in the economics literature, but the bad-motivation argument is stressed more than the limited-ability concern. 99

The adoption of inappropriate objectives is the subject of a very rich literature that examines the motivations of political actors. The starting point is Schumpeter’s observation that, in a democracy, political actors are primarily engaged in a competition for votes. 100 As numerous subsequent observers have noted, one key way to secure votes is to legislate an (economically) inefficient policy—in which a few beneficiaries each receive gains large enough for them to note—by creating losses for many others that are too small for any to notice. 101

Some observers, notably Harvard economist Joseph Kalt, have examined the proposition that, in some cases, action arises only from an ideological preference for intervention by legislators whose constituents lack significant interest in an issue. 102 Kalt and collaborators have found statistical support for this proposition. 103 A simpler possibility is that politicians instinctively believe that if a problem arises which receives extensive attention, they can—and should—intervene. The problem of determining and satisfying demands for public goods is more loosely treated in the literature. Economists Ludwig von Mises, F. A. Hayek, and Ronald Coase have all argued that, among other things, governments cannot readily secure the information needed for efficient intervention. 104

Coase’s treatment is far less extensive, but also far more general, than those of Mises or Hayek. Their extended writings on socialist calculation, nevertheless, should have made clear the difficulties of optimally devising plans for any kind of government spending. The debate was started by an assertion by Mises that a socialist state could not be efficient because it lacked information about the demands for commodities. 105 In the most celebrated response, Oscar Lange 106 replied that this problem could be resolved by establishing planning boards to measure demands and set prices appropriate for those demands. Hayek answered Lange by noting that this was a much more cumbersome approach than an unregulated marketplace. 107 Mises asserted that the solution would break down for producers’ goods because of concentration of ownership in state monopolies.

#### Government financial intervention causes corruption, dependency, price instability and distorts private investment away from more promising solutions – turns the case

**Loris and Spencer, 11** - Nicolas D. Loris is a Policy Analyst and Jack Spencer is Research Fellow in Nuclear Energy in the Thomas A. Roe Institute for Economic Policy Studies at The Heritage Foundation (“Obama's Department of Energy Should Not Be the Green Banker”, 10/11, <http://www.thecuttingedgenews.com/index.php?article=52893pageid=16pagename=Opinion>)

Although the status of many loan guarantees is either conditional or recently closed, the first loans granted by DOE illustrate some of the problems with the program. The solar company Solyndra received one of the first stimulus loan guarantees—a $535 million loan. During a visit to the plant in 2010, President Obama said, “Companies like Solyndra are leading the way toward a brighter and more prosperous future.” In 2010, Solyndra closed one of its facilities and canceled its initial public offering. In August 2011Solyndra filed for Chapter 11 bankruptcy and laid off its 1,100 workers. The company is now under criminal and congressional investigations into how it secured the loan guarantee, and Solyndra owes the taxpayers $527 million.

Solyndra is not the only “green” company having financial troubles. First Wind Holdings, another loan guarantee recipient, withdrew its initial public offering. In these instances, the reason for providing financing was unclear because they were not economically viable endeavors. When the government makes decisions best left to the market, it increases the opportunity for and likelihood of crony capitalism, corruption, and waste.

Loan guarantees artificially make even dubious projects appear more attractive and lower the risk of private investment. For instance, private investors sunk $1.1 billion into Solyndra. Much of the private financing came after the Department of Energy announced Solyndra was one of 16 companies eligible for a loan guarantee in 2007. Private investors look at loan guarantees as a way to substantially reduce their risk. Even if a project seems to be a loser but has a huge upside (especially if complemented with other policies like a federal clean energy standard), private companies can invest a smaller amount if the government will back the loan. If the project fails, they still lose money, but the risk was worth it. Without the loan guarantee, these projects would probably not have been pursued, and that is why they fail.

Subsidizing Winners

In other cases, private financing was available so there was no need for preferential financing. For instance, Nordic Windpower received private funding in 2007, two years before the company received its loan guarantee. Google invested $100 million in Shepherds Flat Wind Farm. Although that investment was made after the loan guarantee, Google determined it to be a worthwhile investment. If that is the case, then the project should not need a loan guarantee.

Even if a project with a federally backed loan is successful, attributing the project’s success to the loan guarantee is a huge assumption. Venture capitalists and other investors, who have much more expertise and knowledge than government bureaucrats in making investment decisions, are in a better position to determine which ideas and businesses have the most potential. Without the loan guarantee, projects with the least promise would either not attract investment or simply fail, freeing capital for risky, but more promising ventures. In contrast, a government loan guarantee program ensures that the public pays for the failures while the private sector reaps the benefits of any successes.

Loan Guarantees Distort the Market

Proponents of loan guarantees who argue that these programs come at minimal cost and are not subsidies ignore the fact that CEDA loans cause the same harm as direct government subsidies by distorting normal market forces and encouraging dependence on the government. By subsidizing a portion of the actual cost of a project through a loan guarantee, the government is allocating resources away from more-valued uses to less-valued uses. In essence, these guarantees and loans direct labor and capital away from more competitive projects.

Pull Quote: CEDA loans cause the same harm as direct government subsidies by distorting normal market forces and encouraging dependence on the government.

A loan guarantee program signals to the energy producer that the project does not need to be competitive. Rather, the green bank simply has to like it. This reduces the incentive for the energy investor or business to manage risk, innovate, and increase efficiency, and it crowds out other innovative energy projects that do not receive loan guarantees. While a loan guarantee or a below-market loan may be good for the near-term interests of the individual recipient, it is not good for taxpayers or long-term competitiveness.

Loan guarantees also encourage more government dependence. If the government moves to more actively subsidizing clean energy technology through CEDA, investors will wait to determine who the government winners will be before they spend more of their own money on innovative ideas, expanding their businesses, or hiring more employees. As Darryl Siry, former head of marketing at Tesla Motors (a loan guarantee recipient), said, “The existence of an 800-pound gorilla putting massive capital behind select start-ups is sucking the air away from the rest of the venture-capital ecosystem…. Being anointed by DOE has become everything for companies looking to move ahead.”

#### The plan creates a clean energy bubble that props up an industry – it will collapse and turn the case

**Tracinski, 12** – editor at Real Clear Politics (Robert, “The Global Warming Bubble”, 3/6, <http://www.realclearmarkets.com/articles/2012/03/06/the_global_warming_bubble_99552.html>)

The failure of the solar panel maker Solyndra has been followed by the bankruptcies of a variety of other government-subsidized green energy firms, such as Beacon Energy, which makes an energy storage device needed to smooth out the energy production of erratic "renewable" sources, and battery maker Ener1.

But maybe we're just not subsidizing green power enough, because surely you've heard--probably from Tom Friedman--that China is beating us to the future with its support for green energy. But China's solar energy firms are also heading into a slump and laying off workers. Part of the reason for the solar slump in China is that they were counting on generous subsidies for their product from the West, particularly Europe. In effect, the Chinese were manufacturing solar panels in order to cash in on subsidies from Western taxpayers. But now the subsidies are drying up.

That leads us to the most interesting of these stories. Germany is phasing out its solar subsidies, but the economically revealing part is why they are eliminating the subsidies. As Bjorn Lomborg explains:

"Subsidizing green technology is affordable only if it is done in tiny, tokenistic amounts. Using the government's generous subsidies, Germans installed 7.5 gigawatts of photovoltaic capacity last year, more than double what the government had deemed 'acceptable.' It is estimated that this increase alone will lead to a $260 hike in the average consumer's annual power bill."

At the end of last year, I wrote (in my own newsletter) about the marginal economics of the welfare state. Many welfare-state policies seem to work so long as they are implemented on a small scale but fail when they are expanded to cover a larger portion of the population. The Medicare program, for example, takes advantage of the fact that it can dictate lower prices for medical services, because it only needs to pay the marginal costs (the relatively low cost of treating one additional patient in an existing hospital), while non-Medicare patients are billed at higher rates to cover big capital expenditures (the cost of building the hospital in the first place). But if the government starts paying for all health care, it suddenly has to pay a lot more to fund those capital expenditures.

Something similar applies to green technology. It can be sustained only as a token or showpiece designed to distract attention from all of the coal, natural gas, and nuclear power stations that actually keep the lights on. The Chevy Volt, for example, is openly billed by GM as a "loss leader": they're losing money on it for the sake of all of the good "green" PR they hope to get. But the moment you try to use these technologies to generate a noticeable portion of a nation's electricity, the costs rise to ruinous levels.

Thus, as Lomborg explains:

"Solar power is at least four times more costly than energy produced by fossil fuels. It also has the distinct disadvantage of not working at night, when much electricity is consumed.

"In the words of the German Association of Physicists, 'solar energy cannot replace any additional power plants.' On short, overcast winter days, Germany's 1.1 million solar-power systems can generate no electricity at all. The country is then forced to import considerable amounts of electricity from nuclear power plants in France and the Czech Republic."

The same applies to wind energy, too, for the same reason. Just as the sun doesn't shine consistently every day, so the wind does not blow consistently. The natural fluctuation of wind power means that every megawatt of wind power requires an equal amount of conventional, fossil-fuel-powered generation to prevent power dips on the electric grid. Which is to say that solar panels and windmills are really just ornaments. They are monuments to greener-than-thou environmental vanity.

That these forms of renewable energy are capable of generating only minimal amounts of power is no accident. Ten years ago, I published an article by Jack Wakeland which examined the growth of "renewable energy" and concluded that every time an "alternative" power source grew large enough to produce energy on a truly industrial scale, environmentalists turned against it, as they have done with hydro-electric dams, geothermal plants, and even wind farms. So the fact that green energy is capable of generating only a small fraction of the power needed to fuel an industrial civilization is no accident. In effect, the inability to generate industrial-scale power is what makes green energy green.

But what that means is that green energy is doomed as an economic proposition. It has all of the hallmarks of an economic bubble. As with the Internet, housing, and higher-education bubbles, green energy is fiercely believed in, not just as an investment but as a superior lifestyle and a positive social good. And as with housing and education, it is propped up by government tax breaks, loan guarantees, and massive subsidies, all of which support a growing edifice of economically unproductive activity. But this artificial stimulation eventually expands the industry beyond the point where it can be sustained, either economically or politically, and the bubble bursts.

### Reprocessing

**No risk of meltdowns**

**Beller, 4** - Department of Mechanical Engineering, University of Nevada, Las Vegas (Dr. Denis E, “Atomic Time Machines: Back to the Nuclear Future,” 24 J. Land Resources & Envtl. L. 41, 2004)

No caveats, no explanation, not from this engineer/scientist. It's just plain safe! All sources of electricity production result in health and safety impacts. However, at the National Press Club meeting, Energy Secretary Richardson indicated that nuclear power is safe by stating, "I'm convinced it is." 45 Every nuclear scientist and engineer should agree with that statement. Even mining, transportation, and waste from nuclear power have lower impacts because of the difference in magnitude of materials. In addition, emissions from nuclear plants are kept to near zero. 46 If you ask a theoretical scientist, nuclear energy does have a potential tremendous adverse impact. However, it has had that same potential for forty years, which is why we designed and operate nuclear plants with multiple levels of containment and safety and multiple backup systems. Even the country's most catastrophic accident, the partial meltdown at Three Mile Island in 1979, did not injure anyone. 47 The fact is, Western-developed and Western-operated nuclear power is the safest major source of electricity production. Haven't we heard enough cries of "nuclear wolf" from scared old men and "the sky is radioactive" from  [\*50]  nuclear Chicken Littles? We have a world of data to prove the fallacy of these claims about the unsafe nature of nuclear installations.  
[SEE FIGURE IN ORIGINAL]  
Figure 2. Deaths resulting from electricity generation. 48  
Figure 2 shows the results of an ongoing analysis of the safety impacts of energy production from several sources of energy. Of all major sources of electricity, nuclear power has produced the least impact from real accidents that have killed real people during the past 30 years, while hydroelectric has had the most severe accident impact. 49 The same is true for environmental and health impacts. 50 Of all major sources of energy, nuclear energy has the least impacts on environment and health while coal has the greatest. 51 The low death  [\*51]  rate from nuclear power accidents in the figure includes the Chernobyl accident in the Former Soviet Union. 52

#### Empirics prove – no impact or spillover to meltdowns

**WNA 5/31/12** – World Nuclear Association, organization of nuclear officials [graph omitted]

(“Safety of Nuclear Power Reactors”, <http://www.world-nuclear.org/info/inf06.html>, dml)

The decades-long test and analysis program showed that less radioactivity escapes from molten fuel than initially assumed, and that most of this radioactive material is not readily mobilized beyond the immediate internal structure. Thus, even if the containment structure that surrounds all modern nuclear plants were ruptured, as it has been with at least one of the Fukushima reactors, it is still very effective in preventing escape of most radioactivity. It is the laws of physics and the properties of materials that mitigate disaster, as much as the required actions by safety equipment or personnel. In fact, licensing approval for new plants now requires that the effects of any core-melt accident must be confined to the plant itself, without the need to evacuate nearby residents. The three significant accidents in the 50-year history of civil nuclear power generation are: Three Mile Island (USA 1979) where the reactor was severely damaged but radiation was contained and there were no adverse health or environmental consequences Chernobyl (Ukraine 1986) where the destruction of the reactor by steam explosion and fire killed 31 people and had significant health and environmental consequences. The death toll has since increased to about 5 Fukushima (Japan 2011) where three old reactors (together with a fourth) were written off and the effects of loss of cooling due to a huge tsunami were inadequately contained. A table showing all reactor accidents, and a table listing some energy-related accidents with multiple fatalities are appended. These three significant accidents occurred during more than 14,500 reactor-years of civil operation. Of all the accidents and incidents, only the Chernobyl and Fukushima accidents resulted in radiation doses to the public greater than those resulting from the exposure to natural sources. The Fukushima accident resulted in some radiation exposure of workers at the plant, but not such as to threaten their health, unlike Chernobyl. Other incidents (and one 'accident') have been completely confined to the plant. Apart from Chernobyl, no nuclear workers or members of the public have ever died as a result of exposure to radiation due to a commercial nuclear reactor incident. Most of the serious radiological injuries and deaths that occur each year (2-4 deaths and many more exposures above regulatory limits) are the result of large uncontrolled radiation sources, such as abandoned medical or industrial equipment. (There have also been a number of accidents in experimental reactors and in one military plutonium-producing pile - at Windscale, UK, in 1957, but none of these resulted in loss of life outside the actual plant, or long-term environmental contamination.) See also Table 2 in Appendix. It should be emphasised that a commercial-type power reactor simply cannot under any circumstances explode like a nuclear bomb - the fuel is not enriched beyond about 5%.

**No Risk of nuclear terror – 4 reasons**

* States won’t give
* No chance they can be stolen
* If they are stolen we can stop it
* Cant successfully attack

**Mearsheimer 11,**January, John J., Wendell Harrison Distinguished Service Professor of Political Science at the University of Chicago. He is on the Advisory Council of The National Interest, “Imperial by Design,”http://nationalinterest.org/article/imperial-by-design-4576?page=3,

The fact is that states have strong incentives to distrust terrorist groups, in part because they might turn on them someday, but also because countries cannot control what terrorist organizations do, and they may do something that gets their patrons into serious trouble. This is why there is hardly any chance that a rogue state will give a nuclear weapon to terrorists. That regime’s leaders could never be sure that they would not be blamed and punished for a terrorist group’s actions. Nor could they be certain that the United States or Israel would not incinerate them if either country merely suspected that they had provided terrorists with the ability to carry out a WMD attack. A nuclear handoff, therefore, is not a serious threat. When you get down to it, there is only a remote possibility that terrorists will get hold of an atomic bomb. The most likely way it would happen is if there were political chaos in a nuclear-armed state, and terrorists or their friends were able to take advantage of the ensuing confusion to snatch a loose nuclear weapon. But even then, there are additional obstacles to overcome: some countries keep their weapons disassembled, detonating one is not easy and it would be difficult to transport the device without being detected. Moreover, other countries would have powerful incentives to work with Washington to find the weapon before it could be used. The obvious implication is that we should work with other states to improve nuclear security, so as to make this slim possibility even more unlikely. Finally, the ability of terrorists to strike the American homeland has been blown out of all proportion. In the nine years since 9/11, government officials and terrorist experts have issued countless warnings that another major attack on American soil is probable—even imminent. But this is simply not the case.3 The only attempts we have seen are a few failed solo attacks by individuals with links to al-Qaeda like the “shoe bomber,” who attempted to blow up an American Airlines flight from Paris to Miami in December 2001, and the “underwear bomber,” who tried to blow up a Northwest Airlines flight from Amsterdam to Detroit in December 2009. So, we do have a terrorism problem, but it is hardly an existential threat. In fact, it is a minor threat. Perhaps the scope of the challenge is best captured by Ohio State political scientist John Mueller’s telling comment that “the number of Americans killed by international terrorism since the late 1960s . . . is about the same as the number killed over the same period by lightning, or by accident-causing deer, or by severe allergic reactions to peanuts.”

**Terrorists don’t want wmd**

Frost 05 – (Robin, teaches political science at Simon Fraser University, British Colombia, “Nuclear Terrorism after 9/11,” Adelphi Papers, December)

Psychotic terrorist killers. The overwhelming majority of terrorists are as psychologically healthy, rational and intelligent as the rest of us; indeed, mentally ill terrorists would be far less dangerous and much easier to deal with. Terrorists are typically neither psychopathic nor psychotic, nor are they driven by mere bloodlust. Furthermore, terrorists have not historically been particularly interested in WMD, and no terrorist use of WMD of any kind has resulted in mass casualties, unless the airliners used in New York and Washington on 11 September 2001 (‘9/11’) count as weapons of mass destruction. States, on the other hand, have used WMD to great effect. This is not to say that terrorists are not interested in killing large numbers of people; clearly, some are. Much of the concern about nuclear terrorism derives from the reasonable fear that al-Qaeda might be planning an attack even more lethal than those of 9/11. However, neither al-Qaeda nor any of the organisations linked to it has ever used WMD, and the evidence that they have the will or technical capacity to do so is limited and unconvincing.

#### Even if we will inevitably open yucca – it would take 40 years to store the ANY waste

Robert Langley (writer for About.com) September 24, 2012 “Spent Nuclear Fuel a Growing Concern, GAO Reports” http://usgovinfo.about.com/b/2012/09/24/spent-nuclear-fuel-a-growing-concern-gao-reports.htm

Since the proposed Yucca Mountain National Nuclear Waste Repository in Nevada became a memory in 2009, America's commercial nuclear reactors have accumulated nearly 70,000 metric tons of radioactive nuclear waste. Sooner-than-later, the lack of a place to dispose of it will become a real problem, says the Government Accountability Office (GAO). As the GAO states in its report to Congress, spent nuclear fuel is "one of the most hazardous substances created by humans." And with no permanent disposal site on the federal drawing board, all 70,000 tons of it remains stored at reactor sites in 33 states. About 74% is simply stored in pools of water, while only 26% has been transferred to slightly more secure dry storage casks. Worse yet, reports the GAO, if a new permanent nuclear waste disposal site were approved today, it would be at least 40 years before the facility could begin accepting shipments. During that time, the amount of spent nuclear fuel would at least double to over 140,000 tons, according to the GAO.

#### Chances are literally 1 in 100 million

Science Daily December 5, 2007 “Yucca Mountain: Putting A Limit On Risk” http://www.sciencedaily.com/releases/2007/12/071204170120.htm

Looking ahead 100 million years, new research puts a maximum limit of 3.6 meters per second on potential ground movement caused by earthquakes at Yucca Mountain, Nevada, the site of the proposed high-level radioactive waste repository. Yucca Mountain has unique characteristics that make it arguably the best location to store hazardous waste, chiefly a water table so low that it is possible to store steel canisters of waste 1000 feet below ground and 1000 feet above the water table. Two questions form the current debate: how dry will the site remain, and what is the risk from earthquakes? Seismic hazard assessments usually look at the risk over 500 to 1000 years. The Nuclear Regulatory Agency is requiring a much more cautious evaluation that exams what would happen with odds as low as 1 in 10,000 over 10,000 years, which would be equivalent to something that happens only once every 100 million years. Scientists study the past to help predict the future, but Yucca Mountain was formed only 10 million years ago, limiting the value of the historical record. While the relative stability of the area is clear, some seismic hazard evaluations assessed potential movement at rates larger than experienced anywhere on earth. Researchers turned their attention instead to quantifying the maximum possible movement from any earthquake at Yucca Mountain, given its unique geological composition. Was there a limit to ground motion? D. J. Andrews and colleagues at USGS looked at the worst-case scenario to find that the ground can move a maximum of 3.6 meters per second, which is near the most intense ground motion ever recorded anywhere, but is within the range of feasible engineering mitigation. Andrews, et al., used a numerical method to calculate ground motion related to stress changes at the source of an earthquake and throughout the surrounding area to establish physical limits on extreme ground motion.

### Oil Dependence

#### the advantage makes zero sense -- oil makes up a fraction of US electricity usage -- nuclear power can’t alleviate overall dependence.

Squassoni, ‘8

[Sharon, Senior Associate, Nonproliferation Program -- Carnegie Endowment for International Peace, October, “Nuclear Renaissance: Is It Coming? Should It?” Policy Brief No. 69, <http://carnegieendowment.org/2008/10/29/nuclear-renaissance-is-it-coming-should-it/taw>]

Can Nuclear Power Enhance Energy Security? Rising prices of oil and natural gas have had a cascading effect on countries’ concerns about energy security. Price disputes have resulted in temporary cutoffs of natural gas supplies in Europe in the past few years. But most countries will not be able to reduce their dependence on foreign oil by building nuclear power plants. Nuclear power—because it currently only provides electricity—is inherently limited in its ability to reduce this dependence. In the United States, for example, 40 percent of the energy consumed comes from oil, yet oil produces only 1.6 percent of electricity. And even though France and Japan rely heavily on nuclear energy, they have been unable to reduce their dependence on foreign oil because of oil’s importance for transportation and industry. Worldwide, the picture is similar. Oil accounts for about 7 percent of power generation globally, a share that is expected to decline to 3 percent by 2030. Only in the Middle East, where countries rely on oil for about 30 percent of their electricity generation, could substitution of nuclear power for oil make a significant difference. Until transportation switches to electricity as its fuel, nuclear energy largely will not displace oil.

#### Nuclear energy doesn’t solve -- uranium resources and reactor components mean foreign dependence is inevitable.

Squassoni, ‘8

[Sharon, Senior Associate, Nonproliferation Program -- Carnegie Endowment for International Peace, October, “Nuclear Renaissance: Is It Coming? Should It?” Policy Brief No. 69, <http://carnegieendowment.org/2008/10/29/nuclear-renaissance-is-it-coming-should-it/taw>]

Ultimately, however, countries may be trading one form of energy dependence for another. Given the structure of the nuclear industry and uranium resource distribution, most countries will need to import fuel, technology, and reactor components, as well as fuel services. This means that few countries can expect more than interdependence, even when it comes to nuclear power.

#### The timeframe for solvency is way too long, and it can’t displace fossil fuels.

**Ling, ‘9**

[Katherine, Scientific American, 3-27, “Nuclear Power Cannot Solve Climate Change,” Greenwire, http://www.scientificamerican.com/article.cfm?id=nuclear-cannot-solve-climate-change]

The report argues that nuclear energy is not likely to have a significant effect on energy security, either. It will take at least two decades to convert the world's car fleet from oil to electricity. Transportation is the only sector where nuclear energy can significantly replace oil. In addition, uranium and nuclear fuel come from only a few countries – Canada, Australia, Russia, the United States and France – making nations without resources or technologies as dependent on foreign sources of energy as before, the report notes. Worse still, it says, the need for fuel may drive more nations to develop their own uranium enrichment facilities, raising the risk of the proliferation of nuclear weapons.

#### Energy production doesn’t solve resource competition

**Levi 5-7** – Senior Fellow (at CFR) for Energy and the Environment and Director of the Program on Energy Security and Climate Change (Michael, July/August, “Think Again: The American Energy Boom (Michael, “Oil and Gas Euphoria Is Getting Out of Hand” <http://blogs.cfr.org/levi/2012/05/07/oil-and-gas-euphoria-is-getting-out-of-hand/>) Jacome

The figures he presents to support these claims are ambitious but largely defensible. “Because of the rapid expansion of oil and gas production from shale,” he notes, “America is likely to become by 2020 the world’s No. 1 producer of oil, gas and biofuels.” West, he reports, “explains that the natural-gas boom will mean a dramatic change in energy imports and, thus, the security of U.S. energy supplies. He forecasts that combined imports of oil and natural gas will fall from about 52 percent of total demand in 2010 to 22 percent by 2020.” This strikes me as a bit garbled – it is tough to see how the gas boom gets you there by 2020 when the United States barely imports any gas in the first place – but the broader point, i.e. that oil and gas imports could fall from 52 to 22 percent of consumption by the end of the decade on the back of higher oil output and lower consumption, is not unreasonable.

But **this is no justification for** the claims that follow:

‘This is the energy equivalent of the Berlin Wall coming down,’ contends West. ‘Just as the trauma of the Cold War ended in Berlin, so the trauma of the 1973 oil embargo is ending now.’ The geopolitical implications of this change are striking: ‘We will no longer rely on the Middle East, or compete with such nations as China or India for resources.’

This sort of assertion has become increasingly commonplace among smart people. A few weeks ago, the CEO of Pioneer Natural Resources [told the New York Times](http://www.nytimes.com/2012/03/23/business/energy-environment/inching-toward-energy-independence-in-america.html?pagewanted=all) that “To not be concerned with where our oil is going to come from is probably the biggest home run for the country in a hundred years.” Other examples abound.

Yet I cannot for the life of me figure out the foundation of these claims. How does a shift from 52 to 22 percent import dependence translate into a fundamental reversal in vulnerability? After all, in 1973 itself, only 15 percent of U.S. oil and gas consumption (and only 26 percent of oil) came from imports. If 1973 ushered in a new age of energy insecurity, it is tough to see how a fall in imports to a level still higher than the 1973 one would reverse that.

Moreover, there is no reason to conclude that “we will no longer rely on the Middle East” in any meaningful way. Here’s a thought experiment: imagine that the current confrontation with Iran were taking place in a world where only 22 percent of U.S. oil and gas was imported. Would we no longer be worry about potential oil market disruptions stemming from imposition of sanctions or military conflict? Of course not: we’d be worried about spiking prices and the consequences they might have for the U.S. economy. Lower import dependence would reduce that risk at the margin, but there is zero chance that it would come close to removing it.

The same goes for the claim that we will no longer “compete with such nations as China or India for resources.” How else will we procure the remaining 22 percent (or whatever) of our oil and gas needs? Don’t get me wrong: I’m not suggesting that we’re going to go to war over hydrocarbon deposits. But we’ll be bidding against others (i.e. “competing”) for the marginal barrel of oil, just as we do today.

#### Oil is the great peacemaker – risk of shocks ensures diplomacy instead of conflict

Roger Howard, 11-29-2008; Roger Howard is a writer and broadcaster on international relations. His books include Iran in Crisis? (Zed, 2004), What’s Wrong with Liberal Interventionism (Social Affairs Unit, 2006) and Iran Oil: The New Middle East Challenge to America (IB Tauris, 2006). He has written widely for newspapers and journals ranging from the Daily Mail and Daily Express to the National Interest and the RUSI Journal. “An Ode to Oil” http://online.wsj.com/article/SB122791647562165587.html

Oil can also act as a peacemaker and source of stability because many conflicts, in almost every part of the world, can threaten a disruption of supply and instantly send crude prices spiraling. Despite the recent price falls, the market is still vulnerable to sudden supply shocks, and a sharp increase would massively affect the wider global economy. This would have potentially disastrous social and political results, just as in the summer many countries, including France, Nepal and Indonesia, were rocked by violent protests at dramatic price increases in gasoline. Haunted by the specter of higher oil prices at a time of such economic fragility, many governments have a very strong incentive to use diplomacy, not force, to resolve their own disputes, and to help heal other people's. This is true not just of oil consumers but producers, which would also be keen not to watch global demand stifled by such price spikes. Consider the events of last fall, when the Ankara government was set to retaliate against the Iraq-based Kurdish guerrillas who had killed 17 Turkish soldiers and taken others prisoner in a cross-border raid on Oct. 21, 2007. Even the mere prospect of such an attack sent the price of a barrel surging to a then record high of $85 because the markets knew that the insurgents could respond by damaging a key pipeline which moves 750,000 barrels of oil across Turkish territory every day. Not surprisingly, the Bush administration pushed very hard to prevent a Turkish invasion of northern Iraq -- State Department spokesman Sean McCormack aptly described the frenzy of diplomatic activity as a "full-court press" -- not just to avoid shattering the vestiges of Iraq's political structure but also to stabilize oil prices. In the end it was American pressure that averted a major incursion, allowing crude prices to quickly ease. And the Turks would also have been aware that any invasion could have prompted retaliatory damage on the oil pipeline, losing them vast transit fees. In general, oil is such a vital commodity, for consumers, producers and intermediaries alike, that it represents a meeting point for all manner of different interests. Sometimes it offers an opportunity for competitors and rivals to resolve differences, as in March 1995, when Iranian President Akbar Hashemi Rafsanjani tried to break deadlock with Washington by offering a technically very demanding oil contract to Conoco. Today, the symbiotic energy requirements of Europe and Russia allows scope to improve mutual relations, not least if European governments act in unison to impose the rules of the European Union's energy charter on Moscow. Oil also gives consumers a chance to penalize, or tempt, international miscreants, just as U.S. sanctions are forcing the Tehran regime to reassess its cost-benefit analysis of building the bomb. What cannot go unchallenged is a facile equation between oil on the one hand, and war, bloodshed and, in America's particular case, strategic vulnerability on the other. For oil, fortunately, can often be our guardian.

**No Resource Wars – Three Reasons**

* Trade
* Low Benefit
* Decline in nonrenewable costs

**Deudney 99** – (Dan, Associate Professor of Political Science, Johns Hopkins, Contested Grounds: Security and Conflict in the New Environmental Politics, Eds. Deudney & Matthews p 205-6)

The hypothesis that states will begin fighting each other as natural resources are depleted and degraded seems intuitively accurate. The popular metaphor of a lifeboat adrift at sea with declining supplies of clean water and rations suggests there will be fewer opportunities for positive-sum gains between actors as resource scarcity grows. Many fears of resource war are derived from the cataclysmic world wars of the first half of the twentieth century Influenced by geopolitical theories that emphasized the importance of land and resources for great power status, Adolf Hitler fashioned Nazi German war aims to achieve resource autonomy. The aggression of Japan was directly related to resource goals: lacking indigenous fuel and minerals, and faced with a slowly tightening embargo by the Western colonial pow ers in Asia, the Japanese invaded Southeast Asia for oil, tin, and rub ber. Although the United States had a richer resource endowment than the Axis powers, fears of shortages and industrial strangulation played a central role in the strategic thinking of American elites about world strategy. During the Cold War, the presence of natural resources in the Third World helped turn this vast area into an arena for East-West conflict. Given this record, the scenario of conflicts over resources playing a powerful role in shaping international order should be taken seriously. However, there are three strong reasons for concluding that the familiar scenarios of resource war are of diminishing plausibility for the foreseeable future. First, the robust character of the world trade system means that states no longer experience resource dependency as a major threat to their military security and political autonomy. During the 1930s, the collapse of the world trading system drove states to pursue economic autarky, but the resource needs of contemporary states are routinely met without territorial control of the resource source. As Ronnie Lipschutz has argued, this means that re source constraints are much less likely to generate interstate violence than in the past. Second, the prospects for resource wars are diminished by the growing difficulty that states face in obtaining resources through territorial conquest. Although the invention of nuclear explosives has made it easy and cheap to annihilate humans and infrastructure in extensive areas, the spread of conventional weaponry and national consciousness has made it very costly for an invader, even one equipped with advanced technology, to subdue a resisting population, as France discovered in Indochina and Algeria, the United States in Vietnam, and the Soviet Union in Afghanistan. At the lower levels of violence capability that matter most for conquering and subduing territory; the great powers have lost effective military superiority and are unlikely soon to regain it. Third, nonrenewable resources are, contrary to intuitive logic, becoming less economically scarce. There is strong evidence that the world is entering what H. E. Goeller and Alvin M. Weinberg have labeled the “age of substitutability,” in which industrial technology is increasingly capable of fashioning ubiquitous and plentiful earth materials such as iron, aluminum, silicon, and hydrocarbons into virtually everything needed by modem societies. The most striking manifestation of this trend is that prices for virtually every raw material have been stagnant or falling for the last two decades despite the continued growth in world economic output. In contrast to the expectations widely held during the 1970s that resource scarcity would drive up commodity prices to the benefit of Third World raw material suppliers, prices have fallen.

**Empirical Evidence**

**Salehyan 07** – Professor of Political Science at the University of North Texas. (Idean, 6-14 “The New Myth About Climate Change Corrupt, tyrannical governments—not changes in the Earth’s climate—will be to blame for the coming resource wars.” <http://www.foreignpolicy.com/articles/2007/08/13/the_new_myth_about_climate_change>)

First, aside from a few anecdotes, there is little systematic empirical evidence that resource scarcity and changing environmental conditions lead to conflict. In fact, several studies have shown that an abundance of natural resources is more likely to contribute to conflict. Moreover, even as the planet has warmed, the number of civil wars and insurgencies has decreased dramatically. Data collected by researchers at Uppsala University and the International Peace Research Institute, Oslo shows a steep decline in the number of armed conflicts around the world. Between 1989 and 2002, some 100 armed conflicts came to an end, including the wars in Mozambique, Nicaragua, and Cambodia. If global warming causes conflict, we should not be witnessing this downward trend. Furthermore, if famine and drought led to the crisis in Darfur, why have scores of environmental catastrophes failed to set off armed conflict elsewhere? For instance, the U.N. World Food Programme warns that 5 million people in Malawi have been experiencing chronic food shortages for several years. But famine-wracked Malawi has yet to experience a major civil war. Similarly, the Asian tsunami in 2004 killed hundreds of thousands of people, generated millions of environmental refugees, and led to severe shortages of shelter, food, clean water, and electricity. Yet the tsunami, one of the most extreme catastrophes in recent history, did not lead to an outbreak of resource wars. Clearly then, there is much more to armed conflict than resource scarcity and natural disasters

**No risk of a conflict – countries share resources and it is not the root cause of any conflict**

**Victor 07**— professor of law at Stanford Law School and the director of the Program on Energy and Sustainable Development. He is also a senior fellow at the Council on Foreign Relations (David, Nov 14, “What resource wars?” <http://www.atimes.com/atimes/Global_Economy/IK14Dj04.html>) Jacome

such as malaria that could be harder to contain if tropical conditions are more prevalent, which in turn could stress health-care systems and lead to hot wars.

While there are many reasons to fear global warming, the risk that such dangers could cause violent conflict ranks extremely low on the list because it is highly unlikely to materialize. Despite decades of warnings about water wars, what is striking is that water wars don't happen - usually because countries that share water resources have a lot more at stake and armed conflict rarely fixes the problem. Some analysts have pointed to conflicts over resources, including water and valuable land, as a cause in the Rwandan genocide, for example. Recently, the UN secretary-general suggested that climate change was already exacerbating the conflicts in Sudan.

But none of these supposed causal chains stay linked under close scrutiny - the conflicts over resources are usually symptomatic of deeper failures in governance and other primal forces for conflicts, such as ethnic tensions, income inequalities and other unsettled grievances. Climate is just one of many factors that contribute to tension. The same is true for scenarios of climate refugees, where the moniker "climate" conveniently obscures the deeper causal forces.

No econ impact

Barnett 09, senior managing director of Enterra Solutions LLC and a contributing editor/online columnist for Esquire magazine, columnist for World Politics Review, (Thomas P.M. “The New Rules: The Good News on the Global Financial Downturn,” World Politics Review, 5/25/09 <http://dan92024.blogstream.com/v1/date/200905.html>)

When the global financial crisis struck roughly a year ago, the blogosphere was ablaze with all sorts of scary predictions of, and commentary regarding, ensuing conflict and wars -- a rerun of the Great Depression leading to world war, as it were. -- surprisingly led Now, as global economic news brightens and recovery by China and emerging markets -- is the talk of the day, it's interesting to look back over the past year and realize how globalization's first truly worldwide recession has had virtually no impact whatsoever on the international security landscape.

None of the more than three-dozen ongoing conflicts listed by GlobalSecurity.org can be clearly attributed to the global recession. Indeed, the last new entry (civil conflict between Hamas and Fatah in the Palestine) predates the economic crisis by a year, and three quarters of the chronic struggles began in the last century. Ditto for the 15 low-intensity conflicts listed by Wikipedia (where the latest entry is the Mexican "drug war" begun in 2006). Certainly, the Russia-Georgia conflict last August was specifically timed, but by most accounts the opening ceremony of the Beijing Olympics was the most important external trigger (followed by the U.S. presidential campaign) for that sudden spike in an almost two-decade long struggle between Georgia and its two breakaway regions.

Looking over the various databases, then, we see a most familiar picture: the usual mix of civil conflicts, insurgencies, and liberation-themed terrorist movements. Besides the recent Russia-Georgia dust-up, the only two potential state-on-state wars (North v. South Korea, Israel v. Iran) are both tied to one side acquiring a nuclear weapon capacity -- a process wholly unrelated to global economic trends.

And with the United States effectively tied down by its two ongoing major interventions (Iraq and Afghanistan-bleeding-into-Pakistan), our involvement elsewhere around the planet has been quite modest, both leading up to and following the onset of the economic crisis: e.g., the usual counter-drug efforts in Latin America, the usual military exercises with allies across Asia, mixing it up with pirates off Somalia's coast). Everywhere else we find serious instability we pretty much let it burn, occasionally pressing the Chinese -- unsuccessfully -- to do something. Our new Africa Command, for example, hasn't led us to anything beyond advising and training local forces.

So, to sum up:

•No significant uptick in mass violence or unrest (remember the smattering of urban riots last year in places like Greece, Moldova and Latvia?);

•The usual frequency maintained in civil conflicts (in all the usual places);

•Not a single state-on-state war directly caused (and no great-power-on-great-power crises even triggered);

•No great improvement or disruption in great-power cooperation regarding the emergence of new nuclear powers (despite all that diplomacy);

•A modest scaling back of international policing efforts by the system's acknowledged Leviathan power (inevitable given the strain); and

•No serious efforts by any rising great power to challenge that Leviathan or supplant its role. (The worst things we can cite are Moscow's occasional deployments of strategic assets to the Western hemisphere and its weak efforts to outbid the United States on basing rights in Kyrgyzstan; but the best include China and India stepping up their aid and investments in Afghanistan and Iraq.)

Sure, we've finally seen global defense spending surpass the previous world record set in the late 1980s, but even that's likely to wane given the stress on public budgets created by all this unprecedented "stimulus" spending. If anything, the friendly cooperation on such stimulus packaging was the most notable great-power dynamic caused by the crisis.

Can we say that the world has suffered a distinct shift to political radicalism as a result of the economic crisis?

Indeed, no. The world's major economies remain governed by center-left or center-right political factions that remain decidedly friendly to both markets and trade. In the short run, there were attempts across the board to insulate economies from immediate damage (in effect, as much protectionism as allowed under current trade rules), but there was no great slide into "trade wars." Instead, the World Trade Organization is functioning as it was designed to function, and regional efforts toward free-trade agreements have not slowed.

Can we say Islamic radicalism was inflamed by the economic crisis?

If it was, that shift was clearly overwhelmed by the Islamic world's growing disenchantment with the brutality displayed by violent extremist groups such as al-Qaida. And looking forward, austere economic times are just as likely to breed connecting evangelicalism as disconnecting fundamentalism.

At the end of the day, the economic crisis did not prove to be sufficiently frightening to provoke major economies into establishing global regulatory schemes, even as it has sparked a spirited -- and much needed, as I argued last week -- discussion of the continuing viability of the U.S. dollar as the world's primary reserve currency. Naturally, plenty of experts and pundits have attached great significance to this debate, seeing in it the beginning of "economic warfare" and the like between "fading" America and "rising" China. And yet, in a world of globally integrated production chains and interconnected financial markets, such "diverging interests" hardly constitute signposts for wars up ahead. Frankly, I don't welcome a world in which America's fiscal profligacy goes undisciplined, so bring it on -- please!

Add it all up and it's fair to say that this global financial crisis has proven the great resilience of America's post-World War II international liberal trade order.

Do I expect to read any analyses along those lines in the blogosphere any time soon?

Absolutely not. I expect the fantastic fear-mongering to proceed apace. That's what the Internet is for.

**Economic collapse doesn’t lead to war**

**a.) History**

**Ferguson 06—**prof of history, Harvard and Senior Fellow at Stanford’s Hoover Institution (Niall, “The Next War of the World,” September/October 2006, http://www.realclearpolitics.com/articles/2006/09/the\_next\_war\_of\_the\_world.html)

Nor can economic crises explain the bloodshed. What may be the most familiar causal chain in modern historiography links the Great Depression to the rise of fascism and the outbreak of World War II. But that simple story leaves too much out. Nazi Germany started the war in Europe only after its economy had recovered. Not all the countries affected by the Great Depression were taken over by fascist regimes, nor did all such regimes start wars of aggression. In fact, no general relationship between economics and conflict is discernible for the century as a whole. Some wars came after periods of growth, others were the causes rather than the consequences of economic catastrophe, and some severe economic crises were not followed by wars.

b.) Studies

Miller 2k – economist, adjunct professor in the University of Ottawa’s Faculty of Administration, consultant on international development issues, former Executive Director and Senior Economist at the World Bank (Morris, Winter, Interdisciplinary Science Reviews, Vol. 25, Iss. 4, “Poverty as a cause of wars?”)

The question may be reformulated. Do wars spring from a popular reaction to a sudden economic crisis that exacerbates poverty and growing disparities in wealth and incomes? Perhaps one could argue, as some scholars do, that it is some dramatic event or sequence of such events leading to the exacerbation of poverty that, in turn, leads to this deplorable denouement. This exogenous factor might act as a catalyst for a violent reaction on the part of the people or on the part of the political leadership who would then possibly be tempted to seek a diversion by finding or, if need be, fabricating an enemy and setting in train the process leading to war. According to a study undertaken by Minxin Pei and Ariel Adesnik of the Carnegie Endowment for International Peace, there would not appear to be any merit in this hypothesis. **After studying ninety-three episodes of economic crisis in twenty-two countries** in Latin America and Asia in the years since the Second World War they concluded that:19 Much of the **conventional wisdom** about the political impact of economic crises may be wrong ... The severity of economic crisis - as measured in terms of inflation and negative growth - bore no relationship to the collapse of regimes ... (or, in democratic states, rarely) to an outbreak of violence ... In the cases of dictatorships and semidemocracies, the ruling elites responded to crises by increasing repression (thereby using one form of violence to abort another).

IF TIME

**High prices are key to Russian military modernization**

John T. **Bennett**, 4-3-20**12**; covers national security and foreign policy for U.S. News & World Report“Oil Prices Fueling Russia's Disruption of U.S. Foreign Policy

Russia's burgeoning oil and natural gas exports are underwriting Russian efforts to regain status as a world superpower” http://www.usnews.com/news/articles/2012/04/03/oil-prices-fueling-russias-disruption-of-us-foreign-policy

U.S.-Russian relations returned to the front pages last week after Obama urged outgoing Russian President Dmitry Medvedev to "give me space" on several issues, including a European missile defense shield that Moscow opposes. Likely GOP presidential nominee Mitt Romney soon after called Russia America's "top geopolitical enemy."¶ "**Putin still aspires for Russia to be a superpower**," says Steven Pifer, a former U.S. ambassador to Ukraine. "**There are only two ways for Russia to achieve that: nuclear weapons, and oil and natural gas sales."¶** The price of a barrel of oil was nearly $105 at midday Tuesday, steadily climbing from a 52-week low of $76.35 per barrel in October. Oil prices began to rise in late 2010, peaking at $113 per barrel in May 2011, before dipping last summer and then rising again.¶ [Whose Russia Comment Was More Damaging: Obama's or Romney's?]¶ **Russia is the world's second-largest oil exporter** at 5 million barrels a day, and its the ninth-leading natural gas exporter at 38.2 billion cubic meters a year, according to the CIA World Factbook. Russia rakes in nearly $500 billion annually in exports, with the CIA listing petroleum and natural gas as its top two commodities.¶ Frances Burwell, vice president of the Atlantic Council, says **Russia's oil revenues "give it a comfort zone" from which its leaders feel they have** the **global cache** to make things tough for Washington.¶ Burwell says she "places more weight" for Russia's recent global muscularity on "Putin's re-emergence." **The Russian once-and-soon-again president "clearly sees playing the national card as the strong guy internationally benefits him**," she says.¶ But, make no mistake, **bloated national coffers from high oil and gas prices underwrite Putin's muscle-flexing**, experts say.¶ [Who is Joe Biden to Slam Mitt Romney on Russia Policy?]¶ **Putin made a number of big domestic promises during the presidential race, including plans to usher in sweeping pension and wage hikes. He also put forth "a rather ambitious military modernization program**," Pifer says.¶ "**If oil prices remain high, he might be able to do all of those things**," Pifer says. "If prices come down, however, Putin will have some very tough decisions to make at home ... between guns versus butter."¶ **Should oil and gas prices tumble, experts say Putin would likely pick butter.¶** "**In 2007 when oil was doing well, Putin [as president] could have modernized the Russian military**," says Pifer. **Instead, Putin made a number of economic moves, such as the creation of a rainy day fund that was used during the recent global financial crisis**," Pifer notes.¶ What's more, Putin returns to power with his sharp eyes locked on his opposition, which is composed of the country's urban, middle-class populations.¶ Experts agree that Putin would be hard-pressed to break his pension and wage promises in favor of a few more missiles. But even an economically weaker Russia would likely pick its spots to block Washington's desires.¶ "**They have a very sovereigntist, non-interventionalist view of world affairs**," Burwell says. That means **Moscow fundamentally opposes Western efforts to boss around the world's strongmen,** with which Russian leaders have much in common.¶ "The Russian also have real hard-core, national, commercial and other interests in both Iran and Syria that cannot simply be ignored," Burwell says.

**Modernization is key to maintain the nuclear threshold – prevents miscalc and escalation**

Bettina **Renz and** Rod **Thornton** January 20**12**; lecturers on international security in the Faculty of Social Sciences, University of Nottingham “Russian Military Modernization Cause, Course, and Consequences” Problems of Post-Communism Volume 59, Number 1 / January / February 2012 p 44 - 54

The perceived weakness of this triad means that the Kremlin was pleased with **the START agreement** of March 2010. The **treaty limits favor Moscow in that it does not have to cut any of its own nuclear warheads** or delivery systems—the numbers of ICBMs and warheads in its own triad are actually below the negotiated caps. Only the United States has had to bring its numbers down.58 Normally, in the arranging of such international security treaties, negotiating from a position of military weakness—as Russia was—is not conducive to the ability to drive a hard bargain. Moscow has been lucky, however, in that Washington seems not to be too interested in the shape of Russia’s current and future nuclear arsenal. Rather, in terms of perceived security threats, Washington has its eye more on the terrorist ball than on the Russian one. Additionally, **under STA RT, Russia does not have to reduce the number of its tactical nuclear weapons. It has more of these than the United States. These are prized and important assets to Moscow, and they have become even more prized and important as Russia’s conventional military has become weaker. They are seen more and more as the fallback option if Russia one day faces some sort of defeat in a conventional conflict—against the likes of Georgia or China. In the largest Russian military exercise held since the end of the cold war—conducted recently in the Russian Far East—tactical nuclear weapons (i.e., mines) were notionally “exploded” as part of the exercise play.59 This fact alone seems to confirm that Russia’s conventional military weakness has led to a reduction in its nuclear-use threshold.** Conclusion The current modernization in the Russian military is long overdue. Because it is long overdue, it has to be completed in a rushed, haphazard fashion and against a backdrop of a military–industrial complex unable to fulfill its role in the process. Traditionally, military modernization is not achieved lightly, given the bureaucratic inertia and cultural norms that are always present. When, as in the current situation in Russia, such barriers to change are aided and abetted by any number of additional problems (not to mention the rampant corruption that is endemic across all levels of Russian state institutions, including the military), then it must be expected that Russia’s armed forces will be striving for some time to become truly “modern.”60 In essence, what should have been accomplished as an evolution over many years, and should have begun during the Yeltsin era, is now being attempted as a revolution in the post–Georgian war era. As with any revolutionary change, a good deal of disruption and disaffection has been created. Moreover, **the current Russian military is a weakened military. The psychology of the tsarist/Soviet/Russian military has always been that numbers counted, that mass would prevail. Numbers inspired confidence, and numbers could deter. But the current Russian military is losing numbers** while not making up for them by creating smaller, more professional forces equipped with the requisite technologies. Quality is not replacing quantity. **The military is in a state of flux. Russian politicians and military figures both now lack a genuine confidence in the armed forces’ ability to deter**. This can have two consequences. Either Russia takes large steps to avoid the possibility of military confrontation by stressing diplomatic solutions to possible threat scenarios (as the tsarist government did in 1914), or it goes the opposite way**, fearing that if any state is threatening military action against Russia then the hair trigger comes into operation** (Israeli-style). That is, **the mentality of the first, preemptive strike becomes paramount—taking advantage of surprise—and using what assets Russia now has. The alternative is to take the risk of waiting to be attacked and maybe “losing**.” What is clear is that, with its armed forces currently weakened by the process of change, the **sense of vulnerability generated has led Russia, in classic confirmation of the security dilemma concept, to magnify the threats it faces, or thinks it faces.** Conscious of its vulnerability to threats, real or imagined, **Moscow may begin to look more and more toward the inflexible tool of its tactical nuclear weapons as its principal defense mechanism**. While no one really supposes that such weapons will be used in any confrontation with the West, the same cannot be said of any possible conflict with the Chinese. Ironically, **Beijing’s military still relies on mass. The best modern military counter to mass is to employ either PGMs or tactical nuclear weapons. The Russian military has hardly any of the former but plenty of the latter. Hair triggers and tactical nuclear weapons are not comfortable bedfellows.**