# 2AC vs KCKCC RM

## Russia

### AT: Economic Decline Inevitable

#### Russia economic decline not inevitable

Adomanis ’12 – contributor to Forbes

Mark, “Russia’s Economy Is Not in Decline”, Forbes, 7-26-2012, http://www.forbes.com/sites/markadomanis/2012/07/26/russias-economy-is-not-in-decline/)

I’ve been very confused by the number of articles I’ve seen over the past few weeks that paint Russia as some sort of abysmal economic basket case, a country teetering on the edge of catastrophe. This confuses me partially because the entire Western world is now enveloped in various kinds of slow-motion economic disaster, and partially because when you look at the actual numbers Russia’s economy has actually done OK over the past couple of years. Whether it was Zaiki Laidi making the inaccurate observation that Russia is “falling behind” the West or William Martel calling Russia’s economy both “totally dysfunctional” and “command” in nature, people haven’t had a whole lot of love for what has traditionally been the least popular member of the BRICS.¶ So what I thought I would do is make a simple and straightforward graph of Russia’s economic performance since its economy reached its post-Soviet nadir in 1998.\* Since my expectation is that growth is going to decelerate as the Eurozone crisis, which Russia has somehow managed to avoid sofar, begins to take a toll, I used a quite conservative estimate of 3.3% overall GDP growth for 2012. Since actual growth in the 1st quarter of 2012 was 4.9%, hitting 3.3% means that Russia would experience a pretty noticeable slowdown over the remainder of the year.¶ Does this look to you like a country that is in long-term economic decline? Now Russia was an absolute disaster area in 1998, so the fact that its economy has doubled in size since then should be taken with a very large grain of salt. But I won’t argue with someone if they say “Russia is poor” because Russia really is poor. And if someone says “Russia could grow more quickly if it carried out liberalizing structural reforms” I would agree with that because Russia really does need to carry out liberalizing structural reforms.¶ What I will take issue with, though, is when someone says that Russia is losing economic ground, or that its economy is in some sort of long-term decline. As you can very easily see, it’s simply not possible to argue that Russia’s economy is shrinking because it’s not: the clearly visible trend is of sustained, if not overwhelming, economic growth from a very low base.¶ Meanwhile, just for kicks, here’s a chart comparing the US and Russian economies have performed since 1998 (US inflation adjusted GDP data are from the Bureau of Economic Analysis here). I used the most recent IMF prediction of 2% growth in 2012. Again one should note that in 1998 Russia was a pretty nightmarish place to be, but the next time someone tells you Russia is “falling behind” this or that random country it’s worth keeping this chart in mind.

### AT: No Escalation Econ

#### Economic weakness will cause Russia to engage in local diversionary wars

Smith ’11 – Director of the Potomac Institute Cyber Center

(David J., former Ambassador and Senior Fellow at the Potomac Institute, “Vladimir Vladimirovich Putin:¶ The Once and Future Czar”, Georgian Security Analysis Center, Potomac Institute for Policy Studies, 10/3/2011, http://www.potomacinstitute.org/attachments/1073\_Tabula\_10\_03\_11\_Putin.pdf)

How Putin—with his man, Medvedev—manages the Russian economy will be a major determinant in the ¶ success or failure of his second presidency.¶ The other—and not unrelated—challenge is growing unrest in the North Caucasus. If the Second Chechen ¶ War of 1999-2000 consolidated Putin‟s power in Russia, what effect will a third, broader North Caucasus ¶ war have? And recall that any analysis of this question must take into account the looming 2014 Winter ¶ Olympics in nearby Sochi.¶ The danger for Russia‟s neighbors is that if the Russian economy sours, Putin could follow the time-honored ¶ Russian tradition of lashing out at imagined enemies such as Georgia or the Baltic countries. And a conflict ¶ in the North Caucasus could easily spill—accidentally or purposefully—into Georgia.¶ Nor should the west discount the possibility of diversionary Russian obstreperousness in the Middle East or¶ polemics with NATO. Moscow is skillfully setting the stage for either.¶ Regrettably, aggression will likely be Putin‟s default instinct

### AT: No Escalation

#### Yes escalation – declining relations lowers the threshold

Barrett et al ’13 – researchers at various risk think tanks

(Anthony M. Barrett, Seth D. Baum, and Kelly R. Hostletler, prominent members/researchers at the Global Catastrophic Risk Institute, Center for Research on Environmental Decisions at Columbia, and the Department of Geography at Penn State, “Analyzing and Reducing the Risks of Inadvertent Nuclear War Between the United States¶ and Russia”, forthcoming in Science and Global Security. This version dated 6 January 2013.)

The decision procedures depend on the level of tensions between the United States and a¶ nuclear adversary, and associated strategic intelligence. In the United States, a high level of¶ nuclear tensions would produce high strategic-intelligence estimates of the current likelihood of¶ an attack (somewhat similar to a Bayesian prior estimate of attack probability, to be combined¶ with incoming satellite and radar data). As Blair¶ 277¶ put it, “NORAD in effect assigned equal¶ weight to infrared satellite sensors, ground radar sensors, and strategic intelligence. Positive¶ indications from any two of these sources were sufficient to justify a high-confidence¶ assessment. This formula posed a danger that heightened nuclear tensions (strategic warning)¶ could have combined with a false alarm from a tactical sensor to convince NORAD that a Soviet¶ attack was under way.” ¶ Strategic intelligence warning has not necessarily been used in precisely the same way in¶ Soviet/Russian systems as in U.S. systems. However, statements about their procedures suggest¶ that in a crisis, Soviet/Russian nuclear forces could or would be put on “high alert”,¶ 278¶ that¶ “putting the troops on high alert probably would be accompanied by the transfer of the battle¶ management system from regular combat duty to combat mode.”¶ 279¶ Under such conditions “the¶ satellite signal may not play such a significant role”¶ 280¶ as it otherwise would in activating the¶ Kazbek communication system for leaders’ orders, i.e. in a crisis situation Soviet/Russian¶ satellite systems may not have the same dual-phenomonology function role that they would¶ during low-tension conditions in confirming indications of an incoming first strike attack.¶ 281¶ Furthermore, “a ‘missile attack’ signal can be transmitted even if it is based only on data¶ reported by radars” though in those cases “the criteria for the reliable identification of targets¶ could be somewhat stricter and the tracking time somewhat longer than for missile launches¶ detected directly by the satellite system.”¶ 282¶ Historical information on frequency and duration of U.S.-Russia crises (roughly¶ corresponding with periods of significant heightening of nuclear alert levels) is somewhat¶ limited. In U.S. forces, the main instance of significantly heightened strategic alert, i.e. at least a¶ Defense Condition / DEFCON 3 alert level¶ 283,284¶ is the 1962 Cuban Missile Crisis. The main¶ period of high tension is often regarded to been the 13 days from 15 October 1962 when senior¶ U.S. leaders were told of the missiles in Cuba, until U.S. and Soviet leaders reached agreements¶ on 28 October 1962,¶ 285¶ though U.S. forces were at either DEFCON 3 or DEFCON 2 alert levels¶ for a total of 30 days beginning on 22 October 1962 when U.S. President Kennedy announced¶ 25the blockade¶ 286,287,288¶ and Soviet forces were on alert for virtually the same 30 day period.¶ 289,290¶ Other known cases of U.S. forces at alert levels of at least DEFCON 3, such as the brief¶ DEFCON 3 alert in the Yom Kippur War of October 1973, arguably do not qualify as U.S.-¶ Russia crises posing the same risk of inadvertent war between the United States and Russia as¶ the Cuban Missile Crisis, though they also arguably posed greater than normal peacetime¶ risks.¶ 291,292¶ Another case of DEFCON 3 alert was during the terrorist attacks of 11 September¶ 2001.¶ 293¶ In Soviet and Russian forces, instances of heightened alert include several during the¶ Cuban Missile Crisis,¶ 294¶ with combined durations that may have been somewhat longer than the¶ U.S. forces’ alerts;¶ 295,296¶ during the 1968 invasion of Czechoslovakia¶ 297¶ ; and during parts of the¶ period of high East-West tensions in the early 1980s¶ 298,299¶ , especially around the time of the KAL¶ 007 shoot-down and the ABLE ARCHER exercises in late 1983.¶ 300,301¶ Early warning systems could provide dangerous signals besides ones that specifically¶ indicated the launch or movement of a missile. Even sensor outages could be interpreted as an¶ indication of an attack. In the United States, “NORAD had become worried that an inexplicable¶ outage of a tactical sensor might actually be the handiwork of saboteurs. This threat (and¶ jamming) was considered serious enough to justify treating an outage as a positive indication of¶ attack in the context of a nuclear crisis.”¶ 302¶ (Soviet/Russian procedures were somewhat¶ analogous. Under conditions of a crisis “the delivery of a first strike can be considered, under¶ Russian military doctrine, in the case of an attack on key elements of the early warning system or¶ the command, control and communications systems.”¶ 303¶ ) This paper treats unresolved MDCs as¶ one example of an outage of a tactical sensor, based partly on the similarities in MDC occurrence¶ rates and durations given by Marsh¶ 304¶ and Wallace et al.¶ 305¶ and the sensor outage rates and¶ durations given by Blair.¶ 306¶ Usually, TACs comprise a small subset of MDCs where one detector system (usually, a¶ satellite with infrared detectors of hot missile plume gases) indicates a launch and a different¶ detector system (i.e. a ground-based radar) provides a confirming indication of launch.¶ 307¶ If there¶ are confirming indications of launch from more than one separate ground-based radar systems,¶ then NORAD reports high confidence in its assessment of the threat, otherwise NORAD reports¶ low confidence.¶ 308¶ At least under normal circumstances, only high-confidence threat assessments¶ will lead to a missile attack conference (MAC) where the leader then decides whether to launch¶ an attack in response.¶ 309¶ However, during periods of high U.S.-Russia tensions or crises,¶ “positive indication from only one tactical sensor system” would be required for a high confidence threat assessment.¶ 310¶ In addition, “the loss of a tactical sensor to presumed hostile¶ action” would be treated as the equivalent of a “a positive tactical indication” of an attack.¶ 311¶ Thus, under conditions of a U.S.-Russia crisis, this paper treats an unresolved MDC as an¶ additional type of event that would be treated as a TAC-level indication of an attack, similar to¶ Wallace et al.¶ 312¶ and Sennott.¶ 313¶ This paper separately estimates rates of inadvertent nuclear war during both low-tension¶ and high-tension periods, to account for the possibility that conditional probabilities of launch¶ prevention failure could be substantially higher in periods of high U.S.-Russia tensions than¶ during low-tension periods. This is partly because the literature suggests that leaders will be¶ more psychologically or strategically predisposed to launch missiles in response to apparently¶ credible indicators of an attack during a crisis period than during a low-tension period.¶ 314,315,316,317¶ It is also because of this paper’s assumptions about the technical features of early warning¶ systems and nuclear postures.

## Prolif

### AT: Prolif Slow – 2AC

#### There’s momentum now

**CFR 7-5**-12 [Council on Foreign Relations, “The Global Nuclear Nonproliferation Regime,” <http://www.cfr.org/proliferation/global-nuclear-nonproliferation-regime/p18984>]

Nuclear weapons proliferation, whether by state or nonstate actors, poses one of the greatest threats to international security today. **Iran's** apparent **efforts** to acquire nuclear weapons, what amounts to **North Korean nuclear blackmail, and** the revelation of **the A.Q. Khan black market** nuclear **network** all underscore **the** far-from-remote **possibility that a terrorist group or** a so-called **rogue state will acquire weapons of mass destruction or** materials for **a dirty bomb**. The problem of nuclear proliferation is global, and any effective response must also be multilateral. **Nine states** (China, France, India, Israel, North Korea, Pakistan, Russia, the United Kingdom, and the United States) are known or believed to **have nuclear weapons, and more than thirty others** (including Japan, Germany, and South Korea) **have the technological ability to** quickly acquire them. **Amid volatile energy costs, the accompanying push to expand nuclear energy**, growing concerns about the environmental impact of fossil fuels, **and the** continued diffusion **of scientific and technical knowledge, access to dual-use technologies seems destined** to grow.

#### It doesn’t require expensive resources anymore

**Kemp 6-5**-12 [R. Scott, Associate Research Scholar at Princeton University and a Former Science Advisor on nonproliferation for the U.S. Department of State, “Centrifuges: A new era for nuclear proliferation,” <http://www.npolicy.org/article.php?aid=1183&tid=30>]

Detailed histories are available for a number of independent programs. They reveal that **the effort needed to build the basic, Soviet-style centrifuge is considerably smaller than the effort needed to build the more difficult designs that were provided by** A.Q. **Khan. The engineers in the early U.S. and British centrifuge programs**, for example, **had essentially no prior knowledge relevant to centrifuges and**, unlike the scientists involved in the Manhattan Project, had **only modest educations**. Both programs started in 1960 and had access only to basic metalworking equipment, similar to what might be found today in a college machine shop. **The technical staff never numbered more than fifteen persons. Despite modest resources and the small effort, these programs were able to perfect a centrifuge design suitable for mass production in a little over a year** (about fifteen months). The Australian program is another interesting case. Notable because it is the slowest program of independent development on record, it took Australia almost six years to go from nothing to a working cascade of proliferation-relevant centrifuges. However, the program was also the smallest: it started with three and at no point exceeded six persons. The record of centrifuge development for twenty historical cases is summarized in Figure 1. **The average time taken to develop a basic centrifuge ready for mass production across all historical programs** with known dates **is** 25±11 months (**about one to three years**, in round terms). Note that these initiatives were mainly of the 1960s and 70s. **A present-day program could also benefit from more modern machine tools, vastly more numerous open-source publications about centrifuge design, desktop computers to aid in design and diagnostics, and the internet to ease the sourcing of technical information. The mass production of centrifuges, along with the operation of a centrifuge plant, is a larger but technically easier effort than the R&D phase**. About five thousand Soviet-type centrifuges are needed to produce 25 kg of weapons-grade (enriched to greater than 90%) uranium per year, the approximate quantity needed for a first-generation implosion-type weapon, or one-half the amount required for a primitive gun-type weapon. A program of this scale would be consistent with many historical weapon programs.[22] Mass production of the basic Soviet-type centrifuge does not require specialized tooling or skilled labor. The British program, for example, built its first pilot plant by hiring unskilled labor (“milkmen”) to make centrifuge parts on an assembly line. If such an assembly line were able to produce twenty centrifuges per day, this would be sufficient to produce the five thousand needed for a proliferation-sized plant in one year. The effort might require fifteen to thirty workers. Thus, **the core staff sizes required for a basic centrifuge program are small. A small cadre of half-a-dozen suitably trained engineers and a slightly larger force of unskilled but trainable laborers can probably be organized in nearly any country.** Building a centrifuge program may still be outside the capability of loosely organized terrorist groups, but **the task is within the capability of a small engineering firm with a few dozen people. The cost of a program would also be modest. The first German version** of the Soviet-type centrifuge, built by a firm named DEGUSSA in 1959, **had about the same performance as Iran’s IR-1 centrifuge** (possibly slightly better).[23] This centrifuge was offered for sale for a small-batch cost of US$235 per centrifuge, about US$1800 per centrifuge in 2012 currency. Assuming the DEGUSSA price reflected the actual cost of production, the centrifuge portion of the plant might be built for less than US$10 million in 2012 currency. The majority of the final costs of the plant might actually be associated with non-centrifuge costs, such as building costs, piping, and control systems.

### AT: Deterrence – 2AC

#### Process DA – prolif means states will implement deterrence poorly

**Kroenig 5-26**-12 [Matthew, assistant professor in the Department of Government at Georgetown University and a research affiliate with The Project on Managing the Atom at Harvard University, he served as a strategist on the policy planning staff in the Office of the Secretary of Defense where he received the Office of the Secretary of Defense’s Award for Outstanding Achievement. He is a term member of the Council on Foreign Relations and has held academic fellowships from the National Science Foundation, the Belfer Center for Science and International Affairs at Harvard University, the Center for International Security and Cooperation at Stanford University, and the Institute on Global Conflict and Cooperation at the University of California, “The History of Proliferation Optimism: Does It Have A Future?” <http://www.npolicy.org/article.php?aid=1182&rtid=2>]

The proliferation optimist position, while having a distinguished pedigree, has several major problems. Many of these weaknesses have been chronicled in brilliant detail by Scott Sagan and other contemporary proliferation pessimists.[34] Rather than repeat these substantial efforts, I will use this section to offer some original critiques of the recent incarnations of proliferation optimism. First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic. Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[38] He argued that **leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can** make a “threat that leaves something to chance.”[39] They can **engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange**. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[40] This does not mean that **states** eagerly bid up the risk of nuclear war. Rather, they **face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis** in an attempt to prevail, but only **at the risk of suffering a possible nuclear exchange.** **Since 1945 there were have been many high stakes nuclear crises** (by my count, there have been twenty**) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war**.[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war. **An optimist might counter that nuclear weapons will never be used**, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. **But, this** objection **ignores the** **fact** **that** **leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down**.

#### Quantitative risk analysis proves prolif risks nuclear war – prefer it

**Hellman ‘11** [Martin, Professor Emeritus of electrical engineering at Stanford University, a member of the National Academy of Engineering, a fellow of the Institute of Electrical and Electronics Engineers, and a Marconi International Fellow, “How Risky is Nuclear Optimism?” <http://www-ee.stanford.edu/~hellman/publications/75.pdf>]

Fortunately, quantitative risk analysis can illuminate the danger by gleaning more information from the available data than might first appear possible. Think of each year since 1945 as a coin toss with a heavily weighted coin, so that tails shows much more frequently than heads. Tails means that a nuclear war did not occur that year, while heads corresponds to a nuclear catastrophe, so the last 65 years correspond to 65 tails in a row. Risk analysis reclaims valuable information by looking not only at the gross outcome of each toss (whether it showed heads or tails), but also at the nuances of how the coin behaved during the toss. If all 65 tosses immediately landed tails without any hesitation, that would be evidence that the coin was more strongly weighted in favor of tails and provide additional evidence in favor of nuclear optimism. Conversely, if any of the tosses teetered on edge, leaning first one way and then the other, before finally showing tails, nuclear optimism would be on shaky ground. In 1962, the nuclear coin clearly teetered on edge, with President John F. Kennedy later estimating the odds of war during the Cuban Missile Crisis at somewhere between “one-in-three and even” (Sorenson, 1965: 705). Other nuclear near misses are less well known and had smaller chances of ending in a nuclear disaster. But, when the survival of civilization is at stake, even a partial hesitation before the nuclear coin lands tails should be of grave concern. During the 1961 Berlin crisis, Soviet and US tanks faced off at Checkpoint Charlie in a contest of wills so serious that President John F. Kennedy briefly considered a nuclear first strike option against the Soviet Union (Burr, 2001). . In 1973, when Israel encircled the Egyptian Third Army, the Soviets threatened to intervene, leading to implied nuclear threats (Ury, 1985). The 1983 Able Archer incident was, in the words of Secretary of Defense Robert Gates, “one of the potentially most dangerous episodes of the Cold War” (Gates, 2006: 270). This incident occurred at an extremely tense time, just two months after a Korean airliner had been shot down after it strayed into Soviet airspace, and less than eight months after President Ronald Reagan’s “Star Wars” speech. With talk of fighting and winning a nuclear war emanating from Washington, Gates noted that Soviet leader Yuri Andropov developed a “seeming fixation on the possibility that the United States was planning a nuclear strike against the Soviet Union” (Gates, 2006: 270). The Soviets reasoned that the West would mask preparations for such an attack as a military exercise. Able Archer was just such an exercise, simulating the coordinated release of all NATO nuclear weapons. Certain events during the 1993 Russian coup attempt that were not recognized by the general public led a number of US intelligence officers at the North American Aerospace Defense Command (NORAD) headquarters to call their families and tell them to leave Washington out of fear that the Russians might launch a nuclear attack (Pry, 1999). In 1995, Russian air defense mistook a meteorological rocket launched from Norway for a US submarine launched ballistic missile, causing the Russian “nuclear football” – a device which contains the codes for authorizing a nuclear attack- to be opened in front of President Boris Yeltsin. This was the first time such an event had occurred, and fortunately Yeltsin was sober enough to make the right decision (Pry, 1999). Confusion and panic during the 9/11 attacks led an airborne F-16 pilot to mistakenly believe that the USA was under attack by Russians instead of terrorists. In a dangerous coincidence, the Russian Air Force had scheduled an exercise that day, in which strategic bombers were to be flown toward the United States. Fortunately, the Russians learned of the terrorist attack in time to ground their bombers (Podvig, 2006). The August 2008 Russian invasion of Georgia would have produced a major crisis if President George W. Bush had followed through on his earlier promises to Georgia: “The path of freedom you have chosen is not easy but you will not travel it alone. Americans respect your courageous choice for liberty. And as you build a free and democratic Georgia, the American people will stand with you” (Bush, 2005). The danger was compounded because most Americans are unaware that Georgia fired the first shots and Russia was not solely to blame (Tagliavini, 2009). Ongoing tensions could well produce a rematch, and Sarah Palin, reflecting the mood of many Americans, has said that the United States should be ready to go to war with Russia should that occur (Meckler, 2008). The majority of the above incidents occurred post-Cold War, challenging the widespread belief that the nuclear threat ended with the fall of the Berlin Wall. Further, nuclear proliferation and terrorism have added dangerous new dimensions to the threat: India and Pakistan combined have approximately 150 nuclear weapons. These nations fought wars in 1947, 1965, 1971, and 1999. India suffered a major attack by Pakistani-based terrorists as recently as November 2008. Pakistan is subject to chaos and corruption. In October 2009, internal terrorists attacked Pakistan’s Army General Headquarters, killing nine soldiers and two civilians. A. Q. Khan, sometimes called “the father of the Islamic bomb,” ran a virtual nuclear supermarket and is believed to have sold Pakistani nuclear know-how to North Korea, Iran, and Libya. If terrorists were to obtain 50 kg of highly enriched uranium (HEU), it would be a small step from there to a usable nuclear weapon. 1 The worldwide civilian inventory of HEU is estimated at 50,000 kg. HEU is used in over 100 research reactors worldwide, many of which are not adequately guarded. South Africa stores the HEU from its dismantled nuclear arsenal at its Pelindaba facility. In November 2007, two armed teams, probably with internal collusion, circumvented a 10,000 volt fence and other security measures. They were inside the supposedly secure facility for almost an hour but, fortunately, were scared off before obtaining any HEU (Bunn, 2009). In the recent film, Nuclear Tipping Point, former secretary of state Henry Kissinger said that “if the existing nuclear countries cannot develop some restraints among themselves – in other words, if nothing fundamental changes – then I would expect the use of nuclear weapons in some 10-year period is very possible” (Nuclear Security Project, 2010). Richard Garwin, a former member of the President’s Science Advisory Committee (1962”65 and 1969”72) holds an even more pessimistic view. In Congressional hearings he testified: “We need to organize ourselves so that if we lose a couple hundred thousand people, which is less than a tenth percent of our population, it doesn’t destroy the country politically or economically . . . We need to have a way to survive such an attack, which I think is quite likely – maybe 20 percent per year probability, with American cities and European cities included” (Energy and Water Subcommittee, 2007: 31). These incidents show that the nuclear coin has teetered on edge far too often, yet society’s lack of concern and resultant inaction demonstrate that nuclear optimism is a widespread illusion. A prerequisite for defusing the nuclear threat is to make society aware of the risk that it bears before catastrophe strikes.

#### Empirics go Aff

**Wittner 6-6**-12 [Lawrence, PhD, Professor of History emeritus at SUNY/Albany, former president of the Council on Peace Research in History, an affiliate of the American Historical Association, chaired the Peace History Commission of the International Peace Research Association, “Do Nuclear Weapons Really Deter Aggression?” <http://www.huffingtonpost.com/lawrence-wittner/do-nuclear-weapons-really_b_1568277.html>]

It's often said that nuclear weapons have protected nations from military attack. But is there any solid evidence to bolster this contention? Without such evidence, the argument that nuclear weapons prevented something that never occurred is simply a counter-factual abstraction that cannot be proved. Ronald Reagan -- the hardest of military hard-liners -- was not at all impressed by airy claims that U.S. nuclear weapons prevented Soviet aggression. Kenneth Adelman, a hawkish official in the Reagan administration, recalled that when he "hammered home the risks of a nuclear-free world" to the President, Reagan retorted that "we couldn't know that nuclear weapons had kept the peace in Europe for forty years, maybe other things had." Adelman described another exchange with Reagan that went the same way. When Adelman argued that "eliminating all nuclear weapons was impossible," as they had kept the peace in Europe, Reagan responded sharply that "it wasn't clear that nuclear weapons had kept the peace. Maybe other things, like the Marshall Plan and NATO, had kept the peace." (Kenneth Adelman, The Great Universal Embrace, pp. 69, 318.) In short, **without any solid evidence, we don't know that nuclear weapons have prevented or will prevent military aggression. We do know**, of course, **that since 1945, many nations not in possession of nuclear weapons and not part of the alliance systems of the nuclear powers have not experienced a military attack. Clearly, they survived just fine without nuclear deterrence. And we also know that nuclear weapons in U.S. government hands did not prevent non-nuclear North Korea from invading South Korea or non-nuclear China from sending its armies to attack U.S. military forces in the ensuing Korean War. Nor did massive U.S. nuclear might prevent the Soviet military invasion of Hungary, the Warsaw Pact's military invasion of Czechoslovakia, Soviet military intervention in Afghanistan, and the Iraqi invasion of Kuwait. Also, the thousands of nuclear weapons in the U.S. arsenal did nothing to deter the terrorist attacks of 9/11 on U.S. territory**. Similarly, nuclear weapons in Soviet (and later Russian) hands did not prevent U.S. military intervention in Korea, Vietnam, Lebanon, the Dominican Republic, Grenada, Panama, Afghanistan, and Iraq. Nor did Soviet nuclear weapons prevent CIA-fomented military action to overthrow the governments of Iran, Guatemala, Cuba, Chile, Nicaragua, and other nations. Other nuclear powers have also discovered the irrelevance of their nuclear arsenals. British nuclear weapons did not stop non-nuclear Argentina's military invasion of Britain's Falkland Islands. Moreover, Israel's nuclear weapons did not prevent non-nuclear Egypt and non-nuclear Syria from attacking Israel's armed forces in 1973 or non-nuclear Iraq from launching missile attacks on Israeli cities in 1991. Perhaps most chillingly, in 1999, when both India and Pakistan possessed nuclear weapons, the two nations -- long at odds -- sent their troops into battle against one another in what became known as the Kargil War. Of course, the argument is often made that nuclear weapons have deterred a nuclear attack. But, again, as this attack never took place, how can we be sure about the cause of this non-occurrence? Certainly, U.S. officials don't appear to find their policy of nuclear deterrence very reassuring. Indeed, if they were as certain that nuclear weapons prevent nuclear attack as they claim to be, why are they so intent upon building "missile defense" systems to block such an attack -- despite the fact that, after squandering more than $150 billion on such defense systems, there is no indication that they work? Or, to put it more generally, if the thousands of U.S. nuclear weapons safeguard the United States from a nuclear attack by another nation, why is a defense against such an attack needed? Another indication that nuclear weapons do not provide security against a nuclear attack is the determination of the U.S. and Israeli governments to stop Iran from becoming a nuclear weapons state. After all, if nuclear deterrence works, there is no need to worry about Iran (or any other nation) acquiring nuclear weapons. The fact is that, **today, there is no safety from war to be found in nuclear weaponry, any more than there was safety in the past produced by fighter planes, battleships, bombers, poison gas, and other devastating weapons**. Instead, **by raising the ante in the ages-old game of armed conflict, nuclear weapons have merely increased the possibility that, however a war begins, it will end in mass destruction of terrifying dimensions**.

#### Disregard Neg empirics – based of flawed methodology

**Heisbourg 4-4**-12 [François, chairman of the International Institute for Strategic Studies, special adviser at the Fondation pour la Recherche Stratégique, “How Bad Would the Further Spread of Nuclear Weapons Be?” http://www.npolicy.org/article.php?aid=1171&rtid=2]

The 2008 French Defence and National Security White Paper (25) developed the concept of ‘ruptures stratégiques’ (strategic upsets)to describe the growing tendency of the world system to generate rapid, unexpected, morphing upsets of international security as a consequence of globalization broadly defined against the backdrop of urbanizing populations generating economic growth and environmental and resource constraints. In themselves, such upsets are not novel (see inter alia, a pandemic such as the Black Death in 1348-49, the Great Depression not to mention World Wars or indeed the major and benign strategic upset of 1989-1991) but **the very nature of globalization and the relationship between human activity and the Earth’s ability to sustain them) mean more, and more frequent as well as more complex upsets**. If this reading is correct –and the Great financial crisis, the Arab revolutions, the accession of China to superpower status can be mentioned as examples which followed the publication of the White paper-,then the consequences in the nuclear arena will be twofold. First, nuclear doctrines and dispositions which were conceived under a set of circumstances (such as the Cold War or the India-Pakistan balance of power) may rapidly find themselves overtaken by events. For instance it is easier to demonstrate that US and Russian nuclear forces still visibly bear the imprint of their 1950s template than it is to demonstrate their optimal adaptation to post-post-Cold War requirements. Second, more challenges to international security and of a largely unforeseeable nature mean greater strains placed on the ability of nuclear powers to manage crises against the backdrop of their possession of nuclear weapons. In many, indeed most, cases, such ‘ruptures stratégiques’ will no doubt be handled with nuclear weapons appearing as irrelevant: hypothetical security consequences of an epidemic (such as the interhuman transmission of the H5N1 bird flu virus) or prospective conflicts resulting from climate change do not have prima facie nuclear aspects. But beyond the reminder that we don’t know that as a fact, the probability is, under the ‘rupture stratégique’ hypothesis, that there will be more occasions for putting all crisis management, including nuclear, to the test. Human societies tend to lack the imagination to think through, and to act upon, what have become known as ‘black swan’ events (26): that which has never occurred (or which has happened very rarely and in a wholly different context) is deemed not be in the field of reality, and to which must be added eventualities which are denied because their consequences are to awful to contemplate. The extremes of human misconduct (the incredulity in the face of evidence of the Holocaust, the failure to imagine 9/11) bear testimony to this hard-wired trait of our species. This would not normally warrant mention as a factor of growing salience if not for the recession into time of the original and only use of nuclear weapons in August 1945. Non-use of nuclear weapons may be taken for granted rather than being an absolute taboo. Recent writing on the reputedly limited effects of the Hiroshima and Nagasaki bombs (27) may contribute to such a trend, in the name of reducing the legitimacy of nuclear weapons. Recent (and often compelling) historical accounts of the surrender of the Japanese Empire which downplay the role of the atomic bombings in comparison to early research can produce a similar effect, even if that may not have been the intention (28). However desirable it has been, the end of atmospheric nuclear testing (29) has removed for more than three decades the periodic reminders which such monstrous detonations made as to the uniquely destructive nature of nuclear weapons. **There is a real and growing risk that we forget what was obvious to those who first described in 1941 the unique nature of yet-to-be produced nuclear weapons** (30). The risk is no doubt higher in those states for which the history of World War II has little relevance and which have not had the will or the opportunity to wrestle at the time or ex post facto with the moral and strategic implications of the nuclear bombing of Japan in 1945. Unsustainable strains are possibly the single most compelling feature of contemporary proliferation. Tight geographical constraints –with, for instance, New Delhi and Islamabad located within 300 miles of each other-; nuclear multi-polarity against the backdrop of multiple, criss-crossing, sources of tension in the Middle East (as opposed to the relative simplicity of the US-Soviet confrontation); the existence of doctrines (such as India’s ‘cold start’) and force postures (such as Pakistan’s broadening array of battlefield nukes)which rest on the expectation of early use; the role of non-state actors as aggravating or triggering factors when they are perceived as operating with the connivance of an antagonist state ( in the past, the assassination of the Austrian Archduke in Sarajevo in 1914; in the future, Hezbollah operatives launching rockets with effect against Israel or Lashkar-e-Taiba commandos doing a ‘Bombay’ redux in India?) : individually or in combination, these factors test crisis management capabilities more severely than anything seen during the Cold War with the partial exception of the Cuban missile crisis. Even the overabundant battlefield nuclear arsenals in Cold War Central Europe, with their iffy weapons’ safety and security arrangements, were less of a challenge: the US and Soviet short-range nuclear weapons so deployed were not putting US and Soviet territory and capitals at risk. It may be argued that these risk factors are known to potential protagonists and that they therefore will be led to avoid the sort of nuclear brinksmanship which characterized US and Soviet behavior during the Cold War in crises such as the Korean war, Berlin, Cuba or the Yom Kippur war. Unfortunately, the multiple nuclear crises between India and Pakistan demonstrate no such prudence, rather to the contrary. And were such restraint to feed into nuclear policy and crisis planning –along the lines of apparently greater US and Soviet nuclear caution from the mid-Seventies onwards-, the fact would remain that initial intent rarely resists the strains of a complex, multi-actor confrontation between inherently distrustful antagonists. It is also worth reflecting on the fact that during the 1980s, there was real and acute fear in Soviet ruling circles that the West was preparing an out-of-the-blue nuclear strike, a fear which in turn fed into Soviet policies and dispositions (31). **The Cold War was a set of crises and misunderstandings which came within a whisker of a nuclear holocaust; India and Pakistan’s nuclear standoff is deeply unstable not least as a result of the interaction with non-state actors; a multipolar nuclear Middle East would make the Cuban missile crisis look easy in comparison. Great conflicts tend to occur when one or several of the antagonists views the status quo as sufficiently undesirable and/or unsustainable to prompt forceful pro-action**. Notwithstanding widespread perceptions to the contrary, this was not the case of the USSR and the United States during the Cold War. The US had chosen a policy of containment, as opposed to roll-back, of the Soviet Empire within its limits established as a result of World War II. The Soviet Union seized targets of opportunity outside of its 1945 area of control but avoided direct confrontation with US forces. Messianic language from the USSR on the global victory of communism or from the US about the end of the Evil Empire did not take precedence over the prime Soviet concern of preserving the Warsaw Pact and the US pursuit of containment –and, no less crucially, their mutual confidence that they could achieve these aims without going to war one with the other. No such generalization can be made about the Middle East, a region in which the very existence of a key state (Israel) is challenged while others have gone to war with each other (e.G.Iran-Iraq war, the Gulf War of 1990-1991), or are riven by deep internal conflicts. Actors such as Hezbollah, with its organic and functional links with Islamic Iran and Alawite Syria add to the complexities and dangers. Extreme views and actions vis à vis the strategic status quo are widely prevalent. Although the India-Pakistan relationship corresponds to something akin to the US-Soviet ‘adversarial partnership’, that does not apply to radical non-state actors prevalent in Pakistan with more or less tight links to that country’s military intelligence services (ISI, Inter-Services Intelligence). The potential for danger is compounded by the variety of such groups: the Pashtu-related Pakistani Taliban (TTP), Kashmiri-related groups, Jihadi militants from the core provinces of Punjab and Sind… Their common characteristics are extreme radicalism, high levels of operational proficiency, and shared enmity of India. Their potential for triggering a conflict between the two countries is substantial, above and beyond the intentions of government officials. In sum, some seventy years after the launch of the Manhattan project, there is every reason to upgrade and reinforce non-proliferation policies, if nuclear use is to be avoided during the coming decades. Some markers to that end will be laid in our concluding section.

#### Evolutionary psychology goes Aff

**Thayer** **‘07** (Bradley A., Professor in the Department of Defense and Strategic Studies, Missouri State University, July, “Thinking about Nuclear Deterrence Theory: Why Evolutionary Psychology Undermines Its Rational Actor Assumptions,” Comparative Strategy, Vol. 26, No. 4)

We have such a situation today, where great advances in the life sciences, particularly genetics and cognitive neuroscience, have made possible the rise of evolutionary psychology and the related fields of biological and cognitive psychology.2 Through their combined efforts, these sciences are revolutionizing our knowledge of the causes of human behavior at genetic and somatic levels. For the first time, we are able to perceive how the brain functions and to understand, in equal parts, what a wonderful and simultaneously imperfect organ it is. But few scholars in the social sciences notice.3 Most often, the difficulty in removing academic stovepipes is not an urgent matter, and those wishing change may take heart in Paul Samuelson's famous quip about theories advancing one funeral at a time. Nonetheless, there are rare instances where academic stovepiping is a critical and time urgent problem. The great progress in evolutionary psychology is such a problem because of its **implications for deterrence theory**. This brief article explains how **evolutionary psychology undermines rational deterrence theory**. My argument is important because the key assumption of rational deterrence theory, that nuclear decision makers will make rational decisions about nuclear use due to their fundamental rationality, is so influential. This belief is widely shared among governmental decision makers, the arms control community and major media, and in academic circles. And it **is wrong**. Evolutionary psychology is causing a revolution in our understanding of the human brain. Comprehending the human brain is now possible due to an understanding of genetics, neural processing, and technology like the functional MRI (fMRI), which allows scientists for the first time to be able to understand how the human brain functions by identifying brain regions with increased blood flow corresponding to increased neuronal activity, after a stimulus (such as the word “cat”) is provided to a patient. Much work remains to be done by evolutionary psychologists, but the results are already impressive. The data are troubling for any discipline or theory that assumes a rational actor. As a result of advances in evolutionary psychology, we now know that the human mind is heavily influenced by the environment and body. How the brain interprets actions and makes decisions is complicated, imperfect, greatly dependent upon emotions, and varied among humans. There is tremendous variation in the human brain, with the result that threats that work in most circumstances will not work in all and that the appreciation of consequences, upon which rational deterrence theorists depend, cannot be assumed. Accordingly, it is fundamentally naïve and dangerous to assume a similar outcome (e.g. that nuclear deterrence will obtain) in all situations when there is variation in people (e.g. leaders), even when the consequences are great, as it is when nuclear weapons are involved. This finding has enormous implications for nuclear deterrence theory: the rational deterrence model's assumption of a universal rationality in the face of a nuclear deterrent threat is **irredeemably flawed**.

### AT: Conventional War – 2AC

#### More ev – amplifies stability paradox

**Krepon 10**, Michael, co-founder of Stimson, and director of the South Asia and Space Security programs [“The Stability-Instability Paradox,” November 2nd, <http://krepon.armscontrolwonk.com/archive/2911/the-stability-instability-paradox>]

Robert Jervis offered a more generalized and yet succinct formula for this paradox in The Illogic of Nuclear Strategy (1984): “To the extent that the military balance is stable at the level of all-out nuclear war, it will become less stable at lower levels of violence.” In actuality, Washington and Moscow perceived greater dangers as their nuclear competition accelerated, so the stability part of this equation turned out to be deeply suspect. But Jervis’ larger point remained valid: Adversaries possessing nuclear weapons would exercise caution to avoid major wars and any crossing of the nuclear threshold. At the same time, their “insurance policy” of nuclear retaliation provided ample leeway to engage in crisis-provoking behavior, proxy wars, and mischief making. This construct eventually became known in the trade as the stability-instability paradox. I’m not sure who first coined this phrase or when it became common usage. If anyone knows, please send a comment. The stability-instability paradox is most harrowing at the onset of a nuclear competition for many reasons. Troubled relations between adversaries get worse when nuclear weapons are added to their disagreements. Stability is especially hard to achieve early on, when fear and ignorance are most pronounced because adversarial moves magnify security concerns when monitoring capabilities are rudimentary, at best. In addition, the jockeying to achieve advantage – or to avoid disadvantage – is greatest early on, before tacit rules of a nuclear-tinged competition are clarified. The U.S.-Soviet experience – admittedly, an extreme and, thankfully, lonely case — suggests that big crises are most likely to occur in the first fifteen years of a nuclear competition. Misperception and spikes in nuclear danger can still occur later on (circa 1983), but the worst passages are typically front-loaded (e.g. Berlin, Cuba, and Korea) after the Bomb’s appearance. The U.S.-Soviet case also suggests that nuclear-armed adversaries can make it through very rough patches, especially if they tacitly agree not to play with fire in each other’s back yard. The stability-instability paradox has now hit the road and traveled to South Asia. Initially, some very distinguished observers from the region, led by K. Subrahmanyam, K. Sundarji, and Abdul Sattar, believed that going public with nuclear capabilities would serve as a stabilizing factor. The 1999 Kargil War, the 2001-2 “Twin Peaks” crisis sparked by an attack on the Indian parliament building, and the 2008 Mumbai attacks suggest otherwise. A few western analysts, including Kenneth Waltz, Sumit Ganguly, and Devin Hagerty, have argued that, because these events did not cascade into full-blown wars or nuclear exchanges, deterrence optimism is in order. Perhaps, over time, this will be the case. But Cold War conceptualizers of the stability-instability paradox never made the acquaintance of the Lashkar-i-Taiba. Until Pakistan’s security managers tacitly accept the ground rule about not playing with fire, deterrence optimists for South Asia will remain in the minority.

#### Neg empirics are flawed

**Berry et al ‘10** [Ken Berry, Research Coordinator at the International Commission on Nuclear Non-proliferation and Disarmament, Dr. Patricia Lewis is the Deputy Director and Scientist-in-Residence at the James Martin Center for Nonproliferation Studies at the Monterey Institute of International Studies, Benoît Pelopidas, PhD, is the Postdoctoral Fellow at the James Martin Center for Nonproliferation Studies for the year 2010/2011 and adjunct faculty at the Graduate School for International Policy and Management, Dr. Nikolai N. Sokov is a Senior Fellow at the Vienna Center for Disarmament and Non-Proliferation, and Ward Wilson, Senior Fellow at the CNS, “DELEGITIMIZING NUCLEAR WEAPONS: Examining the validity of nuclear deterrence,” http://cns.miis.edu/opapers/pdfs/delegitimizing\_nuclear\_weapons\_may\_2010.pdf]

**Contrary to common belief, there is no evidence that nuclear weapons ―kept the peace during the Cold War**. All war plans drawn on both sides (including those that have been declassified after the end of the Cold War) proceeded from the notion that the other side would have launched the attack. If we do not have evidence that an attack was planned, how can we assume that nuclear weapons prevented it? Perceptions are a different matter – attack was feared during the entire Cold War, and the opponent was always suspected of preparing to attack. It has been demonstrated, however, that even the widely touted ―first-strike‖ Soviet nuclear posture of the late 1970s to early 1980s resulted from a series of faulty decisions and technical shortcomings and was ―unintended‖ in the sense that the Soviet military aspired to build a very different type of arsenal. 68 It is important to recognize that various explanations are still competing to account for the absence of actual use of nuclear weapons since 1945. 69 **Because the record is impossible to definitely interpret, it makes no sense to make life or death decisions based on it**. And**, if nuclear weapons had deterred war over the last 60 years, there is still little comfort to be drawn from this history. We will not restate here the many cases of near-misses in which nuclear conflict has been avoided by** mere luck. 70 **This is because no nuclear weapon state has yet faced a war in which its** vital interests were at stake. Despite the ―domino theory,‖ Korea and Vietnam were, at best, peripheral to U.S. interests. Rebellion in Afghanistan did not put the vital interests of the Soviet Union into jeopardy. Failures to deter conventional attack **These explanations**, however, **cannot account for the striking failure of deterrence in both the Yom Kippur War and the Falkland War/Guerra de las Malvinas. Twice, during the Cold War, countries that had nuclear weapons** – or were believed to have nuclear weapons – **were attacked by states that did not have nuclear weapons. In both cases the possible threat of nuclear retaliation failed to deter**. How can these failures be accounted for? **One of the benefits of nuclear deterrence is that it is supposed to protect against conventional invasion. Yet in both of these cases nuclear weapons failed to provide this protection. The case of Israel is particularly striking**. Given the deep animus between Israel, on the one hand, and Egypt and Syria, on the other, the repeated statements by various Arab spokesmen that Israel had no right to exist, and the resulting probability that Israel would interpret any attack as a threat on its very existence, **the danger of a nuclear attack by Israel would seem to be far greater than in any other instance of Cold War confrontation. Yet nuclear weapons failed. They did not deter. In fact, they failed twice: neither Anwar Sadat, the leader of Egypt, nor Hafez al-Assad, the leader of Syria, was deterred**. 71 Rather, these cases seem to demonstrate the power of the non-use norm: attackers clearly understood that the chances of the opponent resorting to nuclear weapons were slim, at best. **There is positive evidence that nuclear threats do not prevent conventional attacks, even in circumstances where nuclear deterrence ought to work robustly**.

#### Quantitative risk analysis proves – proliferators are more likely to be targeted

**Sobek 12**, David, Assistant Professor at Louisiana State University, Dennis M. Foster, Associate Professor of International Studies and Political Science at the Virginia Military Institute, Samuel B. Robison, B.A., University of Southern Mississippi; M.A., LSU Office [“Conventional Wisdom? The Effect of Nuclear Proliferation on Armed Conflict, 1945–2001,” International Studies Quarterly Volume 56, Issue 1, pages 149–162, March 2012]

The possession of nuclear weapons confers many benefits on a state. The path to proliferation, however, is often violent. When a state initiates a nuclear weapons program, it signals its intent to fundamentally alter its bargaining environment. States that once had an advantage will now be disadvantaged. This change in the environment is not instantaneous, but evolves slowly over time. This gives states both opportunities and incentives to resolve underlying grievances, by force if necessary, before a nuclear weapons program is completed. Our cross-national analyses of nuclear weapons program and the onset of militarized conflict confirm this expectation. In particular, the closer a state gets to acquiring nuclear weapons, the greater the risk it will be attacked (especially over territorial issues). Once nuclear weapons are acquired, however, the risk of being attacked dramatically drops, though not below the risk of attack for non-proliferators. Conventional wisdom holds that the possession of nuclear weapons offers states security from a number of international threats. In particular, the possession of nuclear weapons insulates a state from challenges to its most salient concerns (such as territorial integrity). While ultimately beneficial to proliferators, the path to nuclear status is generally neither instantaneous nor undetectable. As such, it behooves states that wish to challenge proliferators to realize their political goals sooner rather than later. Proliferators, on the other hand, have an incentive to delay the resolution of the contentious issue until the deployment of their nuclear weapons. In this article, we use this set of interacting incentives as a point of departure in delineating a theory of the relationship between the nuclear proliferation process and the frequency with which proliferators are targeted in conventional militarized conflicts. Though much previous scholarship has been devoted to this question, we believe that extant views have focused too narrowly on one subset of that relationship: the preemptive employment of conventional capabilities by status quo powers in order to physically disable or destroy proliferators’ nascent nuclear programs. In developing a broader treatment of the strategic interaction between states, we posit that the various stages of deterrent nuclear proliferation are best conceived of as sequential steps in a bargaining process over preexisting disputes that were instrumental in spurring proliferators to consider nuclear options. As such, we contend that the primary rationale for status quo states’ conventional targeting of proliferators should derive not from the desire to physically disrupt nuclear development (which is, at best, a difficult task), but from the desire to reach favorable conclusions to underlying disputes before the deployment of nuclear weapons drastically complicates the issue. The effect of nuclear proliferation on conventional targeting is tested quantitatively by looking at states in four different stages of the proliferation process: no program, exploration, pursuit, and acquisition (Singh and Way 2004). In general, the results of our analyses show that as states move from no program to exploration and then to pursuit, the odds that that they become the target of a militarized interstate dispute (or MID; Jones, Bremer, and Singer 1996) increase rather steadily. Once actual acquisition is achieved, however, the risk of being targeted decreases. These results are most robust when looking at disputes over territory (which arguably represent conflicts over the most salient interest of states) and territorial disputes that lead to at least one fatality.

#### Nuclear war outweighs

Michael J. **Mills**, Ph.D. in Atmospheric Science, Research Scientist at the Laboratory for Atmospheric and Space Physics, University of Colorado-Boulder, **et al**., December 28, **2006**, (Alan Robock, professor of environmental sciences at Rutgers University; Owen B. Toon, chair of the Department of Atmospheric and Oceanic Sciences at CU-Boulder), “Here’s how ‘nuclear winter’ might occur,” online: <http://74.125.95.132/search?q=cache:2zfwIdBAuvgJ:m.dailycamera.com/news/2006/Dec/28/heres-how-nuclear-winter-might-occur/+%22luke+oman+is%22&cd=4&hl=en&ct=clnk&gl=us>

Using two independent, state-of-the-art climate models, we calculated that the soot would heat the stratosphere by more than 50 degrees (Fahrenheit) and cool the surface by 2.5 degrees F for four years. The mass of soot in the stratosphere is not sufficient to radiate enough infrared energy to the surface of the earth to compensate for the sunlight it absorbs. The result would be the coldest decade of the last thousand years, a period which included the Little Ice Age, a climactic event that drove the Vikings from Greenland. The cooling, darkness and loss of precipitation we calculate could devastate the global food supply. For obvious reasons, no one would seriously consider an appropriately scaled nuclear war to be a solution to global warming. Our published work calculates that, in many countries such as India and Pakistan, just one nuclear weapon can cause more than 100 times more fatalities than have occurred in all their previous wars. In addition, the heating of the stratosphere would cause unprecedented, catastrophic losses of ozone over populated areas.

## Add-Ons

### 2AC

#### Commercial PUREX solves Pu-238 shortages

Packard ’12 – member of the James Randi Educational Foundation

(Steven, “The U.S. Space Program’s Plutonium-238 Crisis”, Depleted Cranium, 1-6-2012, http://depletedcranium.com/americas-plutonium-238-crisis/)

The plutonium that can be extracted from light water spent fuel contains significant amounts of plutonium-238, but it’s combined with other isotopes of plutonium, making it unusable. Separating out the plutonium-238 would require a complex plutonium enrichment system, which is far less practical than simply preparing the plutonium-238 on its own.¶ To produce plutonium-238, the first thing that is required is neptunium-237. Neptunium-237 is produced as a byproduct of the reprocessing of spent fuel. When a nucleus of uranium-235 absorbs a neutron, it will usually fission. However, in a thermal spectrum reactor, some of the uranium-235 (about 18%) will absorb a neutron and not fission. Instead, the uranium-235 becomes uranium-236. Uranium-236 has a low neutron cross-section, so most of the uranium-236 generated in a reactor will just remain uranium-236, but a small amount of it does absorb a neutron and become uranium-237. Uranium-237 has a very short half-life of only six days, decaying to neptunium-237. Another source of neptunium-237 in spent fuel is the alpha decay or americium-241. Spent fuel contains about .7 grams of np-237 for every one hundred kilograms of fuel. That might not seem like much, but fuel reprocessing operations routinely go through hundreds of tons of fuel. Because Np-237 is the only isotope of neptunium present in spent fuel in any significant quantity, it does not require any enrichment. Instead, simply chemically separating the neptunium out yields nearly 100% neptunium-237.¶ After removing the neptunium-237, it is fabricated into targets which are irradiated with neutrons in a high flux reactor. The targets are then removed and processed to separate out the plutonium-238 that is produced. The plutonium-238 is then fabricated into RTG fuel tablets.¶ The United States ended the practice of spent fuel reprocessing in 1977 when it was banned by the Carter Administration because of “proliferation concerns.” Since then, the ban has been lifted, but as all reprocessing operations were shut down in the 1970’s and little support can be found for restarting the practice, the US still has no capacity to reprocess spent fuel. After 1977, some material from plutonium production reactors continued, which yielded some neptunium-237, but that also ended in 1992, with the end of the cold war.¶ Today, the United States reprocesses no fuel at all and therefore cannot produce any neptunium-237. There may still be some of the material remaining, though it’s doubtful that very much is left. It should still be possible to obtain Np-237, purchasing it from countries with major spent fuel reprocessing programs, such as Russia, France or Japan. However, this depends entirely on the willingness of such nations to provide it and may be expensive, since additional steps beyond normal reprocessing are required to produce the highly concentrated neptunium necessary for plutonium-238 production.

#### Solves planetary science

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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Radioisotope Power Systems are necessary for powering spacecraft at large distances from the Sun; in the extreme radiation environment of the inner Galilean satellites; in the low light levels of high martian latitudes, dust storms, and night; for extended operations on the surface of Venus; and during the long lunar night. With some 50 years of technology development and use of 46 such systems on 26 previous and currently flying spacecraft, the technology, safe handling, and utility of these units are not in doubt. Of the more than 3,000 nuclides, plutonium-238 stands out as the safest and easiest to procure isotope for use on robotic spacecraft. This report’s recommended missions cannot be carried out without new plutonium-238 production or com pleted deliveries from Russia. There are no technical alternatives to plutonium-238, and the longer the restart of production is delayed, the more it will cost. The committee is alarmed at the limited availability of plutonium-238 for planetary exploration. Without a restart of domestic production of plutonium-238, it will be impossible for the United States, or any other country, to conduct certain important types of planetary missions after this decade.

#### Solves biosphere destruction

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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In the past, scientists had only one planet to study in detail. Our Earth, however, the only place where life demonstrably exists and thrives, is a complex interwoven system of atmosphere, hydrosphere, lithosphere, and biosphere. Today, planetary scientists can apply their knowledge to the whole solar system, and to hundreds of worlds around other stars. By investigating planetary properties and processes in different settings, some of them far simpler than Earth, we gain substantial advances in understanding exactly how planets form, how the complex interplay of diverse physical and chemical processes creates the diversity of planetary environments seen in the solar system today, and how interactions between the physical and chemical processes on at least one of those planets led to the creation of conditions favoring the origin and evolution of multifarious forms of life. These basic motivational threads are built on and developed into the three principal science themes of this report—building new worlds, workings of solar systems, and planetary habitats—discussed in Chapter 3. Current understanding of Earth’s surface and climate are constrained by studies of the physical processes operating on other worlds. The destructive role of Chlorofluorocarbons in Earth’s atmosphere was recognized by a scientist studying the chemistry of Venus’s atmosphere. Knowledge of the “greenhouse” effect, a mechanism in the ongoing global warming on Earth, likewise came from studies of Venus. Comparative studies of the atmospheres of Mars, Venus, and Earth yield critical insights into the evolutionary histories of terrestrial planet atmospheres. Similarly, studies of the crater-pocked surface of the Moon led to current understanding of the key role played by impacts in shaping planetary environments. The insights derived from studies of lunar craters led to the realization that destructive impacts have wreaked havoc on Earth in the distant past, and as recently as 100 years ago a devastating blast in Siberia leveled trees over an area the size of metropolitan Washington, D.C. Three recent impacts on Jupiter provide our best laboratory for studying the mechanics of such biosphere-disrupting events. Wind-driven processes that shape Earth’s desert dunes operate on Mars and even on Saturn’s moon Titan.

#### Environmental destruction causes extinction

Coyne and Hoekstra 7 (Jerry and Hopi, \*professor in the Department of Ecology and Evolution at the University of Chicago AND Associate Professor in the Department of Organismic and Evolutionary Biology at Harvard University, New Republic, “The Greatest Dying,” 9/24, http://www.truthout.org/article/jerry-coyne-and-hopi-e-hoekstra-the-greatest-dying)

But it isn't just the destruction of the rainforests that should trouble us. Healthy ecosystems the world over provide hidden services like waste disposal, nutrient cycling, soil formation, water purification, and oxygen production. Such services are best rendered by ecosystems that are diverse. Yet, through both intention and accident, humans have introduced exotic species that turn biodiversity into monoculture. Fast-growing zebra mussels, for example, have outcompeted more than 15 species of native mussels in North America's Great Lakes and have damaged harbors and water-treatment plants. Native prairies are becoming dominated by single species (often genetically homogenous) of corn or wheat. Thanks to these developments, soils will erode and become unproductive - which, along with temperature change, will diminish agricultural yields. Meanwhile, with increased pollution and runoff, as well as reduced forest cover, ecosystems will no longer be able to purify water; and a shortage of clean water spells disaster. In many ways, oceans are the most vulnerable areas of all. As overfishing eliminates major predators, while polluted and warming waters kill off phytoplankton, the intricate aquatic food web could collapse from both sides. Fish, on which so many humans depend, will be a fond memory. As phytoplankton vanish, so does the ability of the oceans to absorb carbon dioxide and produce oxygen. (Half of the oxygen we breathe is made by phytoplankton, with the rest coming from land plants.) Species extinction is also imperiling coral reefs - a major problem since these reefs have far more than recreational value: They provide tremendous amounts of food for human populations and buffer coastlines against erosion. In fact, the global value of "hidden" services provided by ecosystems - those services, like waste disposal, that aren't bought and sold in the marketplace - has been estimated to be as much as $50 trillion per year, roughly equal to the gross domestic product of all countries combined. And that doesn't include tangible goods like fish and timber. Life as we know it would be impossible if ecosystems collapsed. Yet that is where we're heading if species extinction continues at its current pace. Extinction also has a huge impact on medicine. Who really cares if, say, a worm in the remote swamps of French Guiana goes extinct? Well, those who suffer from cardiovascular disease. The recent discovery of a rare South American leech has led to the isolation of a powerful enzyme that, unlike other anticoagulants, not only prevents blood from clotting but also dissolves existing clots. And it's not just this one species of worm: Its wriggly relatives have evolved other biomedically valuable proteins, including antistatin (a potential anticancer agent), decorsin and ornatin (platelet aggregation inhibitors), and hirudin (another anticoagulant). Plants, too, are pharmaceutical gold mines. The bark of trees, for example, has given us quinine (the first cure for malaria), taxol (a drug highly effective against ovarian and breast cancer), and aspirin. More than a quarter of the medicines on our pharmacy shelves were originally derived from plants. The sap of the Madagascar periwinkle contains more than 70 useful alkaloids, including vincristine, a powerful anticancer drug that saved the life of one of our friends. Of the roughly 250,000 plant species on Earth, fewer than 5 percent have been screened for pharmaceutical properties. Who knows what life-saving drugs remain to be discovered? Given current extinction rates, it's estimated that we're losing one valuable drug every two years. Our arguments so far have tacitly assumed that species are worth saving only in proportion to their economic value and their effects on our quality of life, an attitude that is strongly ingrained, especially in Americans. That is why conservationists always base their case on an economic calculus. But we biologists know in our hearts that there are deeper and equally compelling reasons to worry about the loss of biodiversity: namely, simple morality and intellectual values that transcend pecuniary interests. What, for example, gives us the right to destroy other creatures? And what could be more thrilling than looking around us, seeing that we are surrounded by our evolutionary cousins, and realizing that we all got here by the same simple process of natural selection? To biologists, and potentially everyone else, apprehending the genetic kinship and common origin of all species is a spiritual experience - not necessarily religious, but spiritual nonetheless, for it stirs the soul. But, whether or not one is moved by such concerns, it is certain that our future is bleak if we do nothing to stem this sixth extinction. We are creating a world in which exotic diseases flourish but natural medicinal cures are lost; a world in which carbon waste accumulates while food sources dwindle; a world of sweltering heat, failing crops, and impure water. In the end, we must accept the possibility that we ourselves are not immune to extinction. Or, if we survive, perhaps only a few of us will remain, scratching out a grubby existence on a devastated planet. Global warming will seem like a secondary problem when humanity finally faces the consequences of what we have done to nature: not just another Great Dying, but perhaps the greatest dying of them all.

## Consult India

### 2AC

#### Perm—do the counterplan. It’s not competitive—Resolved just means a decision about the topic is made

http://**dictionary**.reference**.com**/browse/resolved

re·solve   [ri-zolv] Show IPA verb, -solved, -solv·ing, noun verb (used with object) 1. to come to a definite or earnest decision about; determine (to do something): I have resolved that I shall live to the full.

#### Should just implies an obligation

http://**dictionary**.reference**.com**/browse/should should (ʃʊd) — vb See also shall the past tense of shall : used as an auxiliary verb to indicate that an action is considered by the speaker to be obligatory ( you should go ) or to form the subjunctive mood with I or we ( I should like to see you; if I should be late, go without me )

#### Doesn’t solve—counterplan takes decision over the plan away from regulators—that increases uncertainty, undermines commercialization of reprocessing

Berry and Tolley ’10 – professors of energy policy and economics

[Professors R. Stephen Berry and George S. Tolley, “Nuclear Fuel Reprocessing Future Prospects and Viability”, University of Chicago Humanities, 11-29-2010, http://humanities.uchicago.edu/orgs/institute/bigproblems/Team7-1210.pdf]

The U.S. efforts to exploit nuclear power commercially originated as a result of the Atomic Energy Act of 1954 and specifically the creation of the Atomic Energy Commission (AEC) 58 . In 1957, the Price-Anderson Act limited utilities’ liabilities regarding nuclear accidents and helped promulgate interest in the commercial use of nuclear energy. 59 This act served an important role in relaying the government’s credible commitment to the nuclear industry. Initially, the U.S. nuclear industry was subject to the interaction of three groups; the nuclear/electric industry, the AEC, and the Congressional Joint Committee on Atomic Energy (JCAE). 60 In this respect, polices regarding the nuclear industry were centralized and left to the discretion of the regulators and the regulated industries themselves. This political environment fostered the expansion of the nuclear industry and investment in the technology. However, control over commercial nuclear policy became highly fragmented: By the time the JCAE was officially disbanded in early 1977, more **than a dozen committees** in the House and Senate had gained some oversight over nuclear energy policy. Once the decentralization of authority had occurred, proposals to create a single House energy committee with concentrated authority were defeated. This proliferation of oversight is far more typical of the American political system than the centralized JCAE had been. 61 Further, during this period there was a significant rise in the number of anti-nuclear activists namely the Union of Concerned Scientist and the National Resource Defense Council. 62 These groups were able to utilize this **fragmented political environment** to undermine government commitment to the industry. The revived arrangement for nuclear industry oversight can be characterized by a subcommittee structure “**open to competing interests**, as well as vulnerable to changes in the composition of interest groups”. 63 Moreover, the nuclear industry was subject to an increased volume of rules and regulations as the anti-nuclear activist groups employed the independent judiciary branch for their interests. The change in the political structure confronting the nuclear industry undermined the feasibility of credible commitment of government toward the industry. Subsequently, this helped lead to the decline of the commercial nuclear industry in the U.S in addition to the Three Mile Island (TMI) accident. This situation contrasts the environment of the French nuclear industry. The American combination of fragmented power, little reliance on bureaucratic expertise, an independent judiciary, and opposing interest groups greatly undermines the ability of the U.S. government to credibly commit to the nuclear power industry. In France, despite substantial anti-nuclear interest groups, the impermeability of the institutional setup—no division of power, weak judiciary, and reliance on bureaucratic expertise— effectively prevents activists from influencing policy outcomes. 64 The French exploration into commercial nuclear energy and subsequent promotion of nuclear energy was the result of “a perceived shortage of enriched uranium, a need for weapons-grade materials, and the desire for energy independence from foreign states.” 65 In contrast to the U.S., the political environment in regards to nuclear energy in France has remained stable over the course of the last fifty years. In 1955, three government organizations banded together to promote nuclear power; namely: Electricité de France (EDF—the state—owned utility empowered by the Ministère de l’Industrie et des Finances), the Commissariat à l’Energie Atomique (CEA—with a promotional mission parallel to America’s AEC), and Production d’Electricité d’Origine Nucléaire (PEON—an advisory group to the CEA comprised of CEA, EDF, state, and industry representatives). 66 The nuclear industry maintains a high degree of central planning and state integration. 67 This political environment has provided the means for credible government commitment to the industry. Though there has been strong anti-nuclear rhetoric domestically in France the well insulated governmental setup towards nuclear energy has prevented these groups access to any policy-making forum. Further, these groups are afforded less influential power toward the industry due to a weaker judiciary than is present in the U.S. 68 Therefore, the uncertainty surrounding the commitment of the government toward the nuclear industry in France is far less than in the U.S. The French political structure “can carry out a long-term policy while ignoring the fluctuations of public opinion.” 69 This lack of “uncertainty” is important when we consider the effect that it has on transaction costs for the utilities attempting to employ nuclear facilities and investors realizing a return on their outlays. The U.S. political structure has led to an increase in transaction costs for its domestic nuclear industry, while the French structure is able to mitigate similar types of increases. As a result of the political structure, transaction costs for the nuclear industry are higher in the U.S. than they are in France. In opening the policy forum to anti-nuclear interest groups, the U.S. nuclear industry experienced procedural delays and increased compliance costs for nuclear facilities. From 1954 to 1979, the average lead times, including the time from order through commercial operation, increased from 2 to 6 years in France and from 3 to nearly 13 years in the United States. 70 Further, French programs typically presented greater stability in lead times as well as fewer delays than in the United States. 71 The nuclear industry in the U.S has seen an increase in uncertainty for their transaction costs in order to protect their large sunk costs. This has resulted in an increased perception of risk on the part of investors and subsequently increased the cost of capital for the technology: “lengthening the regulatory process increases the capital costs of the plant by pushing the revenue received from operation further into the future and by adding to the total interest payments on construction loans.” 72 **This political institutional framework provides an understanding of** the challenges which confront nuclear reprocessing in the U.S.

**Deterrence prevents India/Pakistan conflict.**

**Tepperman ‘9** ( 9/7/2009 (John - journalist based in New York Cuty, Why obama should learn to love the bomb, Newsweek, p.lexis)

The record since then shows the same pattern repeating: nuclear-armed enemies slide toward war, then pull back, always for the same reasons. The best recent example is India and Pakistan, which fought three bloody wars after independence before acquiring their own nukes in 1998. Getting their hands on weapons of mass destruction didn't do anything to lessen their animosity. But it did dramatically mellow their behavior. Since acquiring atomic weapons, the two sides have never fought another war, despite severe provocations (like Pakistani-based terrorist attacks on India in 2001 and 2008). They have skirmished once. But during that flare-up, in Kashmir in 1999, both countries were careful to keep the fighting limited and to avoid threatening the other's vital interests. Sumit Ganguly, an Indiana University professor and co-author of the forthcoming India, Pakistan, and the Bomb, has found that on both sides, officials' thinking was strikingly similar to that of the Russians and Americans in 1962. The prospect of war brought Delhi and Islamabad face to face with a nuclear holocaust, and leaders on each side did what they had to do to avoid it.

#### No India/Pakistan war –

A) Deterrence

Tellis 2 (Ashley, Foreign Policy Research Institute, Orbis, Winter, p. 24-5)

In the final analysis, this situation is made objectively "meta-stable" by the fact that neither India,[nor] Pakistan**, nor China has** the **strategic capabilities to execute** those successful damage-limiting **first strikes** that might justify initiating nuclear attacks either "out of the blue" or during a crisis. **Even China**, which of the three comes closest to possessing such capabilities (against India under truly hypothetical scenarios), **would find it difficult to** **conclude** that the **capacity for** "splendid **first strikes" lay within reach.** Moreover, even if it could arrive at such a determination**, the political justification** for these actions **would be substantially lacking** given the nature of its current political disputes with India. Onbalance, therefore, **it is reasonable to conclude that a** high degree of deterrence stability, at least with respect to wars of unlimited aims, **exists within** the greater **South Asian region**.

C) No first use

Enders 2 (David, Daily News Editor for the Michigan Daily, Citing Ashutosh Varshney, PhD, Professor of Political Science at UMich, “Experts say nuclear war still unlikely,”

http://media.www.michigandaily.com/media/storage/paper851/news/2002/01/30/News/Experts.Say.Nuclear.Wa

r.Still.Unlikely-1404620.shtml)

University political science Prof. Ashutosh Varshney becomes animated when asked about the likelihood of nuclear war between India and Pakistan."Odds are close to zero," Varshney said forcefully, standing up to pace a little bit in his office. "The assumption that India and Pakistan cannot manage their nuclear arsenals as well as the U.S.S.R. and U.S. or Russia and China concedes less to the intellect of leaders in both India and Pakistan than would be warranted."The world"s two youngest nuclear powers first tested weapons in 1998, sparking fear of subcontinental nuclear war a fear Varshney finds ridiculous. "The decision makers are aware of what nuclear weapons are, even if the masses are not," he said. "Watching the evening news, CNN, I think they have vastly overstated the threat of nuclear war," political science Prof. Paul Huth said. Varshney added that there are numerous factors working against the possibility of nuclear war. "India is committed to a no-first-strike policy," Varshney said. "It is virtually impossible for Pakistan to go for a first strike, because the retaliation would be gravely dangerous."

Won’t go nuclear

Keith Lawrence, June 4, 2002, Duke News, “News Tip: Despite ‘Intractable’ Differences, Nuclear War Between India And Pakistan Unlikely, Duke Experts Say,” http://www.dukenews.duke.edu/2002/06/indiatip0602.html

Though India and Pakistan probably will never agree on who should control the Kashmir region, it is highly unlikely the two South Asian neighbors will resort to nuclear war to resolve their dispute, says a Duke University professor emeritus who has been researching Pakistan since 1957. “While they have serious divisions, the Indian and Pakistani regimes are rather rational on this matter,” said Ralph Braibanti, James B. Duke Professor Emeritus of Political Science. “Even though there is saber rattling going on, I doubt very much they would use nuclear weapons.”

## Virilio

### 2AC

#### Discussion of energy policymaking is key to change- changes individual patterns to energy and makes the K self correcting

**Kuzemko ’12** [Caroline Kuzemko, CSGR University of Warwick, Security, the State and Political Agency: Putting ‘Politics’ back into UK Energy, <http://www.psa.ac.uk/journals/pdf/5/2012/381_61.pdf>]

This observation brings us on to the way in which debates and narratives within political circles, particularly within parliament and amongst policymakers, started to shift. A plethora of new papers, debates and policy documents on energy emerged over this time, despite the round of energy reviews and the new White Paper that had been produced immediately prior to this period (see in particular Havard 2004; Ofgem 2004; DTI 2005a, 2005b, 2006a, 2006b and 2006c; JESS 2006). The energy sector became increasingly referenced in these proliferating policy and other government documents in terms of potential supply insecurity (FCO 2004; Straw in Plesch et al 2004). Echoing media, academic and think-tank narratives, direct links can be found between fears of supply insecurity and Russia (FAC 2008; see also House of Commons 2007; Ofgem 2009: 1). In particular, in 2007 the Foreign Affairs Committee (FAC) produced a report entitled ‘Global Security: Russia’ (FAC 2008). This is where we see how assumptions about resource nationalism and energy ‘politicisation’ as wrong affect perceptions (Straw in Plesch et al 2004; DTI 2007: 19). The FAC report focuses on certain political frameworks in non-OECD producer countries, particularly Russia, which may not allow new reserves to be developed properly making them ‘unstable’ suppliers (Havard 2004; FCO 2004). This in turn had negative implications for energy prices (Straw in Plesch et al 2004; DTI 2007: 19). What was also evident over this time, however, was the rising amount of reports produced by political institutions **outside of those directly responsible for policymaking**, the Energy Directorate of the DTI and the independent regulator, Ofgem. The Foreign Office, House of Commons committees and parliamentary offices, such as that of Science and Technology, all started to produce reports on energy focused on energy security (FCO 2004; POST 2004; Fox 2006; House of Lords 2006; House of Commons 2007; FAC 2007). Energy security was added, by the UK, to formal forums for international negotiation. In 2005, during the October EU Summit at Hampton Court, the issue of ‘energy security’ was added to the agenda (Offerdahl 2007). In a paper prepared for conference delegates energy is characterised as a sector which was by then becoming an issue of national security (Helm 2005b: 2). Increasing dependence on Russia for supplies of, particularly gas, is seen as a source of threat to the security of EU, and by extension UK, energy supply. Likewise, energy security was made top of the agenda in the G8 Summit of 2006 (G8 2006). In 2006 Prime Minister Tony Blair used his annual Lord Mayor’s speech to highlight energy security concerns (DTI 2006c: 4). Growing political interest in energy, outside of those institutions formally responsible for energy policymaking, indicates the extent to which energy was becoming subject, once more, to political debate and deliberation. What is also interesting to note at this time is the degree to which the deliberation of energy becomes formalised through various new institutions. In July 2004, in the immediate aftermath of the Yukos affair, the new Energy Act had conferred on the Secretary of State for Trade and Industry a fixed duty to report annually on energy security matters to Parliament (DTI 2005a). Thus a specific political process was put in place to revisit energy security at least annually. Changes related to the need to deliberate more formally had also started to take place within the DTI and FCO in that new resources were allocated to energy analysis (Interview 5). The 2007 White Paper acknowledged that energy had not up until the mid 2000s existed as a discrete area of foreign policy. Again, as such, it had less dedicated capacity assigned to it. The paper announced that, for the first time, the UK would have ...an integrated international energy strategy which describes the action we are taking to help deliver secure energy supplies and tackle climate change. (DTI 2007: 8) Concurrent with the degree to which **energy was re-entering elite political debates at both the national and international levels, which in itself indicates a degree of deliberative repoliticisation , there were a number of policy alterations made** relating to changing interpretations of energy and international markets. It could be argued that energy security had, in 2003, been assumed to exist, especially given the degree to which energy governance was still understood to be heading in a promarket direction (Thomas 2006: 583; Jegen 2009: 1; Lesage et al 2010: 6; EC 2011: 14). For example the energy supply objective had been worded such that the UK should continue to “maintain the reliability of… supplies” (DTI 2003: 11). Energy security, although still an objective, had been an assumed outcome of marketisation which explains why competitive markets had been the principal objective of energy policy at that time (cf. Helm 2005). By contrast, however, by 2007 energy security is understood to be something that needs to be established, as one of the ‘immense’ challenges facing the UK as a nation, and furthermore, to require further political action to achieve (DTI 2006c: Introduction and 4). This refocus of objectives onto achieving energy security, over time, **added to the political pressures being brought to bear on energy policymakers** given the degree to which supplies continued to be considered ‘insecure’ (Kuzemko 2012b: ). These changes in policy objectives, political institutions, and the addition of political capacity to deliberate energy are understood have taken place partly in response to political pressures to change emanating from outside energy policy circles, i.e. the DTI and Ofgem. Ofgem officials report a higher degree of ‘outside’ political interference in their practices (Interview 15), and it has been widely claimed that both the 2006 Energy Review and 2007 White Paper were researched and compiled specifically because the DTI and Ofgem understood the political need to respond to the crisis (CEPMLP 2006; House of Commons 2007a). As these processes of deliberation intensified it started also to become clear that the state had lost considerable capacity to understand the complexities of energy. Government was considered to be more responsible, given that the narrative was of national energy supply security, but lacking in information and knowledge both about what was happening and what to do about it. Ultimately this resulted in the formation of a new government institution, the Department of Energy and Climate Change (DECC), with specific mandates to deliver on energy and climate security.

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

Owen ‘2 – reader of political theory

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

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

#### Extinction first – always VTL

Bernstein ‘2

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

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

#### Meltdown impacts won’t happen – empirics -- Fukushima

**WNA ’11** [World Nuclear Association, “Safety of Nuclear Power Reactors”, (updated December 2011), <http://www.world-nuclear.org/info/inf06.html>]

From the outset, there has been a strong awareness of the potential hazard of both nuclear criticality and release of radioactive materials from generating electricity with nuclear power. As in other industries, the design and operation of nuclear power plants aims to **minimise the likelihood of accidents**, and avoid major human consequences when they occur. There have been three major reactor accidents in the history of civil nuclear power - Three Mile Island, Chernobyl and Fukushima. One was contained without harm to anyone, the next involved an intense fire without provision for containment, and the third severely tested the containment, allowing some release of radioactivity. These are the only major accidents to have occurred in over 14,500 cumulative reactor-years of commercial nuclear power operation in 32 countries. The risks from western nuclear power plants, in terms of the consequences of an accident or terrorist attack, **are minimal** compared with other commonly accepted risks. Nuclear power **plants are very robust**.

#### No impact to econ collapse

Thomas P.M. Barnett, senior managing director of Enterra Solutions LLC, “The New Rules: Security Remains Stable Amid Financial Crisis,” 8/25/2009, http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx

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. Now, as global economic news brightens and recovery -- surprisingly led 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.

#### This isn’t an argument – it’s based off vacuous mush of scientific concepts

Sokal and Bricmont ‘98

Sokal and Bricmont 98 – \*Professor of Physics at NYU AND \*\*Belgian theoretical physicist, philosopher of science and a professor at the Université catholique de Louvain (December 1998, Alan and Jean, “Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science”, Library of Congress Cataloging-in-Publication Data, pg. 169-170 //STRONG]

The writings of Paul Virilio revolve principally around the themes of technology, communication, and speed. They contain a plethora of references to physics, particularly the theory of relativity. Though Virilio's sentences are slightly more meaningful than those of Deleuze-Guattari, what is presented as "science" is a mixture of monumental confusions and wild fantasies. Furthermore, his analogies between physics and social questions are the most arbitrary imaginable, when he does not simply become intoxicated with his own words. We confess our sympathy with many of Virilio's political and social views; but the cause is not, alas, helped by his pseudo-physics. Let us start with a minor example of the astonishing erudition vaunted by Le Monde: Recent MEGALOPOLITAN hyperconcentration (Mexico City, Tokyo ... ) being itself the result of the increased speed of economic exchanges, it seems necessary to reconsider the importance of the notions of ACCELERATION and DECELERATION (what physicists call positive and negative velocities [vitesses positive et negative selon les physiciens]) ... (Virilio 1995, p. 24, capitals in the original 220) Here Virilio mixes up velocity (vitesse) and acceleration, the two basic concepts of kinematics (the description of motion), which are introduced and carefully distinguished at the beginning of every introductory physics course. 221 Perhaps this confusion isn't worth stressing; but for a purported specialist in the philosophy of speed, it is nonetheless a bit surprising.

#### Even if some technologies fail this doesn’t mean the plan will—tech change is good even if it’s only partial

Bostrom ‘3

BOSTROM 2003(Nick, Faculty of Philosophy, Oxford University, “Transhumanism FAQ,” October, http://www.transhumanism.org/index.php/WTA/faq21/88/)

Success in the transhumanist endeavor is not an all-or-nothing matter. There is no “it” that everything hinges on. Instead, there are many incremental processes at play, which may work better or worse, faster or more slowly. Even if we can’t cure all diseases, we will cure many. Even if we don’t get immortality, we can have healthier lives. Even if we can’t freeze whole bodies and revive them, we can learn how to store organs for transplantation. Even if we don’t solve world hunger, we can feed a lot of people. With many potentially transforming technologies already available and others in the pipeline, it is clear that there will be a large scope for human augmentation. The more powerful transhuman technologies, such as machine-phase nanotechnology and superintelligence, can be reached through several independent paths. Should we find one path to be blocked, we can try another one. The multiplicity of routes adds to the probability that our journey will not come to a premature halt.

#### Critiquing technology kills billions of people—the environmental crisis is real, but we need more technology, not less—transhumanism breaks all the limits to a new ecologically healthy world

Bostrom ‘3

Bostrom 3 PhD from the London School of Economics (Nick, 2003, “Transhumanism FAQ”, http://www.paulbroman.com/myspace/Transhumanism\_FAQ.txt) \

Population increase is an issue we would ultimately have to come to grips with even if healthy life-extension were not to happen. Leaving people to die is an unacceptable solution. A large population should not be viewed simply as a problem. Another way of looking at the same fact is that it means that many persons now enjoy lives that would not have been lived if the population had been smaller. One could ask those who complain about overpopulation exactly which people’s lives they would have preferred should not have been led. Would it really have been better if billions of the world’s people had never existed and if there had been no other people in their place? Of course, this is not to deny that too-rapid population growth can cause crowding, poverty, and the depletion of natural resources. In this sense there can be real problems that need to be tackled. How many people the Earth can sustain at a comfortable standard of living is a function of technological development (as well as of how resources are distributed). New technologies, from simple improvements in irrigation and management, to better mining techniques and more efficient power generation machinery, to genetically engineered crops, can continue to improve world resource and food output, while at the same time reducing environmental impact and animal suffering. Environmentalists are right to insist that the status quo is unsustainable. As a matter of physical necessity, things cannot stay as they are today indefinitely, or even for very long. If we continue to use up resources at the current pace, without finding more resources or learning how to use novel kinds of resources, then we will run into serious shortages sometime around the middle of this century. The deep greens have an answer to this: they suggest we turn back the clock and return to an idyllic pre-industrial age to live in sustainable harmony with nature. The problem with this view is that the pre-industrial age was anything but idyllic. It was a life of poverty, misery, disease, heavy manual toil from dawn to dusk, superstitious fears, and cultural parochialism. Nor was it environmentally sound – as witness the deforestation of England and the Mediterranean region, desertification of large parts of the middle east, soil depletion by the Anasazi in the Glen Canyon area, destruction of farm land in ancient Mesopotamia through the accumulation of mineral salts from irrigation, deforestation and consequent soil erosion by the ancient Mexican Mayas, overhunting of big game almost everywhere, and the extinction of the dodo and other big featherless birds in the South Pacific. Furthermore, it is hard to see how more than a few hundred million people could be maintained at a reasonable standard of living with pre-industrial production methods, so some ninety percent of the world population would somehow have to vanish in order to facilitate this nostalgic return. Transhumanists propose a much more realistic alternative: not to retreat to an imagined past, but to press ahead as intelligently as we can. The environmental problems that technology creates are problems of intermediary, inefficient technology, of placing insufficient political priority on environmental protection as well as of a lack of ecological knowledge. Technologically less advanced industries in the former Soviet-bloc pollute much more than do their advanced Western counterparts. High-tech industry is typically relatively benign. Once we develop molecular nanotechnology, we will not only have clean and efficient manufacturing of almost any commodity, but we will also be able to clean up much of the mess created by today’s crude fabrication methods. This would set a standard for a clean environment that today’s traditional environmentalists could scarcely dream of.

#### Virilio’s basic assumption is flawed. Speed of tech doesn’t ruin the political—Opposite is true

Grove ‘8

Jairus Victor Grove is a Ph.D. candidate at Johns Hopkins University in International Relations and Political Theory. His research focuses on the new materialities of politics and warfare. He studies the effects of new forms of warfare on soldiers and civilian populations in urban settings.

Chapter 1: A Schmittian Century?: From Nuclear Leviathan to Nuclear-Sovereign-Assemblage – March 17, 2008 – http://becomingwar.blogspot.com/2008/03/chapter-1-schmittian-century-from.html

Initially nuclear weapons seemed to solidify even complete the decisionistic model of sovereignty once and for all. In Virilio’s reading of Schmitt’s the state of emergency became permanent and democracy ended once it became possible for a single individual to decide to got to war and to finish that war in 30 minutes. At first glance Virilio’s apocalyptic diagnosis seems accurate. Nuclear weapons at their current numbers could destroy the entire planet and given the structure of the United States nuclear command any Congressional or popular attempt to stop the war would be in vain. This is the backbone of Virilio’s argument. Politics and a democratic balance of power require time. Time to react, time to respond, time to debate, time to strategize, time to implement and ICBMS nullify time. But Virilio is wrong. The threat of the extreme case has obscured the actual or present case that presents new opportunities for intervention. Politics, whether micro or macro, does not begin and end with the sovereign decision; the sovereign decision (both expressively and in its enactment) emerges from a relay of forces, connections, and other previous decisions, resonances, forces, and actants that are presupposed in each subsequent iteration of the sovereign decision, and layered in multiple streams of time. Even an increasingly automated nuclear arsenal requires the participation of literally millions of people and countless networks, objects, tectonic stability, stable solar flare activity and on and on. The decision only *appears* singular when Virilio truncates time to the moment the president ‘pushes the button.’ We are not as of yet in that moment so other temporal rhythms abound and each part of the nuclear assemblage follows a different temporal course. Certainly the sovereign decision is a powerful, expressive, performative act of individuation for the sovereign and highly affective in mobilizing populations, but it is not self-constituted or self-causal. The process of individuation and mobilization necessitates a field of relations and resonances from which the sovereign decision emerges. The decision is also not decisive. Instead it territorializes the relations *from which it emerges* through its resonant modulation. The enunciation of a sovereign decision (a distinct inquiry from the ‘making of a decision. Certainly no less emeshed but nonetheless ought to remain analytically different) is something like a refrain, the sovereign—in so far as it is constituted by the enunciation of decisions—is a condensation point for national ethos, affect, and institutional identity making. Each decision is constitutive not of the ‘sovereign’ as is the case in Schmitt’s analysis but of a sovereign point of identification or reified, dogmatic consistency which can be recognized but need not remain static or immobile. Again however such a node is only possible because of its attachments whether physical or resonant (both material) to the complex system of tradition, culture, wires, telephones, satellites, nuclear silos, television cameras, previous sovereign decisions, personal affective characteristics, character, etc. This list is not exhaustive by any measure however it gestures in the direction of what I am trying to get at. The sovereign is not an individual, at best it is an iterative series of moments of performative or expressive individuation resulting from a complex interface with machines, networks, affective fields. The assemblage has a life of its own that cannot and should not be reduced to a single point simply because that is most consistent with our common sensibilities. In some sense the sovereign is a prosthesis or interface to be worn by whoever is elected to office. (President as first-person-shooter?) This does in part explain why there is so little transition time between each sovereign and so little variation in war powers. It is reference point or index for a history of actions and events made more complex by the function it is meant or believed to serve. It is the titular focal point of an assemblage that if recognized as such would undermine its own function. An assemblage that function because it can inspire belief in it is unity not its dispersed and multivalent organization. The irony is that the development of miles of fiberoptic networks, new technological interfaces and mobility was supposed to save the centralized and hierarchical sovereign form from its obvious strategic liability—that of being an easy target. However in increasing its ‘survivability’ it has also opened innumerable points of access to the supposed center. Each access point whether it be technological, affective, or economic that can recenter, or reterritorialize the sovereign assemblage. I do not want to make this sound ‘easy’ or ‘painless’ however as this ‘dispersed’ or redundant network system has become ‘everyday’ increasingly the President has been unaware of exactly who is in control or even at how many levels the Nuclear-sovereign-assemblage can be engaged or reterritorialized.

#### Won’t improve research, excess technophobia, and no political alt.

Stevenson ‘2

Nick Stevenson is a Lecturer in the Department of Sociological Studies, University of Sheffield, Understanding Media Cultures: Social Theory and Mass Communication – page 206

Virilio’s main contribution to contemporary debates in respect of the media of mass communication has been to add a sceptical voice in respect of technological innova-tion, and to focus our attention on the temporal dimensions of communications systems. However, as we shall see, while a critical engagement with Virilio is undoubtedly worthwhile, his contributions have a number of limitations. Virilio’s writing is perhaps best read as a warning as to where technological change might lead rather than as offering a balanced account of the effects of technological development. Here I want to concentrate upon the suggestive comments he makes linking technology, speed and cultural impoverishment. Finally, I will end the discussion of Virilio by making some further critical comments concerning what I take to be the main limitations of his analysis. Technology, as Virilio points out, is intimately concerned with speed and efﬁciency. The quickening of the time allowed for opinion formation can often lead to the production of superﬁcial perspectives in place of those which could have taken a deeper and more substantial view. We might then be in a position to receive more information more quickly than ever before, but denied the interpretative opportunities to make the world more meaningful. For example, the increased speeding up of events interferes with our capacity to feel empathy and disappoint-ment. The media it seems are always moving on, restlessly searching for fresh news and different viewpoints. This makes the achievement of responsible and meaningful forms of reﬂection increasingly difﬁcult in the modern age. Yet it is a mistake to proceed as if the media only colonise society’s shared capacity to construct meaningful relations with others. For instance, the culture of immediacy and speed can also feed the idea that we the nation, or international alliance, in a time of crisis, ought to do something. This can be invaluable if we are considering offering immediate humanitarian aid to the victims of a disaster, but can also have other perhaps more negative consequences, given that speed can be used to displace the necessary labour of democratic deliberation. The rapidity with which these decisions are made might mean that a wide-ranging public discussion has not yet taken place and that not enough ‘quality’ information has been made available to make a judgement. I am struck by a basic ambivalence between the need to receive information quickly and the consequences this might have for human reasoning. The wider point is that the temporal bias introduced by media cultures disrupts our capacity for critical reflection as well as providing a necessary service and inﬂuence on contemporary political culture. The issue here is to hold an intellectual concern regarding the lack of slowness in our culture against an appreciation of the ‘political’ necessity of speeding up information exchange. So far I have treated Virilio’s writing to only the most sympathetic forms of engagement. I have sought to argue that Virilio’s work does indeed offer the supportive critic with the possibility of raising some key questions in respect of the temporal dimensions of contemporary media cultures. However we also need to recognise that Virilio’s current projections are severely limited. Here I will mention four reasons as to why Virilio’s work is unlikely to develop a productive cannon of research in respect of the media of mass communication. Virilio’s limitations are: (1) his technophobia; (2) his neglect of the political possibilities offered by media cultures new and old; (3) his lack of analysis of the inter-connections between new media and identity; and (4) his failure to appreciate the ways in which new media is structured in a contested cultural ﬁeld. I shall however keep these arguments brief as they have been approached in more detail elsewhere in the volume.

## Civilization

### 2AC

#### Doesn’t solve Aff – state management of tech innovation good and perm solves

**Nordhaus 11,** chairman – Breakthrough Instiute, and Shellenberger, president – Breakthrough Insitute, MA cultural anthropology – University of California, Santa Cruz, 2/25/‘11

(Ted and Michael, <http://thebreakthrough.org/archive/the_long_death_of_environmenta>)

Tenth, we are going to have to get over our suspicion of technology, **especially nuclear power.** There is **no credible path** to reducing global carbon emissions without an enormous expansion of nuclear power. It is the only low carbon technology we have today with the demonstrated capability to generate large quantities of centrally generated electrtic power. It is the low carbon of technology of choice for much of the rest of the world. Even uber-green nations, like Germany and Sweden, have reversed plans to phase out nuclear power as they have begun to reconcile their energy needs with their climate commitments. Eleventh, **we will need to embrace** again **the role of the state** as a direct provider of public goods. The modern environmental movement, borne of the new left rejection of social authority of all sorts, has embraced the notion of state regulation and even creation of private markets while largely rejecting the generative role of the state. In the modern **environmental imagination**, **government promotion of technology** - whether **nuclear** power, the green revolution, synfuels, or ethanol - almost always ends badly. Never mind that virtually the **entire history** of American industrialization and technological **innovation is the story of government investments** in the development and commercialization of new technologies. Think of a transformative technology over the last century - computers, the Internet, pharmaceutical drugs, jet turbines, cellular telephones, nuclear power - and what you will find is government investing in those technologies at a scale that private firms simply cannot replicate. Twelveth, big is beautiful. The rising economies of the developing world will continue to develop **whether we want them to or not.** The solution to the ecological crises wrought by modernity, technology, and progress will be more modernity, **technology**, and progress. The solutions to the ecological challenges faced by a planet of 6 billion going on 9 billion will **not** be **decentralized energy** technologies like solar panels, small scale organic agriculture, and a drawing of unenforceable boundaries around what remains of our ecological inheritance, be it the rainforests of the Amazon or the chemical composition of the atmosphere. Rather, these solutions will be: large central station power technologies that can meet the energy needs of billions of people increasingly living in the dense mega-cities of the global south without emitting carbon dioxide, further intensification of industrial scale agriculture to meet the nutritional needs of a population that is not only growing but eating higher up the food chain, and a whole suite of new agricultural, desalinization and other technologies for gardening planet Earth that might allow us not only to pull back from forests and other threatened ecosystems but also to create new ones. The New Ecological Politics The great ecological challenges that our generation faces demands an ecological politics that is generative, not restrictive. An ecological politics capable of addressing global warming will require us to reexamine virtually every prominent strand of post-war green ideology. From Paul Erlich's warnings of a population bomb to The Club of Rome's "Limits to Growth," contemporary ecological politics have consistently embraced green Malthusianism despite the fact that the Malthusian premise has persistently failed for the better part of three centuries. Indeed, the green revolution was exponentially increasing agricultural yields at the very moment that Erlich was predicting mass starvation and the serial predictions of peak oil and various others resource collapses that have followed have continue to fail. This does not mean that Malthusian outcomes are impossible, but neither are they inevitable. We do have a choice in the matter, but it is not the choice that greens have long imagined. The choice that humanity faces is not whether to constrain our growth, development, and aspirations or die. It is whether we will continue to innovate and accelerate technological progress in order to thrive. Human **technology and ingenuity have repeatedly confounded Malthusian predictions** yet green ideology continues to cast a suspect eye towards the very technologies that have allowed us to avoid resource and ecological catastrophes. But such solutions will require environmentalists to abandon the "small is beautiful" ethic that has also characterized environmental thought since the 1960's. We, the most secure, affluent, and thoroughly modern human beings to have ever lived upon the planet, must abandon both the dark, zero-sum Malthusian visions and the idealized and nostalgic fantasies for a simpler, more bucolic past in which humans lived in harmony with Nature.

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

Wilkinson ’11 – former research fellow at the Cato Institute

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

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

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

#### Primitivist epistemology is flawed—it grants hegemony over “civilization” to modern Civilization by defining itself in duality against it

Vandiver 1

Pendleton Vandiver, ANARCHIST EPISTEMOLOGY, 7/22/01, http://theanarchistlibrary.org/HTML/Pendleton\_Vandiver\_\_Anarchist\_Epistemology.html

The primitivist critique is very important, and cannot be ignored by anyone with a green anarchist orientation. Yet there are vexing contradictions in much primitivist theory, which seem to result from a lack of consideration of epistemology. The proponents of this philosophy purport to call into question civilization in total. A Primitivist Primer by John Moore calls anarcho-primitivism a shorthand term for a radical current that critiques the totality of civilization from an anarchist perspective, yet they mostly place themselves firmly within Western scientific discourse with their reliance on anthropological data. If anarcho-primitivism were primarily an immanent critique, exploring the aims and methods of civilization in order to show that they are inconsistent with one another, perhaps it could afford to rely upon a perspective that is supplied to it by Western science. But anarcho-primitivism is purporting to tell us how to go outside of civilization, and the outside that is being posited is totally, qualitatively other. The fact that this other is being defined, from top to bottom, by the very institutions that are being called into question scarcely seems to perturb anarcho-primitivist theorists. The juxtaposition of uncompromising purism and naiveté that is revealed in much primitivist writing is often jarring, even shocking. A quote from Zerzan’s Elements of Refusal is emblematic of the unacknowledged irony that pervades much of the anarcho-primitivist critique:” In fact, [primitive] life was lived in a continuous present, (12) underlying the point that historical time is not inherent in reality, but an imposition on it.” It does not matter what source that little number 12 is asking us to consider. After informing the reader that this indemonstrable assertion is a “fact”, Zerzan duly provides a footnote to prove it! That the assertion may in some sense be true, I do not wish to contest. The point is that an entirely unscientific, indeed anti-scientific, stance is being dressed up in academic attire in order to give the entire proceeding an air of rigor and methodological legitimacy that can only seem congruous to the superficial reader. The thesis itself, that time is the primal cause of alienation, is worth considering, and indeed Zerzan is a wonderful writer who often says important things. Yet epistemologically, we are getting into hot water when we simultaneously challenge the very existence of civilization while accepting its methodology and its conclusions. Indeed, the entire primitivist project is saddled with the unfortunate onus of a purist theory that is riddled with impurities it does not even seek to address. The primitivist tendency to valorize nature over culture is naive because it forgets that culture necessarily defines nature. The definition of nature as anything that is not culture is always going to be useful to power, because it equates nature with everything that is already subjugated and offers its opponents the opportunity to identify themselves with the defeated. This is a suckers game, and provides the necessary conditions within which an unwittingly loyal opposition can form around the most ostensibly radical critique. To completely oppose civilization as it defines itself is to grant it hegemony over everything it claims as its own. If we wish to destroy civilization, we should also seek to define it on our terms — which an anarchist epistemology would seek to provide. Primitivists have hitched their wagon to a star, and it would behoove them to look at the trajectory of that star if they want to see where they are headed. Thirty years ago, anthropologists painted a very different picture of what primitive life was like; thirty years from now, the picture is also likely to look different. In that case, the entire social philosophy of anarcho-primitivism will likewise change. How can a critique which purports to be so radical allow itself to be compromised by direct intimacy with the very institutions it claims to oppose? Unless primitivist theory confronts the question of epistemology, it will not remain a vital force in anarchism.

#### Alt fails and causes near extinction—transition difficulties would cause mass population die off

**Flood 08**

[Andrew Flood, <http://www.anarkismo.net/newswire.php?story_id=1890> “Is primitivism realistic? An anarchist reply to John Zerzan and others” accessed 9/27/2008]

Generally responses to the essay from primitivists were often a lot more constructive then what I expected. I expected to get mostly abuse, and I did but a few did attempt to address the arguments. However there was no real attempt to address the core point of my original article. Which was that the 'population question' made a joke out of any claim by primitivism to be anything beyond a critique of the world. This is unsurprising - as far as I can tell there is no answer to the very obvious problem that emerges when you compare the number of people living on the planet (6 billion plus) and the optimistic maximum of 100 million (2% of this) that the planet might be able to support if civilisation was abandoned for a return to a hunter-gather existence (3). I’ll summarise my argument from the previous essay. Primitivism generally argues that the development of agriculture was where it all went wrong. It therefore implies we should return to pre-agricultural methods of getting food, that is hunter-gathering. But agriculture allows us to get vastly greater quantities of food from a given area. Estimates can be made of how many people could live on the planet as hunter-gathers based on the amount of food that would be available to them. These estimates suggest a maximum population of around 100 million. This is what is called an ‘Elephant in the living room’ argument. The question of what would happen to the other 5,900 million people is so dominant that it makes discussion of the various other claims made by primitivism seem a waste of time until the population question is answered. Yet the only attempts at a response showed a rather touching faith in technology and civilisation, quite a surprise (4). This response can by summarised as that such population reductions can happen slowly over time because people can be convinced to have fewer or even no children. There was no attempted explanation for how convincing the 6 billion people of the earth to have no children might go ahead. Programs that advocate lower numbers of children are hardly a new idea. They have already been implemented both nationally and globally without much success. China's infamous 'One Child' program includes a high degree of compulsion but has not even resulted in a population decrease. China's population is forecast to grow by 100 to 250 million by 2025. An explanation of how primitivists hope to achieve by persuasion what others have already failed to do by compulsion is needed yet no such attempt to even sketch this out exists. As if this was not difficult enough for primitivists the implications of other arguments they make turn an impossible task into an even more impossible task.

#### Alt is essentialist—reduces centuries of human culture into one definition of “primitive” that replicates the logic of the Noble Savage

**Sheppard 03**

[Brian Sheppard, <http://libcom.org/library/anarchism-vs-primitivism/3-what-is-the-primitivist-ideal> “What is the primitivist ideal?” accessed 9/26/2008]

One of the central flaws in primitivist logic is the conflation of millennia of various cultures and societies into one entity - "primitive man." In fact, in books like Future Primitive or the recent Running on Emptiness, Zerzan dances across disparate eras and continents wildly, selectively noting features of this or that radically different tribal, non-industrialized, or prehistoric people to build his case that there was a common and wiser way of life that all humans once shared. Much like ethnocentric Europeans who can distinguish between European cultures but can not do the same for the many cultures within Africa, Asia, or the at-least 500 nations of native North America, primitivists often use the "primitive man" concept as a catch-all into which they insert their favored virtues. A composite of "primitive man" is erected in primitivist thought; glossed over in this process are the less-than-ideal aspects of most tribal societies. For example, primitivists conveniently fail to mention the religious notions, patriarchal structures, or strict traditions (like clitoridectomy, painful coming-of-age rituals, etc.) present in some non-industrial clans. Perhaps they are aware that most would find these undesirable. As Hoxie Neale Fairchild wrote in the study Noble Savage, "The [European notion of the] true Noble Savage arises from a combination of disillusion about the here and now with illusion about the there and then."

# 1AR vs KCKCC RM

### K

**Criticisms of science are used to justify atrocity- even a former prominent critic agrees**

**Latour 4** Elected fellow of the American Academy of Arts and Sciences in Cambridge (Bruno, 2004, “Why Has Critique Run out of Steam?”, Critical Inquiry, V.30, no. 2)

In which case the danger would no longer be coming from an excessive confidence in ideological arguments posturing as matters of fact–as we have learned to combat so efficiently in the past–but from an excessive distrust of good matters of fact disguised as bad ideological biases! While we spent years trying to detect the real prejudices hidden behind the appearance of objective statements, do we have now to reveal the real objective and incontrovertible facts hidden behind the illusion of prejudices? And yet entire Ph.D programs are still running to make sure that good American kids are learning the hard way that facts are made up, that there is no such thing as natural, unmediated, unbiased access to truth, that we are always the prisoner of language, that we always speak from one standpoint, and so on, while **dangerous extremists** are using the very same argument of social construction **to destroy hard-won evidence that could save our lives.** Was I wrong to participate in the invention of this field known as science studies? Is it enough to say that we did not really mean what we meant? Why does it burn my tongue to say that global warming is a fact whether you like it or not? Why can't I simply say that the argument is closed for good? Should I reassure myself by simply saying that bad guys can use any weapon at hand, naturalized facts when it suits them and social construction when it suits them? Should we apologize for having been wrong all along? Should we rather bring the **sword of criticism to criticism itself** and do a bit of soul-searching here: What were we really after when we were so intent on showing the social construction of scientific facts? Nothing guarantees, after all, that we should be right all the time. There is no sure ground even for criticism.4 Is this not what criticism intended to say: that there is no sure ground anyway? But what does it mean, when this lack of sure ground is taken out from us by the worst possible fellows as an argument against things we cherished? Artificially maintained controversies are not the only worrying sign. What has critique become when a French general, no, a marshal of critique, namely, Jean Baudrillard, claims in a published book that the World Trade Towers destroyed themselves under their own weight, so to speak, undermined by the utter nihilism inherent in capitalism itself–as if the terrorist planes were pulled to suicide by the powerful attraction of this black hole of nothingness?5 What has become of critique when a book can be a best-seller that claims that no plane ever crashed into the Pentagon? I am ashamed to say that the author was French too.6 Remember the good old days when revisionism arrived very late, after the facts had been thoroughly established, decades after bodies of evidence had accumulated? Now we have the benefit of what can be called instant revisionism? The smoke of the event has not yet finished settling before dozens of conspiracy theories are already revising the official account, adding even more ruins to the ruins, adding even more smoke to the smoke. What has become of critique when my neighbor in the little Bourbonnais village where I have my house looks down on me as someone hopelessly naive because I believe that the United States had been struck by terrorist attacks? Remember the good old days when university professors could look down on unsophisticated folks because those hillbillies naively believed in church, motherhood, and apple pies? Well, things have changed a lot, in my village at least. I am the one now who naively believes in some facts because I am educated, while it is the other guys now who are too unsophisticated to be gullible anymore: "Where have you been? Don't you know for sure that the Mossad and the CIA did it?" What has become of critique when someone as eminent as Stanley Fish, the "enemy of promise" as Lindsay Waters calls him, believes he defends science studies, my field, by comparing the law of physics to the rules of baseball?7 What has become of critique when there is a whole industry denying that the Apollo program landed on the Moon? What has become of critique when DARPA uses for its Total Information Awareness project the Baconian slogan Scientia est potentia? Have I not read that somewhere in Michel Foucault? Has Knowledge-slash-Power been co-opted of late by the National Security Agency? Has Discipline and Punish become the bedside reading of Mr. Ridge? Let me be mean for a second: what's the real difference between conspiracists and a popularized, that is a teachable, version of social critique inspired for instance by a too-quick reading of, let's say, a sociologist as eminent as Pierre Bourdieu–to be polite I will stick with the French field commanders? In both cases, you have to learn to become suspicious of everything people say because "of course we all know" that they live in the thralls of a complete illusion on their real motives. Then, after disbelief has struck and an explanation is requested for what is "really" going on, in both cases again, it is the **same appeal to powerful agents** hidden in the dark acting always consistently, continuously, relentlessly. Of course, we, in the academy, like to use more elevated causes–society, discourse, knowledge-slash-power, fields of forces, empires, capitalism–while conspiracists like to portray a miserable bunch of greedy people with dark intents, but I find something troublingly similar in the structure of the explanation, in the first movement of disbelief and, then, in the wheeling of causal explanations coming out of the deep Dark below. What if explanations resorting automatically to power, society, discourse, had outlived their usefulness, and deteriorated to the point of now feeding also the most gullible sort of critiques?8 Maybe I am taking conspiracy theories too seriously, but I am worried to detect, in those mad mixtures of knee-jerk disbelief, punctilious demands for proofs, and free use of powerful explanation from the social neverland, many of the weapons of social critique. Of course conspiracy theories are an absurd deformation of our own arguments, but, like weapons smuggled through a fuzzy border to the wrong party, **these are our weapons nonetheless**. In spite of all the deformations, it is easy to recognize, still burnt in the steel, our trade mark: MADE IN CRITICALLAND.

**Science allows us to check the religious right**

**Harris 4** Sam, Co-Founder and CEO of Project Reason, a nonprofit foundation devoted to spreading scientific knowledge and secular values in society. He received a degree in philosophy from Stanford University and a Ph.D. in neuroscience from *The End of Faith*, p. 19-20

Religious moderation springs from the fact that even the least educated person among us simply *knows* more about certain matters than anyone did two thousand years ago—and much of **this knowledge is incompatible with scripture**. Having heard something about the medical discoveries of the last hundred years, most of us no longer equate disease processes with sin or demonic possession. Having learned about the known distances between objects in our universe, most of us (about half of us, actually) find the idea that the whole works was created six thousand years ago (with light from distant stars already in transit toward the earth) impossible to take seriously. Such concessions to modernity do not in the least suggest that faith is compatible with reason, or that our religious traditions are in principle open to new learning: it is just that the utility of ignoring (or "reinterpreting") certain articles of faith is now overwhelming. Anyone being flown to a distant city for heart-bypass surgery has conceded, tacitly at least, that we have learned a few things about physics, geography, engineering, and medicine since the time of Moses. So it is not that these texts have maintained their integrity over time (they haven't); it is just that they have been effectively edited by our neglect of certain of their passages. Most of what remains— the "good parts"—has been spared the same winnowing because we do not yet have a truly modern understanding of our ethical intuitions and our capacity for spiritual experience. If we better understood the workings of the human brain, we would undoubtedly discover lawful connections between our states of consciousness, our modes of conduct, and the various ways we use our attention. What makes one person happier than another? Why is love more conducive to happiness than hate? Why do we generally prefer beauty to ugliness and order to chaos? Why does it feel so good to smile and laugh, and why do these shared experiences generally bring people closer together? Is the ego an illusion, and, if so, what implications does this have for human life? Is there life after death? These are ultimately questions for a mature science of the mind. If we ever develop such a science, most of our religious texts will **be no more useful** to mystics than they now are to astronomers.

**Ignoring evidence allows religion to create major war- this results in extinction**

**Harris 4** Sam, Co-Founder and CEO of Project Reason, a nonprofit foundation devoted to spreading scientific knowledge and secular values in society. He received a degree in philosophy from Stanford University and a Ph.D. in neuroscience from *The End of Faith*, p. 25-26

Our world is fast succumbing to the activities of men and women who would stake the future of our species on beliefs that should not survive an elementary school education. That so many of us are still dying on account of ancient myths is as bewildering as it is horrible, and our own attachment to these myths, whether moderate or extreme, has kept us silent in the face of developments that could ultimately destroy us. Indeed, religion is as much a living spring of violence today as it was at any time in the past. The recent conflicts in Palestine (Jews v. Muslims), the Balkans (Orthodox Serbians v. Catholic Croatians; Orthodox Serbians v. Bosnian and Albanian Muslims), Northern Ireland (Protestants v. Catholics), Kashmir (Muslims v. Hindus), Sudan (Muslims v. Christians and animists), Nigeria (Muslims v. Christians), Ethiopia and Eritrea (Muslims v. Christians), Sri Lanka (Sinhalese Buddhists v. Tamil Hindus), Indonesia (Muslims v. Timorese Christians), and the Caucasus (Orthodox Russians v. Chechen Muslims; Muslim Azerbaijanis v. Catholic and Orthodox Armenians) are merely a few cases in point. In these places **religion has been the explicit cause of literally millions of deaths** in the last ten years. These events should strike us like psychological experiments run amok, for that is what they are. Give people divergent, irreconcilable, and untestable notions about what happens after death, and then oblige them to live together with limited resources. The result is just what we see: **an unending cycle of murder** and cease-fire. If history reveals any categorical truth, it is that an insufficient taste for evidence regularly **brings out the worst in us.** Add weapons of mass destruction to this diabolical clockwork, and you have found a recipe for the **fall of civilization**.What can be said of the nuclear brinkmanship between India and Pakistan if their divergent religious beliefs are to be "respected"? There is nothing for religious pluralists to criticize but each country's poor diplomacy—while, in truth, the entire conflict is born of an irrational embrace of myth. Over one million people died in the orgy of religious killing that attended the partitioning of India and Pakistan. The two countries have since fought three official wars, suffered a continuous bloodletting at their shared border, and are now poised to exterminate one another with nuclear weapons simply because **they disagree about "facts"** that are every bit **as fanciful as** the names of **Santa's reindeer**. And their discourse is such that they are capable of mustering a suicidal level of enthusiasm for these subjects without evidence. Their conflict is only nominally about land, because their incompatible claims upon the territory of Kashmir are a direct consequence of their religious differences. Indeed, the only reason India and Pakistan are different countries is that the beliefs of Islam cannot be reconciled with those of Hinduism. From the point of view of Islam, it would be scarcely possible to conceive a way of scandalizing Allah that is not perpetrated, each morning, by some observant Hindu. The "land" these people are actually fighting over is not to be found in this world. When will we realize that the concessions we have made to faith in our political discourse have prevented us from even speaking about, much less uprooting, the most prolific source of violence in our history?

#### Tech optimism based on empirical research is good---prefer specific experts

Krier 85 James E., Professor of Law at the University of Michigan, “The Un-Easy Case for Technological Optimism,” Michigan Law Review, Vol. 84, No. 3; December 1985, pp. 405-429

A technological optimist is not simply a person with unqualified enthusiasm about technological promise. Saint-Simon (1760-1825) was an enthusiast, but he was not a technological optimist as the term is currently used. Saint-Simon, rather, was a utopian who happened to attach his vision to technocratic expertise.4 He was the forefather of Technocracy, an active utopian movement in the 1930s and one not entirely dead even today.5 Technological optimists are not utopians, but something less - let us say quasi-utopians, after a recent usage (applied to himself) of Robert Dahl's.6 Unlike any self-respecting pure utopian, quasi-utopians (and technological optimists) seek not perfection but tolerable imperfection, tolerable because it is better than anything else they consider attainable though not nearly as good as lots of alternatives that can be imagined. But technological optimists are also something more than mere believers, or faddists, or techniks.7 Their views are rigorously formulated, grounded in an apparent reality, based on knowledge and experience, and artfully defended. There are no crazies among the best of the optimists; they are conservative, respected experts who command enormous authority. They have a very specific position namely, "that exponential technological growth will allow us to expand resources ahead of exponentially increasing demands."8 This is the precise meaning of technological optimism as a term of art.

#### Growth’s sustainable---tech innovation continually changes the game and outpaces their predictions---global shift towards sustainability’s happening now, it’s effective and permanent

John H. Matthews 12, and Frederick Boltz, Center for Conservation and Government, Conservation International, June 2012, “The Shifting Boundaries of Sustainability Science: Are We Doomed Yet?,” PLOS Biology, [http://www.plosbiology.org/article/info:doi/10.1371/journal.pbio.1001344](http://www.plosbiology.org/article/info%3Adoi/10.1371/journal.pbio.1001344)

Humans have long caused irreparable harm to ecosystems, driven species to extinction, and have in turn endured major shifts in biogeochemical cycling. We agree that such incidents are avoidable and unacceptable and that the magnitude of current trends must not be dismissed. Humans have also developed ingenious and novel ways of making resource use far more efficient or exploiting new types of resources. Obvious developments here include the invention of agriculture and the domestication of wild plant and animal species, of course, but humans have also been innovative in energy development (wood, wind, coal, petroleum, hydropower, biofuels, geothermal, biogen, nuclear, solar, and wave power), the development of synthetic chemical fertilizers in the 19th century, and the discovery of modern antibiotics in the 20th century. Other innovations have been organizational, such as the development of cities in the Levant and east and south Asia, the birth of modern experimental science, and the transition from family-tribal-moeity structures to multiple scales of governance (including corporate, national, international, and global government structures and institutions).

Some responses to economic and environmental change defy the longstanding predictions of overpopulation concerns, such as the widespread trend towards declining birthrates as living standards increase [32], though the relationship between per capita energy consumption and population growth is complex [33]. While Burger and colleagues point to increasing energy consumption over the past few centuries, they disregard important shifts in the sources of energy in progressive economies [1]; the expansion of low-carbon energy sources in China, Brazil, the European Union, and other regions in recent decades marks a critical transition, and a shift from coal-fired sources of power to hydropower or wind mark very significant transformations, with important implications for ecological footprints. For example, over 98% of Norway's electricity is derived from hydropower [34], about 20% of Brazil's transport fuels consumption is derived from renewable biofuels [35], while China has installed to date about 61 GW of windpower, or roughly three times the generation potential of the Three Gorges Dam [36]. The development of a global environmental movement is also notable in this context, as signified by both the 1992 Rio Earth Summit (attended by over 100 heads of state and 172 governments) as well as its planned 2012 successor conference, the Rio+20 Summit, in addition to important milestones achieved under the UN biodiversity and climate conventions (i.e., the United Nations Convention on Biological Diversity [UNCBD] and the United Nations Framework Convention on Climate Change [UNFCCC]).

While these and other innovations in organization, efficiency, and technology have had unintended side effects, they also resulted in major transitions in human survivorship, resource extraction efficiency, and social and cultural organization. They were also largely unanticipated or very difficult to predict for most observers prior to their invention. Taken together, humans have demonstrated great creativity in how we use technological, social, and cultural “tools” to solve resource limitations.

Not Doomed (Yet) Top

Our “adjustments” to the view of sustainability science presented by Brown and colleagues [1] are not meant to obscure or downplay absolute declines in resources such as economically valuable metals and agriculturally productive land, our heedless approach to anticipated tipping points in greenhouse gas accumulation, and ecosystem transformation and species extinction. The availability of natural resources is less of a problem than absolute limits in the Earth's ability to absorb the different outputs of economic activities, while maintaining conditions necessary for human productivity, much less the survival of humans and other species. Anthropogenic climate change is perhaps the most prominent example of these new scarcities and emerging “limits to growth.” Indeed, we attribute great merit to these cautionary appeals and to the evidence of Earth system thresholds. We argue for positive responses in behavior, technological progress, and economic realignments commensurate with the challenge of fulfilling human needs while maintaining an Earth system suitable for the long-term survival of humans and other species.

The authors ask, Can the Earth support even current levels of human resource use and waste production, let alone provide for projected population growth and economic development? They answer their question with little doubt: “There is increasing evidence that modern humans have already exceeded global limits on population and socioeconomic development, because essential resources are being consumed at unsustainable rates” [1]. We agree that our present consumptive trajectory risks surpassing perceived planetary boundaries in the safe operating space for humanity (c.f. [11]). We argue that these risks merit a paradigm shift, a global transformation—and that this paradigm shift is underway. We believe that the transition from relatively static approaches to sustainability to flexible green economies embedded in dynamic, variable ecosystems will prove to be a critical intellectual shift for humans this century.

There are reasons for cautious optimism. It is no accident that the modern synthesis of payments for ecosystem services crystallized in the developing world in Costa Rica when the scarcity of ecosystem goods and services from forest conversion was recognized as a social and economic threat [37]. Revolutionary approaches to water management such as dynamic environmental flows have evolved to address both climate variability and absolute shifts in Tanzania's precipitation regime (http://www.iucn.org/about/union/secretar​iat/offices/esaro/what\_we\_do/water\_and\_w​etlands/prbmp\_esaro/). A global policy and economic transformation attributing value to standing forest has emerged with the development of “REDD+” incentives to reduce greenhouse gas emissions from deforestation, particularly in tropical forests (c.f. [38]). Many developing countries understand that Western models of development are inappropriate if not impossible to achieve. We believe that these and other positive trends are both accelerating and permeating local, national, and global economies quickly and permanently.

# 2AC vs Wayne State DN

## Proliferation

### AT: No Spread – 2AC

#### Prolif domino theory is true- all empirics prove

**Kroenig 5-26**-12 [Matthew, assistant professor in the Department of Government at Georgetown University and a research affiliate with The Project on Managing the Atom at Harvard University, he served as a strategist on the policy planning staff in the Office of the Secretary of Defense where he received the Office of the Secretary of Defense’s Award for Outstanding Achievement. He is a term member of the Council on Foreign Relations and has held academic fellowships from the National Science Foundation, the Belfer Center for Science and International Affairs at Harvard University, the Center for International Security and Cooperation at Stanford University, and the Institute on Global Conflict and Cooperation at the University of California, “The History of Proliferation Optimism: Does It Have A Future?” <http://www.npolicy.org/article.php?aid=1182&rtid=2>]

Further proliferation. **Nuclear proliferation poses an additional threat to international peace and security because it causes further proliferation**. As former Secretary of State George Schultz once said, “**proliferation begets proliferation**.”[69] **When one country acquires nuclear weapons, its regional adversaries, feeling threatened by its neighbor’s new nuclear capabilities, are more likely to attempt to acquire nuclear weapons in response. Indeed, the history of nuclear proliferation can be read as a chain reaction of proliferation**. The United States acquired nuclear weapons in response to Nazi Germany’s crash nuclear program. **The Soviet Union and China acquired nuclear weapons to counter the U.S. nuclear arsenal. The United Kingdom and France went nuclear to protect themselves from the Soviet Union. India’s bomb was meant to counter China and it, in turn, spurred Pakistan to join the nuclear club**. Today, we worry that, if Iran acquires nuclear weapons, other Middle Eastern countries, such as Egypt, Iraq, Turkey, and Saudi Arabia, might desire nuclear capabilities, triggering an arms race in a strategically important and volatile region. Of course, reactive proliferation does not always occur. In the early 1960s, for example, U.S. officials worried that a nuclear-armed China would cause Taiwan, Japan, India, Pakistan, and other states to acquire nuclear weapons.[70] In hindsight, we now know that they were correct in some cases, but wrong in others. Using statistical analysis, Philipp Bleek has shown that reactive proliferation is not automatic, but that rather, states are more likely to proliferate in response to neighbors when three conditions are met 1) there is an intense security rivalry between the two countries, 2) the potential proliferant state does not have a security guarantee from a nuclear-armed patron 3) and the potential proliferant state has the industrial and technical capacity to launch an indigenous nuclear program.[71] In other words, reactive proliferation is real, but it is also conditional. If Iran enters the nuclear club, therefore, it is likely that some, but not all, of the countries that we currently worry about will eventually follow suit and become nuclear powers. **We should worry about the spread of nuclear weapons in every case**, therefore, because the problem will likely extend beyond that specific case. As Wohlstetter cautioned decades ago, proliferation is not an N problem, but an N+1 problem. Further nuclear proliferation is not necessarily a problem, of course, if the spread of nuclear weapons is irrelevant or even good for international politics as obsessionists and optimists protest. But, as the above discussion makes clear, nuclear proliferation, and the further nuclear proliferation it causes, increases the risk of nuclear war and nuclear terrorism, emboldens nuclear-armed states to be more aggressive, threatens regional stability, constrains U.S. freedom of action, and weakens America’s alliance relationships, giving us all good reason to fear the spread of nuclear weapons.

### AT: CBW – 2AC

#### Nuclear war outweighs

**Connoly 3-23**-12 [Catherine, Project and Research Assistant at Security and Defence Agenda, a British security think-tank, M.A. War Studies programme in King's College, London, “Weapons Of Mass Destruction & The Nuclear Weapons Taboo,” <http://theriskyshift.com/2012/03/weapons-of-mass-destruction-and-nuclear-html/>]

Taboo weapons, ‘non-conventional’ weapons, or weapons of mass destruction (WMDs) are all terms used to describe those weapons which, whether by international convention or norm, are considered illegal and out of bounds for use in conflict of any character today due to their destructive capabilities. The weapons that fall under these terms are biological, chemical and nuclear weapons. All are subject to international conventions or treaties. The creation, proliferation and use of biological and chemical weapons is illegal under the Biological Weapons Convention and the Chemical Weapons Convention, both of which entered into force in 1975 (the use of chemical weapons in war has however been prohibited since the 1925 Geneva Protocol). Nuclear weapons are not illegal per se. Under the Non-Proliferation Treaty, those States party to the treaty agree not to acquire nuclear weapons and are obligated to pursue disarmament if they have a nuclear weapons stockpile, but a State may derogate or withdraw from the Treaty with little or no consequences for doing so. There is currently no international legal document which expressly states that the use of nuclear weapons is illegal. However, **the term ‘w**eapons of **m**ass **d**estruction’ **is** a **misleading** one. Categorising these diverse weapons under one moniker leads people to believe that all are equally destructive and of great cause for concern, when in reality there is a massive variance in the destructive potential of the kinds of weapon the term describes. **Chemical weapons can hardly be described as causing massive destruction**; whilst the effects of chemical weapons can certainly spread quickly and widely, **they cannot be compared to nuclear weapons or even biological weapons in terms of destructive capability. Recovery from an attack by chemical weapon is often possible, and in a conflict situation in which the chemical attack was against well-protected soldiers, it wouldn’t be particularly effective- chemical weapons ‘are less deadly on average’ than a conventional explosive. Biological weapons** **are** much more dangerous than chemical weapons, but **still not deserving of being termed a WMD**. Despite this, in recent years bioweapons have become the WMD du jour. Statements such as the that saying that bioweapons could be created with ‘lamentable ease’ and a report from the US Commission on the Prevention of WMD Proliferation and Terrorism stating that a biological attack by terrorists is likely to happen ‘somewhere in the world’ by 2013, caused bioweapons to become the new big threat to worry about. A convincing as many of these arguments may be, they are ultimately misleading: **the threat from biological weapons has been greatly exaggerated**. It may be easier for a terrorist group to make a bioweapon relative to the ease with which they could develop a nuclear weapon, but successfully creating a bioweapon that could cause mass casualties requires at the very least a high level of expertise and sophisticated equipment to an extent that terrorist groups do not currently possess. The rapid spread of sometimes fatal diseases is not at all desirable, but **to class bioweapons in the same category as nuclear weapons is ridiculous – a biological weapon will not decimate the infrastructure of a city or country, or cause the same massive level of human casualties in the way that a nuclear weapon would. Nuclear weapons**, on the other hand, **can and have been used to devastating effect. They are the only category of weapon truly deserving of the term ‘w**eapon of **m**ass **d**estruction’. **The bombings of Hiroshima and Nagasaki** in 1945 **resulted in the deaths of an estimated 210,000 people and obliterated both cities, in each case with the use of a single bomb.** **Nuclear weapons are not feared simply because of the level of destruction** they can cause – conventional weapons, such as incendiary bombs, can be just as destructive – **but rather the efficacy and efficiency with which they can cause this destruction**. Yet at one point it was believed they could be ‘conventionalised’ and accepted for battlefield use alongside regular bombs. They are not unused merely because of mutual deterrence, but also because of the socially constructed taboo surrounding them; since the 1950s, a social norm has arisen that has made it almost unthinkable that a nuclear bomb could be used in any situation, apart from in cases where the very survival of a state was at stake.

#### Stigma solves CBW shift

**Ware ’10** [Alyn Ware is a Consultant for the International Association of Lawyers against Nuclear Arms, member of the Middle Powers Initiative, Global Coordinator of Parliamentarians for Nuclear Non-proliferation and Disarmament, Vice-President of the International Peace Bureau and co-founder of the Abolition 2000 international network promoting a nuclear weapons convention, “From aspiration to success: shaping civil society action to change nuclear weapons policy,” <http://unidir.org/pdf/articles/pdf-art3020.pdf>]

The International Commission on Nuclear Non-proliferation and Disarmament (**ICNND**) **identified** a number of key drivers and **rationales that perpetuate reliance on nuclear deterrence, which include the following perceptions. • Nuclear weapons** have deterred, and **will** continue to **deter, war between the major powers**. • Nuclear weapons deter large-scale conventional attacks. • Nuclear weapons deter chemical or biological weapons attack. • **Extended nuclear deterrence is necessary to reassure allies**. • Any major move away from nuclear deterrence is inherently destabilizing. • Nuclear weapons cannot be disinvented so there is no point trying to eliminate them. • **Nuclear weapons confer unrivalled status and prestige**. • Nuclear weapons cost less than conventional arms. • Nuclear weapons establishments are needed to maintain expertise. 21 Another key driver is the corporate interest in perpetuating a high nuclear weapons budget. Nearly US$ 100 billion are spent annually on nuclear weapons and their delivery systems, 22 leaving the industry with considerable resources to advocate for the retention of nuclear weapons. The prospect of success will be greatly enhanced if civil society campaigns address these rationales and drivers. Nuclear abolition should be relevant to politicians’ and the general public’s interests. The campaigns should stigmatize and delegitimize nuclear weapons: highlight the environmental and humanitarian costs as well as other risks of nuclear weapons, expose the myths of nuclear deterrence and reinforce the illegality of nuclear weapon use. The campaigns must also propose viable alternatives to nuclear deterrence, and a verifiable and enforceable disarmament regime that builds prestige into nuclear disarmament rather than armament. Stigmatizing nuclear weapons **The overwhelming majority of states agreed to prohibit chemical and biological weapons and to discard them as unusable because they came to be seen as inhumane, “dirty”, “poisonous”, and indiscriminate terror devices unworthy of being considered weapons**. 23 Similar stigmatization by civil society of landmines and cluster munitions underpinned the successful campaigns for treaties banning them. 24

### AT: Conventional War

#### More ev – amplifies stability paradox

**Krepon 10**, Michael, co-founder of Stimson, and director of the South Asia and Space Security programs [“The Stability-Instability Paradox,” November 2nd, <http://krepon.armscontrolwonk.com/archive/2911/the-stability-instability-paradox>]

Robert Jervis offered a more generalized and yet succinct formula for this paradox in The Illogic of Nuclear Strategy (1984): “To the extent that the military balance is stable at the level of all-out nuclear war, it will become less stable at lower levels of violence.” In actuality, Washington and Moscow perceived greater dangers as their nuclear competition accelerated, so the stability part of this equation turned out to be deeply suspect. But Jervis’ larger point remained valid: Adversaries possessing nuclear weapons would exercise caution to avoid major wars and any crossing of the nuclear threshold. At the same time, their “insurance policy” of nuclear retaliation provided ample leeway to engage in crisis-provoking behavior, proxy wars, and mischief making. This construct eventually became known in the trade as the stability-instability paradox. I’m not sure who first coined this phrase or when it became common usage. If anyone knows, please send a comment. The stability-instability paradox is most harrowing at the onset of a nuclear competition for many reasons. Troubled relations between adversaries get worse when nuclear weapons are added to their disagreements. Stability is especially hard to achieve early on, when fear and ignorance are most pronounced because adversarial moves magnify security concerns when monitoring capabilities are rudimentary, at best. In addition, the jockeying to achieve advantage – or to avoid disadvantage – is greatest early on, before tacit rules of a nuclear-tinged competition are clarified. The U.S.-Soviet experience – admittedly, an extreme and, thankfully, lonely case — suggests that big crises are most likely to occur in the first fifteen years of a nuclear competition. Misperception and spikes in nuclear danger can still occur later on (circa 1983), but the worst passages are typically front-loaded (e.g. Berlin, Cuba, and Korea) after the Bomb’s appearance. The U.S.-Soviet case also suggests that nuclear-armed adversaries can make it through very rough patches, especially if they tacitly agree not to play with fire in each other’s back yard. The stability-instability paradox has now hit the road and traveled to South Asia. Initially, some very distinguished observers from the region, led by K. Subrahmanyam, K. Sundarji, and Abdul Sattar, believed that going public with nuclear capabilities would serve as a stabilizing factor. The 1999 Kargil War, the 2001-2 “Twin Peaks” crisis sparked by an attack on the Indian parliament building, and the 2008 Mumbai attacks suggest otherwise. A few western analysts, including Kenneth Waltz, Sumit Ganguly, and Devin Hagerty, have argued that, because these events did not cascade into full-blown wars or nuclear exchanges, deterrence optimism is in order. Perhaps, over time, this will be the case. But Cold War conceptualizers of the stability-instability paradox never made the acquaintance of the Lashkar-i-Taiba. Until Pakistan’s security managers tacitly accept the ground rule about not playing with fire, deterrence optimists for South Asia will remain in the minority.

#### Neg empirics are flawed

**Berry et al ‘10** [Ken Berry, Research Coordinator at the International Commission on Nuclear Non-proliferation and Disarmament, Dr. Patricia Lewis is the Deputy Director and Scientist-in-Residence at the James Martin Center for Nonproliferation Studies at the Monterey Institute of International Studies, Benoît Pelopidas, PhD, is the Postdoctoral Fellow at the James Martin Center for Nonproliferation Studies for the year 2010/2011 and adjunct faculty at the Graduate School for International Policy and Management, Dr. Nikolai N. Sokov is a Senior Fellow at the Vienna Center for Disarmament and Non-Proliferation, and Ward Wilson, Senior Fellow at the CNS, “DELEGITIMIZING NUCLEAR WEAPONS: Examining the validity of nuclear deterrence,” http://cns.miis.edu/opapers/pdfs/delegitimizing\_nuclear\_weapons\_may\_2010.pdf]

**Contrary to common belief, there is no evidence that nuclear weapons ―kept the peace during the Cold War**. All war plans drawn on both sides (including those that have been declassified after the end of the Cold War) proceeded from the notion that the other side would have launched the attack. If we do not have evidence that an attack was planned, how can we assume that nuclear weapons prevented it? Perceptions are a different matter – attack was feared during the entire Cold War, and the opponent was always suspected of preparing to attack. It has been demonstrated, however, that even the widely touted ―first-strike‖ Soviet nuclear posture of the late 1970s to early 1980s resulted from a series of faulty decisions and technical shortcomings and was ―unintended‖ in the sense that the Soviet military aspired to build a very different type of arsenal. 68 It is important to recognize that various explanations are still competing to account for the absence of actual use of nuclear weapons since 1945. 69 **Because the record is impossible to definitely interpret, it makes no sense to make life or death decisions based on it**. And**, if nuclear weapons had deterred war over the last 60 years, there is still little comfort to be drawn from this history. We will not restate here the many cases of near-misses in which nuclear conflict has been avoided by** mere luck. 70 **This is because no nuclear weapon state has yet faced a war in which its** vital interests were at stake. Despite the ―domino theory,‖ Korea and Vietnam were, at best, peripheral to U.S. interests. Rebellion in Afghanistan did not put the vital interests of the Soviet Union into jeopardy. Failures to deter conventional attack **These explanations**, however, **cannot account for the striking failure of deterrence in both the Yom Kippur War and the Falkland War/Guerra de las Malvinas. Twice, during the Cold War, countries that had nuclear weapons** – or were believed to have nuclear weapons – **were attacked by states that did not have nuclear weapons. In both cases the possible threat of nuclear retaliation failed to deter**. How can these failures be accounted for? **One of the benefits of nuclear deterrence is that it is supposed to protect against conventional invasion. Yet in both of these cases nuclear weapons failed to provide this protection. The case of Israel is particularly striking**. Given the deep animus between Israel, on the one hand, and Egypt and Syria, on the other, the repeated statements by various Arab spokesmen that Israel had no right to exist, and the resulting probability that Israel would interpret any attack as a threat on its very existence, **the danger of a nuclear attack by Israel would seem to be far greater than in any other instance of Cold War confrontation. Yet nuclear weapons failed. They did not deter. In fact, they failed twice: neither Anwar Sadat, the leader of Egypt, nor Hafez al-Assad, the leader of Syria, was deterred**. 71 Rather, these cases seem to demonstrate the power of the non-use norm: attackers clearly understood that the chances of the opponent resorting to nuclear weapons were slim, at best. **There is positive evidence that nuclear threats do not prevent conventional attacks, even in circumstances where nuclear deterrence ought to work robustly**.

#### Quantitative risk analysis proves – proliferators are more likely to be targeted

**Sobek 12**, David, Assistant Professor at Louisiana State University, Dennis M. Foster, Associate Professor of International Studies and Political Science at the Virginia Military Institute, Samuel B. Robison, B.A., University of Southern Mississippi; M.A., LSU Office [“Conventional Wisdom? The Effect of Nuclear Proliferation on Armed Conflict, 1945–2001,” International Studies Quarterly Volume 56, Issue 1, pages 149–162, March 2012]

The possession of nuclear weapons confers many benefits on a state. The path to proliferation, however, is often violent. When a state initiates a nuclear weapons program, it signals its intent to fundamentally alter its bargaining environment. States that once had an advantage will now be disadvantaged. This change in the environment is not instantaneous, but evolves slowly over time. This gives states both opportunities and incentives to resolve underlying grievances, by force if necessary, before a nuclear weapons program is completed. Our cross-national analyses of nuclear weapons program and the onset of militarized conflict confirm this expectation. In particular, the closer a state gets to acquiring nuclear weapons, the greater the risk it will be attacked (especially over territorial issues). Once nuclear weapons are acquired, however, the risk of being attacked dramatically drops, though not below the risk of attack for non-proliferators. Conventional wisdom holds that the possession of nuclear weapons offers states security from a number of international threats. In particular, the possession of nuclear weapons insulates a state from challenges to its most salient concerns (such as territorial integrity). While ultimately beneficial to proliferators, the path to nuclear status is generally neither instantaneous nor undetectable. As such, it behooves states that wish to challenge proliferators to realize their political goals sooner rather than later. Proliferators, on the other hand, have an incentive to delay the resolution of the contentious issue until the deployment of their nuclear weapons. In this article, we use this set of interacting incentives as a point of departure in delineating a theory of the relationship between the nuclear proliferation process and the frequency with which proliferators are targeted in conventional militarized conflicts. Though much previous scholarship has been devoted to this question, we believe that extant views have focused too narrowly on one subset of that relationship: the preemptive employment of conventional capabilities by status quo powers in order to physically disable or destroy proliferators’ nascent nuclear programs. In developing a broader treatment of the strategic interaction between states, we posit that the various stages of deterrent nuclear proliferation are best conceived of as sequential steps in a bargaining process over preexisting disputes that were instrumental in spurring proliferators to consider nuclear options. As such, we contend that the primary rationale for status quo states’ conventional targeting of proliferators should derive not from the desire to physically disrupt nuclear development (which is, at best, a difficult task), but from the desire to reach favorable conclusions to underlying disputes before the deployment of nuclear weapons drastically complicates the issue. The effect of nuclear proliferation on conventional targeting is tested quantitatively by looking at states in four different stages of the proliferation process: no program, exploration, pursuit, and acquisition (Singh and Way 2004). In general, the results of our analyses show that as states move from no program to exploration and then to pursuit, the odds that that they become the target of a militarized interstate dispute (or MID; Jones, Bremer, and Singer 1996) increase rather steadily. Once actual acquisition is achieved, however, the risk of being targeted decreases. These results are most robust when looking at disputes over territory (which arguably represent conflicts over the most salient interest of states) and territorial disputes that lead to at least one fatality.

#### Nuclear war outweighs

Michael J. **Mills**, Ph.D. in Atmospheric Science, Research Scientist at the Laboratory for Atmospheric and Space Physics, University of Colorado-Boulder, **et al**., December 28, **2006**, (Alan Robock, professor of environmental sciences at Rutgers University; Owen B. Toon, chair of the Department of Atmospheric and Oceanic Sciences at CU-Boulder), “Here’s how ‘nuclear winter’ might occur,” online: <http://74.125.95.132/search?q=cache:2zfwIdBAuvgJ:m.dailycamera.com/news/2006/Dec/28/heres-how-nuclear-winter-might-occur/+%22luke+oman+is%22&cd=4&hl=en&ct=clnk&gl=us>

Using two independent, state-of-the-art climate models, we calculated that the soot would heat the stratosphere by more than 50 degrees (Fahrenheit) and cool the surface by 2.5 degrees F for four years. The mass of soot in the stratosphere is not sufficient to radiate enough infrared energy to the surface of the earth to compensate for the sunlight it absorbs. The result would be the coldest decade of the last thousand years, a period which included the Little Ice Age, a climactic event that drove the Vikings from Greenland. The cooling, darkness and loss of precipitation we calculate could devastate the global food supply. For obvious reasons, no one would seriously consider an appropriately scaled nuclear war to be a solution to global warming. Our published work calculates that, in many countries such as India and Pakistan, just one nuclear weapon can cause more than 100 times more fatalities than have occurred in all their previous wars. In addition, the heating of the stratosphere would cause unprecedented, catastrophic losses of ozone over populated areas.

## Russia

### AT: Economic Decline Inevitable

#### Russia economic decline not inevitable

Adomanis ’12 – contributor to Forbes

Mark, “Russia’s Economy Is Not in Decline”, Forbes, 7-26-2012, http://www.forbes.com/sites/markadomanis/2012/07/26/russias-economy-is-not-in-decline/)

I’ve been very confused by the number of articles I’ve seen over the past few weeks that paint Russia as some sort of abysmal economic basket case, a country teetering on the edge of catastrophe. This confuses me partially because the entire Western world is now enveloped in various kinds of slow-motion economic disaster, and partially because when you look at the actual numbers Russia’s economy has actually done OK over the past couple of years. Whether it was Zaiki Laidi making the inaccurate observation that Russia is “falling behind” the West or William Martel calling Russia’s economy both “totally dysfunctional” and “command” in nature, people haven’t had a whole lot of love for what has traditionally been the least popular member of the BRICS.¶ So what I thought I would do is make a simple and straightforward graph of Russia’s economic performance since its economy reached its post-Soviet nadir in 1998.\* Since my expectation is that growth is going to decelerate as the Eurozone crisis, which Russia has somehow managed to avoid sofar, begins to take a toll, I used a quite conservative estimate of 3.3% overall GDP growth for 2012. Since actual growth in the 1st quarter of 2012 was 4.9%, hitting 3.3% means that Russia would experience a pretty noticeable slowdown over the remainder of the year.¶ Does this look to you like a country that is in long-term economic decline? Now Russia was an absolute disaster area in 1998, so the fact that its economy has doubled in size since then should be taken with a very large grain of salt. But I won’t argue with someone if they say “Russia is poor” because Russia really is poor. And if someone says “Russia could grow more quickly if it carried out liberalizing structural reforms” I would agree with that because Russia really does need to carry out liberalizing structural reforms.¶ What I will take issue with, though, is when someone says that Russia is losing economic ground, or that its economy is in some sort of long-term decline. As you can very easily see, it’s simply not possible to argue that Russia’s economy is shrinking because it’s not: the clearly visible trend is of sustained, if not overwhelming, economic growth from a very low base.¶ Meanwhile, just for kicks, here’s a chart comparing the US and Russian economies have performed since 1998 (US inflation adjusted GDP data are from the Bureau of Economic Analysis here). I used the most recent IMF prediction of 2% growth in 2012. Again one should note that in 1998 Russia was a pretty nightmarish place to be, but the next time someone tells you Russia is “falling behind” this or that random country it’s worth keeping this chart in mind.

## Other

### Pu238

#### Plan solves Pu-238 shortages

Packard ’12 – member of the James Randi Educational Foundation

(Steven, “The U.S. Space Program’s Plutonium-238 Crisis”, Depleted Cranium, 1-6-2012, http://depletedcranium.com/americas-plutonium-238-crisis/)

The plutonium that can be extracted from light water spent fuel contains significant amounts of plutonium-238, but it’s combined with other isotopes of plutonium, making it unusable. Separating out the plutonium-238 would require a complex plutonium enrichment system, which is far less practical than simply preparing the plutonium-238 on its own.¶ To produce plutonium-238, the first thing that is required is neptunium-237. Neptunium-237 is produced as a byproduct of the reprocessing of spent fuel. When a nucleus of uranium-235 absorbs a neutron, it will usually fission. However, in a thermal spectrum reactor, some of the uranium-235 (about 18%) will absorb a neutron and not fission. Instead, the uranium-235 becomes uranium-236. Uranium-236 has a low neutron cross-section, so most of the uranium-236 generated in a reactor will just remain uranium-236, but a small amount of it does absorb a neutron and become uranium-237. Uranium-237 has a very short half-life of only six days, decaying to neptunium-237. Another source of neptunium-237 in spent fuel is the alpha decay or americium-241. Spent fuel contains about .7 grams of np-237 for every one hundred kilograms of fuel. That might not seem like much, but fuel reprocessing operations routinely go through hundreds of tons of fuel. Because Np-237 is the only isotope of neptunium present in spent fuel in any significant quantity, it does not require any enrichment. Instead, simply chemically separating the neptunium out yields nearly 100% neptunium-237.¶ After removing the neptunium-237, it is fabricated into targets which are irradiated with neutrons in a high flux reactor. The targets are then removed and processed to separate out the plutonium-238 that is produced. The plutonium-238 is then fabricated into RTG fuel tablets.¶ The United States ended the practice of spent fuel reprocessing in 1977 when it was banned by the Carter Administration because of “proliferation concerns.” Since then, the ban has been lifted, but as all reprocessing operations were shut down in the 1970’s and little support can be found for restarting the practice, the US still has no capacity to reprocess spent fuel. After 1977, some material from plutonium production reactors continued, which yielded some neptunium-237, but that also ended in 1992, with the end of the cold war.¶ Today, the United States reprocesses no fuel at all and therefore cannot produce any neptunium-237. There may still be some of the material remaining, though it’s doubtful that very much is left. It should still be possible to obtain Np-237, purchasing it from countries with major spent fuel reprocessing programs, such as Russia, France or Japan. However, this depends entirely on the willingness of such nations to provide it and may be expensive, since additional steps beyond normal reprocessing are required to produce the highly concentrated neptunium necessary for plutonium-238 production.

#### Solves planetary science

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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Radioisotope Power Systems are necessary for powering spacecraft at large distances from the Sun; in the extreme radiation environment of the inner Galilean satellites; in the low light levels of high martian latitudes, dust storms, and night; for extended operations on the surface of Venus; and during the long lunar night. With some 50 years of technology development and use of 46 such systems on 26 previous and currently flying spacecraft, the technology, safe handling, and utility of these units are not in doubt. Of the more than 3,000 nuclides, plutonium-238 stands out as the safest and easiest to procure isotope for use on robotic spacecraft. This report’s recommended missions cannot be carried out without new plutonium-238 production or com pleted deliveries from Russia. There are no technical alternatives to plutonium-238, and the longer the restart of production is delayed, the more it will cost. The committee is alarmed at the limited availability of plutonium-238 for planetary exploration. Without a restart of domestic production of plutonium-238, it will be impossible for the United States, or any other country, to conduct certain important types of planetary missions after this decade.

#### Solves biosphere destruction

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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In the past, scientists had only one planet to study in detail. Our Earth, however, the only place where life demonstrably exists and thrives, is a complex interwoven system of atmosphere, hydrosphere, lithosphere, and biosphere. Today, planetary scientists can apply their knowledge to the whole solar system, and to hundreds of worlds around other stars. By investigating planetary properties and processes in different settings, some of them far simpler than Earth, we gain substantial advances in understanding exactly how planets form, how the complex interplay of diverse physical and chemical processes creates the diversity of planetary environments seen in the solar system today, and how interactions between the physical and chemical processes on at least one of those planets led to the creation of conditions favoring the origin and evolution of multifarious forms of life. These basic motivational threads are built on and developed into the three principal science themes of this report—building new worlds, workings of solar systems, and planetary habitats—discussed in Chapter 3. Current understanding of Earth’s surface and climate are constrained by studies of the physical processes operating on other worlds. The destructive role of Chlorofluorocarbons in Earth’s atmosphere was recognized by a scientist studying the chemistry of Venus’s atmosphere. Knowledge of the “greenhouse” effect, a mechanism in the ongoing global warming on Earth, likewise came from studies of Venus. Comparative studies of the atmospheres of Mars, Venus, and Earth yield critical insights into the evolutionary histories of terrestrial planet atmospheres. Similarly, studies of the crater-pocked surface of the Moon led to current understanding of the key role played by impacts in shaping planetary environments. The insights derived from studies of lunar craters led to the realization that destructive impacts have wreaked havoc on Earth in the distant past, and as recently as 100 years ago a devastating blast in Siberia leveled trees over an area the size of metropolitan Washington, D.C. Three recent impacts on Jupiter provide our best laboratory for studying the mechanics of such biosphere-disrupting events. Wind-driven processes that shape Earth’s desert dunes operate on Mars and even on Saturn’s moon Titan.

#### Environmental destruction causes extinction

Coyne and Hoekstra 7 (Jerry and Hopi, \*professor in the Department of Ecology and Evolution at the University of Chicago AND Associate Professor in the Department of Organismic and Evolutionary Biology at Harvard University, New Republic, “The Greatest Dying,” 9/24, http://www.truthout.org/article/jerry-coyne-and-hopi-e-hoekstra-the-greatest-dying)

But it isn't just the destruction of the rainforests that should trouble us. Healthy ecosystems the world over provide hidden services like waste disposal, nutrient cycling, soil formation, water purification, and oxygen production. Such services are best rendered by ecosystems that are diverse. Yet, through both intention and accident, humans have introduced exotic species that turn biodiversity into monoculture. Fast-growing zebra mussels, for example, have outcompeted more than 15 species of native mussels in North America's Great Lakes and have damaged harbors and water-treatment plants. Native prairies are becoming dominated by single species (often genetically homogenous) of corn or wheat. Thanks to these developments, soils will erode and become unproductive - which, along with temperature change, will diminish agricultural yields. Meanwhile, with increased pollution and runoff, as well as reduced forest cover, ecosystems will no longer be able to purify water; and a shortage of clean water spells disaster. In many ways, oceans are the most vulnerable areas of all. As overfishing eliminates major predators, while polluted and warming waters kill off phytoplankton, the intricate aquatic food web could collapse from both sides. Fish, on which so many humans depend, will be a fond memory. As phytoplankton vanish, so does the ability of the oceans to absorb carbon dioxide and produce oxygen. (Half of the oxygen we breathe is made by phytoplankton, with the rest coming from land plants.) Species extinction is also imperiling coral reefs - a major problem since these reefs have far more than recreational value: They provide tremendous amounts of food for human populations and buffer coastlines against erosion. In fact, the global value of "hidden" services provided by ecosystems - those services, like waste disposal, that aren't bought and sold in the marketplace - has been estimated to be as much as $50 trillion per year, roughly equal to the gross domestic product of all countries combined. And that doesn't include tangible goods like fish and timber. Life as we know it would be impossible if ecosystems collapsed. Yet that is where we're heading if species extinction continues at its current pace. Extinction also has a huge impact on medicine. Who really cares if, say, a worm in the remote swamps of French Guiana goes extinct? Well, those who suffer from cardiovascular disease. The recent discovery of a rare South American leech has led to the isolation of a powerful enzyme that, unlike other anticoagulants, not only prevents blood from clotting but also dissolves existing clots. And it's not just this one species of worm: Its wriggly relatives have evolved other biomedically valuable proteins, including antistatin (a potential anticancer agent), decorsin and ornatin (platelet aggregation inhibitors), and hirudin (another anticoagulant). Plants, too, are pharmaceutical gold mines. The bark of trees, for example, has given us quinine (the first cure for malaria), taxol (a drug highly effective against ovarian and breast cancer), and aspirin. More than a quarter of the medicines on our pharmacy shelves were originally derived from plants. The sap of the Madagascar periwinkle contains more than 70 useful alkaloids, including vincristine, a powerful anticancer drug that saved the life of one of our friends. Of the roughly 250,000 plant species on Earth, fewer than 5 percent have been screened for pharmaceutical properties. Who knows what life-saving drugs remain to be discovered? Given current extinction rates, it's estimated that we're losing one valuable drug every two years. Our arguments so far have tacitly assumed that species are worth saving only in proportion to their economic value and their effects on our quality of life, an attitude that is strongly ingrained, especially in Americans. That is why conservationists always base their case on an economic calculus. But we biologists know in our hearts that there are deeper and equally compelling reasons to worry about the loss of biodiversity: namely, simple morality and intellectual values that transcend pecuniary interests. What, for example, gives us the right to destroy other creatures? And what could be more thrilling than looking around us, seeing that we are surrounded by our evolutionary cousins, and realizing that we all got here by the same simple process of natural selection? To biologists, and potentially everyone else, apprehending the genetic kinship and common origin of all species is a spiritual experience - not necessarily religious, but spiritual nonetheless, for it stirs the soul. But, whether or not one is moved by such concerns, it is certain that our future is bleak if we do nothing to stem this sixth extinction. We are creating a world in which exotic diseases flourish but natural medicinal cures are lost; a world in which carbon waste accumulates while food sources dwindle; a world of sweltering heat, failing crops, and impure water. In the end, we must accept the possibility that we ourselves are not immune to extinction. Or, if we survive, perhaps only a few of us will remain, scratching out a grubby existence on a devastated planet. Global warming will seem like a secondary problem when humanity finally faces the consequences of what we have done to nature: not just another Great Dying, but perhaps the greatest dying of them all.

### Japan

#### Plan solves Japan coop

Nakano ’12 – fellow in the CSIS Energy and National Security Program

(Jane Nakano, research interests include energy security and climate change in Asia, nuclear energy, shale gas, rare earth metals, and energy and technology, “Civilian Nuclear Energy Cooperation between the United States and Japan”, The Stimson Center, February 2012, http://www.stimson.org/images/uploads/research-pdfs/New\_Nuclear\_Agenda\_FINAL\_3\_15\_12.pdf)

However, bilateral R&D cooperation, particularly those strongly related to the fuel cycle development, has hardly been free from turbulence arising from the military sphere. In fact, the pace of bilateral R&D cooperation has been highly influenced by global security developments and policy responses to them. India’s atomic weapons tests in the mid 1970s heightened the international sensitivity towards the fuel cycle development. India developed its nuclear bomb from a heavy water moderated reactor from Canada under the guise of peaceful uses. Japan came under diplomatic pressure from the United States, under the Carter administration, which announced the US decision to abandon reprocessing and encouraged others to follow suit. This development coincided with Japanese efforts to begin the “hot operation”21 at its Tokai reprocessing project. The Carter administration urged Japan to reconsider the undertaking. Pursuant to the 1955 Agreement, 22 Japan’s reprocessing project required US consent as Japan was importing 100 percent of its enriched uranium from the United States. After several rounds of negotiation, Japan and the United States agreed in 1977 on the continuation of the Tokai project with certain restrictions. Under this agreement, Japan could process up to 99 tons of spent fuel at the Tokai facility, but had to store the extracted plutonium for an initial period of two years, instead of converting it to reactor fuel. 23 **As means of hedging against the fluidity in US reprocessing policy**, the Japanese government in the late 1970s considered acquiring a heavy water reactor from Canada. This development reflected Japanese apprehension over Japan’s continued heavy reliance on the United States for a range of nuclear technologies and business. Diversifying the portfolio of commercial nuclear power plants (NPPs) to include designs that would not require enriched uranium from the United States would free Japan from legal obligations that arise from the use of US-origin fissile materials. 24 The Japanese anxiety, however, subsided under the Reagan administration, which announced in 1981 that it would “lift the indefinite ban which previous administrations placed on commercial reprocessing activities in the United States,” and a year later approved a set of policies that essentially condoned reprocessing activities by Japan. 25 Following this development, Japan became more comfortable with continued partnership with the United States. Japanese and US companies continued licensing production. Japan’s reprocessing initiatives went unhindered under the Clinton administration. Although President Clinton announced that the United States “does not itself engage in plutonium reprocessing for either nuclear power or nuclear explosive purposes,” and discouraged the civil use of plutonium around the world, he also stated the US intent to “maintain its existing commitments regarding the use of plutonium in civil nuclear programs in Western Europe and Japan.” 26 During the George W. Bush administration, the bilateral cooperation on a range of fuel cycle technologies flourished under the GNEP, essentially aimed to develop reprocessing technology that is more proliferation resistant, while also limiting the countries with reprocessing capability. GNEP/IFNEC has its domestic foundation in DOE’s Advanced Fuel Cycle Initiative (AFCI). Launched in 2003, the AFCI aimed to develop and demonstrate spent fuel reprocessing/recycling technology after the Clinton administration largely had halted research in this area. The political climate surrounding reprocessing changed yet again with the inauguration of the Obama administration in 2008. President **Obama is not supportive of rapidly commercializing advanced reprocessing technology** and the Advanced Fuel Cycle Initiative (AFCI), which serves as domestic foundation of GNEP/IFNEC. 27 Although AFCI kept funding levels similar to that under the Bush administration, the program has been refocused on fundamental R&D.28

#### Solves Japan’s economy

Armitage and Nye 12

(Richard L. Armitage and Joseph S. Nye, “The U.S.-Japan Alliance anchoring stability in Asia”, Report of the CSIS Japan Chair, Center for Strategic and International Studies, August 2012, http://csis.org/files/publication/120810\_Armitage\_USJapanAlliance\_Web.pdf)

The tragedies of March 11, 2011, are fresh in our minds, and we extend our deepest condolences to all victims and those afflicted by the earthquake, tsunami, and subsequent nuclear meltdown. Understandably, the Fukushima nuclear disaster dealt a major setback to nuclear power. The setback reverberated not only throughout Japan, but also around the world. While some countries like Great Britain and China are cautiously resuming nuclear expansion plans, others, like Germany, have decided to phase out nuclear power entirely. Japan is conducting thorough examinations of its nuclear reactors and reforming its nuclear safety regulations. Despite strong public opposition to nuclear power, Prime Minister Yoshihiko Noda’s government has begun a partial restart of two nuclear reactors. Further restarts depend on safety checks and local approval. The cautious resumption of nuclear generation under such conditions is the right and responsible step in our view. Japan has made tremendous progress in boosting energy efficiency and is a world leader in energy research and development. While the people of Japan have demonstrated remarkable national unity in reducing energy consumption and setting the world’s highest standards for energy efficiency, a lack of nuclear energy in the near term will have serious repercussions for Japan. Without a restart of nuclear power plants, Japan will not be able to make meaningful progress toward her goal of cutting carbon dioxide (CO2) emissions by 25 percent by 2020. Nuclear power is and will remain the only substantial source of emissions-free, base load electricity generation. Environment Ministry data reportedly shows that without a nuclear restart, Japan’s emissions can fall at most by 11 percent by 2020; but with a restart, emissions reductions could approach 20 percent.1 A permanent shutdown would boost Japan’s consumption of imported oil, natural gas, and coal. Moreover, postponing a decision on national energy policy has the potential to drive vital, energy-dependent industries out of Japan and may threaten national productivity. A permanent shutdown will also stymie responsible international nuclear development, as developing countries will continue to build nuclear reactors. China, which suspended reactor approvals for over a year following Fukushima (but did not suspend progress on ongoing projects), is restarting domestic construction of new projects and could eventually emerge as a significant international vendor. As China plans to join Russia, South Korea, and France in the major leagues of global development in civilian nuclear power, Japan cannot afford to fall behind if the world is to benefit from efficient, reliable, and safe reactors and nuclear services. For its part, the United States needs to remove uncertainty surrounding disposal of spent nuclear waste and implement clear permitting processes. While we are fully cognizant of the need to learn from Fukushima and implement corrective safeguards, nuclear power still holds tremendous potential in the areas of energy security, economic growth, and environmental benefits. Japan and the United States have common political and commercial interests in promoting safe and reliable civilian nuclear power domestically and internationally. Tokyo and Washington must revitalize their alliance in this area, taking on board lessons from Fukushima, and resume a leadership role in promoting safe reactor designs and sound regulatory practices globally. The 3-11 tragedy should not become the basis for a greater economic and environmental decline. Safe, clean, responsibly developed and utilized nuclear power constitutes an essential element in Japan’s comprehensive security. In this regard, U.S.-Japan cooperation on nuclear research and development is essential.

#### Prevents China-Japan conflict

Envall ’10 – postdoctoral fellow in international relations at ANU

(David Envall, working on the MacArthur Foundation Asian Security Initiative, “Implications for Asia in Japan’s economic decline”, East Asia Forum, 8-11-2010, http://www.eastasiaforum.org/2010/08/11/implications-for-asia-in-japans-economic-decline/)

Economic weakness together with export dependency could also influence Japan to mismanage its current hedging strategy in dealing with China and the US. Japanese leaders describe its current approach as pursuing a more autonomous foreign policy, but the rise of China has provoked Japan to respond to the resulting geostrategic pressures in Asia. This ‘return to Asia’ policy might resolve some of Japan’s problems associated with its dark history, but there is no guarantee that any such policy would be more repentant than chauvinistic. How might these problems of economic capacity and political image be addressed? Japan has received abundant economic and diplomatic advice during the post- war era. However, owing to the difficulty of the necessary reforms, and the limited role played by outsiders, the utility of such advice seems minimal. The more immediate challenge is to manage the wider security consequences of the decline, meaning that solutions should focus on strengthening the region’s security architecture. The first option would be to strengthen Asia’s multilateral institutions. This might take the form of further developments to regional bodies such as the ASEAN Regional Forum (ARF) or sub-regional bodies such as the Six Party Talks. Or it could develop from former Prime Minister Hatoyama’s vision of an East Asia Community. Policymakers would be aiming to establish institutions that could facilitate major power security dialogue, further enmesh Japan into the region, and ensure a continued US presence. Yet region-wide institutions have many problems. Their talk-shop style, emphasis on ‘non-core’ security issues and faith in socialising states echo E. H. Carr’s descriptions of the League of Nations in The Twenty Years’ Crisis Furthermore, underlying these institutions in recent years has been a rising competitiveness between the region’s two major powers, China and the US, and so they seem an unlikely venue for resolving core security challenges. Another option, described by one analyst as ‘multilateralising the deterrence guarantees under such circumstances? Would China see it as a hardening of Western containment postures directed against it? And would America’s partners and allies be willing and able to increase their own defence burdens? Unfortunately, **continued economic stagnation in Japan will present policymakers with many such dilemmas**. If Japan were to ‘lose’ another decade, however, the US-Japan alliance, America’s Asian grand strategy and the Asian security order would all be severely tested. Whatever its specifics, any policy should address the region’s core security concerns, and the most practical path seems to be to extend or multilateralise the region’s bilateral security architecture in case there is further misfortune.

#### Nuclear war

Hayward ’12

(John, “Meanwhile China Prepares for War with Japan”, Human Events, 9-19-2012, http://www.humanevents.com/2012/09/19/meawhile-china-prepares-for-war-with-japan/)

I’m sure this didn’t come up when President Obama did the Letterman show last night, and I’m positive it wasn’t mentioned at the fundraiser Jay-Z and Beyonce hosted for Obama, but while the world’s attention has been focused on the flaming wreckage of Obama’s foreign policy in the Middle East, China and Japan have been moving to the brink of war. On Tuesday, the Washington Free Beacon reported that General Xu Caihou, chairman of the Central Military Commission and one of China’s top military leaders, issued a public statement last Friday warning his forces to be “prepared for any possible military combat.” Intelligence officials say that such a statement from a top general is unusual. Chinese warships are on the move. Huge street protests – far larger than the Muslim demonstrations against that YouTube video – have boiled through Chinese cities, with protesters urging the government to “Fight to the Death” and “Kill all Japanese,” with nuclear weapons if necessary. There has been vandalism of Japanese property, leading hundreds of Japanese stores and industrial facilities – Panasonic and Canon among them – to close down across China, with many workers evacuated back to Japan. Angry mobs have surrounded the Japanese embassy in Beijing, thus far without violence, aside from a few bottles thrown at the walls … and a bit of damage to the car containing U.S. Ambassador Gary Locke, who had to drive through the mob on his way to the nearby American embassy in Beijing. Protests were still breaking out as recently as yesterday, which happens to have been a grim anniversary in relations between China and Japan, as Sept. 18 was the date Japanese forces destroyed a Manchurian railroad and blamed it on Chinese dissidents in 1931, laying the groundwork for their invasion of China. The Obama administration shouldn’t waste time with lame “spontaneous protests took us by surprise” excuses like they did in Libya, because in China, not much of anything is “spontaneous,” including street protests. The Chinese “press,” which Obama campaign operatives and officials have suddenly become fond of citing as a credible news source (Joe Biden just did it again on Tuesday) is the voice of the regime. “Mob actions” are puppet shows in which the Communist government has mock arguments with its own id, to make itself look restrained and reasonable compared to what “the people really want.” In this case, there is a dangerous implication that Beijing’s restraint might slip.

## T

### 2AC

**We meet—reprocessing is energy production**

Blaylock 2002 – Ph.D. Candidate at Massachusetts Institute of Technology Department of Chemical Engineering, (Wayne, “Addressing Proliferation Concerns for a New Generation: A Study of the Generation-IV Nuclear Energy Systems Initiative and its Relation to National Non-proliferation Goals,” http://www.wise-intern.org/journal/2002/wayneblaylock.pdf)

In a partial recycle fuel cycle, a fraction of the used fuel is reprocessed and a fraction of the actinide material in the used fuel is recycled for new fuel fabrication. The recycled fuel is then returned to the reactor at least once and possibly several times for additional energy production. Uranium isotopes as well as plutonium isotopes may be removed from the fuel and placed in the nuclear reactor for energy production. If plutonium is removed, it would most likely be introduced into the reactor as plutonium oxide mixed with uranium oxide, a fuel commonly referred to as mixed oxide, or MOX, fuel. The French nuclear fuel-recycling program currently utilizes this fuel cycle. In full fissile recycle, all of the used nuclear fuel is processed to remove the reactor-usable plutonium and/or uranium. The used nuclear fuel from each recycle is once again processed to continue the cycle. This process is continued through multiple reactor cycles until essentially all fissile material is completely consumed. 17 The minor actinides as well as the fission products are disposed of in the waste stream for each processing operation. This technology would be applied, for example, in a liquid metal fast breeder reactor fuel cycle. A liquid metal reactor would be used because liquid metals are effective coolants that do not moderate neutrons. Un-moderated neutrons are important to this fuel cycle because there is a wider range of isotopes present in the full fissile recycled fuel than partially recycled fuel. Fast neutrons induce more efficient fissions across a wide isotopic range than do slow neutrons.

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

NASA ‘11

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

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

#### Best debate—our interpretation opens the best and most real world discussions on nuclear power because each stage of the fuel cycle has different consequences. This turns their limits argument—the limit they create is artificial debate

**MIT ’11**

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

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

## K

### 2AC

#### Discussion of energy policymaking is key to change- changes both individu

**Kuzemko ’12** [Caroline Kuzemko, CSGR University of Warwick, Security, the State and Political Agency: Putting ‘Politics’ back into UK Energy, <http://www.psa.ac.uk/journals/pdf/5/2012/381_61.pdf>]

This observation brings us on to the way in which debates and narratives within political circles, particularly within parliament and amongst policymakers, started to shift. A plethora of new papers, debates and policy documents on energy emerged over this time, despite the round of energy reviews and the new White Paper that had been produced immediately prior to this period (see in particular Havard 2004; Ofgem 2004; DTI 2005a, 2005b, 2006a, 2006b and 2006c; JESS 2006). The energy sector became increasingly referenced in these proliferating policy and other government documents in terms of potential supply insecurity (FCO 2004; Straw in Plesch et al 2004). Echoing media, academic and think-tank narratives, direct links can be found between fears of supply insecurity and Russia (FAC 2008; see also House of Commons 2007; Ofgem 2009: 1). In particular, in 2007 the Foreign Affairs Committee (FAC) produced a report entitled ‘Global Security: Russia’ (FAC 2008). This is where we see how assumptions about resource nationalism and energy ‘politicisation’ as wrong affect perceptions (Straw in Plesch et al 2004; DTI 2007: 19). The FAC report focuses on certain political frameworks in non-OECD producer countries, particularly Russia, which may not allow new reserves to be developed properly making them ‘unstable’ suppliers (Havard 2004; FCO 2004). This in turn had negative implications for energy prices (Straw in Plesch et al 2004; DTI 2007: 19). What was also evident over this time, however, was the rising amount of reports produced by political institutions **outside of those directly responsible for policymaking**, the Energy Directorate of the DTI and the independent regulator, Ofgem. The Foreign Office, House of Commons committees and parliamentary offices, such as that of Science and Technology, all started to produce reports on energy focused on energy security (FCO 2004; POST 2004; Fox 2006; House of Lords 2006; House of Commons 2007; FAC 2007). Energy security was added, by the UK, to formal forums for international negotiation. In 2005, during the October EU Summit at Hampton Court, the issue of ‘energy security’ was added to the agenda (Offerdahl 2007). In a paper prepared for conference delegates energy is characterised as a sector which was by then becoming an issue of national security (Helm 2005b: 2). Increasing dependence on Russia for supplies of, particularly gas, is seen as a source of threat to the security of EU, and by extension UK, energy supply. Likewise, energy security was made top of the agenda in the G8 Summit of 2006 (G8 2006). In 2006 Prime Minister Tony Blair used his annual Lord Mayor’s speech to highlight energy security concerns (DTI 2006c: 4). Growing political interest in energy, outside of those institutions formally responsible for energy policymaking, indicates the extent to which energy was becoming subject, once more, to political debate and deliberation. What is also interesting to note at this time is the degree to which the deliberation of energy becomes formalised through various new institutions. In July 2004, in the immediate aftermath of the Yukos affair, the new Energy Act had conferred on the Secretary of State for Trade and Industry a fixed duty to report annually on energy security matters to Parliament (DTI 2005a). Thus a specific political process was put in place to revisit energy security at least annually. Changes related to the need to deliberate more formally had also started to take place within the DTI and FCO in that new resources were allocated to energy analysis (Interview 5). The 2007 White Paper acknowledged that energy had not up until the mid 2000s existed as a discrete area of foreign policy. Again, as such, it had less dedicated capacity assigned to it. The paper announced that, for the first time, the UK would have ...an integrated international energy strategy which describes the action we are taking to help deliver secure energy supplies and tackle climate change. (DTI 2007: 8) Concurrent with the degree to which **energy was re-entering elite political debates at both the national and international levels, which in itself indicates a degree of deliberative repoliticisation , there were a number of policy alterations made** relating to changing interpretations of energy and international markets. It could be argued that energy security had, in 2003, been assumed to exist, especially given the degree to which energy governance was still understood to be heading in a promarket direction (Thomas 2006: 583; Jegen 2009: 1; Lesage et al 2010: 6; EC 2011: 14). For example the energy supply objective had been worded such that the UK should continue to “maintain the reliability of… supplies” (DTI 2003: 11). Energy security, although still an objective, had been an assumed outcome of marketisation which explains why competitive markets had been the principal objective of energy policy at that time (cf. Helm 2005). By contrast, however, by 2007 energy security is understood to be something that needs to be established, as one of the ‘immense’ challenges facing the UK as a nation, and furthermore, to require further political action to achieve (DTI 2006c: Introduction and 4). This refocus of objectives onto achieving energy security, over time, **added to the political pressures being brought to bear on energy policymakers** given the degree to which supplies continued to be considered ‘insecure’ (Kuzemko 2012b: ). These changes in policy objectives, political institutions, and the addition of political capacity to deliberate energy are understood have taken place partly in response to political pressures to change emanating from outside energy policy circles, i.e. the DTI and Ofgem. Ofgem officials report a higher degree of ‘outside’ political interference in their practices (Interview 15), and it has been widely claimed that both the 2006 Energy Review and 2007 White Paper were researched and compiled specifically because the DTI and Ofgem understood the political need to respond to the crisis (CEPMLP 2006; House of Commons 2007a). As these processes of deliberation intensified it started also to become clear that the state had lost considerable capacity to understand the complexities of energy. Government was considered to be more responsible, given that the narrative was of national energy supply security, but lacking in information and knowledge both about what was happening and what to do about it. Ultimately this resulted in the formation of a new government institution, the Department of Energy and Climate Change (DECC), with specific mandates to deliver on energy and climate security.

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

Owen ‘2 – reader of political theory

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

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

#### Extinction first – always VTL

Bernstein ‘2

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

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

#### Plan solves medical isotopes

Bastin ‘8

(Clinton, “We Need to Reprocess ¶ Spent Nuclear Fuel,¶ And¶ Can ¶ Do It ¶ Safely, At Reasonable Cost”, 21st Century Science and Technology Journal, http://www.21stcenturysciencetech.com/Articles%202008/Summer\_2008/Reprocessing.pdf)

About 96 percent of the spent fuel the United States is now¶ storing can be turned into new fuel. The 4 percent of the so called waste that remains—2,500 metric tons—consists of¶ highly radioactive materials, but these are also usable. There¶ are about 80 tons each of cesium-17 and strontium-90 that¶ could be separated out for use in medical applications, such¶ as sterilization of medical supplies.¶ Using isotope separation techniques, and fast-neutron bombardment for transmutation (technologies that the United¶ States pioneered but now refuses to develop), we could separate out all sorts of isotopes, like americium, which is used in¶ smoke detectors, or isotopes used in medical testing and treatment. Right now, the United States must import 90 percent of its¶ medical isotopes, used in 40,000 medical procedures daily.

#### They’re key to nuclear medicine – domestic production is key

Seeking Alpha ’12

(A Change In Supply To Meet Isotope Demand, 11-4-2012, http://seekingalpha.com/article/976731-a-change-in-supply-to-meet-isotope-demand)

We have all learned the basics of supply and demand. The more supply that's present the cheaper a product becomes. The ideal situation is for a producer to have an equal balance of supply and demand to avoid unnecessary costs and to maximize profit. The worst situation is to have heavy demand but lack of supply, as producers realize lost profits and the potential customers go elsewhere.¶ The nuclear medicine industry isn't your typical story of supply and demand, although it may be one of the best. In nuclear medicine, the isotopes being produced are necessary and crucial for patients, as well as the industries in biotechnology that use the isotopes for various drugs and diagnostic tests. Yet despite its importance, global politicians are demonstrating an "ignore the problem" approach and are allowing very important nuclear reactors, the sources for most of these isotopes, to go offline.¶ The next three years will be important for nuclear energy in the U.S. It's estimated that 90% of the medical isotopes used in the U.S. are imported from reactors in other countries. In the U.S., we consume the largest share of the global isotope market, with 18 million procedures that use medical isotopes. The problem is that most of these large reactors are scheduled to be shut down in the next few years due to aging. We have seen as nuclear reactors are shut down, countries are electing to use alternative energy, which leaves a massive demand for the millions of medical procedures and or diagnostics that use medical isotopes on a yearly basis. Just recently, Japan shut down its last operating nuclear power reactor, to turn its focus on clean energy. And Quebec's new government recently confirmed that it's shutting down its only nuclear reactor. In some ways, this is apples to oranges, but it still shows the speed at which countries are choosing to find alternatives to nuclear energy.¶ The good news is that, with other countries shutting down reactors, it leaves room for the U.S. to take control of the situation. In the U.S. we are reliant upon nuclear medicine and have no choice but to create the demand. As a result, jobs would be created, medical procedures could become cheaper, and then we lessen our dependence on foreign supply. There is a chance that Canada will build new reactors or perform maintenance to old reactors; but at this point, the space looks wide open

#### Nuclear medical expertise solves disease

**NTR ’10** (Nuclear Technology Review, “REDUCING THE RISK OF TRANSBOUNDARY ANIMAL DISEASESTHROUGH NUCLEAR TECHNOLOGIES” 2010 Publishing Section, International Atomic Energy Agency, Vienna International Centre

The challenge of ensuring food security for a world population that will grow to over eight billion people in the next 20 years can be met, in part, by assisting smallholder farmers in developing countries to improve the utilization of locally available land, water, and plant resources to intensify and increase animal production and productivity. This will require not only more sustainable livestock production, but also more efficient approaches, tools, and strategies for preventing, diagnosing and controlling animal diseases. The amount of available animal protein for human consumption is already limited, but the fragile food security situation is further exacerbated by increased movement of animals and animal products due to expanding world trade and the growing effects of climate change that can result in changes in the geographical distribution of pathogens and their vectors. Resource-poor developing countries will become increasingly vulnerable to emergencies caused by the growing prevalence of infectious diseases, **especially transboundary animal diseases** (TADs). A complicating factor is that more than 60% of the TADs are zoonotic diseases (i.e. diseases of animal origin that infect humans), such as Human Immunodefficiency Virus (**HIV), H5N1 (Avian Influenza) and H1N1 (Swine Flu), Rabies**, Rift Valley Fever, **and Trypanosomosis**. Classical or traditional techniques for diagnosing threatening diseases **are well in place, but** **often lack the sensitivity and specificity needed** to make accurate and timely diagnoses of diseases. **Nuclear and nuclear related technologies have these features and are** therefore increasingly being used to complement traditional diagnostic and tracing technologies to **improve the early and rapid diagnosis and control of animal diseases through tracing and vaccination strategies** [II-1]. The IAEA, through the development and application of nuclear and nuclear-related technologies, is at the forefront of developing and validating early and rapid diagnostic techniques that are simple to use, inexpensive and can be applied in a “laboratory limited” environment, such as those located in rural and decentralized areas; in the tracing of diseases through the application of stable isotope techniques; and in the application of irradiation technologies to provide safe and user friendly vaccines. The application of nuclear technologies, in combination with conventional technologies, **has contributed to concrete improvements in the number, condition and health of animals resulting in improved livelihoods for millions of people worldwide**. For example, it is estimated that the eradication of rinderpest saves Africa more than 1 billion USD per year (FAO). The unique characteristics of nuclear technologies not only contribute to our efforts to reduce transboundary animal disease risks, but also to the tracing and monitoring of animal movements (e.g. the tracing of disease infected migratory birds), as well as to the timely and proactive control and prevention of diseases through the use of vaccines. B. Nuclear and Nuclear-Related Techniques for Disease Diagnosis Nuclear applications have driven modern biotechnological research by providing more sensitive, specific and cost effective diagnostic platforms or assays to detect and characterize the disease pathogens [II-1]. Many of these nuclear based applications are being used in Member States for diagnosis of TADs such as rinderpest and rabies. The use of nuclear technologies allows the detection and characterization of pathogens **within 24 hours of their onset**, helping to differentiate one particular virus strain from another [II-2]. An example of this differentiation is noted in the case of the Influenza A H1N1 virus, from Influenza A H5N1. Nuclear techniques are also important in determining the nucleic acid sequence that describes the capacity of a particular virus strain to cause a disease. Different strains of the 2 same virus may affect birds and also humans e.g Influenza A H5N1 low pathogenicity versus Influenza A H5N1 high pathogenicity. (Fig. II-1) [II-3]. The latter causes deaths in more than 60% of infected humans. The isotopic analysis of the genetic make-up of such a virus can be used by health authorities in making decisions ranging from public notification – as was the case of Influenza A H1N1 (low pathogen) - to immediate pandemic action in the case of Influenza A H1N1 (high pathogen) [II-4]. This information not only aids disease control personnel and policy makers in their attempts to control and eliminate veterinary and public health pathogens, but also forms the basis for decision-making that affects transboundary trade and travel. . FIG. II-1. Phosphor-32 labelled protein-DNA analysis to study the operational control of active and non-active pathogenic genes to determine why certain pathogens are more aggressive than others. Nucleic acid sequence differences were observed in the Late Promoter (LP) and Early Promoter (EP) regions of the RNA transcription responsible genes of different Avian Influenza strains Radioisotope-labelled assays that use isotope levels that are below the limit of disposal are under development. Isotope-based nucleic acid hybridization approaches are used to detect genetic material in host tissues that will allow direct identification of infected animals as well as provide information of epidemiological importance in relation to the strain type or variant of the agent. These tests depend on the preparation of suitable DNA probes labelled with sulphur-35 or phosphor-32 and their amplification in vitro by a nucleic acid amplification technique (PCR) to increase the amount of the specific target. Nucleic acid thermal amplification technologies shorten the time for a test result to less than a day and in many cases a result can be obtained within an hour [II-1]. Recent successes using this technology include the development of tests to diagnose diseases such as the Peste des Petit Ruminants disease and capripox virus disease (the collective word for goatpox, sheeppox and cattlepox viruses) and in the sequencing of the different genomes. To set up an appropriate control against the outbreak of one of the three poxviruses in a livestock herd, the outbreak virus needs to be identified. Currently, the capripox virus family, although closely related, requires three different vaccines for protection, i.e. there is no cross-protection between the different capripox virus strains. Sheeppox virus, goatpox virus and cattlepox or lumpy skin disease virus, the third member of the capripox virus genus (Fig. II-2) can be 3 differentiated using the nuclear related thermal amplification real-time PCR approach, thereby selecting the correct vaccine to protect against the homologous pathogen [II-5]. FIG. II-2. Discrimination of sheeppox virus, cattlepox or lumpy skin disease virus and goatpox virus based on their genetic sequence differences is possible using molecular DNA thermal amplification technologies. The Y-axis indicates the signal amplitude and the X-axis the temperature in degrees celsius. Nuclear technologies are also vital to animal disease diagnosis where rapid decision-making would be an advantage, and especially in situations where the suspected disease occurs in difficult to reach or remote areas that are far from the laboratory [II-1]. The time saved by determining whether a disease is present or not, **could be the difference between containing a disease at its point of origin and protecting human lives** or preventing the spread of a disease to an animal market place or further afield. Conventional molecular techniques including thermal amplification or PCR require sophisticated, expensive equipment (Fig. II-3). A robust test at the molecular level, i.e. the loop mediated isothermal amplification (LAMP) PCR, has been developed using nuclear techniques, which is a more cost effective alternative to thermal DNA amplification. The LAMP PCR can be carried out within 30 to 60 minutes in a simple water bath at constant temperature and the presence or absence of the isothermally amplified DNA product can be detected visually, i.e. a change in color (Fig. II-4). Another advantage of the LAMP PCR platform is that it can be developed for use on-site or on farm as a penside (point of care) rapid diagnostic test [II-1]. FIG. II-3. Different models of thermal DNA amplification cyclers (PCR Machines). Isothermal DNA amplification technologies will reduce our reliance on this expensive equipment. 4 FIG. II-4. Visible color changes in reaction tubes allow discrimination of positive and negative results when using the isothermal DNA amplification or LAMP PCR for diagnosing avian influenza. C. Migratory Connectivity: Using Stable Isotope Analysis to Determine the Role that Wild Birds Play in Disease Outbreaks A unique use of nuclear techniques is the ability to trace wild birds in order to determine if and whether they may contribute to the spread of the Bird Flu. Highly Pathogenic Avian Influenza (HPAI - Influenza A, H5N1 Bird Flu) causes disease and death in wild birds and poultry, and can also affect humans. HPAI outbreaks have resulted in losses of hundreds of millions of birds and caused serious economic damage to the poultry industry worldwide. In addition, **Bird Flu is a zoonotic disease with a high mortality in humans** and consequently has led to the death of several hundred people. Historically, similar **influenza epidemics have killed millions of people, and the threat of a pandemic disease caused by Bird Flu today, makes it one of the most important animal and human health hazards currently facing humanity** [II-3]. There is evidence that wild birds can be infected with Bird Flu and it is possible that migratory wild fowl could play a role in its dissemination (Fig. II-5). FIG. II-5. The origins and flight-path of migrating bar-headed geese can be established by using stable isotope analysis of flight feathers. Given the potential for wild birds to spread Bird Flu, more information is required about their movement. Millions of birds fly each year to and from over-wintering sites and a more concerted effort is required to investigate the poorly known routes of migrant birds in Africa, the Americas, Asia-Pacific, Central Asia and Europe. An ideal approach is to use a non-5 invasive stable isotope analysis (SIA), to establish the origin and flight-path of a migratory bird [II-6, II-7]. Stable isotopes are currently used for tracing food origin. They provide a unique signature to a specific location, based on the availability of the isotope, which is also incorporated into animal products [II-6]. Their signature composition is dependant on the soil, water and plant chemical composition of each location. This feed and water signature is unique to each location and can be traced in the deposits (e.g. feathers) of the birds [II-7]. A small number of natural isotopes are involved in important biological and ecological processes. They are measured by mass spectrometry to determine isotopic differences relative to international standards and reported as ratios in delta (δ) units as parts per thousand. Of most interest are the hydrogen (δD) ratios found in metabolically inert, seasonally grown tissues, such as feathers and claws that accurately reflect the ratios in lakes, rivers and oceans and in groundwater in the migratory path of the birds. The isotopic signatures of a few individuals are representative of an entire population, hence any of the individuals from that population can provide information on movement. Feathers retain this information until replaced or moulted, which typically occurs only once per year. If the isotope profile of a particular bird population is known, any individuals from that population can provide information on the global migration of that species [II-8]. The hydrogen isotope composition of potable water varies spatially across the globe but global grids of hydrogen water isotopes have been constructed that can then be compared to animal samples of known or unknown origin. These grids are constructed using the data from the IAEA’s Global Network for Isotopes in Precipitation (GNIP). Collecting isotope data from feathers of migratory bird species will reveal migration patterns; enable identification of the breeding areas of birds sampled in intermediate stopover sites; and in samples collected from disease outbreak sites, might provide greater understanding of the role that wild birds play as carriers of disease [II-9]. Currently, measurements of stable isotopes are done using costly isotope ratio mass spectrometry (IRMS) systems that require a well-equipped laboratory. However, newly introduced analyzers (Fig. II-6) with near infrared laser technology are small, transportable and require low maintenance, making it more affordable to measure isotopes. There are currently no conventional techniques which allow this kind of tracing of diseases. FIG. II-6. A low cost answer to isotope ratio mass spectrometry (IRMS). This stable water isotope analyzer uses an infrared laser for measurement. D. Radiation Inactivation: the Future “Gold Standard” in Vaccine Development Vaccination is a cost-effective way of preventing and controlling disease. Although anti-viral and anti-bacterial vaccine development has been successful, there are few vaccines for parasitic diseases because of the risk of further infection by active parasites in the vaccine. The inactivation of pathogens via irradiation is promising because it is a reliable method of applying a safe vaccine - 100% inactivated - against pathogenic diseases [II-10]. Their 6 potency has been tested and success has been achieved with the advent of the first human radiation-attenuated anti-parasite vaccine for malaria. For many pathogens, a relatively low dose of gamma irradiation from a cobalt-60 source is sufficient to inactivate the organism, e.g. malaria irradiation at 150 Rad, Fasciola irradiation at 30 Gy, Brucella irradiation at 6kGy, while viral pathogens require higher doses e.g. RVF irradiation at 25kGy. This opens a new approach to immunization, especially when dealing with problematic diseases, like Rift Valley Fever and various helminth (parasitic worms) and protozoal (unicellular parasites) diseases [II-11, II-12]. **There is a considerable body of evidence to suggest that radiation-attenuated or radiation-inactivated vaccines are safer as well as a more effective and feasible “gold standard” for vaccine efficacy**. Conventional alternative vaccines, such as recombinant vaccines, have not yet lived up to their promise to achieve comparable and effective levels of protection as those provided by irradiated vaccines.

#### Disease spread will cause extinction

**Leather ’11** (10/12/11 (Tony, “The Inevitable Pandemic” <http://healthmad.com/conditions-and-diseases/the-inevitable-pandemic/>, PZ)

You will have pictured this possible scenario many times, living in a country where people are suddenly dropping like flies because of some mystery virus. Hospitals full to overflowing, patients laid out in corridors, because of lack of room, health services frustrated, because they just can’t cope. You feel panic with no way of knowing who will be the next victim, intimate personal contact with anyone the death of you, quite possibly. This is no scene from a movie, or even a daydream, but UK reality in 1998, when the worst influenza epidemic in living memory swept savagely across the country. Whilst this was just one epidemic in one country, how terrifying is the idea that a global pandemic would see this horror story repeated many times over around the globe, death toll numbers in the millions. Humanity is outnumbered many fold by bacteria and viruses, the deadliest of all killers among these microscopic organisms. Death due to disease is a threat we all live with daily, trusting medical science combat it, but the fact is, frighteningly, that we have yet to experience the inevitable pandemic that might conceivably push humanity to the edge of extinction because so many of us become victims. Devastating viral diseases are nothing new. Bubonic plague killed almost half all Roman Empire citizens in542AD. Europe lost three quarters of the population to the Black Death in 1334. One fifth of Londoners succumbed to the 1665 Great Plague, and Russia was the site of the first official influenza pandemic, in 1729, which quickly spread to Europe and America, at the costs of many thousands of lives. Another epidemic of so-called Russian flu, originating in 1889 in central Asia spreading rapidly around the world, European death toll alone 250,000 people. In 1918 so-called Spanish Influenza killed 40million people worldwide, another strain originating Hong Kong in 1969 killed off 700,000, a 1989 UK epidemic killing 29,000. Small numbers, granted, as compared to the world population of seven billion, but the truth is that, should a true world pandemic occur, western governments will of course want to save their own people first, potentially globally disastrous. World Health Organisation laboratories worldwide constantly monitor and record new strains of virus, ensuring drug companies maintain stockpiles against most virulent strains known, maintaining a fighting chance of coping with new pandemics. They do theoretical models of likely effects of new pandemics, their predictions making chilling reading. Put into perspective, during a pandemic, tanker loads of antiviral agents, which simply do not exist would be needed so prioritizing vaccination recipients would be inevitable. Such a pandemic would, in UK alone, be at least 10 times deadlier than previously experienced, likely number of dead in first two months 72,000 in London alone. Any new virus would need a three to six month wait for effective vaccine, so the devastation on a global scale, flu virus notoriously indifferent to international borders, would be truly colossal. Our knowledge of history should be pointing the way to prepare for that living nightmare of the next, inevitable world pandemic. The microscopic villains of these scenarios have inhabited this planet far longer than we have, and they too evolve. It would be comforting to think that humanity was genuinely ready, though it seems doubtful at best.

#### No impact to modernity

Curtler ’97 – PhD Philosophy

(Hugh, “rediscovering values: coming to terms with postnmodernism” 44-7)

The second and third concerns, though, are more serious and to a degree more legitimate. The second concern is that "reason is the product of the Enlightenment, modern science, and Western society, and as such for the postmodernists, it is guilty by association of all the errors attributed to them, [namely], violence, suffering, and alienation in the twentieth century, be it the Holocaust, world wars, Vietnam, Stalin's Gulag, or computer record-keeping . . ." (Rosenau 1992, 129). Although this is a serious concern, it is hardly grounds for the rejection of reason, for which postmodernism calls in a loud, frenetic voice. There is precious little evidence that the problems of the twentieth century are the result of too much reason! On the contrary. To be sure, it was Descartes's dream to reduce every decision to a calculation, and in ethics, this dream bore fruit in Jeremy Bentham's abortive "calculus" of utilities. But at least since the birth of the social sciences at the end of the last century, and with considerable help from logical positivism, ethics (and values in general) has been relegated to the dung heap of "poetical and metaphysical nonsense," and in the minds of the general populace, reason has no place in ethics, which is the proper domain of feeling. The postmodern concern to place feelings at the center of ethics, and judgment generally—which is the third of their three objections to modern reason—simply plays into the hands of the hardened popular prejudice that has little respect for the abilities of human beings to resolve moral differences reasonably. Can it honestly be said of any major decision made in this century that it was the result of "too much reason" and that feelings and emotions played no part? Surely not. Can this be said in the case of any of the concerns reflected in the list above: are violence, suffering, and alienation, or the Holocaust, Vietnam, Stalin's Gulag, or Auschwitz the result of a too reasonable approach to human problems? No one could possibly make this claim who has dared to peek into the dark and turbid recesses of the human psyche. In every case, it is more likely that these concerns result from such things as sadism, envy, avarice, love of power, the "death wish," or short-term self-interest, none of which is "reasonable."One must carefully distinguish between the methods ofthe sciences, which are thoroughly grounded in reason and logic, and the uses men and women make of science. The warnings of romantics such as Goethe (who was himself no mean scientist) and Mary Shelley were directed not against science per se but rather against the misuse of science and the human tendency to become embedded in the operations of the present moment. To the extent that postmodernism echoes these concerns, I would share them without hesitation. But the claim that our present culture suffers because of an exclusive concern with "reasonable" solutions to human problems, with a fixation on the logos, borders on the absurd.What is required here is not a mindless rejection of human reason on behalf of "intuition," "conscience," or "feelings" in the blind hope that somehow complex problems will be solved if we simply do whatever makes us feel good. Feelings and intuitions are notoriously unreliable and cannot be made the center of a workable ethic. We now have witnessed several generations of college students who are convinced that "there's no disputing taste" in the arts and that ethics is all about feelings. As a result, it is almost impossible to get them to take these issues seriously. The notion that we can trust our feelings to find solutions to complex problems is little more than a false hope.We are confronted today with problems on a scale heretofore unknown, and what is called for is patience, compassion (to be sure), and above all else, clear heads. In a word, what is called for is a balance between reason and feelings—not the rejection of one or the other. One need only recall Nietzsche's own concern for the balance between Dionysus and Apollo in his Birth of Tragedy. Nietzscheknew better than his followers, apparently, that one cannot sacrifice Apollo to Dionysus in the futile hope that we can rely on our blind instincts to get us out of the hole we have dug for ourselves.

#### Nuclear technocracy is good

**Nordhaus 11,** chairman – Breakthrough Instiute, and Shellenberger, president – Breakthrough Insitute, MA cultural anthropology – University of California, Santa Cruz, 2/25/‘11

(Ted and Michael, <http://thebreakthrough.org/archive/the_long_death_of_environmenta>)

Tenth, we are going to have to get over our suspicion of technology, **especially nuclear power.** There is **no credible path** to reducing global carbon emissions without an enormous expansion of nuclear power. It is the only low carbon technology we have today with the demonstrated capability to generate large quantities of centrally generated electrtic power. It is the low carbon of technology of choice for much of the rest of the world. Even uber-green nations, like Germany and Sweden, have reversed plans to phase out nuclear power as they have begun to reconcile their energy needs with their climate commitments. Eleventh, **we will need to embrace** again **the role of the state** as a direct provider of public goods. The modern environmental movement, borne of the new left rejection of social authority of all sorts, has embraced the notion of state regulation and even creation of private markets while largely rejecting the generative role of the state. In the modern **environmental imagination**, **government promotion of technology** - whether **nuclear** power, the green revolution, synfuels, or ethanol - almost always ends badly. Never mind that virtually the **entire history** of American industrialization and technological **innovation is the story of government investments** in the development and commercialization of new technologies. Think of a transformative technology over the last century - computers, the Internet, pharmaceutical drugs, jet turbines, cellular telephones, nuclear power - and what you will find is government investing in those technologies at a scale that private firms simply cannot replicate. Twelveth, big is beautiful. The rising economies of the developing world will continue to develop **whether we want them to or not.** The solution to the ecological crises wrought by modernity, technology, and progress will be more modernity, **technology**, and progress. The solutions to the ecological challenges faced by a planet of 6 billion going on 9 billion will **not** be **decentralized energy** technologies like solar panels, small scale organic agriculture, and a drawing of unenforceable boundaries around what remains of our ecological inheritance, be it the rainforests of the Amazon or the chemical composition of the atmosphere. Rather, these solutions will be: large central station power technologies that can meet the energy needs of billions of people increasingly living in the dense mega-cities of the global south without emitting carbon dioxide, further intensification of industrial scale agriculture to meet the nutritional needs of a population that is not only growing but eating higher up the food chain, and a whole suite of new agricultural, desalinization and other technologies for gardening planet Earth that might allow us not only to pull back from forests and other threatened ecosystems but also to create new ones. The New Ecological Politics The great ecological challenges that our generation faces demands an ecological politics that is generative, not restrictive. An ecological politics capable of addressing global warming will require us to reexamine virtually every prominent strand of post-war green ideology. From Paul Erlich's warnings of a population bomb to The Club of Rome's "Limits to Growth," contemporary ecological politics have consistently embraced green Malthusianism despite the fact that the Malthusian premise has persistently failed for the better part of three centuries. Indeed, the green revolution was exponentially increasing agricultural yields at the very moment that Erlich was predicting mass starvation and the serial predictions of peak oil and various others resource collapses that have followed have continue to fail. This does not mean that Malthusian outcomes are impossible, but neither are they inevitable. We do have a choice in the matter, but it is not the choice that greens have long imagined. The choice that humanity faces is not whether to constrain our growth, development, and aspirations or die. It is whether we will continue to innovate and accelerate technological progress in order to thrive. Human **technology and ingenuity have repeatedly confounded Malthusian predictions** yet green ideology continues to cast a suspect eye towards the very technologies that have allowed us to avoid resource and ecological catastrophes. But such solutions will require environmentalists to abandon the "small is beautiful" ethic that has also characterized environmental thought since the 1960's. We, the most secure, affluent, and thoroughly modern human beings to have ever lived upon the planet, must abandon both the dark, zero-sum Malthusian visions and the idealized and nostalgic fantasies for a simpler, more bucolic past in which humans lived in harmony with Nature.

#### Centralized scenario planning over nuclear technology is necessary.

Tom **Flaherty, et al.** Michael Bagale, Christopher Dann, Owen Ward, Partners at Booz & Co. Global Management Consulting, 8/7/20**12** (http://www.booz.com/media/uploads/BoozCo\_After-Fukushima-Nuclear-Power.pdf)

It is still not fully clear how the new NRC recommendations will affect the U.S. nuclear fleet. One thing is certain, however: The way the industry has historically evaluated risk will have to change. In particular, the assessment of low-probability, high-consequence risks, such as events that trigger worst-case accident conditions, will need to be revisited. Owner resiliency and responsiveness will need to increase. Probabilistic risk assessment, common in the industry since the 1979 accident at Three Mile Island in Pennsylvania, will assume an even greater role in ensuring nuclear safety in the future. Operators will have to develop enhanced risk analysis methodologies that can adequately address not only the full range of “traditional” postulated design-basis accident scenarios, but also the much more improbable black swan events. Finally, investment decisions will need to evolve to reflect this new risk environment. The greatest degree of regulatory uncertainty surrounds the interpretation of the first recommendation of the NRC’s Near-Term Task Force, which the commission’s staff will consider over the next year. Its goal is to incorporate “beyond design basis” requirements within the definition of what is required to provide “adequate protection”: balancing considerations of defense and risk, without taking cost into account as a deterrent to action. The task force has pointed out that this move is analogous to regulatory changes enacted following the September 11, 2001, terrorist attacks. But it is potentially more far-reaching, given the wide range of possible black swan scenarios. Indeed, it is likely that the broadening of the underlying principle of adequate protection will markedly reshape the regulatory environment. Traditional risk management approaches rely on estimating the likely consequences of potential events; they are not well suited for dealing with extremely lowprobability, high-consequence risks. Black swan risks challenge the traditional approach because even when the events are anticipated, their impact falls outside the expected range of predictability. In the case of the tragic events in northeast Japan in March 2011, the black swan was not the earthquake and tsunami, which were foreseeable, but their sheer size. Another earthquake, the one that struck the East Coast of the U.S. in August 2011, was significantly stronger than what was thought possible in the region. The terrorist attacks on 9/11 represented another black swan event, not because terrorist attacks had never happened on U.S. soil—they had—but because of their scale, their means, and their enormous impact. The U.S. nuclear industry must enhance its risk management capabilities in two ways. First, it must strengthen existing risk assessment methodologies to address extremely low-probability, high-consequence risks. This will involve improving existing processes and tools to identify potential risks from a much wider range of uncertainties than the industry has used in the past (see Exhibit 2). Traditional thinking about “known unknowns” must be expanded to include “unknown unknowns.” Scenario planning that includes situations that are themselves unimaginable can be a useful tool in expanding leaders’ range of thinking about identifying risks and assessing vulnerabilities. In these exercises, management is challenged to begin with the premise of an unforeseeable situation—like the apocryphal story of a wanderer in a desert who finds a Civil War battleship stuck in the sand there—and then to explore the potential vulnerabilities the situation may create. Often, when managers are required to construct a chain of causal events that could explain a seemingly inexplicable situation, a previously unthinkable scenario becomes plausible, even if still highly improbable. Another methodology used for expanding management’s thinking about the future involves wargaming and other simulations of real-world challenges; the games mimic the complexity of genuine events, in which seemingly rational interactions among players or actions can result in unanticipated outcomes. A deeper examination of the interdependencies and correlations among various risk factors can also help unearth additional exposures and potential systemic effects. Nuclear plant owners should be encouraged to build this risk identification capability in a **collaborative manner**. Utility peer groups, technical experts, and industry support entities should work together to develop analytical risk assessment tools and methodologies that individual plant owners and operators can use to quantify the probability and effect of plant-specific worst-case events. The techniques developed through this approach should be tailored to the culture and practices of the companies involved. They can also provide plant owners with best-in-class, cost-effective solutions to regulatory mandates, potentially streamlining the overall NRC review and concurrence cycle with respect to providing “reasonable assurance” regarding operating safety. The end goal of this next generation of risk management is to develop an industry-wide approach to defining and quantifying Fukushimalevel improbable events that will both satisfy any regulatory safety requirements and assuage public concerns, while being implementable and cost-effective. Since the concepts of reasonable assurance and adequate protection do not contemplate direct cost-benefit trade-offs, anything short of this goal may hurt the future of nuclear power.

#### Uniquely true for energy production – rising electricity demand is inevitable so the question of “what kind of energy and how” shapes the institutional logics of governments and corporations – only answering these questions makes the left relevant

Monbiot 11

(George, columnist for The Guardian, has held visiting fellowships or professorships at the universities of Oxford (environmental policy), Bristol (philosophy), Keele (politics), Oxford Brookes (planning), and East London (environmental science), March 31, “The double standards of green anti-nuclear opponents", http://www.guardian.co.uk/environment/georgemonbiot/2011/mar/31/double-standards-nuclear)

Like most environmentalists, I want renewables to replace fossil fuel, but I realise we make the task even harder if they are also to replace nuclear power. I'm not saying, as many have claimed, that we should drop our concerns about economic growth, consumption, energy efficiency and the conservation of resources. Far from it. What I'm talking about is how we generate the electricity we will need. Given that, like most greens, I would like current transport and heating fuels to be replaced with low-carbon electricity, it's impossible to see, even with maximum possible energy savings, how the electricity supply can do anything other than grow. All the quantified studies I have seen, including those produced by environmental organisations, support this expectation. *Ducking the challenge of how it should be produced is not an option*. Nor have I changed my politics (and nor for that matter am I an undercover cop, a mass murderer, a eugenicist or, as one marvellous email suggested, "the consort of the devil"). In fact it's surprising how little the politics of energy supply change with the mass-generation technology we choose. Whether or not there is a nuclear component, we are talking about large corporations building infrastructure, generating electricity and feeding it into the grid. My suspicion of big business and my belief that it needs to be held to account remain unchanged.

## Courts

### 2AC

#### Court alone links to politics but the perm doesn’t

Meazell ’12 – associate professor of environmental law at Wake Forest University

(Emily Hammond Meazell, was previously associate professor of law at Florida State, Oklahoma, and Georgia, Presidential Control, Expertise, and the Deference Dilemma, 61 DUKE L.J. 1763 2012)

1. Expertise. Since the dawn of the modern administrative state, expertise has played an important role as an anchor of regulatory legitimacy that has shaped the relationship between courts and agencies. As a theory of agency behavior, expertise is viewed as providing a shield from political influence, as well as reflecting a preoccupation with administrators as technocrats. 32 When Professor James Landis famously described administrators as implementing “the great judge[’s]” vision of “man’s destiny upon this earth,” 33 he spoke for a great number who believed that administrators could reach good outcomes by applying their expertise to given sets of facts. 34 Indeed, facts—especially those grounded in science—dictated outcomes for these technocrats, who could do their work free from political influences. 35 The importance of expertise, moreover, is a part of the narrative explaining legislative delegations to administrative agencies. Just as courts are generalists, so too is Congress. Delegation to experts is a pragmatic way to get the work of regulating done by those who can bring special expertise to bear on any number of complex issues. Relying on agency expertise is also politically expedient because it permits legislators to avoid making unpopular decisions and to transfer that cost instead to agencies. 36 Naturally, expertise also figures into judicial review as a reason for deference to agencies. This ground for deference was historically extremely strong. In an early ratemaking case, for example, the Supreme Court remarked that “the product of expert judgment . . . carries a presumption of validity.” 37 That superdeferential approach has not entirely survived the advent of hardlook review; 38 nevertheless, expertise remains a common justification for judicial deference. This trend makes some sense: even if regulators are captured by rent-seeking regulated entities, as a matter of comparative institutional expertise, courts cannot come close to duplicating the scientific and factfinding capabilities of agencies. 39 Agencies can conduct their own science, after all; courts are relegated to reviewing a record post hoc. Accordingly, expressions of deference on the basis of expertise persist in the case law. 40 And ultimately, a prevailing reason that courts insist that they may not substitute their judgment for that of agencies is because of the agencies’ expertise. 41 But although courts will not substitute their judgment for that of agencies, the impact of hard-look review—and the reasoned-decisionmaking requirement generally—is to create a feedback loop that provides important information to stakeholders and Congress. This occurs in two ways: First, it gives agencies an incentive to provide full descriptions of their work during the rulemaking or adjudicatory process, thus enabling stakeholders and Congress to serve oversight functions using that information. 42 Second, courts undertaking hardlook review provide accessible descriptions of scientific and technical matters; their opinions function as translations for the many consumers of administrative law, thereby furthering access to information and enabling oversight. 43 Either way, an agency’s expertise serves an important role by helping to legitimize its activities.

#### Doesn’t solve—using the DOE and avoiding the Courts are key to private industry support of reprocessing

Berry and Tolley ’10 – professors of energy policy and economics

[Professors R. Stephen Berry and George S. Tolley, “Nuclear Fuel Reprocessing Future Prospects and Viability”, University of Chicago Humanities, 11-29-2010, http://humanities.uchicago.edu/orgs/institute/bigproblems/Team7-1210.pdf]

The American combination of fragmented power, little reliance on bureaucratic expertise, an independent judiciary, and opposing interest groups greatly undermines the ability of the U.S. government to credibly commit to the nuclear power industry. In France, despite substantial anti-nuclear interest groups, the impermeability of the institutional setup—no division of power, weak judiciary, and reliance on bureaucratic expertise—effectively prevents activists from influencing policy outcomes. 64 The French exploration into commercial nuclear energy and subsequent promotion of nuclear energy was the result of “a perceived shortage of enriched uranium, a need for weapons-grade materials, and the desire for energy independence from foreign states.” 65 In contrast to the U.S., the political environment in regards to nuclear energy in France has remained stable over the course of the last fifty years. In 1955, three government organizations banded together to promote nuclear power; namely: Electricité de France (EDF—the state—owned utility empowered by the Ministère de l’Industrie et des Finances), the Commissariat à l’Energie Atomique (CEA—with a promotional mission parallel to America’s AEC), and Production d’Electricité d’Origine Nucléaire (PEON—an advisory group to the CEA comprised of CEA, EDF, state, and industry representatives). 66 The nuclear industry maintains a high degree of central planning and state integration. 67 This political environment has provided the means for credible government commitment to the industry. Though there has been strong anti-nuclear rhetoric domestically in France the well insulated governmental setup towards nuclear energy has prevented these groups access to any policy-making forum. Further, these groups are afforded less influential power toward the industry due to a weaker judiciary than is present in the U.S. 68 Therefore, the uncertainty surrounding the commitment of the government toward the nuclear industry in France is far less than in the U.S. The French political structure “can carry out a long-term policy while ignoring the fluctuations of public opinion.” 69 This lack of “uncertainty” is important when we consider the effect that it has on transaction costs for the utilities attempting to employ nuclear facilities and investors realizing a return on their outlays. The U.S. political structure has led to an increase in transaction costs for its domestic nuclear industry, while the French structure is able to mitigate similar types of increases. As a result of the political structure, transaction costs for the nuclear industry are higher in the U.S. than they are in France. In opening the policy forum to anti-nuclear interest groups, the U.S. nuclear industry experienced procedural delays and increased compliance costs for nuclear facilities. From 1954 to 1979, the average lead times, including the time from order through commercial operation, increased from 2 to 6 years in France and from 3 to nearly 13 years in the United States. 70 Further, French programs typically presented greater stability in lead times as well as fewer delays than in the United States. 71 The nuclear industry in the U.S has seen an increase in uncertainty for their transaction costs in order to protect their large sunk costs. This has resulted in an increased perception of risk on the part of investors and subsequently increased the cost of capital for the technology: “lengthening the regulatory process increases the capital costs of the plant by pushing the revenue received from operation further into the future and by adding to the total interest payments on construction loans.” 72 **This political institutional framework provides an understanding of** the challenges which confront nuclear reprocessing in the U.S.

#### Doesn’t solve Russia—

#### DOE is the vehicle for international reprocessing cooperation

Peters ’12 – deputy laboratory director for programs at Argonne National Lab

(Mark T. Peters, American Nuclear Society, “Recycling Used Nuclear Fuel: Balancing Energy and Waste Management Policies”, Testimony to the U.S. House of Representatives, 6-6-2012)

In the United States, the primary organization with responsibility for the research and development of used fuel recycling technologies is the Department of Energy’s Office of Nuclear Energy (DOE-NE), through its Fuel Cycle Research and Development program. This program supports research to develop and evaluate separations and treatment processes for used nuclear fuel that will enable the transition from the current open fuel cycle practiced in the United States to a sustainable, environmentally acceptable, and economic closed fuel cycle. Ongoing projects related to reprocessing and waste management include: • Using advanced modeling and simulation coupled with experiments to optimize the design and operation of separations equipment. • Exploring an innovative one-step extraction process for americium and curium, radionuclides that are major contributors to nuclear waste toxicity, to reduce the cost of aqueous-based used-fuel treatment. • Further developing pyrochemical processes for used fuel treatment. These processes enable the use of compact equipment and facilities, treatment of used fuel shortly after discharge from a reactor, and reduction of secondary waste generation. • Developing highly durable and leach-resistant waste forms of metal, glass, and ceramic composition for safe, long-term disposal. However, it must be noted that the United States increasingly relies on collaborative arrangements with foreign research institutions and universities to conduct research in these areas. For example, Argonne, Idaho, and other U.S. national laboratories are working with the Korea Atomic Energy Research Institute, in a series of joint studies sponsored by the United States and Republic of Korea, to study disposition options for used nuclear fuel, including pyroprocessing, in order to develop economic, sustainable long-term solutions, consistent with non-proliferation objectives, for nuclear energy production and waste management. The state of U.S nuclear research facilities is declining compared to steady investments being made in countries such as France, Russia, Japan, and Republic of Korea. More importantly, those governments, as part of their national energy policies, have committed to the development and deployment of advanced fast reactor technologies, which are an important element of an integrated energy and waste management policy.

#### DOE key—seen as the definer of cooperation with Russia

DOE 7

(Department Of Energy, Deputy Secretary of Energy, Clay Sell, Speech at the Carnegie Moscow Center, March 14, 2007, http://www.energy.gov/news/4876.htm)

Thank you Rose for that kind introduction.  And a special thank you to the Carnegie Moscow Center for putting together this morning’s event. Non-governmental organizations like the Moscow Center do unique work that plays a very important role in civil society.  The Carnegie Institute has been instrumental in bringing together the thought and opinion leaders of Russia in support of democracy and freedom. You and others took a leading role in the transformation of political discourse here over the past 15 years.  And it will be you who help keep the political and opinion leaders accountable by convening experts, fostering debate, and performing crucial research that addresses some of our world’s most important public policy challenges.  I commend you for it and I thank you for having me. One individual who personified the important role that reformers can make, even against staggering odds, was the former Russian Admiral Nikolai Yurasov.  I recall meeting the Admiral about five or six years ago back in the U.S.  He was a great and early advocate for nuclear nonproliferation and he helped to strengthen the U.S. – Russian partnership in this area. His work began opening the door to a number of opportunities for the Department of Energy.  I think fondly of him and express my condolences to his family. The strategic rivalry between the United States and the Soviet Union was the most important foreign policy dynamic in the second half of the 20th century, without question.  It defined our relationship and separated the world into groups…aligned with…aligned against…or not aligned at all. But that time is over.  In the 21st century, our relationship must not be defined by a rekindling of our strategic rivalry of old, but instead by a new strategic partnership.  A partnership defined by our *joint leadership* on the world’s greatest challenges.  And right now, there is no greater challenge than energy. Perhaps some would say that is an overstatement.  I don’t think so.  And I would like to tell you why. Energy necessarily underpins almost every other major challenge we face. The development and success of national economies – a matter critically important to addressing the poverty and despair that breeds terrorism – will depend, in large part, on whether or not nations have secure and affordable supplies of energy. And ensuring that this continued development is achieved in a clean and environmentally sensitive way, and in a way that allows us to effectively address the challenge of global climate change, will depend on the decision we make about how to source and consume our energy. And each nation’s sense of national security will depend in large part on having stable and diverse supplies of energy.  Energy security cannot be separated from national security. And when one looks at the great potential that nuclear power can play in addressing these issues, we can add in a further issue:  energy security cannot be separated from our nonproliferation and counterterrorism policies related to fissile material. These issues matter.  How Russia leads on these issues matter.  And perhaps there is no area in which Russia and the United States together can have a greater impact than on energy. In some of these areas, like nonproliferation policy, the United States and Russia have a rich track record of cooperation on which to build…I would like to talk about that today. On broader matters of energy policy, our partnership is still emerging.  Frankly we, in the United States, see areas of great concern about what is happening here, but we also see areas of great opportunity.  I will talk about that as well.

#### No internal net benefit—undermining agency policy delegitimizes the Court

Metzger ‘5 – associate professor at Columbia Law School

(Gillian Metzger, “The Story of Vermont Yankee: A Cautionary Tale of Judicial Review and Nuclear Waste”, " (2005). Columbia Public Law & Legal Theory Working Papers. Paper 0592. http://lsr.nellco.org/columbia\_pllt/0592)

Strong words, but the Court saved its harshest language for its assessment of the D.C. Circuit’s decision in the Consumers Power proceeding. According to the Court, the appellate court’s decision reversing the grant of Consumers Power’s construction permit “borders on the Kafkaesque”: Nuclear energy may some day be a cheap, safe source of power or it may not. But Congress has made a choice to at least try nuclear energy. . . . The fundamental policy questions appropriately resolved in Congress and in the state legislatures are not subject to reexamination in the federal courts. 118 The Court could not have made plainer its view that the D. C. Circuit had overstepped its proper role and illegitimately used its judicial review function to advance its judges’ own policy preferences. This harsh tone prompted a protest by senior D.C. Circuit Judge Fahy, who had sat on the Aeschliman panel. In a memo to the other circuit judges, which he also sent to Chief Justice Burger, Judge Fahy remarked that while he expected reversal, he “was surprised . . . by the severity” and “the unseemly character of the criticism heaped upon us”—criticism he argued was unfair and rested on the Court’s failure to recognize that the D.C. Circuit had not stopped construction of the Consumers Power reactors. 119

#### No solvency –

#### Agencies won’t enforce

Widman 10 – Legal Director, Center for Justice & Democracy (Amy, Fall, “Advancing Federalism Concerns in Administrative Law Through a Revitalization of State Enforcement Powers: A Case Study of the Consumer Product Safety and Improvement Act of 2008,” 29 Yale L. & Pol'y Rev. 165, Lexis)

A failure to draft guidelines and create regulations differs from a failure to enforce existing regulations. Congress delegates a check on this type of agency inaction to the state attorneys general with its legislative expansion of enforcement powers. For example, under the CPSIA, if the CPSC refused to enforce the phthalate ban, the states would be able to do so using their enforcement power. Thus, the "complicated balancing of factors" n181 that a court performs when deciding whether to prosecute a particular violation would now be shared with fifty state attorneys general. By expanding the state enforcement power, Congress effectively addressed one of the main reasons given by the Court for not reviewing agency decisions not to enforce - namely, that an agency should not be forced to expend its limited resources on addressing any particular violation [\*201] rather than another, while simultaneously ensuring that the public is protected. The state enforcement power obviates this concern by leaving the agency's resources untouched. A state attorney general who decides to sue for injunctive relief for a violation of the CPSIA will have to use the state's resources.

#### The Court will roll back

Sherman 11 – Associated Press (Mark, 07/03, “Justice Ginsburg’s future plans closely watched,” Lexis)

Democrats and liberals have a nightmare vision of the Supreme Court's future: President Barack Obama is defeated for re-election next year and Justice Ruth Bader Ginsburg, at 78 the oldest justice, soon finds her health will not allow her to continue on the bench. The new Republican president appoints Ginsburg's successor, cementing conservative domination of the court, and soon the justices roll back decisions in favor of abortion rights and affirmative action.

## Politics

### 2AC

**Hegemony inevitable- newest trends prove- culture determines**

Asghar ‘11 (Rob Asghar is a Fellow at the University of Southern California's Center on Public Diplomacy and a member of the Pacific Council on International Policy, Special to CNN, http://www.cnn.com/2011/11/17/opinion/asghar-globalization/index.html, November 17, 2011, LEQ)

The rapid growth of China and India does not mean the U.S. has fallen behind, Rob Asghar says Both face major environmental and infrastructural challenges within the next decade, he says Many East and South Asia societies are facing resistance to progress, Asghar says Asghar: U.S. may sabotage its tilt toward innovative growth if political dysfunction continues Editor's note: Rob Asghar is a Fellow at the University of Southern California's Center on Public Diplomacy and a member of the Pacific Council on International Policy. Los Angeles (CNN) -- China is poised to become the world's largest economy within a decade, according to some economists. Rising giant India already has a middle-class population that is larger than the entire United States population, according to others. Such nuggets fuel an industry of prophetic warnings of decline, exemplified by the phrase "How America Fell Behind in the World It Invented" in the subtitle of Thomas Friedman and Michael Mandelbaum's recent best-seller. The rapid growth of China and India and other Asian tigers does not mean that the United States has "fallen behind," however. It takes a panicked perspective to even ponder the point. China and India have immense economies, each with state-of-the-art technological centers that put others to shame. But they are also ranked 125th and 162nd, respectively, in GDP per capita (according to the CIA's World Factbook), lacking clean water and safe food for too many citizens. Rob Asghar Rob Asghar Both face massive environmental and infrastructural challenges within the next decade. Neither country is in range of providing an American level of services to its citizenry, much less the comfortable level typical of flourishing Northern European economies. And if we consider the deeper cultural dimensions of globalization and innovation, one could go so far as to argue that the globalization game is and will remain rigged in America's favor, with other nations not being able or even willing to catch up. In truth, many societies in East and South Asia are confronting ambivalence and resistance to developments that we might see as progress but that their traditionalists see as moral and social decline. Iran and Pakistan are just two examples of nations whose rapid modernization was undercut by underlying reactionary cultural forces. For related reasons, the various proud Asian tigers are not on an unbendable trajectory. Current trends are not destiny; it is more accurate to say that culture is destiny. Western academics may deride the "unoriginal" thinking of Chinese or Indian students, but this critique is based on an entirely different (some would say culturally imperialistic) worldview. Lao Tzu's "Tao Te Ching," still proudly full of wisdom today, stands as a reminder that disruption, individualism and innovation are inherently heretical in many traditional societies -- and if they occur in one area of a traditional society, a backlash typically follows in another. Gandhi's spirit, with its vigorous opposition to consumer capitalism, is hardly extinct. Meanwhile, America is the best at being America, because America is the closest thing to a society that unambivalently enjoys being American. The United States has cultural and demographic traits that remain unique -- for better and worse. American culture is peculiarly tilted toward valuing disruptive new ideas and welcoming the immigrant who brings such ideas into its society. An individualistic, heterogeneous, novelty-seeking American culture, strengthened by a critical mass of interdisciplinary American research universities that draw the world's best minds, represents a considerable edge in social and economic innovation. For today's emerging economies to become long-term giants, rather than variations of prerevolution Iran and the Soviet Union, they must become more economically and socially integrated. And to become economically integrated, they must become culturally integrated, which means a host of conflicts are on the horizon regarding varying societal views on change, tradition, materialism, social mobility, openness, patronage and so on. It will not be easy, and success is not inevitable. Many emerging nations are like a young child on the precipice of a tense and unpredictable adolescence. Eastern nations may in time become better than the West at the freewheeling socioeconomics that America and the rest of the West invented, but not without considerable social turmoil. A true taste for innovation and adaptation will result only from a vigorous clash between individualistic impulses and communitarian ones -- clashes that will take decades to play out, with uncertain outcomes. Americans may block their own path and sabotage their own cultural tilt toward innovative growth if political dysfunction continues. But with even some sensible reform of the political system, a resilient, forward-thinking and forward-moving economy should result. America was the key force in popping open the Pandoran box of commercial and cultural globalization, with all the attendant anxieties and unintended consequences. But the globalization game is an inherently American game, and it will take a great deal of luck, strategy and determination for someone else to play the game better than Americans are able to play it.

#### The economy is resilient – their evidence is fear mongering

Lambro 8 (Donald, Washington Times Chief Political Correspondent, “Always darkest before dawn,” 7-28, Lexis)

The doom-and-gloomers are still with us, of course, and they will go to their graves forecasting that life as we know it is coming to an end and that we are in for years of economic depression and recession. Last week, the New York Times ran a Page One story maintaining that Americans were saving less than ever, and that their debt burden had risen by an average of $117,951 per household. And the London Telegraph says there are even harder times ahead, comparing today's economy to the Great Depression of the 1930s. Wall Street economist David Malpass thinks that kind of fearmongering is filled with manipulated statistics that ignore long-term wealth creation in our country, as well as globally. Increasingly, people are investing "for the long run - for capital gains (not counted in savings) rather than current income - in preparation for retirement," he told his clients last week. Instead of a coming recession, "we think the U.S. is in gradual recovery after a sharp two-quarter slowdown, with consumer resilience more likely than the decades-old expectation of a consumer slump," Mr. Malpass said. "Fed data shows clearly that household savings of all types - liquid, financial and tangible - are still close to the record levels set in September. IMF data shows U.S. households holding more net financial savings than the rest of the world combined. Consumption has repeatedly outperformed expectations in recent quarters and year," he said. The American economy has been pounded by a lot of factors, including the housing collapse (a needed correction to bring home prices down to earth), the mortgage scandal and the meteoric rise in oil and gas prices. But this $14 trillion economy, though slowing down, continues to grow by about 1 percent on an annualized basis, confounding the pessimists who said we were plunging into a recession, defined by negative growth over two quarters. That has not happened - yet. Call me a cockeyed optimist, but I do not think we are heading into a recession. On the contrary, I'm more bullish than ever on our economy's long-term prospects.

#### US not key

The Economist 7 (November 23, “America’s Vulnerable Economy”, pg. 13)

The best hope that global growth can stay strong lies instead with emerging economies. A decade ago, the thought that so much depended on these crisis-prone places would have been terrifying. Yet thanks largely to economic reforms, their annual growth rate has surged to around 7%. This year they will contribute half of the globe's GDP growth, measured at market exchange rates, over three times as much as America. In the past, emerging economies have often needed bailing out by the rich world. This time they could be the rescuers. Of course, a recession in America would reduce emerging economies' exports, but they are less vulnerable than they used to be. America's importance as an engine of global growth has been exaggerated. Since 2000 its share of world imports has dropped from 19% to 14%. Its vast current-account deficit has started to shrink, meaning that America is no longer pulling along the rest of the world. Yet growth in emerging economies has quickened, partly thanks to demand at home. In the first half of this year the increase in consumer spending (in actual dollar terms) in China and India added more to global GDP growth than that in America. Most emerging economies are in healthier shape than ever (see article). They are no longer financially dependent on the rest of the world, but have large foreign-exchange reserves—no less than three-quarters of the global total. Though there are some notable exceptions, most of them have small budget deficits (another change from the past), so they can boost spending to offset weaker exports if need be.

#### Won’t pass –it’ll get caught up in other issues

Porter 2-7. [Eduardo, economics reporter, "2nd chance to overhaul immigration" International Herald Tribune -- lexis]

Despite the strong case for an overhaul, however, changing the United States' immigration laws may be tougher than the president appears to believe. While the administration may have overcome some of the same obstacles as in 2007, the proposed changes will probably face deep-seated opposition from many Americans - including most conservative Republicans - to what they will view as a potentially large expansion of welfare.¶ Mr. Obama's proposal is based on principles similar to those of the 2007 attempt: a path to citizenship for millions of illegal immigrants already in the United States, a legal channel for future immigrant workers and their families and a plan to better secure borders and enforce immigration laws.¶ Yet the necessary changes in immigration rules today are quite different from 2007. Notably, the elements needed to stop the flow of illegal immigrants north are much less important to the enterprise. The Obama administration has already spent huge amounts of money on border enforcement. And deportations have soared. What is more, illegal immigration has slowed to a trickle as the Mexican economy has grown more robustly than that of the United States. The illegal immigrant population has even been shrinking in the last few years. And it may continue to do so as the Mexican population of prime migration-age people stops growing.¶ Also, many employers have already gotten some of what they wanted: The number of workers entering the United States on temporary visas for low-end jobs in agriculture and other industries has increased sharply.¶ ''The discussion is in a different environment,'' said Gordon H. Hanson, an expert on the economics of immigration at the University of California, San Diego. ''The flow of new immigrants is not the story anymore.''¶ That might help the cause of change in some ways. It could allow the discussion about work visas to focus on the highly educated workers coveted by technology companies and pre-empt the kind of argument between business and labor over visas for cheap immigrant workers that sank the bill in 2007. The A.F.L.-C.I.O., for instance, has heartily embraced Mr. Obama's plan.¶ But what supporters of an overhaul of immigration law seem to be overlooking is that those very changes could also make it more difficult to build a coalition across the political divide. If change is mainly about granting citizenship to 11 million mostly poor illegal immigrants with relatively little education, it is going to land squarely in the cross hairs of the epic battle over taxes, entitlements and the role of government in American society.¶ It is hard to say with precision what effect offering citizenship would have on the budget, but the chances are good that it would cost the government money. Half to three-quarters of illegal immigrants pay taxes, according to studies reviewed in a 2007 report by the Congressional Budget Office. And they are relatively inexpensive, compared with Americans of similar incomes. Their children can attend public schools at government expense - putting a burden on state and local budgets. But they are barred from receiving U.S. government benefits like the earned-income tax credit, which benefits lower-income people; food stamps, a food subsidy program; and Medicaid, a health insurance program for the poor. Only their American-born children can get those.¶ Government revenue might not change much with legalization. Most illegal immigrants who do not pay taxes probably work in the cash economy - as nannies or gardeners - where tax compliance among citizens is also low. Costs, of course, would increase. Once they became citizens, immigrants would be entitled to the same array of government benefits as other Americans. Just for Social Security, which provides benefits to retirees and disabled people, and Medicare, a health insurance program for the elderly, offering citizenship to illegal immigrants would mean losing a subsidy worth several billion dollars a year in payroll taxes from immigrants who cannot collect benefits in old age.¶ The White House and other backers of an overhaul have made much of a 2007 analysis by the Congressional Budget Office concluding that the failed immigration bill would have increased government revenue by $48 billion over a decade while adding only $23 billion to direct spending on entitlements and other programs. But the report also said that with the costs of carrying out the new law, it would have actually increased the budget deficit by $18 billion over the decade and several billion a year after that. What is more, it noted that most of the expected new tax revenue would have come from new immigrant workers, not from the population of those with newly legal status.¶ History suggests the United States could have much to gain by turning illegal immigrants into citizens and putting an end to unauthorized immigration. The last time the United States permitted illegal immigrants to gain legal status, in 1986, incomes jumped for those who took advantage of the opportunity. Their children became more proficient in English and completed more years of school - becoming more productive and paying more taxes over their lifetimes.¶ But the same history underscores how immigration sets off fears about further sharing of government resources. Ten years after the immigration overhaul of 1986, reeling from public anger, Congress passed a law barring legal immigrants from means-tested government services. The issue is likely to be a major flash point again. Dr. Hanson, of the University of California, San Diego, pointed to ''the older white man who sees his entitlements at risk because of the demands placed by legalization on our fiscal resources.''¶ Conservative Republicans set on cutting government spending share those concerns. And for all their reasons to reach out to Hispanics, they might not find giving illegal immigrants legal status politically advantageous. On Tuesday, Republicans in the House argued against granting citizenship to illegal immigrants at all.¶ Hispanics are more liberal than the general population on economic matters, polls suggest, and more supportive of Big Government initiatives. Granting them citizenship would give them the vote.¶ As Steven A. Camarota, director of research at the Center for Immigration Studies, an advocacy group in Washington that favors more limits on immigration, said, ''They will see legalization as a voter registration drive for Democrats.''

#### No vote and no bill now

Huey-Burnes 2-6. [Caitlin, reporter, "House Searches for Immigration Middle Ground" Real Clear Politics -- www.realclearpolitics.com/articles/2013/02/06/hearing\_underscores\_tough\_road\_to\_immigration\_reform\_116935.html]

House Speaker John Boehner, meanwhile, has advised his chamber to approach immigration reform slowly. “This is not about being in a hurry. This is about trying to get it right on behalf of the American people and those who are suffering under an immigration system that doesn’t work very well for anybody,” he told reporters Tuesday. Indeed, the House only began hearings on the issue this week, and no legislation has been introduced.

#### PC not key

Sanchez and Dennis 1-30. [Humberto, Steven, RC staff, "GOP warns Obama to tread lightly on immigration" Roll Call -- www.rollcall.com/news/gop\_warns\_obama\_to\_tread\_lightly\_on\_immigration-222040-1.html?pos=oplyh]

An immigration policy rewrite may be President Barack Obama’s top priority, but Senate Republicans are warning that if he tries to influence Congress too much, the delicate talks could run aground.¶ “I think this is going to be a congressional thing,” Senate Judiciary ranking member Charles E. Grassley, R-Iowa, said Wednesday. “I think the president is going to stay out of this. He doesn’t want to talk to Congress. You saw that last fall in the fiscal cliff.¶ “He wants to give speeches; he wants to campaign,” Grassley continued. “So I don’t think he’s going to influence this. I don’t think he’s got enough influence to influence this anyway.”¶ Sen. Orrin G. Hatch, R-Utah, a veteran of previous immigration policy change efforts, said he hopes the president will use a light touch when it comes to pressing for his stated prerogatives.¶ “I actually believe he doesn’t care much for Congress,” Hatch said. The Utah lawmaker stressed that he likes “the president personally,” but he said Obama hasn’t reached out to lawmakers on recent legislative business such as the fiscal cliff.¶ “I hope we provide the leadership and that he follows along,” Hatch said.

#### Nominations laundry list thumps

Thurlow 2-5. [Tom, political writer, "Obama's Political Capital" Red State -- www.redstate.com/tfthurlow/2013/02/05/obamas-political-capital/]

President Obama blows through his own political capital just as fast as he blows through America’s financial capital. Neither case of over-spending is sustainable, and we will just have to wait to see which spending spree is forced to end first.¶ But this further confirms my suspicion that President Obama’s brains are the most over-rated to occupy the Oval Office in generations. Take his recent nominations, which are a mess.¶ Last week’s Senate hearings on Senator Hagel’s confirmation as defense secretary were a disaster. Senator McCain pressed Senator Hagel to confirm or deny Hagel’s earlier statement that the Surge in Iraq was “the greatest foreign policy blunder since the Vietnam War.” Senator Ted Cruz pointed out that Senator Hegal, during an interview with the Al Jazeera English network in 2009 had agreed with a questioner who said that the United States appeared and acted like the world’s bully. As Paul Mirengoff at the Powerline Blog wrote, “if he were a Broadway play, Hagel would close after one performance.”¶ There were also a number of past anti-Semitic, or at least anti-Israel statements about which Senator Hagel was questioned. About the only thing about the hearing that was reassuring to those who take national defense seriously was that Hagel bumbled so much he sounded like he may have dementia. Let’s face it, a demented defense secretary may not be as bad as an anti-American defense secretary who is purposefully soft on defense and unconcerned about looming problems with Iran’s nuclear program.¶ Senator Lindsey Graham has threatened a hold on the Hagel nomination, and he should. Not only is a defense secretary an important policy position, but as has been pointed out by Republican critics that in any given foreign crisis, the defense secretary will be one of the few advisors in the room, advising the president.¶ Next up: a nomination battle for a Treasury secretary nominee, Jacob Lew, who has never worked in a bank except as an attorney for Citibank, and has held many different government jobs, most recently President Obama’s chief of staff. Definitely a financial industry lightweight. Lew has also been accused of misleading the public on deficits. About the only thing that stands out about Jacob Lew as Treasury secretary is the fact that his signature — which will appear on all of our currency – looks like a bunch of circles. Oddly enough, it doesn’t appear as if Lew has had any medical training.¶ After that, brace yourself for President Obama’s nominee for director of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Todd Jones. Jones is the current acting director of ATF and has been criticized by a local Democratic FBI office director as being politically well-connected but incompetent and soft on gun and violent crime prosecutions.¶ Past presidents have had difficult times in their second terms, but the difficulty is usually with big proposals. President George W. Bush unsuccessfully tried to pass privatization of Social Security and immigration reform in his second term. President Reagan spent his second term solidifying his victory in the Cold War and simplified the tax code, lowering the top marginal tax rate to 28%. Meanwhile, President Obama is trying to get Charles Hagel approved as defense secretary, Jacob Lew at Treasury secretary, and Todd Jones as ATF director, not grand plans by any means.¶ President Obama may get these nominees approved by a majority of senators. But the question is: why is he fighting these particular battles? He could have easily found better qualified nominees for these positions and fought bigger battles on some substantive legislative proposals. Why spend what remaining political capital he has on these problematic appointments? I have a theory, and here goes.¶ As liberal as he is, President Obama prefers to settle scores with his political adversaries even more than getting big liberal proposals passed. There were some clues dropped in the recent campaign. In one speech President Obama told his audience, who booed after Gov. Romney was mentioned, “don’t boo … voting is the best revenge.” This follows a slip he made a couple years earlier when he encouraged Latinos to punish their “enemies,” and when he warned African Americans that a Republican take-over of Congress would mean “hand-to-hand combat up here on Capitol Hill.”¶ These Freudian slips and others show the resentment that President Obama feels towards anyone who opposes him. Opposing ideas are not to be argued against; their proponents are to be personally defeated and the victory noted. Somewhere in his brain the president is keeping score, and he relishes announcing to his opponents, as he did in his first term, “I won.”¶ It is a pettiness that may work out well for the conservative cause. After all, the best way to block any future liberal proposals is to not have them proposed in the first place. The Hagel, Lew and Jones nominations, and the spending of President Obama’s political capital needed to advance these nominations, may be just the ticket to stall any future liberal proposals.

#### Gun control thumps

Pace 2-4. [Julie, AP writer, "Obama talks gun control in Minneapolis: 'It's time to do something'" Oroville Mercury Register -- www.orovillemr.com/news/ci\_22516665/obama-goes-minneapolis-campaign-assault-weapons-ban]

With his gun proposals dividing Congress, President Barack Obama took his case for universal background checks and for banning some military-style weapons to the upper Midwest on Monday, looking to build public support for his measures and to apply pressure on lawmakers.¶ Obama argued that there's bipartisan support for a system to undertake criminal checks on gun buyers and for gun trafficking laws but, acknowledging the political challenges he faces, would only say that the assault weapons ban deserves a vote in Congress.¶ "We don't have to agree on everything to agree it's time to do something," he said.¶ Before his remarks, Obama held a roundtable discussion at the Minneapolis Police Department Special Operations Center, speaking with law enforcement and community leaders.¶ Obama made his pitch in Minnesota, a Democratic-leaning state where officials have been studying ways to reduce gun-related attacks and accidents for several years. His visit to the Minneapolis Police Department's Special Operations Center marked the first time Obama has campaigned on his controversial proposals outside of Washington.¶ "Changing the status quo is never easy," Obama said. "This will be no exception. The only way we can reduce gun violence in this county is if it the American people decide it's important, if you decide it's important -- parents and teachers, police officers and pastors, hunters and sportsmen, Americans of¶ every background stand up and say, 'This time, it's got to be different.'"¶ Ahead of the trip, the White House released a photo of the president skeet shooting at Camp David, the presidential retreat. Obama cited skeet shooting when asked in a recent interview whether he had ever shot a gun.¶ The president unveiled his sweeping package of proposals for curbing gun violence last month in response to the mass shooting at a Newtown, Conn., elementary school. He vowed to use the full weight of his office to fight for the proposals, many of which face tough opposition from congressional lawmakers and the powerful National Rifle Association.

#### PC theory is wrong- winners win

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

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

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

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

[Matt note: gender paraphrased]

#### Plan’s massively popular in Congress

Press Action 3/12/12 (“US Nuclear Industry Operates as if Fukushima Never Happened”) <http://www.pressaction.com/news/weblog/full_article/nuclearsubsidies03122012/>

Both Democrats and Republicans have had a long love affair with commercial nuclear power, and the relationship is showing no signs of losing steam. Since the 1950s, members of both parties have enthusiastically lavished electric utility companies with expensive gifts, ranging from subsidies to protection from liability for disasters to loan guarantees, all underwritten by U.S. taxpayers. The political calculus is simple: nuclear power enjoys unanimous support in Washington. Try to name one member of the U.S. Senate or House of Representatives who favors shutting down the nation’s 104 commercial nuclear reactors. Federal agencies, from the Atomic Energy Commission to the Department of Energy to the Nuclear Regulatory, have worked diligently through the years to promote nuclear power. At the state level, support for nuclear power also is extremely strong, although there are some politicians—albeit a tiny number—who have publicly called for the closure of certain nuclear plants. On the one-year anniversary of the start of the nuclear disaster at the Fukushima Dai-ichi nuclear power plant in Japan, one would assume a voice in official Washington would have emerged calling for an end to the nation’s experiment with nuclear power. In Germany, government officials made the decision to phase out nuclear power by 2022 in response to Fukushima. There’s no such sentiment among the ruling elite in the United States. Locating a member of Congress opposed to the continued operation of nuclear power plants is as hard as finding a lawmaker who favors breaking ties with Israel over its mistreatment of Palestinians for the last 60 years. In fact, it’s more than hard, it’s impossible. It’s very rare to find an issue where there is a noteworthy difference between Democrats and Republicans. When there are differences, they tend to be subtle, although party officials and the corporate media will attempt to sensationalize a slight difference to create an impression that the U.S. political system permits honest and real debate.

#### No spillover for PC

**Schier 10 –** Congdon professor of political science at Carleton College and author of the award-winning "Panorama of a Presidency: How George W. Bush Acquired and Spent His Political Capital" (Steven E, 2/11. “Obama can learn from predecessors,” Politico.com, Lexis.)

Barack Obama's approach to Congress in his presidency's first 13 months has been counterproductive, failing to achieve several prominent legislative goals. Obama could learn from both of his predecessors about how to do it better, adopting strategies employed by Bill Clinton and tactics used so effectively by George W. Bush. President Obama's broad strategy in working with Congress has been **emphatically partisan and ideological**. On major issues, he has pushed a liberal agenda - health care reform, cap and trade, the stimulus - with fellow Democrats. Though he engaged Republicans at a public media event recently, for his first year he did not involve GOP lawmakers in policymaking. It remains unclear if Obama will engage the GOP in serious legislative bargaining. The GOP, for its part, has shown limited interest in participating anyway, reflecting the deep partisan polarization of Washington politics. So the path of least resistance for Obama has been the partisan way. That forces policy away from the center, risking unpopularity, while confining deal making to a small number of fellow partisans. Negative publicity for Obama - like that regarding the "Louisiana Purchase" of Sen. Mary Landrieu (D-La.) or the "Cornhusker Kickback" for Sen. Ben Nelson (D-Neb.) regarding health care legislation - was an unsurprising result.

# 1AR vs Wayne State DN

## PU-238

#### NASA and DOE won’t produce enough Plutonium-238 now

Deason ’12 – research assistant at Oregon State University in Space Nuclear Research

(Wes, “Plutonium In Space: Why and How?”, ANS Nuclear Café, 2-1-2012, http://ansnuclearcafe.org/2012/02/01/11193/)

Unfortunately, plutonium-238 cannot be found naturally. This is because it is radioactive and will have almost completely decayed into a different element after a geologically short period of 1000 years. Thus, plutonium-238 must be produced using nuclear reactors. During the Cold War, when weapons-grade plutonium production was at full scale, plutonium-238 was a byproduct that could be saved and used for space power production. Since the 1990s, however, the United States has stopped production of weapons-grade plutonium, yet we continue to plan space missions that require the use of plutonium-238. NASA and the DOE have discussed plans to use national laboratory reactors to produce plutonium-238 for general purpose applications, but it is questionable if they will be able to supply a sufficient amount to meet national needs. Another concept, proposed by the Center for Space Nuclear Research (CSNR), uses flexible TRIGA research reactors to produce a higher quantity of Pu-238 per year at lower cost. For more information on low cost plutonium-238 production, contact the CSNR. Regardless of its source, Pu-238 remains an important tool for scientific research. Many space missions have been powered by plutonium-238, and future missions will continue to be enabled by it. Its long lasting heat generation—coupled with a dependable power conversion system—allows it to be used in many environments and configurations. The use of plutonium-238 can be expected to become even more important as space exploration pushes further outward to Mars, Jupiter, their moons, and beyond!

## Prolif

### Conventional

#### Quantitative risk analysis proves – proliferators are more likely to be targeted

**Sobek 12**, David, Assistant Professor at Louisiana State University, Dennis M. Foster, Associate Professor of International Studies and Political Science at the Virginia Military Institute, Samuel B. Robison, B.A., University of Southern Mississippi; M.A., LSU Office [“Conventional Wisdom? The Effect of Nuclear Proliferation on Armed Conflict, 1945–2001,” International Studies Quarterly Volume 56, Issue 1, pages 149–162, March 2012]

The possession of nuclear weapons confers many benefits on a state. The path to proliferation, however, is often violent. When a state initiates a nuclear weapons program, it signals its intent to fundamentally alter its bargaining environment. States that once had an advantage will now be disadvantaged. This change in the environment is not instantaneous, but evolves slowly over time. This gives states both opportunities and incentives to resolve underlying grievances, by force if necessary, before a nuclear weapons program is completed. Our cross-national analyses of nuclear weapons program and the onset of militarized conflict confirm this expectation. In particular, the closer a state gets to acquiring nuclear weapons, the greater the risk it will be attacked (especially over territorial issues). Once nuclear weapons are acquired, however, the risk of being attacked dramatically drops, though not below the risk of attack for non-proliferators. Conventional wisdom holds that the possession of nuclear weapons offers states security from a number of international threats. In particular, the possession of nuclear weapons insulates a state from challenges to its most salient concerns (such as territorial integrity). While ultimately beneficial to proliferators, the path to nuclear status is generally neither instantaneous nor undetectable. As such, it behooves states that wish to challenge proliferators to realize their political goals sooner rather than later. Proliferators, on the other hand, have an incentive to delay the resolution of the contentious issue until the deployment of their nuclear weapons. In this article, we use this set of interacting incentives as a point of departure in delineating a theory of the relationship between the nuclear proliferation process and the frequency with which proliferators are targeted in conventional militarized conflicts. Though much previous scholarship has been devoted to this question, we believe that extant views have focused too narrowly on one subset of that relationship: the preemptive employment of conventional capabilities by status quo powers in order to physically disable or destroy proliferators’ nascent nuclear programs. In developing a broader treatment of the strategic interaction between states, we posit that the various stages of deterrent nuclear proliferation are best conceived of as sequential steps in a bargaining process over preexisting disputes that were instrumental in spurring proliferators to consider nuclear options. As such, we contend that the primary rationale for status quo states’ conventional targeting of proliferators should derive not from the desire to physically disrupt nuclear development (which is, at best, a difficult task), but from the desire to reach favorable conclusions to underlying disputes before the deployment of nuclear weapons drastically complicates the issue. The effect of nuclear proliferation on conventional targeting is tested quantitatively by looking at states in four different stages of the proliferation process: no program, exploration, pursuit, and acquisition (Singh and Way 2004). In general, the results of our analyses show that as states move from no program to exploration and then to pursuit, the odds that that they become the target of a militarized interstate dispute (or MID; Jones, Bremer, and Singer 1996) increase rather steadily. Once actual acquisition is achieved, however, the risk of being targeted decreases. These results are most robust when looking at disputes over territory (which arguably represent conflicts over the most salient interest of states) and territorial disputes that lead to at least one fatality.

#### Process DA – prolif means states will implement deterrence poorly

**Kroenig 5-26**-12 [Matthew, assistant professor in the Department of Government at Georgetown University and a research affiliate with The Project on Managing the Atom at Harvard University, he served as a strategist on the policy planning staff in the Office of the Secretary of Defense where he received the Office of the Secretary of Defense’s Award for Outstanding Achievement. He is a term member of the Council on Foreign Relations and has held academic fellowships from the National Science Foundation, the Belfer Center for Science and International Affairs at Harvard University, the Center for International Security and Cooperation at Stanford University, and the Institute on Global Conflict and Cooperation at the University of California, “The History of Proliferation Optimism: Does It Have A Future?” <http://www.npolicy.org/article.php?aid=1182&rtid=2>]

The proliferation optimist position, while having a distinguished pedigree, has several major problems. Many of these weaknesses have been chronicled in brilliant detail by Scott Sagan and other contemporary proliferation pessimists.[34] Rather than repeat these substantial efforts, I will use this section to offer some original critiques of the recent incarnations of proliferation optimism. First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic. Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[38] He argued that **leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can** make a “threat that leaves something to chance.”[39] They can **engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange**. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[40] This does not mean that **states** eagerly bid up the risk of nuclear war. Rather, they **face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis** in an attempt to prevail, but only **at the risk of suffering a possible nuclear exchange.** **Since 1945 there were have been many high stakes nuclear crises** (by my count, there have been twenty**) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war**.[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war. **An optimist might counter that nuclear weapons will never be used**, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. **But, this** objection **ignores the** **fact** **that** **leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down**.

## Ptx

### Thumper

#### Brennan thumps

Washington Post 2-5-13. www.washingtonpost.com/world/national-security/brennan-nomination-opens-obama-to-criticism-on-secret-targeted-killings/2013/02/05/8f3c94f0-6fb0-11e2-8b8d-e0b59a1b8e2a\_story.html

President Obama’s plan to install his counterterrorism adviser as director of the CIA has opened the administration to new scrutiny over the targeted-killing policies it has fought to keep hidden from the public, as well as the existence of a previously secret drone base in Saudi Arabia.¶ The administration’s refusal to provide details about one of the most controversial aspects of its drone campaign — strikes on U.S. citizens abroad — has emerged as a potential source of opposition to CIA nominee John O. Brennan, who faces a Senate confirmation hearing scheduled for Thursday.¶ The secrecy surrounding that policy was punctured Monday with the disclosure of a Justice Department “white paper” that spells out the administration’s case for killing Americans accused of being al-Qaeda operatives.¶ The timing of the leak appeared aimed at intensifying pressure on the White House to disclose more-detailed legal memos that the paper summarizes — and at putting Brennan, Obama’s top counterterrorism adviser, on the defensive for his appearance on Capitol Hill.¶ Administration officials on Tuesday sought to play down the significance of the disclosure, saying that they have already described the principles outlined in the document in a series of speeches.¶ “One of the things I want to make sure that everybody understands is that our primary concern is to keep the American people safe, but to do so in a way that’s consistent with our laws and consistent with our values,” Attorney General Eric H. Holder Jr. said in response to questions about the document.¶ Nevertheless, the leak and signals from senior lawmakers that they may seek to delay, if not derail, Brennan’s confirmation made it clear that Obama’s decision to nominate him has drawn the White House into a fight it had sought to avoid.

#### Cordray thumps the da.

Skowronski 2-5. [Jeanine, deputy editor, "Who should run the CFPB if Cordray leaves?" American Banker -- www.americanbanker.com/bankthink/who-should-run-the-cfpb-if-cordray-leaves-1056492-1.html]

The White House is expected to appeal the ruling to the Supreme Court, meaning an actual ousting from office is not imminent. But, even prior to the decision, Cordray's status at the CFPB remained murky. His recess appointment expires at the end of this year and the road to a second confirmation was expected to be just as contentious as the first.¶ This is largely due to the fact that Republicans oppose the idea of a director in general, believing the position puts unprecedented power in the hands of a single individual. They also take issue with the fact that the CFPB is, as this letter Senate Minority Leader Mitch McConnell (R-Ky.) recently sent to President Obama notes, "insulated from Congressional oversight of its action and its budget."

### WW

#### Uniquely true now- Obama gets it and the political atmosphere is right- wins key now

Hirsh, 2-7 – National Journal chief correspondent

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

**Amid today’s atmosphere of Republican self-doubt,** **a new, more mature Obama** seems to be emerging, one who has his agenda clearly in mind and will ride the mood of the country more adroitly. If he can get some early wins—as he already has, apparently, on the fiscal cliff and the upper-income tax increase—that will create momentum, and one win may well lead to others. “Winning wins.” **Obama** himself **learned** some **hard lessons over the past four years about the falsity of the political-capital concept**. Despite his decisive victory over John McCain in 2008, he fumbled the selling of his $787 billion stimulus plan by portraying himself naively as a “post-partisan” president who somehow had been given the electoral mandate to be all things to all people. So Obama tried to sell his stimulus as a long-term restructuring plan that would “lay the groundwork for long-term economic growth.” The president thus fed GOP suspicions that he was just another big-government liberal. Had he understood better that the country was digging in against yet more government intervention and had sold the stimulus as what it mainly was—a giant shot of adrenalin to an economy with a stopped heart, a pure emergency measure—he might well have escaped the worst of the backlash. But by laying on ambitious programs, and following up quickly with his health care plan, he only sealed his reputation on the right as a closet socialist.

#### No impact to econ – emp disproven

Barnett, 09 – Senior Managing Director of Enterra Solutions LLC, Contributing Editor and Online Columnist for Esquire (Thomas P.M, “The New Rules: Security Remains Stable Amid Financial Crisis,” Aprodex, Asset Protection Index, 8/25/09 http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx)

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. Now, as global economic news brightens and recovery -- surprisingly led 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.

#### It’s use it or lose it—only a risk Obama is seen as hoarding political capital

McConnell 12/26

(Scott, “About Obama More than Hagel”, The American Conservative, 12-26-2012, http://www.theamericanconservative.com/about-obama-more-than-hagel/)

It’s really at this point about Obama more than Hagel, his backbone, his readiness to fight when he meets opposition. A replay of the Chas Freeman debacle of the last administration on a far larger scale would signal that Obama will likely capitulate to Netanyahu in his second term, much as he did in the first. The President is in danger of becoming known as a figure who won’t put up a fight when facing opposition, someone who hoards political capital–saving it up for what is not exactly clear.

#### Pol cap is a myth – alternative explanations exist for any scenario where “pol cap” worked

Moraes 1/8 – freelance writer in politics

(Frank, PhD in Atmospheric Physics, writer of political commentary and novels, “Political capital is a myth”, Tufts Roundtable Commons, 1-18-2013, http://www.trcommons.org/2013/01/political-capital-is-a-myth/)

Yesterday, Jonathan Chait metaphorically scratched his head: “Nominating Hagel Most Un-Obama Thing Ever.” He can’t understand this nomination given that (1) Hagel will be a hard sell and (2) Obama doesn’t much listen to his advisers anyway. It is interesting speculation, but I wouldn’t have even thought about it had he not written, “Why waste political capital picking a fight that isn’t essential to any policy goals?”¶ This brought to mind something that has been on my mind for a while, as in posts like “Bipartisan Consensus Can Bite Me.” I’m afraid that just like Santa Claus and most conceptions of God, “Political Capital” is a myth. I think it is just an idea that Villagers find comforting. It is a neat narrative in which one can straightjacket a political fight. Otherwise, it is just bullshit.¶ Let’s go back to late 2004, after Bush Jr was re-elected. He said, “I earned capital in the political campaign and I intend to spend it.” What was this thing that Bush intended to spend? It is usually said that political capital is some kind of mandate from the masses. But that is clearly not what Bush meant. He got a mandate to fuck the poor and kill the gays. But he used his political capital to privatize Social Security. One could say that this proves the point, but does anyone really think if Bush had decided to use his political capital destroying food stamps and Medicaid that he would have succeeded any better? The truth was that Bush’s political capital didn’t exist.¶ Let’s look at more recent events: the Fiscal Cliff. Obama didn’t win that fight because the people who voted for him demanded it. He won it because everyone knew that in the new year he would still be president. Tax rates were going up. Boehner took the Fiscal Cliff deal because it was the best deal that he felt he could get. He didn’t fold because of some magic political capital that Obama could wave over him.¶ There is no doubt that public opinion does affect how politicians act. Even politicians in small safe districts have to worry that larger political trends may end up making them look stupid, out of touch, or just cruel. But beyond that, they really don’t care. If they did, then everyone in the House would now be a Democrat: after all, Obama won a mandate and the associated political capital. But they don’t, because presidential elections have consequences — for who’s in the White House. They don’t have much consequence for the representative from the Third District of California.

#### No spillover for PC

**Schier 10 –** Congdon professor of political science at Carleton College and author of the award-winning "Panorama of a Presidency: How George W. Bush Acquired and Spent His Political Capital" (Steven E, 2/11. “Obama can learn from predecessors,” Politico.com, Lexis.)

Barack Obama's approach to Congress in his presidency's first 13 months has been counterproductive, failing to achieve several prominent legislative goals. Obama could learn from both of his predecessors about how to do it better, adopting strategies employed by Bill Clinton and tactics used so effectively by George W. Bush. President Obama's broad strategy in working with Congress has been **emphatically partisan and ideological**. On major issues, he has pushed a liberal agenda - health care reform, cap and trade, the stimulus - with fellow Democrats. Though he engaged Republicans at a public media event recently, for his first year he did not involve GOP lawmakers in policymaking. It remains unclear if Obama will engage the GOP in serious legislative bargaining. The GOP, for its part, has shown limited interest in participating anyway, reflecting the deep partisan polarization of Washington politics. So the path of least resistance for Obama has been the partisan way. That forces policy away from the center, risking unpopularity, while confining deal making to a small number of fellow partisans. Negative publicity for Obama - like that regarding the "Louisiana Purchase" of Sen. Mary Landrieu (D-La.) or the "Cornhusker Kickback" for Sen. Ben Nelson (D-Neb.) regarding health care legislation - was an unsurprising result.

# 2AC vs Georgia LS

## Proliferation

#### **South Korean pyroprocessing is inevitable—only a question if they cooperate with the U.S. or other nuclear powers – you have no uniqueness**

Kane ’10 – senior research associate at the James Martin Center for Nonproliferation Studies

(Dr. Chen, “Nonproliferation Issues in U.S.-ROK Nuclear Cooperation”, U.S.-ROK Workshop on Nuclear Energy and Nonproliferation, 1-20-2010, http://asiafoundation.org/resources/pdfs/ChenKane100120.pdf)

The current agreement holds back South Korean scientists from conducting “hot” experiments in the ROK. South Koreans have asserted that the pyroprocessing technology they have developed is not reprocessing because no plutonium is separated from other transuranics when they are separated from uranium. South Koreans also argue that the technology is proliferation resistant and that any concerns about pyroprocessing can be addressed by effective safeguards. As such, South Korea has signaled it has every intention to continue pursuing pyroprocessing technology. ROK already built a laboratory-scale Advanced Conditioning Processing Facility (ACPF) and in 2007 the Korean Ministry of Science and Technology announced a civil nuclear energy plan that aims to build a fast reactor and a pyroprocessing fuel cycle by 2028. The plan is first to begin construction of a pilot pyroprocessing facility by 2011, to be completed by 2016. The Ministry also plans a semi-commercial facility to be in place by 2025. To promote the ROK’s desire to gain U.S. programmatic consent of hot pyroprocessing in South Korea, Korean researchers have been working on pyroprocessing safeguards with U.S nuclear labs as well as the IAEA with the goal of demonstrating that pyroprocessing can be effectively safeguarded. As part of the process for developing safeguards procedures and criteria for pyroprocessing, South Korea submitted a design information questionnaire (DIQ), which provided the IAEA with a description of the process, facility, and nuclear materials to be safeguarded in the ACPF. After resubmitting a revised DIQ, a physical and design inventory verification as well as environmental sampling were performed by the IAEA in 2006 and facility attachment has been completed and is in force as of 2007. The ACPF has been classified as an “other” R&D facility. It constitutes one material balance area, four material flow and five physical inventory key measurement points. 5 In parallel, the U.S. has engaged ROK scientists on joint pyroprocessing experiments involving nuclear fuel at U.S. laboratories. However, because pyroprocessing technologies pose several proliferation risks, the U.S. has long approached the issue with great caution. The U.S. has agreed to such cooperation on the R&D level **only on a case-by-case basis** and South Korean scientists have been restricted to use in South Korea of natural uranium, which does not contain plutonium. The critics of pyroprocessing argue that:  Pyroprocessed material is not as radioactive (and thus “self-protecting”) as spent fuel and that further processing to weapons-usable plutonium is not very hard. In practice, pyroprocessing technology separates most fission products from the plutonium, therefore removing the major technical barriers to its use in nuclear weapons.  Pyroprocessing also involves access to working with plutonium in metallic form, the form most often used for weapons. In this respect, pyroprocessing is actually worse than aqueous reprocessing in terms of their respective proliferation risks. 6 Pyroprocessing’s technical processes can be altered relatively quickly and easily to yield pure plutonium rather than a non-weapons-usable mixture.  By keeping a variety of radioactive materials with the plutonium, pyroprocessing will make accurate nuclear material accounting more difficult. An effective safeguards approach for such facilities should be developed and designed to detect both misuse of the facility, the acquired technology and know-how as well as the diversion of nuclear material. Additional reluctance from the U.S. to agree to pyroprocessing in ROK is based on 2004 IAEA revelations that South Korea failed to report in a timely manner on a variety of nuclear tests including uranium enrichment and plutonium separation. These revelations provoked sentiments in Washington that the U.S. cannot fully trust South Korea, at least from the perspective of nuclear non-proliferation. On the technical level, an additional point of contention during the negotiations will be on the amount of fuel currently in South Korea which is of U.S. origin. Because the existing 123 agreement does not include administrative procedures, South Korea has not been required to report annually on material transfer. That also means that the U.S. and the ROK will have to agree on an amount which will be the baseline for future accounting procedures. This number is important first to better know how much plutonium South Korea’s reactors has produced from 1972 to 2014. But even more important – how much of the current fuel in Korea is not U.S.-obligated and does not require U.S. programmatic consent. It can be expected that South Korea will push for a high percentage of non-U.S. origin fuel. The Korean logic will be that if the U.S. will not grant them programmatic consent, they could try to get it from France, Canada, Australia or Russia. There have been reports that President Lee Myung-bak’s scientific advisers have been urging him to adopt a long-term nuclear energy strategy less reliant on U.S.-type thermal reactors and more reliant on fast reactors and pyroprocessing, in part to break South Korea’s traditional nuclear energy dependence on Washington.

#### That solves South Korea relations

Sheen ’11 – assistant professor at Seoul National University

(Seongho, was an assistant research professor at Asia-Pacific Center for Security Studies (APCSS), Honolulu, Hawaii, and a research fellow at Institute for Foreign Policy Analysis (IFPA), “Nuclear Sovereignty versus Nuclear Security: Renewing the ROK-U.S. Atomic Energy Agreement”, The Korean Journal of Defense Analysis Vol. 23, No. 2, June 2011, 273–288)

The most important challenge for Washington and Seoul is to prevent the issue from becoming a test-case for the alliance. During their summit meeting in June 2009, President Obama and President Lee promised close cooperation regarding the peaceful use of nuclear energy, among others. 35 Yet, any hint of U.S. objections to South Korea’s demand for “peaceful” nuclear sovereignty could send the current amicable alliance relationship into turmoil, as shown during the fierce anti-American rallies in Seoul over the U.S. beef import issue in 2008. Many South Koreans often compare the ROK-U.S. revision of the atomic agreement with the U.S.-Japan revision in the 1980s. In its renegotiation in the late 1980s of its nuclear agreement with the United States, Japan acquired an advanced agreement on full-scale spent fuel reprocessing and uranium enrichment. Japan has become the only non-nuclear weapons state with a full reprocessing capability. 36 Washington believed that Japan posed no proliferation risk given its excellent nonproliferation credentials; however, many in South Korea think that they deserve the same right. Washington seems to have difficulty in giving the same benefit of doubt to South Korea when it comes to sensitive nuclear technology. They may say South Korea is different from Japan, which already had reprocessing and enrichment plants under the existing agreement that was agreed to before North Korea’s nuclear program was revealed. Yet, it will be difficult for the United States to simply ignore South Korea’s demand and its growing nuclear capacity because South Korea, along with Japan, is one of the most important U.S. allies in Asia. It will be a challenge for the United States to balance its bilateral alliance management with Seoul and its commitment to global nonproliferation efforts. An editorial in the Chosun Ilbo, a prominent Korean newspaper, warned the ROK-U.S. alliance could, “come under strain if Washington stubbornly insists on blocking South Korea from reprocessing.” 37 **For** many **Koreans the negotiation could be another** test case **for** the **U.S. commitment to the alliance after the very controversial KORUS FTA negotiations.** The U.S. attitude could be regarded as another referendum on America’s sincerity and respect for South Korea’s status as a key ally. The comparison with Japan would provide a compelling case for both critics and supporters of the alliance in Korea. In addition, the 2008 Bush administration’s decision to award another long-term consent to India for reprocessing nuclear waste will make it more difficult for U.S. negotiators to persuade Seoul to forgo the same right. 38 How minor they might be, some strong **nationalists may even argue for the need for South Korea to have its own nuclear weapons program**. Recently, Kim Dae-Joong, a prominent Korean conservative journalist called for a South Korean nuclear weapons program. 39 In addition, some members of the National Assembly argued for having a “conditional” nuclear option until the complete resolution of North Korea’s nuclear issue. 40

#### Solves North Korea war

McDevitt ’11 – vice president and director of the CNA Strategic Studies

(Michael McDevitt, “Deterring North Korean Provocations”, Brookings Institution, February 2011, http://www.brookings.edu/research/papers/2011/02/north-korea-mcdevitt)

Since the Armistice that ended the fighting in Korea in 1953, the U.S.-ROK alliance has been successful in preventing another North Korean invasion. The basic approach has been to present such a formidable defensive posture that the North would never believe it had an opportunity to forcefully reunify the country under its leadership. In other words, North Korea has successfully been deterred. Alliance strategy has worked so well that today the prospect of an attempt by North Korea to militarily reunite the peninsula is judged by many to be incredible. Setting aside the question of whether Pyongyang still has the desire to solve the Korean civil war by force of arms, some argue that North Korea no longer has the capability to invade successfully, even if it wanted to. Still, both the U.S. and ROK armed forces take the possibility of another invasion, however remote, seriously. The alliance’s Combined Forces Command (CFC) worries about the possibility of a surprise, or short warning attack, because North Korea has positioned much of its Korean People’s Army (KPA) close to the DMZ where it could undertake offensive operations in short order. Deterrence as Practiced Today in Korea “Broadly defined, deterrence is the threat of force intended to convince a potential aggressor not to undertake a particular action because the costs will be unacceptable or the probability of success extremely low.”[1] In other words, deterrence comes in two forms—deterrence by punishment and deterrence by denial. In the first instance, potential aggressors are deterred by the prospect of having to endure unacceptable punishment in response to an aggressive act. In the second case, deterrence by denial, the potential aggressor is deterred because defenses are so good that the aggressor concludes that it could not achieve its political and military objectives through use of force. In Korea, the U.S.-ROK alliance combines both of these approaches—a strong defense that can deny success, buttressed with the promise of overwhelming retaliation in the event of an invasion from the north. For either of these forms of deterrence to be successful what is threatened in response to aggression or a hostile act must be believable, or as it is commonly cast, must be credible. Credibility in turn, derives from a combination of military capability and a belief in the minds of North Korean leaders that the alliance has the political will to act. There is no doubt that the U.S.-ROK allies have the political will to respond to an invasion; hence the conditions necessary for a credible deterrent, capability and political will, are met.

#### Extinction

Hayes and Green ‘10 – Victoria University and Executive Director of the Nautilus Institute

(Peter and Michael, “-“The Path Not Taken, the Way Still Open: Denuclearizing the Korean Peninsula and Northeast Asia”, 1/5, http://www.nautilus.org/fora/security/10001HayesHamalGreen.pdf)

The consequences of failing to address the proliferation threat posed by the North Korea developments, and related political and economic issues, are serious, not only for the Northeast Asian region but for the whole international community. At worst, there is the possibility of nuclear attack 1, whether by intention, miscalculation, or merely accident, leading to the resumption of Korean War hostilities. On the Korean Peninsula itself, key population centres are well within short or medium range missiles. The whole of Japan is likely to come within North Korean missile range. Pyongyang has a population of over 2 million, Seoul (close to the North Korean border) 11 million, and Tokyo over 20 million. Even a limited nuclear exchange would result in a holocaust of unprecedented proportions. But the catastrophe within the region would not be the only outcome. New research indicates that even a limited nuclear war in the region would rearrange our global climate far more quickly than global warming. Westberg draws attention to new studies modelling the effects of even a limited nuclear exchange involving approximately 100 Hiroshima-sized 15 kt bombs2 (by comparison it should be noted that the United States currently deploys warheads in the range 100 to 477 kt, that is, individual warheads equivalent in yield to a range of 6 to 32 Hiroshimas).The studies indicate that the soot from the fires produced would lead to a decrease in global temperature by 1.25 degrees Celsius for a period of 6-8 years.3 In Westberg’s view: That is not global winter, but the nuclear darkness will cause a deeper drop in temperature than at any time during the last 1000 years. The temperature over the continents would decrease substantially more than the global average. A decrease in rainfall over the continents would also follow...The period of nuclear darkness will cause much greater decrease in grain production than 5% and it will continue for many years...hundreds of millions of people will die from hunger...To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth’s protective ozone.4 These, of course, are not the only consequences. Reactors might also be targeted, causing further mayhem and downwind radiation effects, superimposed on a smoking, radiating ruin left by nuclear next-use. Millions of refugees would flee the affected regions. The direct impacts, and the follow-on impacts on the global economy via ecological and food insecurity, could make the present global financial crisis pale by comparison. How the great powers, especially the nuclear weapons states respond to such a crisis, and in particular, whether nuclear weapons are used in response to nuclear first-use, could make or break the global non proliferation and disarmament regimes. There could be many unanticipated impacts on regional and global security relationships5, with subsequent nuclear breakout and geopolitical turbulence, including possible loss-of-control over fissile material or warheads in the chaos of nuclear war, and aftermath chain-reaction affects involving other potential proliferant states. The Korean nuclear proliferation issue is not just a regional threat but a global one that warrants priority consideration from the international community.

#### Momentum for nationalists means they’d be successful in changing the South Korean public’s mind on nuclear weapons—causes breakout

**Lee ’11** – senior fellow at the Institute for Peace and Cooperation in Seoul

(Byong-chul, served on the foreign and national security policy planning staff of South Korean President Kim Young-sam, “South Korea’s Nuclear Weapons Temptation”, 10-14-2011, http://yaleglobal.yale.edu/content/south-koreas-nuclear-weapons-temptation)

This has only added to a rising chorus among the mainstream media and conservative politicians calling for review of South Korea’s “no nuke” pledge. The hardliners point out that the country’s future lies in arming South Korea with nuclear weapons, harkening the strategy of South Korean President Park Chung-hee, a keen advocate for the development of a nuclear-weapons program who was assassinated in 1979. On the face of it, their aggressive claim is persuasive. The debate attracts plenty of pundits in what is by no means a media psychodrama or tale of a distant future. That future is coming into sharp focus for four reasons. First, **fuming right-wing groups** have been calling for the South Korean Lee Myung-bak government to nullify **the Joint Declaration** of the Denuclearization of the Korean Peninsula, signed in 1992, by arguing that the hostile North had already broken the pact. In 2002, the Bush administration declared the 1994 Agreed Framework, including a series of steps for normalizing relations between the US and North Korea, null and void, in response to the North’s refusal to halt its enrichment program. So, the 1992 pact has been reduced to a plaque that gathers dust in a dark closet. As strong advocates of the South’s nuclear buildup in the wake of the North’s provocative nuclear tests, they make light of the first clause of the pact that “South and North Korea shall not test, manufacture, produce, receive, possess, store, deploy or use nuclear weapons.” The angry extremists continue to hold out hope for a nuclear-armed Korea. Apparently the diehard North Korean regime’s threats and violations have provided ample excuses for South Korean hawks to do exactly the opposite of what the clause promised. Second, North Korea’s nuclear tests in 2006 and 2009 changed the logic of the denuclearization of the peninsula, ushering in a new era marked by an asymmetrical military posture. If North Korea is discovered to have actual nuclear warheads, **South Korea would feel** compelled **to acquire a deterrent stockpile independently despite America’s committed nuclear umbrella policy**. The North’s third nuclear test could possibly lead the South to reconsider the ossified denuclearization-related policy – a job requiring powerful leverage. To this end, if sufficiently intimidated, average South Koreans **could lose their reluctance over advancing nuclear capability**. While Seoul does not now harbor ambitions to develop a nuclear-weapons capability, the chance of a profound change of mind is not impossible. For want of an alternative, it would be wise not to take South Korea’s non- nuclear policy for granted. The irony is that a growing number of South Koreans also live in a nuclear-weapons-solve-everything version of Plato’s cave – the same paranoid mindset the North has insisted upon.

## Russia

#### Russia economic decline not inevitable

Adomanis ’12 – contributor to Forbes

Mark, “Russia’s Economy Is Not in Decline”, Forbes, 7-26-2012, http://www.forbes.com/sites/markadomanis/2012/07/26/russias-economy-is-not-in-decline/)

I’ve been very confused by the number of articles I’ve seen over the past few weeks that paint Russia as some sort of abysmal economic basket case, a country teetering on the edge of catastrophe. This confuses me partially because the entire Western world is now enveloped in various kinds of slow-motion economic disaster, and partially because when you look at the actual numbers Russia’s economy has actually done OK over the past couple of years. Whether it was Zaiki Laidi making the inaccurate observation that Russia is “falling behind” the West or William Martel calling Russia’s economy both “totally dysfunctional” and “command” in nature, people haven’t had a whole lot of love for what has traditionally been the least popular member of the BRICS.¶ So what I thought I would do is make a simple and straightforward graph of Russia’s economic performance since its economy reached its post-Soviet nadir in 1998.\* Since my expectation is that growth is going to decelerate as the Eurozone crisis, which Russia has somehow managed to avoid sofar, begins to take a toll, I used a quite conservative estimate of 3.3% overall GDP growth for 2012. Since actual growth in the 1st quarter of 2012 was 4.9%, hitting 3.3% means that Russia would experience a pretty noticeable slowdown over the remainder of the year.¶ Does this look to you like a country that is in long-term economic decline? Now Russia was an absolute disaster area in 1998, so the fact that its economy has doubled in size since then should be taken with a very large grain of salt. But I won’t argue with someone if they say “Russia is poor” because Russia really is poor. And if someone says “Russia could grow more quickly if it carried out liberalizing structural reforms” I would agree with that because Russia really does need to carry out liberalizing structural reforms.¶ What I will take issue with, though, is when someone says that Russia is losing economic ground, or that its economy is in some sort of long-term decline. As you can very easily see, it’s simply not possible to argue that Russia’s economy is shrinking because it’s not: the clearly visible trend is of sustained, if not overwhelming, economic growth from a very low base.¶ Meanwhile, just for kicks, here’s a chart comparing the US and Russian economies have performed since 1998 (US inflation adjusted GDP data are from the Bureau of Economic Analysis here). I used the most recent IMF prediction of 2% growth in 2012. Again one should note that in 1998 Russia was a pretty nightmarish place to be, but the next time someone tells you Russia is “falling behind” this or that random country it’s worth keeping this chart in mind.

#### Russia’s economy is not resilient – but the plan solves

Mergenthaler and Bishop ’13 – Deputy Head and Project Manager with the Strategic Foresight practice at the World Economic Forum

(Stephen and Andrew, “Russia’s economy: A great run but an uncertain future”, World Economic Forum,

The Russian economy has had a great run over the past decade, as evidenced by its sevenfold increase in GDP per capita between 2000 and 2011. Yet despite this impressive growth story, the factors that underpinned Russia’s economic development over the past ten years are fraught with growing uncertainty. As the World Economic Forum’s Scenarios for the Russian Federation highlight, while Russia’s economy has grown substantially over the past years, it has also grown increasingly fragile.¶ Russia has missed an opportunity to use the large energy windfalls of the past decade to reform its institutional environment and make itself more resilient to future shocks. Corruption has surged despite a significant increase in GDP, and growing spending on an ever-larger government apparatus has failed to improve the delivery of public services in sectors ranging from health to infrastructure. In part because of this, popular discontent has been on the rise regardless of the increasing material comfort enjoyed by the country’s growing middle class.¶ Instead of building a more resilient economic model, energy revenues have served Russia to balance these shortcomings, an increasingly unviable option for the future.¶ There is growing evidence that energy abundance may become a global reality sooner rather than later, and not only in the United States whose shale gas revolution is already transforming global energy markets. This could lead to a substantial decline in oil prices, which would hurt the Russian economy in its current composition.¶ Yet even if energy prices remain high, Russia could fail to capitalize on its energy potential. The country critically needs to upgrade investments in its production capacities in order to move beyond ailing legacy fields and exploit untapped potential in less accessible areas including the Arctic. It also needs to adapt its business relationships and supply infrastructure in order to capitalize on new demand centres in the Far East and compete in the global LNG market.¶ Russia has, so far, failed to turn its wealth into a driver of resilience. As highlighted by the report’s Precarious Stability scenario, if Russia’s demanding reforms seem difficult to execute in today’s times of growth, they will be nearly impossible to implement in periods of downturn.¶ For instance, not only can it not be guaranteed that Russia’s energy sector will forever be able to support the country’s economy, but also its dominance could actually threaten Russia’s future economic vitality. This is one takeaway from the Beyond Complacency scenario, in which the proceeds from a booming oil and gas industry fail to improve the country’s institutions and lead to intractable popular discontent.¶ However, by no means is Russia doomed. In fact, sources of opportunity abound, both within the country and in the influences that surround it. As the report’s Regional Rebalancing scenario points out, Russia has not only the ability to benefit from a new global environment of food and water scarcity by further exploiting its natural resources beyond oil and gas, but also the country could unleash enormous potential by embracing the strengths of its diverse and increasingly active regional provinces.

#### Economic weakness will cause Russia to engage in local diversionary wars

Smith ’11 – Director of the Potomac Institute Cyber Center

(David J., former Ambassador and Senior Fellow at the Potomac Institute, “Vladimir Vladimirovich Putin:¶ The Once and Future Czar”, Georgian Security Analysis Center, Potomac Institute for Policy Studies, 10/3/2011, http://www.potomacinstitute.org/attachments/1073\_Tabula\_10\_03\_11\_Putin.pdf)

How Putin—with his man, Medvedev—manages the Russian economy will be a major determinant in the ¶ success or failure of his second presidency.¶ The other—and not unrelated—challenge is growing unrest in the North Caucasus. If the Second Chechen ¶ War of 1999-2000 consolidated Putin‟s power in Russia, what effect will a third, broader North Caucasus ¶ war have? And recall that any analysis of this question must take into account the looming 2014 Winter ¶ Olympics in nearby Sochi.¶ The danger for Russia‟s neighbors is that if the Russian economy sours, Putin could follow the time-honored ¶ Russian tradition of lashing out at imagined enemies such as Georgia or the Baltic countries. And a conflict ¶ in the North Caucasus could easily spill—accidentally or purposefully—into Georgia.¶ Nor should the west discount the possibility of diversionary Russian obstreperousness in the Middle East or¶ polemics with NATO. Moscow is skillfully setting the stage for either.¶ Regrettably, aggression will likely be Putin‟s default instinct.

#### Yes escalation – declining relations lowers the threshold

Barrett et al ’13 – researchers at various risk think tanks

(Anthony M. Barrett, Seth D. Baum, and Kelly R. Hostletler, prominent members/researchers at the Global Catastrophic Risk Institute, Center for Research on Environmental Decisions at Columbia, and the Department of Geography at Penn State, “Analyzing and Reducing the Risks of Inadvertent Nuclear War Between the United States¶ and Russia”, forthcoming in Science and Global Security. This version dated 6 January 2013.)

The decision procedures depend on the level of tensions between the United States and a¶ nuclear adversary, and associated strategic intelligence. In the United States, a high level of¶ nuclear tensions would produce high strategic-intelligence estimates of the current likelihood of¶ an attack (somewhat similar to a Bayesian prior estimate of attack probability, to be combined¶ with incoming satellite and radar data). As Blair¶ 277¶ put it, “NORAD in effect assigned equal¶ weight to infrared satellite sensors, ground radar sensors, and strategic intelligence. Positive¶ indications from any two of these sources were sufficient to justify a high-confidence¶ assessment. This formula posed a danger that heightened nuclear tensions (strategic warning)¶ could have combined with a false alarm from a tactical sensor to convince NORAD that a Soviet¶ attack was under way.” ¶ Strategic intelligence warning has not necessarily been used in precisely the same way in¶ Soviet/Russian systems as in U.S. systems. However, statements about their procedures suggest¶ that in a crisis, Soviet/Russian nuclear forces could or would be put on “high alert”,¶ 278¶ that¶ “putting the troops on high alert probably would be accompanied by the transfer of the battle¶ management system from regular combat duty to combat mode.”¶ 279¶ Under such conditions “the¶ satellite signal may not play such a significant role”¶ 280¶ as it otherwise would in activating the¶ Kazbek communication system for leaders’ orders, i.e. in a crisis situation Soviet/Russian¶ satellite systems may not have the same dual-phenomonology function role that they would¶ during low-tension conditions in confirming indications of an incoming first strike attack.¶ 281¶ Furthermore, “a ‘missile attack’ signal can be transmitted even if it is based only on data¶ reported by radars” though in those cases “the criteria for the reliable identification of targets¶ could be somewhat stricter and the tracking time somewhat longer than for missile launches¶ detected directly by the satellite system.”¶ 282¶ Historical information on frequency and duration of U.S.-Russia crises (roughly¶ corresponding with periods of significant heightening of nuclear alert levels) is somewhat¶ limited. In U.S. forces, the main instance of significantly heightened strategic alert, i.e. at least a¶ Defense Condition / DEFCON 3 alert level¶ 283,284¶ is the 1962 Cuban Missile Crisis. The main¶ period of high tension is often regarded to been the 13 days from 15 October 1962 when senior¶ U.S. leaders were told of the missiles in Cuba, until U.S. and Soviet leaders reached agreements¶ on 28 October 1962,¶ 285¶ though U.S. forces were at either DEFCON 3 or DEFCON 2 alert levels¶ for a total of 30 days beginning on 22 October 1962 when U.S. President Kennedy announced¶ 25the blockade¶ 286,287,288¶ and Soviet forces were on alert for virtually the same 30 day period.¶ 289,290¶ Other known cases of U.S. forces at alert levels of at least DEFCON 3, such as the brief¶ DEFCON 3 alert in the Yom Kippur War of October 1973, arguably do not qualify as U.S.-¶ Russia crises posing the same risk of inadvertent war between the United States and Russia as¶ the Cuban Missile Crisis, though they also arguably posed greater than normal peacetime¶ risks.¶ 291,292¶ Another case of DEFCON 3 alert was during the terrorist attacks of 11 September¶ 2001.¶ 293¶ In Soviet and Russian forces, instances of heightened alert include several during the¶ Cuban Missile Crisis,¶ 294¶ with combined durations that may have been somewhat longer than the¶ U.S. forces’ alerts;¶ 295,296¶ during the 1968 invasion of Czechoslovakia¶ 297¶ ; and during parts of the¶ period of high East-West tensions in the early 1980s¶ 298,299¶ , especially around the time of the KAL¶ 007 shoot-down and the ABLE ARCHER exercises in late 1983.¶ 300,301¶ Early warning systems could provide dangerous signals besides ones that specifically¶ indicated the launch or movement of a missile. Even sensor outages could be interpreted as an¶ indication of an attack. In the United States, “NORAD had become worried that an inexplicable¶ outage of a tactical sensor might actually be the handiwork of saboteurs. This threat (and¶ jamming) was considered serious enough to justify treating an outage as a positive indication of¶ attack in the context of a nuclear crisis.”¶ 302¶ (Soviet/Russian procedures were somewhat¶ analogous. Under conditions of a crisis “the delivery of a first strike can be considered, under¶ Russian military doctrine, in the case of an attack on key elements of the early warning system or¶ the command, control and communications systems.”¶ 303¶ ) This paper treats unresolved MDCs as¶ one example of an outage of a tactical sensor, based partly on the similarities in MDC occurrence¶ rates and durations given by Marsh¶ 304¶ and Wallace et al.¶ 305¶ and the sensor outage rates and¶ durations given by Blair.¶ 306¶ Usually, TACs comprise a small subset of MDCs where one detector system (usually, a¶ satellite with infrared detectors of hot missile plume gases) indicates a launch and a different¶ detector system (i.e. a ground-based radar) provides a confirming indication of launch.¶ 307¶ If there¶ are confirming indications of launch from more than one separate ground-based radar systems,¶ then NORAD reports high confidence in its assessment of the threat, otherwise NORAD reports¶ low confidence.¶ 308¶ At least under normal circumstances, only high-confidence threat assessments¶ will lead to a missile attack conference (MAC) where the leader then decides whether to launch¶ an attack in response.¶ 309¶ However, during periods of high U.S.-Russia tensions or crises,¶ “positive indication from only one tactical sensor system” would be required for a high confidence threat assessment.¶ 310¶ In addition, “the loss of a tactical sensor to presumed hostile¶ action” would be treated as the equivalent of a “a positive tactical indication” of an attack.¶ 311¶ Thus, under conditions of a U.S.-Russia crisis, this paper treats an unresolved MDC as an¶ additional type of event that would be treated as a TAC-level indication of an attack, similar to¶ Wallace et al.¶ 312¶ and Sennott.¶ 313¶ This paper separately estimates rates of inadvertent nuclear war during both low-tension¶ and high-tension periods, to account for the possibility that conditional probabilities of launch¶ prevention failure could be substantially higher in periods of high U.S.-Russia tensions than¶ during low-tension periods. This is partly because the literature suggests that leaders will be¶ more psychologically or strategically predisposed to launch missiles in response to apparently¶ credible indicators of an attack during a crisis period than during a low-tension period.¶ 314,315,316,317¶ It is also because of this paper’s assumptions about the technical features of early warning¶ systems and nuclear postures.

## Add-Ons

### Pu238

#### Commercial PUREX solves Pu-238 shortages

Packard ’12 – member of the James Randi Educational Foundation

(Steven, “The U.S. Space Program’s Plutonium-238 Crisis”, Depleted Cranium, 1-6-2012, http://depletedcranium.com/americas-plutonium-238-crisis/)

The plutonium that can be extracted from light water spent fuel contains significant amounts of plutonium-238, but it’s combined with other isotopes of plutonium, making it unusable. Separating out the plutonium-238 would require a complex plutonium enrichment system, which is far less practical than simply preparing the plutonium-238 on its own.¶ To produce plutonium-238, the first thing that is required is neptunium-237. Neptunium-237 is produced as a byproduct of the reprocessing of spent fuel. When a nucleus of uranium-235 absorbs a neutron, it will usually fission. However, in a thermal spectrum reactor, some of the uranium-235 (about 18%) will absorb a neutron and not fission. Instead, the uranium-235 becomes uranium-236. Uranium-236 has a low neutron cross-section, so most of the uranium-236 generated in a reactor will just remain uranium-236, but a small amount of it does absorb a neutron and become uranium-237. Uranium-237 has a very short half-life of only six days, decaying to neptunium-237. Another source of neptunium-237 in spent fuel is the alpha decay or americium-241. Spent fuel contains about .7 grams of np-237 for every one hundred kilograms of fuel. That might not seem like much, but fuel reprocessing operations routinely go through hundreds of tons of fuel. Because Np-237 is the only isotope of neptunium present in spent fuel in any significant quantity, it does not require any enrichment. Instead, simply chemically separating the neptunium out yields nearly 100% neptunium-237.¶ After removing the neptunium-237, it is fabricated into targets which are irradiated with neutrons in a high flux reactor. The targets are then removed and processed to separate out the plutonium-238 that is produced. The plutonium-238 is then fabricated into RTG fuel tablets.¶ The United States ended the practice of spent fuel reprocessing in 1977 when it was banned by the Carter Administration because of “proliferation concerns.” Since then, the ban has been lifted, but as all reprocessing operations were shut down in the 1970’s and little support can be found for restarting the practice, the US still has no capacity to reprocess spent fuel. After 1977, some material from plutonium production reactors continued, which yielded some neptunium-237, but that also ended in 1992, with the end of the cold war.¶ Today, the United States reprocesses no fuel at all and therefore cannot produce any neptunium-237. There may still be some of the material remaining, though it’s doubtful that very much is left. It should still be possible to obtain Np-237, purchasing it from countries with major spent fuel reprocessing programs, such as Russia, France or Japan. However, this depends entirely on the willingness of such nations to provide it and may be expensive, since additional steps beyond normal reprocessing are required to produce the highly concentrated neptunium necessary for plutonium-238 production.

#### Solves planetary science

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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Radioisotope Power Systems are necessary for powering spacecraft at large distances from the Sun; in the extreme radiation environment of the inner Galilean satellites; in the low light levels of high martian latitudes, dust storms, and night; for extended operations on the surface of Venus; and during the long lunar night. With some 50 years of technology development and use of 46 such systems on 26 previous and currently flying spacecraft, the technology, safe handling, and utility of these units are not in doubt. Of the more than 3,000 nuclides, plutonium-238 stands out as the safest and easiest to procure isotope for use on robotic spacecraft. This report’s recommended missions cannot be carried out without new plutonium-238 production or com pleted deliveries from Russia. There are no technical alternatives to plutonium-238, and the longer the restart of production is delayed, the more it will cost. The committee is alarmed at the limited availability of plutonium-238 for planetary exploration. Without a restart of domestic production of plutonium-238, it will be impossible for the United States, or any other country, to conduct certain important types of planetary missions after this decade.

#### Solves biosphere destruction

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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In the past, scientists had only one planet to study in detail. Our Earth, however, the only place where life demonstrably exists and thrives, is a complex interwoven system of atmosphere, hydrosphere, lithosphere, and biosphere. Today, planetary scientists can apply their knowledge to the whole solar system, and to hundreds of worlds around other stars. By investigating planetary properties and processes in different settings, some of them far simpler than Earth, we gain substantial advances in understanding exactly how planets form, how the complex interplay of diverse physical and chemical processes creates the diversity of planetary environments seen in the solar system today, and how interactions between the physical and chemical processes on at least one of those planets led to the creation of conditions favoring the origin and evolution of multifarious forms of life. These basic motivational threads are built on and developed into the three principal science themes of this report—building new worlds, workings of solar systems, and planetary habitats—discussed in Chapter 3. Current understanding of Earth’s surface and climate are constrained by studies of the physical processes operating on other worlds. The destructive role of Chlorofluorocarbons in Earth’s atmosphere was recognized by a scientist studying the chemistry of Venus’s atmosphere. Knowledge of the “greenhouse” effect, a mechanism in the ongoing global warming on Earth, likewise came from studies of Venus. Comparative studies of the atmospheres of Mars, Venus, and Earth yield critical insights into the evolutionary histories of terrestrial planet atmospheres. Similarly, studies of the crater-pocked surface of the Moon led to current understanding of the key role played by impacts in shaping planetary environments. The insights derived from studies of lunar craters led to the realization that destructive impacts have wreaked havoc on Earth in the distant past, and as recently as 100 years ago a devastating blast in Siberia leveled trees over an area the size of metropolitan Washington, D.C. Three recent impacts on Jupiter provide our best laboratory for studying the mechanics of such biosphere-disrupting events. Wind-driven processes that shape Earth’s desert dunes operate on Mars and even on Saturn’s moon Titan.

#### Environmental destruction causes extinction

Coyne and Hoekstra 7 (Jerry and Hopi, \*professor in the Department of Ecology and Evolution at the University of Chicago AND Associate Professor in the Department of Organismic and Evolutionary Biology at Harvard University, New Republic, “The Greatest Dying,” 9/24, http://www.truthout.org/article/jerry-coyne-and-hopi-e-hoekstra-the-greatest-dying)

But it isn't just the destruction of the rainforests that should trouble us. Healthy ecosystems the world over provide hidden services like waste disposal, nutrient cycling, soil formation, water purification, and oxygen production. Such services are best rendered by ecosystems that are diverse. Yet, through both intention and accident, humans have introduced exotic species that turn biodiversity into monoculture. Fast-growing zebra mussels, for example, have outcompeted more than 15 species of native mussels in North America's Great Lakes and have damaged harbors and water-treatment plants. Native prairies are becoming dominated by single species (often genetically homogenous) of corn or wheat. Thanks to these developments, soils will erode and become unproductive - which, along with temperature change, will diminish agricultural yields. Meanwhile, with increased pollution and runoff, as well as reduced forest cover, ecosystems will no longer be able to purify water; and a shortage of clean water spells disaster. In many ways, oceans are the most vulnerable areas of all. As overfishing eliminates major predators, while polluted and warming waters kill off phytoplankton, the intricate aquatic food web could collapse from both sides. Fish, on which so many humans depend, will be a fond memory. As phytoplankton vanish, so does the ability of the oceans to absorb carbon dioxide and produce oxygen. (Half of the oxygen we breathe is made by phytoplankton, with the rest coming from land plants.) Species extinction is also imperiling coral reefs - a major problem since these reefs have far more than recreational value: They provide tremendous amounts of food for human populations and buffer coastlines against erosion. In fact, the global value of "hidden" services provided by ecosystems - those services, like waste disposal, that aren't bought and sold in the marketplace - has been estimated to be as much as $50 trillion per year, roughly equal to the gross domestic product of all countries combined. And that doesn't include tangible goods like fish and timber. Life as we know it would be impossible if ecosystems collapsed. Yet that is where we're heading if species extinction continues at its current pace. Extinction also has a huge impact on medicine. Who really cares if, say, a worm in the remote swamps of French Guiana goes extinct? Well, those who suffer from cardiovascular disease. The recent discovery of a rare South American leech has led to the isolation of a powerful enzyme that, unlike other anticoagulants, not only prevents blood from clotting but also dissolves existing clots. And it's not just this one species of worm: Its wriggly relatives have evolved other biomedically valuable proteins, including antistatin (a potential anticancer agent), decorsin and ornatin (platelet aggregation inhibitors), and hirudin (another anticoagulant). Plants, too, are pharmaceutical gold mines. The bark of trees, for example, has given us quinine (the first cure for malaria), taxol (a drug highly effective against ovarian and breast cancer), and aspirin. More than a quarter of the medicines on our pharmacy shelves were originally derived from plants. The sap of the Madagascar periwinkle contains more than 70 useful alkaloids, including vincristine, a powerful anticancer drug that saved the life of one of our friends. Of the roughly 250,000 plant species on Earth, fewer than 5 percent have been screened for pharmaceutical properties. Who knows what life-saving drugs remain to be discovered? Given current extinction rates, it's estimated that we're losing one valuable drug every two years. Our arguments so far have tacitly assumed that species are worth saving only in proportion to their economic value and their effects on our quality of life, an attitude that is strongly ingrained, especially in Americans. That is why conservationists always base their case on an economic calculus. But we biologists know in our hearts that there are deeper and equally compelling reasons to worry about the loss of biodiversity: namely, simple morality and intellectual values that transcend pecuniary interests. What, for example, gives us the right to destroy other creatures? And what could be more thrilling than looking around us, seeing that we are surrounded by our evolutionary cousins, and realizing that we all got here by the same simple process of natural selection? To biologists, and potentially everyone else, apprehending the genetic kinship and common origin of all species is a spiritual experience - not necessarily religious, but spiritual nonetheless, for it stirs the soul. But, whether or not one is moved by such concerns, it is certain that our future is bleak if we do nothing to stem this sixth extinction. We are creating a world in which exotic diseases flourish but natural medicinal cures are lost; a world in which carbon waste accumulates while food sources dwindle; a world of sweltering heat, failing crops, and impure water. In the end, we must accept the possibility that we ourselves are not immune to extinction. Or, if we survive, perhaps only a few of us will remain, scratching out a grubby existence on a devastated planet. Global warming will seem like a secondary problem when humanity finally faces the consequences of what we have done to nature: not just another Great Dying, but perhaps the greatest dying of them all.

### Medical Isotopes

#### Plan solves medical isotopes

Bastin ‘8

(Clinton, “We Need to Reprocess ¶ Spent Nuclear Fuel,¶ And¶ Can ¶ Do It ¶ Safely, At Reasonable Cost”, 21st Century Science and Technology Journal, http://www.21stcenturysciencetech.com/Articles%202008/Summer\_2008/Reprocessing.pdf)

About 96 percent of the spent fuel the United States is now¶ storing can be turned into new fuel. The 4 percent of the so called waste that remains—2,500 metric tons—consists of¶ highly radioactive materials, but these are also usable. There¶ are about 80 tons each of cesium-17 and strontium-90 that¶ could be separated out for use in medical applications, such¶ as sterilization of medical supplies.¶ Using isotope separation techniques, and fast-neutron bombardment for transmutation (technologies that the United¶ States pioneered but now refuses to develop), we could separate out all sorts of isotopes, like americium, which is used in¶ smoke detectors, or isotopes used in medical testing and treatment. Right now, the United States must import 90 percent of its¶ medical isotopes, used in 40,000 medical procedures daily.

#### They’re key to nuclear medicine – domestic production is key

Seeking Alpha ’12

(A Change In Supply To Meet Isotope Demand, 11-4-2012, http://seekingalpha.com/article/976731-a-change-in-supply-to-meet-isotope-demand)

We have all learned the basics of supply and demand. The more supply that's present the cheaper a product becomes. The ideal situation is for a producer to have an equal balance of supply and demand to avoid unnecessary costs and to maximize profit. The worst situation is to have heavy demand but lack of supply, as producers realize lost profits and the potential customers go elsewhere.¶ The nuclear medicine industry isn't your typical story of supply and demand, although it may be one of the best. In nuclear medicine, the isotopes being produced are necessary and crucial for patients, as well as the industries in biotechnology that use the isotopes for various drugs and diagnostic tests. Yet despite its importance, global politicians are demonstrating an "ignore the problem" approach and are allowing very important nuclear reactors, the sources for most of these isotopes, to go offline.¶ The next three years will be important for nuclear energy in the U.S. It's estimated that 90% of the medical isotopes used in the U.S. are imported from reactors in other countries. In the U.S., we consume the largest share of the global isotope market, with 18 million procedures that use medical isotopes. The problem is that most of these large reactors are scheduled to be shut down in the next few years due to aging. We have seen as nuclear reactors are shut down, countries are electing to use alternative energy, which leaves a massive demand for the millions of medical procedures and or diagnostics that use medical isotopes on a yearly basis. Just recently, Japan shut down its last operating nuclear power reactor, to turn its focus on clean energy. And Quebec's new government recently confirmed that it's shutting down its only nuclear reactor. In some ways, this is apples to oranges, but it still shows the speed at which countries are choosing to find alternatives to nuclear energy.¶ The good news is that, with other countries shutting down reactors, it leaves room for the U.S. to take control of the situation. In the U.S. we are reliant upon nuclear medicine and have no choice but to create the demand. As a result, jobs would be created, medical procedures could become cheaper, and then we lessen our dependence on foreign supply. There is a chance that Canada will build new reactors or perform maintenance to old reactors; but at this point, the space looks wide open

#### Nuclear medical expertise solves disease

**NTR ’10** (Nuclear Technology Review, “REDUCING THE RISK OF TRANSBOUNDARY ANIMAL DISEASESTHROUGH NUCLEAR TECHNOLOGIES” 2010 Publishing Section, International Atomic Energy Agency, Vienna International Centre

The challenge of ensuring food security for a world population that will grow to over eight billion people in the next 20 years can be met, in part, by assisting smallholder farmers in developing countries to improve the utilization of locally available land, water, and plant resources to intensify and increase animal production and productivity. This will require not only more sustainable livestock production, but also more efficient approaches, tools, and strategies for preventing, diagnosing and controlling animal diseases. The amount of available animal protein for human consumption is already limited, but the fragile food security situation is further exacerbated by increased movement of animals and animal products due to expanding world trade and the growing effects of climate change that can result in changes in the geographical distribution of pathogens and their vectors. Resource-poor developing countries will become increasingly vulnerable to emergencies caused by the growing prevalence of infectious diseases, **especially transboundary animal diseases** (TADs). A complicating factor is that more than 60% of the TADs are zoonotic diseases (i.e. diseases of animal origin that infect humans), such as Human Immunodefficiency Virus (**HIV), H5N1 (Avian Influenza) and H1N1 (Swine Flu), Rabies**, Rift Valley Fever, **and Trypanosomosis**. Classical or traditional techniques for diagnosing threatening diseases **are well in place, but** **often lack the sensitivity and specificity needed** to make accurate and timely diagnoses of diseases. **Nuclear and nuclear related technologies have these features and are** therefore increasingly being used to complement traditional diagnostic and tracing technologies to **improve the early and rapid diagnosis and control of animal diseases through tracing and vaccination strategies** [II-1]. The IAEA, through the development and application of nuclear and nuclear-related technologies, is at the forefront of developing and validating early and rapid diagnostic techniques that are simple to use, inexpensive and can be applied in a “laboratory limited” environment, such as those located in rural and decentralized areas; in the tracing of diseases through the application of stable isotope techniques; and in the application of irradiation technologies to provide safe and user friendly vaccines. The application of nuclear technologies, in combination with conventional technologies, **has contributed to concrete improvements in the number, condition and health of animals resulting in improved livelihoods for millions of people worldwide**. For example, it is estimated that the eradication of rinderpest saves Africa more than 1 billion USD per year (FAO). The unique characteristics of nuclear technologies not only contribute to our efforts to reduce transboundary animal disease risks, but also to the tracing and monitoring of animal movements (e.g. the tracing of disease infected migratory birds), as well as to the timely and proactive control and prevention of diseases through the use of vaccines. B. Nuclear and Nuclear-Related Techniques for Disease Diagnosis Nuclear applications have driven modern biotechnological research by providing more sensitive, specific and cost effective diagnostic platforms or assays to detect and characterize the disease pathogens [II-1]. Many of these nuclear based applications are being used in Member States for diagnosis of TADs such as rinderpest and rabies. The use of nuclear technologies allows the detection and characterization of pathogens **within 24 hours of their onset**, helping to differentiate one particular virus strain from another [II-2]. An example of this differentiation is noted in the case of the Influenza A H1N1 virus, from Influenza A H5N1. Nuclear techniques are also important in determining the nucleic acid sequence that describes the capacity of a particular virus strain to cause a disease. Different strains of the 2 same virus may affect birds and also humans e.g Influenza A H5N1 low pathogenicity versus Influenza A H5N1 high pathogenicity. (Fig. II-1) [II-3]. The latter causes deaths in more than 60% of infected humans. The isotopic analysis of the genetic make-up of such a virus can be used by health authorities in making decisions ranging from public notification – as was the case of Influenza A H1N1 (low pathogen) - to immediate pandemic action in the case of Influenza A H1N1 (high pathogen) [II-4]. This information not only aids disease control personnel and policy makers in their attempts to control and eliminate veterinary and public health pathogens, but also forms the basis for decision-making that affects transboundary trade and travel. . FIG. II-1. Phosphor-32 labelled protein-DNA analysis to study the operational control of active and non-active pathogenic genes to determine why certain pathogens are more aggressive than others. Nucleic acid sequence differences were observed in the Late Promoter (LP) and Early Promoter (EP) regions of the RNA transcription responsible genes of different Avian Influenza strains Radioisotope-labelled assays that use isotope levels that are below the limit of disposal are under development. Isotope-based nucleic acid hybridization approaches are used to detect genetic material in host tissues that will allow direct identification of infected animals as well as provide information of epidemiological importance in relation to the strain type or variant of the agent. These tests depend on the preparation of suitable DNA probes labelled with sulphur-35 or phosphor-32 and their amplification in vitro by a nucleic acid amplification technique (PCR) to increase the amount of the specific target. Nucleic acid thermal amplification technologies shorten the time for a test result to less than a day and in many cases a result can be obtained within an hour [II-1]. Recent successes using this technology include the development of tests to diagnose diseases such as the Peste des Petit Ruminants disease and capripox virus disease (the collective word for goatpox, sheeppox and cattlepox viruses) and in the sequencing of the different genomes. To set up an appropriate control against the outbreak of one of the three poxviruses in a livestock herd, the outbreak virus needs to be identified. Currently, the capripox virus family, although closely related, requires three different vaccines for protection, i.e. there is no cross-protection between the different capripox virus strains. Sheeppox virus, goatpox virus and cattlepox or lumpy skin disease virus, the third member of the capripox virus genus (Fig. II-2) can be 3 differentiated using the nuclear related thermal amplification real-time PCR approach, thereby selecting the correct vaccine to protect against the homologous pathogen [II-5]. FIG. II-2. Discrimination of sheeppox virus, cattlepox or lumpy skin disease virus and goatpox virus based on their genetic sequence differences is possible using molecular DNA thermal amplification technologies. The Y-axis indicates the signal amplitude and the X-axis the temperature in degrees celsius. Nuclear technologies are also vital to animal disease diagnosis where rapid decision-making would be an advantage, and especially in situations where the suspected disease occurs in difficult to reach or remote areas that are far from the laboratory [II-1]. The time saved by determining whether a disease is present or not, **could be the difference between containing a disease at its point of origin and protecting human lives** or preventing the spread of a disease to an animal market place or further afield. Conventional molecular techniques including thermal amplification or PCR require sophisticated, expensive equipment (Fig. II-3). A robust test at the molecular level, i.e. the loop mediated isothermal amplification (LAMP) PCR, has been developed using nuclear techniques, which is a more cost effective alternative to thermal DNA amplification. The LAMP PCR can be carried out within 30 to 60 minutes in a simple water bath at constant temperature and the presence or absence of the isothermally amplified DNA product can be detected visually, i.e. a change in color (Fig. II-4). Another advantage of the LAMP PCR platform is that it can be developed for use on-site or on farm as a penside (point of care) rapid diagnostic test [II-1]. FIG. II-3. Different models of thermal DNA amplification cyclers (PCR Machines). Isothermal DNA amplification technologies will reduce our reliance on this expensive equipment. 4 FIG. II-4. Visible color changes in reaction tubes allow discrimination of positive and negative results when using the isothermal DNA amplification or LAMP PCR for diagnosing avian influenza. C. Migratory Connectivity: Using Stable Isotope Analysis to Determine the Role that Wild Birds Play in Disease Outbreaks A unique use of nuclear techniques is the ability to trace wild birds in order to determine if and whether they may contribute to the spread of the Bird Flu. Highly Pathogenic Avian Influenza (HPAI - Influenza A, H5N1 Bird Flu) causes disease and death in wild birds and poultry, and can also affect humans. HPAI outbreaks have resulted in losses of hundreds of millions of birds and caused serious economic damage to the poultry industry worldwide. In addition, **Bird Flu is a zoonotic disease with a high mortality in humans** and consequently has led to the death of several hundred people. Historically, similar **influenza epidemics have killed millions of people, and the threat of a pandemic disease caused by Bird Flu today, makes it one of the most important animal and human health hazards currently facing humanity** [II-3]. There is evidence that wild birds can be infected with Bird Flu and it is possible that migratory wild fowl could play a role in its dissemination (Fig. II-5). FIG. II-5. The origins and flight-path of migrating bar-headed geese can be established by using stable isotope analysis of flight feathers. Given the potential for wild birds to spread Bird Flu, more information is required about their movement. Millions of birds fly each year to and from over-wintering sites and a more concerted effort is required to investigate the poorly known routes of migrant birds in Africa, the Americas, Asia-Pacific, Central Asia and Europe. An ideal approach is to use a non-5 invasive stable isotope analysis (SIA), to establish the origin and flight-path of a migratory bird [II-6, II-7]. Stable isotopes are currently used for tracing food origin. They provide a unique signature to a specific location, based on the availability of the isotope, which is also incorporated into animal products [II-6]. Their signature composition is dependant on the soil, water and plant chemical composition of each location. This feed and water signature is unique to each location and can be traced in the deposits (e.g. feathers) of the birds [II-7]. A small number of natural isotopes are involved in important biological and ecological processes. They are measured by mass spectrometry to determine isotopic differences relative to international standards and reported as ratios in delta (δ) units as parts per thousand. Of most interest are the hydrogen (δD) ratios found in metabolically inert, seasonally grown tissues, such as feathers and claws that accurately reflect the ratios in lakes, rivers and oceans and in groundwater in the migratory path of the birds. The isotopic signatures of a few individuals are representative of an entire population, hence any of the individuals from that population can provide information on movement. Feathers retain this information until replaced or moulted, which typically occurs only once per year. If the isotope profile of a particular bird population is known, any individuals from that population can provide information on the global migration of that species [II-8]. The hydrogen isotope composition of potable water varies spatially across the globe but global grids of hydrogen water isotopes have been constructed that can then be compared to animal samples of known or unknown origin. These grids are constructed using the data from the IAEA’s Global Network for Isotopes in Precipitation (GNIP). Collecting isotope data from feathers of migratory bird species will reveal migration patterns; enable identification of the breeding areas of birds sampled in intermediate stopover sites; and in samples collected from disease outbreak sites, might provide greater understanding of the role that wild birds play as carriers of disease [II-9]. Currently, measurements of stable isotopes are done using costly isotope ratio mass spectrometry (IRMS) systems that require a well-equipped laboratory. However, newly introduced analyzers (Fig. II-6) with near infrared laser technology are small, transportable and require low maintenance, making it more affordable to measure isotopes. There are currently no conventional techniques which allow this kind of tracing of diseases. FIG. II-6. A low cost answer to isotope ratio mass spectrometry (IRMS). This stable water isotope analyzer uses an infrared laser for measurement. D. Radiation Inactivation: the Future “Gold Standard” in Vaccine Development Vaccination is a cost-effective way of preventing and controlling disease. Although anti-viral and anti-bacterial vaccine development has been successful, there are few vaccines for parasitic diseases because of the risk of further infection by active parasites in the vaccine. The inactivation of pathogens via irradiation is promising because it is a reliable method of applying a safe vaccine - 100% inactivated - against pathogenic diseases [II-10]. Their 6 potency has been tested and success has been achieved with the advent of the first human radiation-attenuated anti-parasite vaccine for malaria. For many pathogens, a relatively low dose of gamma irradiation from a cobalt-60 source is sufficient to inactivate the organism, e.g. malaria irradiation at 150 Rad, Fasciola irradiation at 30 Gy, Brucella irradiation at 6kGy, while viral pathogens require higher doses e.g. RVF irradiation at 25kGy. This opens a new approach to immunization, especially when dealing with problematic diseases, like Rift Valley Fever and various helminth (parasitic worms) and protozoal (unicellular parasites) diseases [II-11, II-12]. **There is a considerable body of evidence to suggest that radiation-attenuated or radiation-inactivated vaccines are safer as well as a more effective and feasible “gold standard” for vaccine efficacy**. Conventional alternative vaccines, such as recombinant vaccines, have not yet lived up to their promise to achieve comparable and effective levels of protection as those provided by irradiated vaccines.

#### Disease spread will cause extinction

**Leather ’11** (10/12/11 (Tony, “The Inevitable Pandemic” <http://healthmad.com/conditions-and-diseases/the-inevitable-pandemic/>, PZ)

You will have pictured this possible scenario many times, living in a country where people are suddenly dropping like flies because of some mystery virus. Hospitals full to overflowing, patients laid out in corridors, because of lack of room, health services frustrated, because they just can’t cope. You feel panic with no way of knowing who will be the next victim, intimate personal contact with anyone the death of you, quite possibly. This is no scene from a movie, or even a daydream, but UK reality in 1998, when the worst influenza epidemic in living memory swept savagely across the country. Whilst this was just one epidemic in one country, how terrifying is the idea that a global pandemic would see this horror story repeated many times over around the globe, death toll numbers in the millions. Humanity is outnumbered many fold by bacteria and viruses, the deadliest of all killers among these microscopic organisms. Death due to disease is a threat we all live with daily, trusting medical science combat it, but the fact is, frighteningly, that we have yet to experience the inevitable pandemic that might conceivably push humanity to the edge of extinction because so many of us become victims. Devastating viral diseases are nothing new. Bubonic plague killed almost half all Roman Empire citizens in542AD. Europe lost three quarters of the population to the Black Death in 1334. One fifth of Londoners succumbed to the 1665 Great Plague, and Russia was the site of the first official influenza pandemic, in 1729, which quickly spread to Europe and America, at the costs of many thousands of lives. Another epidemic of so-called Russian flu, originating in 1889 in central Asia spreading rapidly around the world, European death toll alone 250,000 people. In 1918 so-called Spanish Influenza killed 40million people worldwide, another strain originating Hong Kong in 1969 killed off 700,000, a 1989 UK epidemic killing 29,000. Small numbers, granted, as compared to the world population of seven billion, but the truth is that, should a true world pandemic occur, western governments will of course want to save their own people first, potentially globally disastrous. World Health Organisation laboratories worldwide constantly monitor and record new strains of virus, ensuring drug companies maintain stockpiles against most virulent strains known, maintaining a fighting chance of coping with new pandemics. They do theoretical models of likely effects of new pandemics, their predictions making chilling reading. Put into perspective, during a pandemic, tanker loads of antiviral agents, which simply do not exist would be needed so prioritizing vaccination recipients would be inevitable. Such a pandemic would, in UK alone, be at least 10 times deadlier than previously experienced, likely number of dead in first two months 72,000 in London alone. Any new virus would need a three to six month wait for effective vaccine, so the devastation on a global scale, flu virus notoriously indifferent to international borders, would be truly colossal. Our knowledge of history should be pointing the way to prepare for that living nightmare of the next, inevitable world pandemic. The microscopic villains of these scenarios have inhabited this planet far longer than we have, and they too evolve. It would be comforting to think that humanity was genuinely ready, though it seems doubtful at best.

## T – Energy Production

### 2AC

**We meet—reprocessing is energy production**

Blaylock 2002 – Ph.D. Candidate at Massachusetts Institute of Technology Department of Chemical Engineering, (Wayne, “Addressing Proliferation Concerns for a New Generation: A Study of the Generation-IV Nuclear Energy Systems Initiative and its Relation to National Non-proliferation Goals,” http://www.wise-intern.org/journal/2002/wayneblaylock.pdf)

In a partial recycle fuel cycle, a fraction of the used fuel is reprocessed and a fraction of the actinide material in the used fuel is recycled for new fuel fabrication. The recycled fuel is then returned to the reactor at least once and possibly several times for additional energy production. Uranium isotopes as well as plutonium isotopes may be removed from the fuel and placed in the nuclear reactor for energy production. If plutonium is removed, it would most likely be introduced into the reactor as plutonium oxide mixed with uranium oxide, a fuel commonly referred to as mixed oxide, or MOX, fuel. The French nuclear fuel-recycling program currently utilizes this fuel cycle. In full fissile recycle, all of the used nuclear fuel is processed to remove the reactor-usable plutonium and/or uranium. The used nuclear fuel from each recycle is once again processed to continue the cycle. This process is continued through multiple reactor cycles until essentially all fissile material is completely consumed. 17 The minor actinides as well as the fission products are disposed of in the waste stream for each processing operation. This technology would be applied, for example, in a liquid metal fast breeder reactor fuel cycle. A liquid metal reactor would be used because liquid metals are effective coolants that do not moderate neutrons. Un-moderated neutrons are important to this fuel cycle because there is a wider range of isotopes present in the full fissile recycled fuel than partially recycled fuel. Fast neutrons induce more efficient fissions across a wide isotopic range than do slow neutrons.

#### We meet – ban on reprocessing is specifically a restriction on electricity generation from nuclear – that’s the 1AC Hertel evidence, here’s the lines:

If not for the ban on recycling, valuable uranium and plutonium could be extracted and chemically reprocessed to make a mixed-oxide fuel for use in reactors to generate additional electricity.

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

NASA ‘11

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

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

#### Best debate—our interpretation opens the best and most real world discussions on nuclear power because each stage of the fuel cycle has different consequences. This turns their limits argument—the limit they create is artificial debate

**MIT ’11**

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

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

## Courts

### 2AC

#### Court alone links to politics but the perm doesn’t

Meazell ’12 – associate professor of environmental law at Wake Forest University

(Emily Hammond Meazell, was previously associate professor of law at Florida State, Oklahoma, and Georgia, Presidential Control, Expertise, and the Deference Dilemma, 61 DUKE L.J. 1763 2012)

1. Expertise. Since the dawn of the modern administrative state, expertise has played an important role as an anchor of regulatory legitimacy that has shaped the relationship between courts and agencies. As a theory of agency behavior, expertise is viewed as providing a shield from political influence, as well as reflecting a preoccupation with administrators as technocrats. 32 When Professor James Landis famously described administrators as implementing “the great judge[’s]” vision of “man’s destiny upon this earth,” 33 he spoke for a great number who believed that administrators could reach good outcomes by applying their expertise to given sets of facts. 34 Indeed, facts—especially those grounded in science—dictated outcomes for these technocrats, who could do their work free from political influences. 35 The importance of expertise, moreover, is a part of the narrative explaining legislative delegations to administrative agencies. Just as courts are generalists, so too is Congress. Delegation to experts is a pragmatic way to get the work of regulating done by those who can bring special expertise to bear on any number of complex issues. Relying on agency expertise is also politically expedient because it permits legislators to avoid making unpopular decisions and to transfer that cost instead to agencies. 36 Naturally, expertise also figures into judicial review as a reason for deference to agencies. This ground for deference was historically extremely strong. In an early ratemaking case, for example, the Supreme Court remarked that “the product of expert judgment . . . carries a presumption of validity.” 37 That superdeferential approach has not entirely survived the advent of hardlook review; 38 nevertheless, expertise remains a common justification for judicial deference. This trend makes some sense: even if regulators are captured by rent-seeking regulated entities, as a matter of comparative institutional expertise, courts cannot come close to duplicating the scientific and factfinding capabilities of agencies. 39 Agencies can conduct their own science, after all; courts are relegated to reviewing a record post hoc. Accordingly, expressions of deference on the basis of expertise persist in the case law. 40 And ultimately, a prevailing reason that courts insist that they may not substitute their judgment for that of agencies is because of the agencies’ expertise. 41 But although courts will not substitute their judgment for that of agencies, the impact of hard-look review—and the reasoned-decisionmaking requirement generally—is to create a feedback loop that provides important information to stakeholders and Congress. This occurs in two ways: First, it gives agencies an incentive to provide full descriptions of their work during the rulemaking or adjudicatory process, thus enabling stakeholders and Congress to serve oversight functions using that information. 42 Second, courts undertaking hardlook review provide accessible descriptions of scientific and technical matters; their opinions function as translations for the many consumers of administrative law, thereby furthering access to information and enabling oversight. 43 Either way, an agency’s expertise serves an important role by helping to legitimize its activities.

#### Doesn’t solve—using the DOE and avoiding the Courts are key to private industry support of reprocessing

Berry and Tolley ’10 – professors of energy policy and economics

[Professors R. Stephen Berry and George S. Tolley, “Nuclear Fuel Reprocessing Future Prospects and Viability”, University of Chicago Humanities, 11-29-2010, http://humanities.uchicago.edu/orgs/institute/bigproblems/Team7-1210.pdf]

The American combination of fragmented power, little reliance on bureaucratic expertise, an independent judiciary, and opposing interest groups greatly undermines the ability of the U.S. government to credibly commit to the nuclear power industry. In France, despite substantial anti-nuclear interest groups, the impermeability of the institutional setup—no division of power, weak judiciary, and reliance on bureaucratic expertise—effectively prevents activists from influencing policy outcomes. 64 The French exploration into commercial nuclear energy and subsequent promotion of nuclear energy was the result of “a perceived shortage of enriched uranium, a need for weapons-grade materials, and the desire for energy independence from foreign states.” 65 In contrast to the U.S., the political environment in regards to nuclear energy in France has remained stable over the course of the last fifty years. In 1955, three government organizations banded together to promote nuclear power; namely: Electricité de France (EDF—the state—owned utility empowered by the Ministère de l’Industrie et des Finances), the Commissariat à l’Energie Atomique (CEA—with a promotional mission parallel to America’s AEC), and Production d’Electricité d’Origine Nucléaire (PEON—an advisory group to the CEA comprised of CEA, EDF, state, and industry representatives). 66 The nuclear industry maintains a high degree of central planning and state integration. 67 This political environment has provided the means for credible government commitment to the industry. Though there has been strong anti-nuclear rhetoric domestically in France the well insulated governmental setup towards nuclear energy has prevented these groups access to any policy-making forum. Further, these groups are afforded less influential power toward the industry due to a weaker judiciary than is present in the U.S. 68 Therefore, the uncertainty surrounding the commitment of the government toward the nuclear industry in France is far less than in the U.S. The French political structure “can carry out a long-term policy while ignoring the fluctuations of public opinion.” 69 This lack of “uncertainty” is important when we consider the effect that it has on transaction costs for the utilities attempting to employ nuclear facilities and investors realizing a return on their outlays. The U.S. political structure has led to an increase in transaction costs for its domestic nuclear industry, while the French structure is able to mitigate similar types of increases. As a result of the political structure, transaction costs for the nuclear industry are higher in the U.S. than they are in France. In opening the policy forum to anti-nuclear interest groups, the U.S. nuclear industry experienced procedural delays and increased compliance costs for nuclear facilities. From 1954 to 1979, the average lead times, including the time from order through commercial operation, increased from 2 to 6 years in France and from 3 to nearly 13 years in the United States. 70 Further, French programs typically presented greater stability in lead times as well as fewer delays than in the United States. 71 The nuclear industry in the U.S has seen an increase in uncertainty for their transaction costs in order to protect their large sunk costs. This has resulted in an increased perception of risk on the part of investors and subsequently increased the cost of capital for the technology: “lengthening the regulatory process increases the capital costs of the plant by pushing the revenue received from operation further into the future and by adding to the total interest payments on construction loans.” 72 **This political institutional framework provides an understanding of** the challenges which confront nuclear reprocessing in the U.S.

#### DOE is the vehicle for international reprocessing cooperation

Peters ’12 – deputy laboratory director for programs at Argonne National Lab

(Mark T. Peters, American Nuclear Society, “Recycling Used Nuclear Fuel: Balancing Energy and Waste Management Policies”, Testimony to the U.S. House of Representatives, 6-6-2012)

In the United States, the primary organization with responsibility for the research and development of used fuel recycling technologies is the Department of Energy’s Office of Nuclear Energy (DOE-NE), through its Fuel Cycle Research and Development program. This program supports research to develop and evaluate separations and treatment processes for used nuclear fuel that will enable the transition from the current open fuel cycle practiced in the United States to a sustainable, environmentally acceptable, and economic closed fuel cycle. Ongoing projects related to reprocessing and waste management include: • Using advanced modeling and simulation coupled with experiments to optimize the design and operation of separations equipment. • Exploring an innovative one-step extraction process for americium and curium, radionuclides that are major contributors to nuclear waste toxicity, to reduce the cost of aqueous-based used-fuel treatment. • Further developing pyrochemical processes for used fuel treatment. These processes enable the use of compact equipment and facilities, treatment of used fuel shortly after discharge from a reactor, and reduction of secondary waste generation. • Developing highly durable and leach-resistant waste forms of metal, glass, and ceramic composition for safe, long-term disposal. However, it must be noted that the United States increasingly relies on collaborative arrangements with foreign research institutions and universities to conduct research in these areas. For example, Argonne, Idaho, and other U.S. national laboratories are working with the Korea Atomic Energy Research Institute, in a series of joint studies sponsored by the United States and Republic of Korea, to study disposition options for used nuclear fuel, including pyroprocessing, in order to develop economic, sustainable long-term solutions, consistent with non-proliferation objectives, for nuclear energy production and waste management. The state of U.S nuclear research facilities is declining compared to steady investments being made in countries such as France, Russia, Japan, and Republic of Korea. More importantly, those governments, as part of their national energy policies, have committed to the development and deployment of advanced fast reactor technologies, which are an important element of an integrated energy and waste management policy.

#### Court will roll back the CP

Sherman 11 – Associated Press (Mark, 07/03, “Justice Ginsburg’s future plans closely watched,” Lexis)

Democrats and liberals have a nightmare vision of the Supreme Court's future: President Barack Obama is defeated for re-election next year and Justice Ruth Bader Ginsburg, at 78 the oldest justice, soon finds her health will not allow her to continue on the bench. The new Republican president appoints Ginsburg's successor, cementing conservative domination of the court, and soon the justices roll back decisions in favor of abortion rights and affirmative action.

## Natural Gas

### Nat Gas Prices—Addendum

#### No impact to democracy

Rosato 11 Sebastian, Dept of Political Science at Notre Dame. “The Handbook on the Political Economy of War”, Google Books

 15.3.2 Militarized Disputes There are at least two reasons to doubt the claim that pairs of democracies are less prone to conflict than other pairs of states. First, despite their assertions, it is not clear that democratic peace theorists have established the existence of a powerful association between joint democracy and peace. Second, there is good evidence that factors other than democracy -many of them consistent with realist expectations - account for the peace among democratic states.14 Significance Democratic peace theorists have yet to provide clearcut evidence that there is a significant relationship between their independent and dependent variables, joint democracy and peace. It is now clear, for example, that Maoz and Russett's analysis of the Cold War period, which claims to establish the existence of a joint, separate peace, does not in fact do so. In a reassessment of that analysis, which follows the original as closely as possible save for the addition of a control for economic interdependence, Oneal ct al. (1996) find that a continuous measure of democracy is not significantly correlated with peace. Moreover, a supplementary analysis of contiguous dyads those that experience most of the conflicts also finds no significant relationship between a continuous measure of joint democracy and peace whenever a control for economic interdependence is included or not. This finding is particularly damaging because democratic peace theorists argue that "most theoretical explanations of the separate peace imply a continuous effect: the more democratic a pair of states, the less likely they are to become involved in conflict" (Oneal and Ray 1997, p. 752). Oneal and Ray (1997, pp. 756-7) conclude that the original Maoz and Russett finding does not survive reanalysis because it is based on a joint democracy variable that, although widely used, is poorly calculated and constructed- and they therefore propose a new democracy measure that they claim does achieve statistical significance. Their new measure of joint democracy uses the democracy score of the less democratic state in a dyad on the assumption that conflict is a function of the regime type of the less constrained of two interacting states. This "weak link" specification appears to provide powerful support for the democratic peace finding: "As the less democratic state becomes more democratic, the likelihood of conflict declines. This is clear evidence of the pacific benefits of democracy." The new variable provides "corroboration of the democratic peace" (Oneal and Ray 1997, pp. 764-5). Oneal and Russett concur with this conclusion in a separate analysis that also uses the weak link assumption. An increase in democracy in the state that is "freer lo resort to violence, reduces the likelihood of dyadic conflict" (Oneal and Russett 1997, p. 279). Although the weak link measure is widely accepted as the gold standard in studies of the relationship between democracy and a variety of international outcomes, it does not provide evidence that joint democracy is significantly related lo peace. Even as they developed it, Oneal and Ray admitted that the weak link was not a pure measure of joint democracy. What it really revealed was that the probability of conflict was "a function of the average level of democracy in a dyad ... [and] also the political distance separating the states along the democracy-autocracy continuum" (1997, p. 768, emphasis added). The problem, of course, is that the logics advanced to explain the democratic peace refer to the effects of democracy on state behavior; none refer to the effects of political similarity. Thus findings generated using the weak link specification - which is to say all the major assessments of the democratic peace - may not actually support the central democratic peace claim that it is something about the norms and institutions of democracies that enables them to remain at peace. This is precisely the conclusion that Errol Henderson reaches in his compelling assessment of Oneal and Russctt's work. His analysis replicates theirs precisely with two minor modifications: he includes only the first year of any dispute because democratic peace theory is about the incidence of disputes, not their duration, and he introduces a political similarity variable in order to disentangle the effects of joint democracy and political distance on conflict. His central result is striking: democracy ;\*is not significantly associated with the probability of dispute onset." "What is apparent from the results," he concludes, "is that in the light of quite reasonable, modest, and straightforward modifications of Oneal and Russett's . . . research design, there is no statistically significant relationship between joint democracy and a decreased likelihood of militarized interstate conflict" (Henderson 2002, pp. 37-9). Mark Souva (2004) reaches essentially the same conclusion in an analysis of the relationship between domestic institutions and interstate conflict using the weak link specification. In a model that includes variables for political and economic institutional similarity, both of which are significantly associated with peace, there is no significant relationship between joint democracy and the absence of conflict.

#### Resource nationalism solves the DA

Jordan, 12 -- OurEnergyPolicy.org director

(Matthew, Enthusiasm and Concern over Natural Gas Exports," OurEnergyPolicy.org, 6-8-12, www.ourenergypolicy.org/enthusiasm-and-concern-over-natural-gas-exports/, accessed 8-16-12, mss)

An interesting update on this issue: Analysts are predicting that **industrial lobbying** could lead to a cap on U.S. natural gas exports. Jayesh Parmar of Baringa told Reuters, “There is a lot of lobbying in the U.S. to limit LNG exports and to instead use the gas to allow the domestic industry to benefit from low energy prices.” Political risk consultancy Eurasia Group recently wrote “**Resource nationalism is the biggest political risk to U.S. LNG (exports),** with many opponents to exports concerned about the impact on domestic natural gas prices.”

#### Takes a decade even if exports happen

Romm, 12 – Climate Progress editor, Ph.D. in physics from MIT

(Joe, American Progress fellow, former acting assistant secretary of energy for energy efficiency and renewable energy, "Exporting Liquefied Natural Gas (LNG) Is Still Bad For The Climate — And A Very Poor Long-Term Investment," Think Progress, 8-16-12, thinkprogress.org/climate/2012/08/16/699601/exporting-liquefied-natural-gas-lng-bad-for-climate-poor-long-term-investment/?mobile=nc, accessed 8-16-12, mss)

The NY Times piece actually makes this odd argument on behalf of LNG exports: “It will take **years** before any export terminals are up and running — in the meantime, producers and regulators should strengthen safeguards so that gas is extracted safely.” But this is yet another reason why LNG exports make no sense. Why would we want to start massive exports of natural gas around the **end of this decade**, with costly new infrastructure that until mid-century?

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

Persily ‘12

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

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

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

Lamonica ‘12

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

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

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

Deutch ‘12

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

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

**China triggers their links**

**Medlock, 11** -- Baker Institute Energy and Resource Economics fellow

(Kenneth, PhD in economics from Rice University, Rice University economics professor, Baker Institute Energy Forum’s natural gas program director, International Association for Energy Economics council member, United States Association for Energy Economics President for Academic Affairs, member of the American Economic Association and the Association of Environmental and Resource Economists, and Peter Hartley, PhD, Rice University Economics chair, Baker Institute scholar, "The Rise of China: And its Energy Implications," 12-2-11, www.bakerinstitute.org/publications/EF-pub-RiseOfChinaMedlockHartley-120211-WEB.pdf, accessed 9-19-12, mss)

The benefits extend beyond China's borders as well. This is evidenced in Figure ll through the impact that greater Chinese shale production has on prices. Asian prices are reduced by the greatest amount, but prices at both NBP and the Henry Hub are also reduced. This occurs as a result of the large reduction in LNG demand in Asia, which reduces competition for LNG imports. In fact, LNG imports to the U.S. and European nations increase (see Figure 13) in the High China Shale Case. We also see that global LNG exports are generally lower as a result of greater shale production in China, a result that reinforces the point that Asian demand is the driver of LNG growth in the Reference Case. Figure I2 indicates that in 2040 about 85 percent of the reduction in LNG exports falls on Iran, Qatar, Russia, and Venezuela. This is analogous to the point made in Medlock and Jaffe (2011) that shale resources tend to reduce the long-run market influence of Iran, Russia, and Venezuela.

[Matt note: NBP = European price market, Henry Hub = US price market]

#### DA’s inevitable—

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

Westenhaus 9/30

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

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

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

Ferguson ’12

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

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

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

#### Zero link to the Aff—all of their evidence is about new nuclear power plant construction,

#### Reprocessing marginally affects investor calculations about nuclear power

Lee 10

[Nathan R. Lee, WISE Intern and B.S.E. in Materials Science & Engineering from UPenn, Sustainability Of U.S. Nuclear Energy: Waste Management And The Question Of Reprocessing American Nuclear Society, 2010, <http://www.wise-intern.org/journal/2010/NathanLeeWISE2010.pdf>]

Even if breakeven prices are never reached, there is still an economic argument that supports reprocessing. In some countries, there is a high cost associated with being dependent on a foreign supplier of fuel. For those risk-averse countries that demand energy security, there might be an economic advantage to reprocessing used nuclear fuel domestically even if it entails more direct costs. Conventional one-pass Pu recycling reduces uranium demand by 11%; a full recycle would do so by more than two orders of magnitude. 47 However, despite the fact that the United States is dependent on foreign sources of uranium, its close relationships with supplier states reduce the relevance of this argument. Finally, it is important to note that the economic ramifications of changing the fuel cycle are quite small compared to other parts of the nuclear energy industry. Capital, operations, and maintenance account for 80-90% of total generation costs, dwarfing the significance of fuel cycle economics. Although fuel cycle costs are not immaterial, they should not be the principal driving factor in a policy decision. 48

## Politics

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

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

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

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

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

#### U.S. econ resilient

Lambro 8

(Donald, Washington Times Chief Political Correspondent, “Always darkest before dawn,” 7-28, Lexis)

The doom-and-gloomers are still with us, of course, and they will go to their graves forecasting that life as we know it is coming to an end and that we are in for years of economic depression and recession. Last week, the New York Times ran a Page One story maintaining that Americans were saving less than ever, and that their debt burden had risen by an average of $117,951 per household. And the London Telegraph says there are even harder times ahead, comparing today's economy to the Great Depression of the 1930s. Wall Street economist David Malpass thinks that kind of fearmongering is filled with manipulated statistics that ignore long-term wealth creation in our country, as well as globally. Increasingly, people are investing "for the long run - for capital gains (not counted in savings) rather than current income - in preparation for retirement," he told his clients last week. Instead of a coming recession, "we think the U.S. is in gradual recovery after a sharp two-quarter slowdown, with consumer resilience more likely than the decades-old expectation of a consumer slump," Mr. Malpass said. "Fed data shows clearly that household savings of all types - liquid, financial and tangible - are still close to the record levels set in September. IMF data shows U.S. households holding more net financial savings than the rest of the world combined. Consumption has repeatedly outperformed expectations in recent quarters and year," he said. The American economy has been pounded by a lot of factors, including the housing collapse (a needed correction to bring home prices down to earth), the mortgage scandal and the meteoric rise in oil and gas prices. But this $14 trillion economy, though slowing down, continues to grow by about 1 percent on an annualized basis, confounding the pessimists who said we were plunging into a recession, defined by negative growth over two quarters. That has not happened - yet. Call me a cockeyed optimist, but I do not think we are heading into a recession. On the contrary, I'm more bullish than ever on our economy's long-term prospects.

#### Econ doesnt turn prolif or Russia

Barnett, 09 – Senior Managing Director of Enterra Solutions LLC, Contributing Editor and Online Columnist for Esquire (Thomas P.M, “The New Rules: Security Remains Stable Amid Financial Crisis,” Aprodex, Asset Protection Index, 8/25/09 http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx)

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. Now, as global economic news brightens and recovery -- surprisingly led 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.

#### Relations are key to the recovery

**Rojansky and Collins, ’10** – an ex-US ambassador to the Russian Federation [James F. Collins – Director, Russia and Eurasia Program at the Carnegie Endowment and an ex-US ambassador to the Russian Federation, Matthew Rojansky – the deputy director of the Russia and Eurasia Program at the Carnegie Endowment, August 18, 2010, “Why Russia Matters”, http://www.foreignpolicy.com/articles/2010/08/18/why\_Russia\_matters,]

10. Russians buy U.S. goods. As the U.S. economy stops and starts its way out of recession, **most everyone agrees that boosting exports is a key component in the recovery**. And Russia is a big market. U.S. companies such as Boeing, International Paper, and John Deere have invested billions in Russian subsidiaries and joint ventures. In all, there are more than 1,000 U.S. companies doing business there today. They are in Russia not only to take advantage of the country's vast natural resources and highly skilled workers but also to meet the demand for American-branded goods. The Russian middle class wants consumer goods and the country's firms increasingly seek advanced U.S. equipment and machinery. Between 2004 and 2008, before the financial crisis hit, U.S.-Russia trade grew by more than 100 percent to over $36 billion annually, and although that figure dropped by a third in 2009, there is potential for an even better, more balanced trade relationship in the coming decade. In short, Russia is indispensible. As long as the United States participates in the global economy and has interests beyond its own borders, it will have no choice but to maintain relations with Russia. And good relations would be even better.

#### Won’t pass

Brock 2-8. [Janna, "Immigration Reform 2013: What the President Can Learn From the Obamacare Battle" Policy Mic -- www.policymic.com/articles/25188/immigration-reform-2013-what-the-president-can-learn-from-the-obamacare-battle]

¶ Looking at Obama's plan, it is quite similar to the bipartisan group of senators one labeled the "gang of eight" — and their plan to make it possible for 11 million illegal immigrants to achieve citizenship. This includes granting "probationary legal status" for eligible undocumented workers, learning English, and paying taxes. While this measure has been praised by Obama recently, it now appears the plan could be dead in the water thanks to Obama himself.¶ ¶ Apparently, Obama has his own strings attached to immigration reform. He is against the "border security plan" first, which was the main stipulation brought forth by the conservatives within the "gang of eight." Senator Marco Rubio (R-Fla.) said he "will not be supporting any law that does not ensure that the enforcement things happen."¶ ¶ Another wrench Obama has thrown into his immigration reform is guaranteeing bi-national same sex couples the same rights as heterosexual couples. Just as both Senate and House members were warming up to the idea of immigration reform, Obama's extra additives could throw the reform effort into limbo. Senator John McCain (R-Ariz.) said, "what is more important, LGBT or border security?" ¶ ¶ McCain is right. The two issues are completely separate. Obama is being reckless in using this issue to go along with immigration reform. At this juncture, he risks conservatives abandoning the effort for immigration reform and others who were on board. He will lose the "gang of eight" backing for sure. He will receive the same backlash he got with the passage of Obamacare.¶ ¶ President Obama seems to be using the same tactics he did when trying to pass Obamacare. In November 2009, the House barely passed a version of the bill, 220-215, and in December 2009, the Senate passed the bill 60-39. But just because it passed does not mean it was not without a fierce battle.¶ ¶ Right now, there are multiple companies suing on the basis of religious freedoms largely because of Obamacare's contraceptive mandate. Just because the Supreme Court declared Obamacare constitutional does not mean it has not been bitterly opposed, and will be for the foreseeable future. And if his immigration reform is forced like Obamacare was through Congress it could mean a bloody, bitter political war.¶ ¶ President Obama should exercise caution. He is going off on his own path instead of working with Congress. If he chooses to approach immigration reform this way, he will once again alienate a host of congressional members. He has to work with Congress not against them. It will guarantee more court battles and intense showdowns. But most importantly, it will ensure that immigration reform will not happen while he is in office.

#### No vote and no bill now

Huey-Burnes 2-6. [Caitlin, reporter, "House Searches for Immigration Middle Ground" Real Clear Politics -- www.realclearpolitics.com/articles/2013/02/06/hearing\_underscores\_tough\_road\_to\_immigration\_reform\_116935.html]

House Speaker John Boehner, meanwhile, has advised his chamber to approach immigration reform slowly. “This is not about being in a hurry. This is about trying to get it right on behalf of the American people and those who are suffering under an immigration system that doesn’t work very well for anybody,” he told reporters Tuesday. Indeed, the House only began hearings on the issue this week, and no legislation has been introduced.

#### Nominations laundry list thumps

Thurlow 2-5. [Tom, political writer, "Obama's Political Capital" Red State -- www.redstate.com/tfthurlow/2013/02/05/obamas-political-capital/]

President Obama blows through his own political capital just as fast as he blows through America’s financial capital. Neither case of over-spending is sustainable, and we will just have to wait to see which spending spree is forced to end first.¶ But this further confirms my suspicion that President Obama’s brains are the most over-rated to occupy the Oval Office in generations. Take his recent nominations, which are a mess.¶ Last week’s Senate hearings on Senator Hagel’s confirmation as defense secretary were a disaster. Senator McCain pressed Senator Hagel to confirm or deny Hagel’s earlier statement that the Surge in Iraq was “the greatest foreign policy blunder since the Vietnam War.” Senator Ted Cruz pointed out that Senator Hegal, during an interview with the Al Jazeera English network in 2009 had agreed with a questioner who said that the United States appeared and acted like the world’s bully. As Paul Mirengoff at the Powerline Blog wrote, “if he were a Broadway play, Hagel would close after one performance.”¶ There were also a number of past anti-Semitic, or at least anti-Israel statements about which Senator Hagel was questioned. About the only thing about the hearing that was reassuring to those who take national defense seriously was that Hagel bumbled so much he sounded like he may have dementia. Let’s face it, a demented defense secretary may not be as bad as an anti-American defense secretary who is purposefully soft on defense and unconcerned about looming problems with Iran’s nuclear program.¶ Senator Lindsey Graham has threatened a hold on the Hagel nomination, and he should. Not only is a defense secretary an important policy position, but as has been pointed out by Republican critics that in any given foreign crisis, the defense secretary will be one of the few advisors in the room, advising the president.¶ Next up: a nomination battle for a Treasury secretary nominee, Jacob Lew, who has never worked in a bank except as an attorney for Citibank, and has held many different government jobs, most recently President Obama’s chief of staff. Definitely a financial industry lightweight. Lew has also been accused of misleading the public on deficits. About the only thing that stands out about Jacob Lew as Treasury secretary is the fact that his signature — which will appear on all of our currency – looks like a bunch of circles. Oddly enough, it doesn’t appear as if Lew has had any medical training.¶ After that, brace yourself for President Obama’s nominee for director of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Todd Jones. Jones is the current acting director of ATF and has been criticized by a local Democratic FBI office director as being politically well-connected but incompetent and soft on gun and violent crime prosecutions.¶ Past presidents have had difficult times in their second terms, but the difficulty is usually with big proposals. President George W. Bush unsuccessfully tried to pass privatization of Social Security and immigration reform in his second term. President Reagan spent his second term solidifying his victory in the Cold War and simplified the tax code, lowering the top marginal tax rate to 28%. Meanwhile, President Obama is trying to get Charles Hagel approved as defense secretary, Jacob Lew at Treasury secretary, and Todd Jones as ATF director, not grand plans by any means.¶ President Obama may get these nominees approved by a majority of senators. But the question is: why is he fighting these particular battles? He could have easily found better qualified nominees for these positions and fought bigger battles on some substantive legislative proposals. Why spend what remaining political capital he has on these problematic appointments? I have a theory, and here goes.¶ As liberal as he is, President Obama prefers to settle scores with his political adversaries even more than getting big liberal proposals passed. There were some clues dropped in the recent campaign. In one speech President Obama told his audience, who booed after Gov. Romney was mentioned, “don’t boo … voting is the best revenge.” This follows a slip he made a couple years earlier when he encouraged Latinos to punish their “enemies,” and when he warned African Americans that a Republican take-over of Congress would mean “hand-to-hand combat up here on Capitol Hill.”¶ These Freudian slips and others show the resentment that President Obama feels towards anyone who opposes him. Opposing ideas are not to be argued against; their proponents are to be personally defeated and the victory noted. Somewhere in his brain the president is keeping score, and he relishes announcing to his opponents, as he did in his first term, “I won.”¶ It is a pettiness that may work out well for the conservative cause. After all, the best way to block any future liberal proposals is to not have them proposed in the first place. The Hagel, Lew and Jones nominations, and the spending of President Obama’s political capital needed to advance these nominations, may be just the ticket to stall any future liberal proposals.

#### Gun control thumps

Pace 2-4. [Julie, AP writer, "Obama talks gun control in Minneapolis: 'It's time to do something'" Oroville Mercury Register -- www.orovillemr.com/news/ci\_22516665/obama-goes-minneapolis-campaign-assault-weapons-ban]

With his gun proposals dividing Congress, President Barack Obama took his case for universal background checks and for banning some military-style weapons to the upper Midwest on Monday, looking to build public support for his measures and to apply pressure on lawmakers.¶ Obama argued that there's bipartisan support for a system to undertake criminal checks on gun buyers and for gun trafficking laws but, acknowledging the political challenges he faces, would only say that the assault weapons ban deserves a vote in Congress.¶ "We don't have to agree on everything to agree it's time to do something," he said.¶ Before his remarks, Obama held a roundtable discussion at the Minneapolis Police Department Special Operations Center, speaking with law enforcement and community leaders.¶ Obama made his pitch in Minnesota, a Democratic-leaning state where officials have been studying ways to reduce gun-related attacks and accidents for several years. His visit to the Minneapolis Police Department's Special Operations Center marked the first time Obama has campaigned on his controversial proposals outside of Washington.¶ "Changing the status quo is never easy," Obama said. "This will be no exception. The only way we can reduce gun violence in this county is if it the American people decide it's important, if you decide it's important -- parents and teachers, police officers and pastors, hunters and sportsmen, Americans of¶ every background stand up and say, 'This time, it's got to be different.'"¶ Ahead of the trip, the White House released a photo of the president skeet shooting at Camp David, the presidential retreat. Obama cited skeet shooting when asked in a recent interview whether he had ever shot a gun.¶ The president unveiled his sweeping package of proposals for curbing gun violence last month in response to the mass shooting at a Newtown, Conn., elementary school. He vowed to use the full weight of his office to fight for the proposals, many of which face tough opposition from congressional lawmakers and the powerful National Rifle Association.

#### PC theory is wrong- winners win

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

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

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

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

[Matt note: gender paraphrased]

#### PC not key

Sanchez and Dennis 1-30. [Humberto, Steven, RC staff, "GOP warns Obama to tread lightly on immigration" Roll Call -- www.rollcall.com/news/gop\_warns\_obama\_to\_tread\_lightly\_on\_immigration-222040-1.html?pos=oplyh]

An immigration policy rewrite may be President Barack Obama’s top priority, but Senate Republicans are warning that if he tries to influence Congress too much, the delicate talks could run aground.¶ “I think this is going to be a congressional thing,” Senate Judiciary ranking member Charles E. Grassley, R-Iowa, said Wednesday. “I think the president is going to stay out of this. He doesn’t want to talk to Congress. You saw that last fall in the fiscal cliff.¶ “He wants to give speeches; he wants to campaign,” Grassley continued. “So I don’t think he’s going to influence this. I don’t think he’s got enough influence to influence this anyway.”¶ Sen. Orrin G. Hatch, R-Utah, a veteran of previous immigration policy change efforts, said he hopes the president will use a light touch when it comes to pressing for his stated prerogatives.¶ “I actually believe he doesn’t care much for Congress,” Hatch said. The Utah lawmaker stressed that he likes “the president personally,” but he said Obama hasn’t reached out to lawmakers on recent legislative business such as the fiscal cliff.¶ “I hope we provide the leadership and that he follows along,” Hatch said.

#### Plan changes perception of waste—studies and polls show big support for reprocessing

Jenkins-Smith et al 12

[Hank C. Jenkins-Smith, Carol L. Silva, Kerry G. Herron, Sarah R. Trousset, and Rob P. Rechard, “Enhancing the Acceptability and Credibility of a Repository for Spent Nuclear Fuel”, National Academy of Engineering of the National Academies, The Bridge on Managing Nuclear Waste, Summer 2012, Volume 42, Number 2, http://www.nae.edu/Publications/Bridge/59220/59232.aspx]

The effects of combining a repository with a reprocessing facility are shown in Table 2. Again, the changes in support are shown for those who initially opposed, were neutral, or supported each option. As with co-location of a repository with a national research laboratory, co-location of a repository with a reprocessing facility also increased support. Among those who either initially opposed the repository or were neutral, nearly half said the addition of the reprocessing capability would increase support for the repository. A smaller percentage said the combination would decrease support. Given the consistent and generally supportive attitudes of most Americans toward reprocessing (as discussed above), the increase in support for repositories co-located with reprocessing facilities is not surprising and could be helpful in informing policies. The implications are that public acceptance of an SNF repository is sensitive to the overall design attributes of the facility. If it is exclusively for disposal, the perceived risks and associated negative images tend to dominate perceptions (especially when SNF has been designated a “waste”). If the facility is more heterogeneous, that is, it includes design elements that address offsetting risk/benefits (such as a laboratory or reprocessing facility), thus attaching resource value to SNF, prospects for public acceptance improve.

#### Public opinion is key to the agenda

**NYT** (blog) 8/5/**10** (8/5/10, " A Broken Senate, or an Unpopular Agenda? ", http://douthat.blogs.nytimes.com/2010/08/05/a-broken-senate-or-an-unpopular-agenda/)

In a recent bloggingheads conversation with Matt Yglesias, I tried to make the point that we're unlikely to get sweeping procedural reform in Congress anytime soon — despite liberal optimism on that front — because nobody who isn't immersed in the angst of movement liberalism sees the first two years of the Obama administration as a period of gridlock and inaction. That conversation took place before George Packer came out with his epic New Yorker story on the dysfunctions of the Senate, which makes the strongest possible case that the institution is incapable of governing the country. I recommend reading the whole thing — but I'd also associate myself with this comment, from David Frum:

To the extent that the [Obama] agenda has not passed, the causes are bigger than the slow motion of the Senate. Look again at George Packer’s list of stalled initiatives. On how many is the American public clamoring for immediate action? On how many is the Obama agenda on the wrong side of public opinion altogether?

#### Plan’s massively popular in Congress

Press Action 3/12/12 (“US Nuclear Industry Operates as if Fukushima Never Happened”) <http://www.pressaction.com/news/weblog/full_article/nuclearsubsidies03122012/>

Both Democrats and Republicans have had a long love affair with commercial nuclear power, and the relationship is showing no signs of losing steam. Since the 1950s, members of both parties have enthusiastically lavished electric utility companies with expensive gifts, ranging from subsidies to protection from liability for disasters to loan guarantees, all underwritten by U.S. taxpayers. The political calculus is simple: nuclear power enjoys unanimous support in Washington. Try to name one member of the U.S. Senate or House of Representatives who favors shutting down the nation’s 104 commercial nuclear reactors. Federal agencies, from the Atomic Energy Commission to the Department of Energy to the Nuclear Regulatory, have worked diligently through the years to promote nuclear power. At the state level, support for nuclear power also is extremely strong, although there are some politicians—albeit a tiny number—who have publicly called for the closure of certain nuclear plants. On the one-year anniversary of the start of the nuclear disaster at the Fukushima Dai-ichi nuclear power plant in Japan, one would assume a voice in official Washington would have emerged calling for an end to the nation’s experiment with nuclear power. In Germany, government officials made the decision to phase out nuclear power by 2022 in response to Fukushima. There’s no such sentiment among the ruling elite in the United States. Locating a member of Congress opposed to the continued operation of nuclear power plants is as hard as finding a lawmaker who favors breaking ties with Israel over its mistreatment of Palestinians for the last 60 years. In fact, it’s more than hard, it’s impossible. It’s very rare to find an issue where there is a noteworthy difference between Democrats and Republicans. When there are differences, they tend to be subtle, although party officials and the corporate media will attempt to sensationalize a slight difference to create an impression that the U.S. political system permits honest and real debate.

# 1AR vs Georgia LS

The harder the fight, the stronger the win

Ellison 9/2/11 (Charles D, Chief Political Correspondent for The Philadelphia Tribune, author of the critically-acclaimed urban political thriller TANTRUM and a nationally recognized, frequently featured expert on politics, “Obama’s Aversion To Ugly Wins”, 2011, <http://ww.atlantapost.com/2011/09/02/obamas-aversion-to-ugly-wins/>)

This White House forgets football fans love ugly wins. They also dig soul-stirring inspirational speeches in the locker room before kick-off, like Al Pacino’s classic pre-game monologue in Any Given Sunday. Every moment wasted in a now aimless El Segundo road trip on quest for “bipartisanship” is a moment when the President should be searching for a bully pulpit and yelling “charge!” On jobs, folks are looking for their medieval Scottish hero in blue paint who moons the enemy.

**We control the *results* of unpopularity.**

Norman Ornstein (resident scholar, American enterprise institute) 5/15/2001 “How is Bush Governing,” Transition to Governing Project, www.aei.org/research/tgp/events/eventID.281,projectID.12/transcript.asp

What flows from that as well is, use every bit of political capital you have to achieve early victories that will both establish you as a winner, because the key to political power is not the formal power that you have. Your ability to coerce people to do what they otherwise would not do**.** Presidents don't have a lot of that formal power. It's as much psychological as it is real. If you're a winner and people think you're a winner, and that issues come up and they're tough but somehow you're going to prevail, they will act in anticipation of that. Winners win.

**Prefer our evidence because Ornstein is qualified whereas their assumptions about the political process are based in the ramblings of contemporary political-entertainment media.**

**The link only goes one way – the conditions for agenda success can’t exist without radical leadership such as the plan so lean AFF on uniqueness\*\*\***

(best case scenario, a watered down version passes)

Peter Galderisi (associate professor of political science at Utah State University) 1996 Divided Government p. 126-7

Thus, the Constitution creates conditions—executive and legislative branches sharing authority, a bicameral Congress featuring organizationally fragmented chambers, and locally based electoral arrangements—that hinder swift and easy policymaking. In other words, all four explanations (partisanship, electoral politics, legislative structure, and presidential leadership) contribute, on some issues at least, to the policy paralysis that critics decry. Unified partisan control facilitates creative policymaking; it provides the party in power with a foundation on which to construct legislative coalitions. If the public offers strong support for particular programs, electorally connected senators and representatives may respond positively to citizen sentiments. When loyal partisans or program proponents occupy critical positions in Congress, bills may move more smoothly through the procedural maze that a structurally decentralized legislature creates. Committed and forceful presidential leadership can exploit these possibilities and enhance the potential for significant policy change. Absent these facilitating conditions, and all four are seldom simultaneously present, the policy process is likely to be slow at best and to produce incremental, rather than radical, change.

### Politics

#### GOP will rally against it

Rusling 2-6. [Matthew, Special Correspondent at Xinhua, "Chances for US immigration reform good, but pitfalls remain" Philippines News Agency -- lexis]

Two proposals have been floated - one rolled out recently by a group of eight Senators and the other outlined last week by President Barack Obama. Both propose similar measures, but details differ significantly enough to tie negotiations in knots, and experts said both sides must tread carefully.¶ Rove said issues including border security and a path to citizenship for illegal immigrants could cause Congressional fistfight, with differences over whether border security should come first.¶ "It' s a complicated issue," he said of efforts to reform the system that has created 11 million undocumented workers while millions of visa applicants remained stuck in a massive backlog.¶ West said the biggest pitfall will be outside pressures from people who dislike illegal immigrants or oppose particular aspects of the legislation.¶ Radio talk show hosts - many of whom are known to be far-right conservatives - will rally their base in opposition to meaningful reform and that will be a major barrier to action, he said.

#### Unions won’t support compromise

Weinberg 2-6. [Ali, Associate Producer at the White House, "Progressives pressure Obama on immigration reform triggers" NBC News -- firstread.nbcnews.com/\_news/2013/02/06/16869322-progressives-pressure-obama-on-immigration-reform-triggers?lite]

President Barack Obama’s allies in organized labor and progressive groups are drawing a line in the sand when it comes to so-called “triggers” that would require a secure border as a precondition to allowing undocumented immigrants a pathway to citizenship.¶ Left-leaning groups told the president during a meeting this week that any preconditions on creating a pathway to citizenship would be a deal-breaker in terms of winning their support.¶ “That is not the starting point,” said Marielena Hincapie of the National Immigration Law Center when asked about part of the Senate’s bipartisan immigration reform proposal that would make prospects for full citizenship contingent on increased border security. “What we are demanding is a road to citizenship that's clear, that's direct, not contingent at all on additional enforcement.”¶ The concept is one of the “basic legislative pillars” of a bipartisan Senate proposal on comprehensive immigration reform. While vague, the language is geared towards conservative lawmakers who want tough enforcement mechanisms in place before a path to citizenship can be formed.¶ The second of the Senate’s four pillars reads: “Create a tough but fair path to citizenship for unauthorized immigrants currently living in the United States that is contingent upon securing our borders and tracking whether legal immigrants have left the country when required.”¶ The trigger has been an essential component for conservatives like Florida Sen. Marco Rubio, one of the four Republican senators to help craft the plan.¶ “I will not be supporting any law that does not ensure that the enforcement things happen," he told conservative blogger Ed Morrisey in late January.

#### Unions are key.

Mooney 2-6. [Alex, CNN White House Producer, "Unions could again be key to immigration reform" CNN -- www.cnn.com/2013/02/05/politics/immigration-reform-unions/index.html]

It should come as no surprise that prominent union leaders are among the first group President Barack Obama courts as he seeks support for overhauling immigration policy.¶ It was organized labor that helped ensure defeat of a bipartisan effort to reform the nation's immigration laws five years ago.¶ At that time, the AFL-CIO and other prominent union groups came out against the initiative, fearing a proposal for a temporary guest worker program for seasonal workers would weaken union membership and bargaining clout.¶ That led to a handful of liberal-leaning Democrats to vote against the bill, including Sens. Sherrod Brown, Tom Harkin and Debbie Stabenow.¶ Mindful that a potential split in the Democratic coalition this time around could again prove fatal to the passage of an immigration bill, Obama met on Tuesday with more than a dozen labor leaders.

#### Rubio won’t compromise

Noble 1-31. [Rebecca, staff writer, "Immigration reform top priority for new congress" Examiner -- www.examiner.com/article/immigration-reform-top-priority-for-new-congress]

The day before President Obama spoke on the subject at a predominantly Hispanic high school in Las Vegas, a group of eight Senators, now known as the "Gang of 8", including New York Senator Charles Schumer, Arizona Senator John McCain, and Florida Senator Marco Rubio, a favorite of Conservatives, put forth a comprehensive immigration reform bill that people on both sides of the isle either really like or really hate.¶ Republicans did poorly with Hispanics in the 2012 election, with Mitt Romney only garnering 27% of the vote. The GOP is well aware that they must reach out to this important voting bloc. But more than that, with roughly 11 million immigrants in this country illegally, a solution to a problem that is not going away or getting smaller must be found, and Republicans know they must be involved in fixing the system. Most Conservatives, while they like Rubio, are very mistrustful of a group that includes the likes of Schumer, Dick Durbin(D-IL), and Republicans they consider too moderate like McCain and Lindsey Graham(R-NC). They are also fearful of a Republican cave-in to Liberal Senate demands.¶ The bill calls for securing the southern border first and foremost, and Rubio says that without this basic first step, he could not support the bill. Other first priorities in the bill would include law enforcement "mechanisms" to ensure border security, and workplace enforcement, such as E-Verify. A system for tracking people in this country on visas would also be put in place. Even though when most Americans think of illegal immigrants, they think of those from Mexico and other Latin American countries, 40% of illegals are those who have overstayed their visas from other nations around the world.

#### Rubio is key.

Fox News 1-29-13. www.foxnews.com/politics/2013/01/29/obama-presses-immigration-agenda-as-senators-draft-new-overhaul/

The president, setting out to achieve an immigration overhaul where many before him have failed, was running into trouble even before he gave his address. Sen. Marco Rubio, R-Fla., one of four Republican senators involved in a bipartisan effort to craft immigration legislation, earlier in the day blasted Obama for opposing a requirement to shore up border security before legalizing up to 11 million illegal immigrants. ¶ Obama's speech, and a separate fact sheet handed out by the White House, made clear that the administration does not want to link the path to citizenship to border enforcement. ¶ The president said Tuesday that in order for immigration reform to work, "It must be clear from the outset that there is a pathway to citizenship." ¶ The comment, albeit subtle, was an apparent reference to a provision in the Senate blueprint that would not let illegal immigrants seek citizenship until border security is strengthened. Obama said that his conditions would only involve the illegal immigrants themselves -- he said that they would have to submit to a background check, pay back taxes and fines, learn English and get in the back of the line in order to apply. ¶ The president described his plan as "earned citizenship." ¶ Obama claimed a "broad consensus" was emerging on the issue itself, calling the plan outlined by Rubio and others "very much in line" with his own -- aside from the path-to-citizenship provision. "For the first time in many years, Republicans and Democrats seem ready to tackle this problem together," he said, calling legislation "within our grasp."¶ He said any plan should include the path to citizenship, but also a crackdown on employers who knowingly hire undocumented workers -- and a better system for verifying the status of those workers. He also called for streamlining the legal immigration system, providing visas for foreign entrepreneurs and retaining sought-after science and math graduate students. ¶ Read more: http://www.foxnews.com/politics/2013/01/29/obama-presses-immigration-agenda-as-senators-draft-new-overhaul/#ixzz2Jbb9U9g4¶ The president has run into complaints from conservatives that his plan is tantamount to "amnesty." ¶ But the most problematic objection so far has come from Rubio -- a prominent Hispanic conservative who is vital to the bipartisan effort on Capitol Hill. ¶ Speaking on Fox News on Tuesday, Rubio insisted that illegal immigrants not be allowed to obtain green cards -- let alone citizenship -- "until the enforcement stuff is in place." ¶ "I think that would be a terrible mistake," Rubio told Fox News. "We have a bipartisan group of senators that have agreed to that. For the president to try to move the goalposts on that specific requirement, as an example, does not bode well in terms of what his role's going to be in this or the outcome." ¶ He said: "If that's not in the bill, I won't support it."

#### Uniquely true now- Obama gets it and the political atmosphere is right- wins key now

Hirsh, 2-7 – National Journal chief correspondent

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

**Amid today’s atmosphere of Republican self-doubt,** **a new, more mature Obama** seems to be emerging, one who has his agenda clearly in mind and will ride the mood of the country more adroitly. If he can get some early wins—as he already has, apparently, on the fiscal cliff and the upper-income tax increase—that will create momentum, and one win may well lead to others. “Winning wins.” **Obama** himself **learned** some **hard lessons over the past four years about the falsity of the political-capital concept**. Despite his decisive victory over John McCain in 2008, he fumbled the selling of his $787 billion stimulus plan by portraying himself naively as a “post-partisan” president who somehow had been given the electoral mandate to be all things to all people. So Obama tried to sell his stimulus as a long-term restructuring plan that would “lay the groundwork for long-term economic growth.” The president thus fed GOP suspicions that he was just another big-government liberal. Had he understood better that the country was digging in against yet more government intervention and had sold the stimulus as what it mainly was—a giant shot of adrenalin to an economy with a stopped heart, a pure emergency measure—he might well have escaped the worst of the backlash. But by laying on ambitious programs, and following up quickly with his health care plan, he only sealed his reputation on the right as a closet socialist.

#### Only a risk of the turn – Obama has completely abandoned negotiation with opposition

Lauter 1/19

(David, “Obama comes out swinging for second term”, LA Times, 1-19-2012, http://articles.latimes.com/2013/jan/19/nation/la-na-adv-inaug-fever-20130120)

During the first term, Obama and his aides engaged in lengthy negotiations and offered concessions aimed at winning a handful of Republican votes during battles over healthcare and the economic stimulus.¶ That effort proved futile, whether because of Obama's inability to reach across the aisle (the Republican view), the intransigence of his opposition (the Democratic version) or the inherent problems of compromise in a divided country.¶ During the presidential campaign, Obama and top aides suggested that the Republican determination to oppose him would wane if he won reelection. "The fever will break," became a favored White House metaphor.¶ That hasn't happened, and the current White House strategy tacitly acknowledges that bridging the partisan gaps will probably remain beyond Obama's power. At the same time, Obama and his advisors feel more confident they can prevail — as they did during the "fiscal cliff" battle over tax rates in December.

#### Energy policy IS a win

O’Keefe 1/7 – CEO of the George C. Marshall Institute

(William, “More than Anticipated Less than Possible”, National Journal, 1-7-2013, http://energy.nationaljournal.com/2013/01/whats-ahead-in-2013-for-energy.php?comments=expandall#comments)

Four years ago, if one were to predict that domestic oil production would reach a 19 year high in 2012 or that a natural gas boom would changing the shape of the economy, they would have been laughed at. President Obama’s ideology, and that of his appointees, has been hostile to fossil fuel energy. In spite of their opposition, domestic production is up, imports are down, and jobs and investment in the oil and gas industry are growing – all largely a result of affordable natural gas.¶ The purpose of looking back is to make clear the difficulty of predicting the country’s energy future, especially with so many variables that politicians don’t control and so many global unknowns that impact policy and investment decisions. Predictions are never easy, even more seldom correct, but that difficulty is much greater in today’s political environment.¶ Looking ahead, the future of energy policy could be bright, but probably not as bright as it could be. A lot will depend on the President’s real priorities, who he appoints to key agencies like the EPA, the Department of Energy, the Department of Interior, and to key White House positions. If he appoints individuals who realists – not ideologues – there is reason for some optimism. If, on the other hand, he appoints people who are zealots, individuals who operate like Lisa Jackson has, it is likely to be a rough four years of weak economic performance and unrealized domestic production.¶ What the President does about Keystone XL could be telling. Freed from having to cater to the environmental extreme, he should move ahead quickly to grant the long-delayed State Department approval. That would improve relations with Canada, help achieve greater North American energy independence, and help solve the storage and distribution bottlenecks that constrain the movement of domestic crude oil. Fracking regulations, federal leasing, and the previously proposed ozone standards will all act as bellwethers as well.¶ Based on the last four years, the best outcome is probably an environment that reflects the Hippocratic oath to first do no harm. During the President’s first term, leasing of federal lands was slowed-walked and the regulatory process was marked by excess. A roll back is out of the question, so the best hope for is nothing new. That again will depend on appointments and the President’s priorities.¶ Energy and environmental legislation are remote at best, although rationalization of major environmental laws is long overdue. What the Senate would pass, if anything, would be unacceptable to the House. And, what the House could easily pass, would be dropped into a black hole by Harry Reid.¶ As was seen on fiscal cliff negotiations, the White House and Congress simply can’t bargain and close a deal. If they can’t on something as important as taxes and spending, there is little reason to believe they could on energy and environmental issues.¶ As columnist Bob Woodward observed, we have a situation that is like permanently being in divorce course with no settlement on who gets the kids. More gridlock is the likely future for important legislation and especially energy and environmental legislation. While the President says he will not negotiate again on the debt ceiling, the House and Speaker may be willing to accept a default to get real spending cuts. Default has been made to appear more draconian than it is. Over the last four years, annual federal spending has increased $700 billion. If spending cannot be brought more in line with the pre-recession level going forward there is no hope for fiscal sanity any time soon. The point being made is that the default scenario would make bi-partisan agreement on other matters even more difficult.¶ The President has shown he knows how to win and get his way on what is important to him—healthcare and taxes—but he has not shown an ability to govern. Unless the White House adopts a different model going forward, we are likely to see an economy that underperforms because of uncertainty by the private sector, excessive regulatory burdens, and hostility toward fossil energy. The President may succeed in achieving an even bigger federal government that resembles the social-democrat model of Europe but the long term consequences will not be rewarding.

# 2AC vs Michigan DH

## Prolif

#### PUREX is inevitable globally

Paviet-Hartmann et al ’11

(Patricia, Gary Cerefice, Marcela Riveros Stacey, Steven Bakhtiar, “Analysis of Nuclear Proliferation Resistance Reprocessing and Recycling Technologies”, Idaho National Laboratory, 2011, http://www.inl.gov/technicalpublications/Documents/5025962.pdf)

The selection of strategy for UNF management is a complex decision with many factors to be taken into account including technical issues associated with the composition of the domestic reactor fleet, national legal and regulatory framework, political and public acceptance, economics and environmental protection, proliferation risks. Conventional recycling technology is expected to play an important role in the medium term (IAEA 2008). The PUREX process has been progressively and continuously improved during the past three decades, and these improvements account for successful commercialization of reprocessing in a few countries such as France, Japan and UK. We should not forget though that one of the greatest proliferation concern could be associated with any enrichment process. It is clear that some techniques may be more susceptible to various kinds of abuse or misuse than others. But this should not stop the renewed interest in nuclear energy and the international growth of nuclear electricity generation. Indeed, the nuclear renaissance presents a unique opportunity to enhance the culture of nonproliferation. The nuclear industry will play a major role in strengthening this culture. While a few countries have taken irresponsible actions in the nuclear field that threaten the international and regional peace and security, the international nonproliferation system has, on the whole, been highly successful in limiting the spread of nuclear weapons. One hundred and eighty seven states now adhere to the Treaty on the Non-Proliferation Of Nuclear Weapons (NPT). Only three states, Pakistan, Iran and North Korea have elected not to join NPT, and some states such as South Africa and Libya have abandoned or dismantled their nuclear weapon programs altogether. (Lauvergeon, 2009)

#### Any signal of reprocessing won’t affect the global market

**Lee 10**

(Nathan R. Lee, WISE Intern and B.S.E. in Materials Science & Engineering from UPenn, Sustainability Of U.S. Nuclear Energy: Waste Management And The Question Of Reprocessing American Nuclear Society, 2010, http://www.wise-intern.org/journal/2010/NathanLeeWISE2010.pdf)

No matter how much some nuclear energy proponents might play down the dual purpose of nuclear technologies, as long as the fundamental driving force remains the splitting of the atom, so too will the risk of proliferating those technologies for use in an atom-splitting bomb. Seeking a proliferation-proof nuclear energy policy is futile; instead, a smart policy should aim to maximize proliferation resistance under the given circumstances. In the case of reprocessing used nuclear fuel, the principal concern is over the isolation of plutonium in the product stream, which could then be converted for use in a bomb. Unprocessed used nuclear fuel is sufficiently secure against physical enemy intrusion due to the multiplicity of highly radioactive components it contains. Since plutonium itself is not highly radioactive, it becomes much easier to approach after separation. Although newer reprocessing technologies leave different radioactive contaminants in the product stream to offset the loss in proliferation resistance, none of them remain significantly “self-protecting” by the International Atomic Energy Agency (IAEA) standards (Fig. 10). There are several avenues by which plutonium proliferation could occur. A terrorist group or rogue state could steal the plutonium from the product stream of another country’s reprocessing plant or could acquire the technology itself on the black market to isolate plutonium themselves. Another risk involves a state legally operating a reprocessing facility but illegally diverting plutonium from the product stream or operating a clandestine plant in parallel. Any of these scenarios could occur for all the reprocessing technologies considered. While the risk levels for one-pass Pu recycling and full actinide recycling would vary based on total material flow, amount of transport required, technology safeguards, and additional factors, the fundamental issue of plutonium isolation is the same. President Carter’s decision to ban reprocessing in the U.S. was ostensibly motivated by this issue. It was supposed to deter other nuclear countries from reprocessing as well, thereby bolstering global nonproliferation. However, they did not follow suit; several countries now operate reprocessing facilities. Consequently, the proliferation ramifications of implementing reprocessing in the United States in the 21st century are no longer the same as perceived in the early stages of the nuclear industry. Not only has the international deterrent argument been largely discredited, but the marginal impact in the global proliferation risk from initiating reprocessing in the U.S. would be much less substantial now that there already exists **an established international reprocessing market.** Furthermore, by entering this market, some argue that the U.S. might actually slow the dissemination of reprocessing technology by providing the service to other countries that wish to reprocess their used nuclear fuel, making domestic development less economical. 38 However U.S. reprocessing would affect the global interplay, by far the most critical factor for deciding whether to reprocess domestically would be our own ability to prevent direct proliferation. In this arena, the U.S. has proven over the last sixty years that it can effectively manage and safeguard large plutonium stockpiles and dangerous technologies. 39 Moreover, improvements are already underway in utilizing real-time monitoring of material flows to detect and prevent proliferation attempts. 40

#### States haven’t pursued reprocessing because of economic constraints, not U.S. policy—and the economic climate is changing

NNSA ‘8

(“Nonproliferation Impact Assessment for the Global Nuclear Energy Partnership Programmatic Alternatives”, December 2008, http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP\_NPIA.pdf)

Policy Impact: Proponents of a once-through policy argue that the U.S. adoption of a once through fuel cycle has been effective in discouraging reprocessing by demonstrating that reprocessing is not necessary for the large-scale use of nuclear power. They argue that since the United States adopted this strategy in the 1970s, no new country has begun reprocessing for civil purposes. They also note that U.S. diplomatic efforts both to discourage specific countries from reprocessing and to discourage suppliers from providing reprocessing facilities to additional countries have been strengthened by the ability to argue by example that reprocessing was not necessary for a civil nuclear power program. The United States has also been able to exercise consent rights over reprocessing of spent fuel produced through the use of nuclear material transferred from the U.S. either to block countries from reprocessing or to shape the nonproliferation conditions under which such reprocessing could take place. 85 However, others argue that economic factors may have been the underlying reason other States have not pursued reprocessing. Those factors include the high cost of building a reprocessing facility, the relatively low cost of LEU and the availability of reprocessing services from France, Russia and the United Kingdom. But the economic picture is changing and those factors may not continue to prevail.

#### The net effect of the Aff is positive for nonproliferation, even if they win their signal or diversion arguments

NNSA ‘8

(“Nonproliferation Impact Assessment for the Global Nuclear Energy Partnership Programmatic Alternatives”, December 2008, http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/GNEP\_NPIA.pdf)

One potential drawback of deploying a full actinide recycle fuel cycle in the United States is that it might encourage countries that do not currently recycle spent fuel to start doing so. However, compared to the LWR recycle programs currently in use overseas, the technical challenges for countries considering full actinide recycle would be relatively high. It could also increase pressures for international cooperation in reprocessing R&D beyond current technology holders. Proponents of a once-through fuel cycle argue that by embarking on full actinide recycle alternatives, the United States would set an example that some countries would emulate by developing their own reprocessing programs. They argue that efforts to reinforce existing divisions between countries that have reprocessing programs and those that do not will provoke a backlash among developing countries and other aspiring nuclear states that will lead some to pursue reprocessing. However, given the economies of scale necessary to make commercial reprocessing programs cost effective, few countries would have large enough nuclear power programs to justify the expense of building their own reprocessing facilities. If the United States joined other countries that recycle spent fuel in offering back-end fuel services on attractive terms (reliable, affordable, and without onerous conditions), the net effect would be to discourage the spread of civil reprocessing. If the fuel services are structured in a way that gives customers some level of control over how they operate, 98 those customers might be more inclined to rely on such services.

#### Their US won’t use leverage card is aff evidence

Cleary 12

Richard Cleary, American Enterprise Institute Research Assistant, 8/13/12, Richard Cleary: Persuading Countries to Forgo Nuclear Fuel-Making, npolicy.org/article.php?aid=1192&tid=30

Conclusion

<Their Card>

The cases above offer a common lesson:  The U.S., though constrained or empowered by circumstance, can exert considerable sway in nonproliferation matters, but often elects not to apply the most powerful tools at its disposal for fear of jeopardizing other objectives. The persistent dilemma of how much to emphasize nonproliferation goals, and at what cost, has contributed to cases of nonproliferation failure. The inconsistent or incomplete application of U.S. power in nonproliferation cases is most harmful when it gives the impression to a nation that either sharing sensitive technology or developing it is, or will become, acceptable to Washington. U.S. reticence historically, with some exceptions, to prioritize nonproliferation—and in so doing reduce the chance of success in these cases—does not leave room for great optimism about future U.S. efforts at persuading countries to forgo nuclear fuel-making.

<Ends>

The most successful case above, South Korea, saw the U.S. put in question the basis of its relationship with Seoul, its security assurance, for nonproliferation aims. The potential near-term consequences of a South Korean nuclear weapon made this bold diplomatic maneuver worth the risk. But in other cases competing U.S. aims, often worthy, have impinged on nonproliferation goals, diluting efforts and sending mixed signals. In the case of Pakistan, for example, even well before the Soviet invasion of Afghanistan, the United States failed to use sufficiently forceful sticks or attractive carrots. U.S. efforts were bound by increasing distrust between Islamabad and Washington, a delicate geopolitical situation in the subcontinent given India’s close relationship with the Soviet Union, and facing a great challenge in a Pakistani leadership that was humiliated in 1971 and keen to reestablish some power equity with India. In negotiations with Iran regarding the nuclear cooperation agreement, U.S. policy makers–hoping to reinforce the NPT after the Indian test, avoid offending the Shah, and secure civilian nuclear contracts–were initially willing to make concessions on the issue of national reprocessing. In the case of the West Germany-Brazil contract, Kissinger went so far as to tell his counterpart in Bonn that, with expanded safeguards, the deal would be acceptable to Washington despite the clear proliferation risk from Brasilia.

The examples above show the limitations of both demand and supply side efforts. Supply side diplomatic interventions, made before the transfer of technology, have been at times effective, particularly in precluding nuclear fuel-making in the short term and buying time for more lasting solutions. However, as the Pakistan and Brazil cases illustrated, supply side interventions are no substitute for demand side solutions:  Countries face political choices regarding nuclear fuel-making. A nation set upon an independent fuel-making capacity, such as Pakistan or Brazil, is unlikely to give up efforts because of supply side controls. Multilateral fuel-making arrangements, as proposed repeatedly by the United States, have not materialized and therefore seem to have had little tangible influence.

In recent years, a new nonproliferation instrument has appeared:  a restructured 123 nuclear cooperation agreement, developed in the course of negotiations with the United Arab Emirates (UAE) and signed in 2009. This agreement, unlike previous bilateral nuclear cooperation agreements, offers a model for demand side nonproliferation, with the UAE vowing to forgo all enrichment and reprocessing technology on its own soil. It goes far beyond, for example, the “veto” on reprocessing of U.S.-origin spent fuel broached in the negotiations with the Shah. This “Gold Standard” agreement, much hailed at first, particularly in contrast to Iran’s enrichment activities, has begun to lose its luster as, once again, competing priorities marginalize nonproliferation. In January 2012, the Obama Administration announced that a “case by case” approach would be taken to the application of the Gold Standard. Countries such as Vietnam, where the U.S. holds out hope for a grander partnership aimed at countering China, may not be held to the UAE’s standard.100 Today, as in the 1970s with the Symington and Glenn Amendments, Congress seems most concerned about the prospect of proliferation of ENR technology.

## Russia

#### Russia’s economy is not resilient – but the plan solves

Mergenthaler and Bishop ’13 – Deputy Head and Project Manager with the Strategic Foresight practice at the World Economic Forum

(Stephen and Andrew, “Russia’s economy: A great run but an uncertain future”, World Economic Forum,

The Russian economy has had a great run over the past decade, as evidenced by its sevenfold increase in GDP per capita between 2000 and 2011. Yet despite this impressive growth story, the factors that underpinned Russia’s economic development over the past ten years are fraught with growing uncertainty. As the World Economic Forum’s Scenarios for the Russian Federation highlight, while Russia’s economy has grown substantially over the past years, it has also grown increasingly fragile.¶ Russia has missed an opportunity to use the large energy windfalls of the past decade to reform its institutional environment and make itself more resilient to future shocks. Corruption has surged despite a significant increase in GDP, and growing spending on an ever-larger government apparatus has failed to improve the delivery of public services in sectors ranging from health to infrastructure. In part because of this, popular discontent has been on the rise regardless of the increasing material comfort enjoyed by the country’s growing middle class.¶ Instead of building a more resilient economic model, energy revenues have served Russia to balance these shortcomings, an increasingly unviable option for the future.¶ There is growing evidence that energy abundance may become a global reality sooner rather than later, and not only in the United States whose shale gas revolution is already transforming global energy markets. This could lead to a substantial decline in oil prices, which would hurt the Russian economy in its current composition.¶ Yet even if energy prices remain high, Russia could fail to capitalize on its energy potential. The country critically needs to upgrade investments in its production capacities in order to move beyond ailing legacy fields and exploit untapped potential in less accessible areas including the Arctic. It also needs to adapt its business relationships and supply infrastructure in order to capitalize on new demand centres in the Far East and compete in the global LNG market.¶ Russia has, so far, failed to turn its wealth into a driver of resilience. As highlighted by the report’s Precarious Stability scenario, if Russia’s demanding reforms seem difficult to execute in today’s times of growth, they will be nearly impossible to implement in periods of downturn.¶ For instance, not only can it not be guaranteed that Russia’s energy sector will forever be able to support the country’s economy, but also its dominance could actually threaten Russia’s future economic vitality. This is one takeaway from the Beyond Complacency scenario, in which the proceeds from a booming oil and gas industry fail to improve the country’s institutions and lead to intractable popular discontent.¶ However, by no means is Russia doomed. In fact, sources of opportunity abound, both within the country and in the influences that surround it. As the report’s Regional Rebalancing scenario points out, Russia has not only the ability to benefit from a new global environment of food and water scarcity by further exploiting its natural resources beyond oil and gas, but also the country could unleash enormous potential by embracing the strengths of its diverse and increasingly active regional provinces.

#### Russia economic decline not inevitable

Adomanis ’12 – contributor to Forbes

Mark, “Russia’s Economy Is Not in Decline”, Forbes, 7-26-2012, http://www.forbes.com/sites/markadomanis/2012/07/26/russias-economy-is-not-in-decline/)

I’ve been very confused by the number of articles I’ve seen over the past few weeks that paint Russia as some sort of abysmal economic basket case, a country teetering on the edge of catastrophe. This confuses me partially because the entire Western world is now enveloped in various kinds of slow-motion economic disaster, and partially because when you look at the actual numbers Russia’s economy has actually done OK over the past couple of years. Whether it was Zaiki Laidi making the inaccurate observation that Russia is “falling behind” the West or William Martel calling Russia’s economy both “totally dysfunctional” and “command” in nature, people haven’t had a whole lot of love for what has traditionally been the least popular member of the BRICS.¶ So what I thought I would do is make a simple and straightforward graph of Russia’s economic performance since its economy reached its post-Soviet nadir in 1998.\* Since my expectation is that growth is going to decelerate as the Eurozone crisis, which Russia has somehow managed to avoid sofar, begins to take a toll, I used a quite conservative estimate of 3.3% overall GDP growth for 2012. Since actual growth in the 1st quarter of 2012 was 4.9%, hitting 3.3% means that Russia would experience a pretty noticeable slowdown over the remainder of the year.¶ Does this look to you like a country that is in long-term economic decline? Now Russia was an absolute disaster area in 1998, so the fact that its economy has doubled in size since then should be taken with a very large grain of salt. But I won’t argue with someone if they say “Russia is poor” because Russia really is poor. And if someone says “Russia could grow more quickly if it carried out liberalizing structural reforms” I would agree with that because Russia really does need to carry out liberalizing structural reforms.¶ What I will take issue with, though, is when someone says that Russia is losing economic ground, or that its economy is in some sort of long-term decline. As you can very easily see, it’s simply not possible to argue that Russia’s economy is shrinking because it’s not: the clearly visible trend is of sustained, if not overwhelming, economic growth from a very low base.¶ Meanwhile, just for kicks, here’s a chart comparing the US and Russian economies have performed since 1998 (US inflation adjusted GDP data are from the Bureau of Economic Analysis here). I used the most recent IMF prediction of 2% growth in 2012. Again one should note that in 1998 Russia was a pretty nightmarish place to be, but the next time someone tells you Russia is “falling behind” this or that random country it’s worth keeping this chart in mind.

#### No alt causes – Russia’s nuclear engineering is critical to sustainable long-term growth

Rosatom ’12

(Russian Nuclear Industry Today, 2012, http://www.rosatom.ru/en/about/nuclear\_industry/russian\_nuclear\_industry/)

Russian nuclear industry is one of the world’s leaders in terms of the level of scientific and technological developments in the area of reactor design, nuclear fuel, experience of nuclear power plant operation, NPP personnel qualification. Enterprises of the industry have accumulated huge experience in solving large-scale tasks — such as creating the world’s first nuclear power plant (1954) and developing fuel for it. Russia possesses world’s most advanced enrichment technologies, and nuclear power plants with VVER water-moderated water-cooled power reactors have proved their reliability in the course of one thousand reactor years of trouble-free operation. High quality of manufactured products and offered services is also confirmed by the successes in international tenders for nuclear fuel supplies and NPP construction abroad.¶ Today Russian nuclear industry constitutes a powerful complex of over 250 enterprises and organizations employing over 250 thousand people. Industry structure includes four large-scale research and production complexes: enterprises of nuclear fuel cycle, nuclear power engineering, nuclear weapons application, and research institutes. JSC Atomenergoprom, which consolidates the civilian part of the nuclear industry, is a part of Rosatom State Atomic Energy Corporation. ROSATOM unites a number of enterprises of nuclear power engineering, as well as of nuclear and radiation safety, nuclear weapons complex, and fundamental research.¶ Currently, Russia is building new NPPs on a large scale. The construction is underway on sites of Novovoronezh NPP Phase II, Leningrad NPP Phase II, Baltic NPP, and the world’s first floating nuclear co-generation plant Akademic Lomonosov. One more power unit – the fourth reactor of Beloyarsk NPP – is under construction completion process. Nuclear power plants are being built abroad as well. These are Kudankulam (India), Bushehr (Iran), Akkuyu (Turkey), Ostrovets (Belarus), and Tianwan Phase II (China).¶ Under present conditions nuclear power engineering is one of the most important sectors of Russian economy. The industry’s dynamic development is one of the major conditions of ensuring energy independence of the state and sustainable growth of the country’s economy.

## Advantage CP

### 2AC

#### Perm – do the CP. Pyroprocessing and reprocessing are not distinct definitionally

**NTI ‘11 –** non-profit nonproliferation group

(The Nuclear Threat Initiative (NTI) is a nonprofit, nonpartisan organization with a mission to strengthen global security by reducing the risk of use and preventing the spread of nuclear, biological, and chemical weapons and to work to build the trust, transparency, and security that are preconditions to the ultimate fulfillment of the Non-Proliferation Treaty’s goals and ambitions, “U.S. Sees Pyroprocessing as Nuclear Fuel Reprocessing: Official”, 4-5-2011, http://www.nti.org/gsn/article/us-sees-pyroprocessing-as-nuclear-fuel-reprocessing-official/)

A senior U.S. State Department official last week said the Obama administration views the experimental pyroprocessing technique as a form of nuclear fuel reprocessing, potentially dimming prospects for South Korea to secure the right to use the technology in a new atomic trade pact with the United States, Arms Control Today reported (see GSN, Feb. 28). The Energy Department "states frankly and positively that pyroprocessing is reprocessing. Period. Full stop," said Richard Stratford, the State Department's point man for foreign atomic trade pacts (see GSN, March 30). **The department "did not say that five years ago when we started down the road of cooperation on pyroprocessing**," Stratford said on March 29 at a Washington nuclear policy conference. "Then the product was not weapons usable." Crucial components of the pyroprocessing process have subsequently "moved to the point that the product is dangerous from a proliferation point of view," Stratford said. "So, for that reason, pyroprocessing is reprocessing, and that's part of the problem." Stratford's remarks were the strongest public comments to date by an administration official on proliferation worries linked to pyroprocessing, according to Arms Control Today. The current Washington-Seoul atomic trade pact prohibits South Korean nuclear fuel reprocessing, which can be used to produce nuclear-weapon material. The agreement sunsets in 2014. The two allies have announced plans to jointly study pyroprocessing. South Korea is hoping that a new nuclear cooperation agreement would permit it to use the process in its expanding atomic energy industry. Supporters of the technology contend it is more resistant to proliferation than traditional fuel reprocessing as any extracted weapon-usable plutonium would remain combined with other materials.

### Medical Isotopes

#### Conventional reprocessing solves medical isotopes

Bastin ‘8

(Clinton, “We Need to Reprocess ¶ Spent Nuclear Fuel,¶ And¶ Can ¶ Do It ¶ Safely, At Reasonable Cost”, 21st Century Science and Technology Journal, http://www.21stcenturysciencetech.com/Articles%202008/Summer\_2008/Reprocessing.pdf)

About 96 percent of the spent fuel the United States is now¶ storing can be turned into new fuel. The 4 percent of the so called waste that remains—2,500 metric tons—consists of¶ highly radioactive materials, but these are also usable. There¶ are about 80 tons each of cesium-17 and strontium-90 that¶ could be separated out for use in medical applications, such¶ as sterilization of medical supplies.¶ Using isotope separation techniques, and fast-neutron bombardment for transmutation (technologies that the United¶ States pioneered but now refuses to develop), we could separate out all sorts of isotopes, like americium, which is used in¶ smoke detectors, or isotopes used in medical testing and treatment. Right now, the United States must import 90 percent of its¶ medical isotopes, used in 40,000 medical procedures daily.

#### They’re key to nuclear medicine – domestic production is key

Seeking Alpha ’12

(A Change In Supply To Meet Isotope Demand, 11-4-2012, http://seekingalpha.com/article/976731-a-change-in-supply-to-meet-isotope-demand)

We have all learned the basics of supply and demand. The more supply that's present the cheaper a product becomes. The ideal situation is for a producer to have an equal balance of supply and demand to avoid unnecessary costs and to maximize profit. The worst situation is to have heavy demand but lack of supply, as producers realize lost profits and the potential customers go elsewhere.¶ The nuclear medicine industry isn't your typical story of supply and demand, although it may be one of the best. In nuclear medicine, the isotopes being produced are necessary and crucial for patients, as well as the industries in biotechnology that use the isotopes for various drugs and diagnostic tests. Yet despite its importance, global politicians are demonstrating an "ignore the problem" approach and are allowing very important nuclear reactors, the sources for most of these isotopes, to go offline.¶ The next three years will be important for nuclear energy in the U.S. It's estimated that 90% of the medical isotopes used in the U.S. are imported from reactors in other countries. In the U.S., we consume the largest share of the global isotope market, with 18 million procedures that use medical isotopes. The problem is that most of these large reactors are scheduled to be shut down in the next few years due to aging. We have seen as nuclear reactors are shut down, countries are electing to use alternative energy, which leaves a massive demand for the millions of medical procedures and or diagnostics that use medical isotopes on a yearly basis. Just recently, Japan shut down its last operating nuclear power reactor, to turn its focus on clean energy. And Quebec's new government recently confirmed that it's shutting down its only nuclear reactor. In some ways, this is apples to oranges, but it still shows the speed at which countries are choosing to find alternatives to nuclear energy.¶ The good news is that, with other countries shutting down reactors, it leaves room for the U.S. to take control of the situation. In the U.S. we are reliant upon nuclear medicine and have no choice but to create the demand. As a result, jobs would be created, medical procedures could become cheaper, and then we lessen our dependence on foreign supply. There is a chance that Canada will build new reactors or perform maintenance to old reactors; but at this point, the space looks wide open

#### Nuclear medical expertise solves disease

**NTR ’10** (Nuclear Technology Review, “REDUCING THE RISK OF TRANSBOUNDARY ANIMAL DISEASESTHROUGH NUCLEAR TECHNOLOGIES” 2010 Publishing Section, International Atomic Energy Agency, Vienna International Centre

The challenge of ensuring food security for a world population that will grow to over eight billion people in the next 20 years can be met, in part, by assisting smallholder farmers in developing countries to improve the utilization of locally available land, water, and plant resources to intensify and increase animal production and productivity. This will require not only more sustainable livestock production, but also more efficient approaches, tools, and strategies for preventing, diagnosing and controlling animal diseases. The amount of available animal protein for human consumption is already limited, but the fragile food security situation is further exacerbated by increased movement of animals and animal products due to expanding world trade and the growing effects of climate change that can result in changes in the geographical distribution of pathogens and their vectors. Resource-poor developing countries will become increasingly vulnerable to emergencies caused by the growing prevalence of infectious diseases, **especially transboundary animal diseases** (TADs). A complicating factor is that more than 60% of the TADs are zoonotic diseases (i.e. diseases of animal origin that infect humans), such as Human Immunodefficiency Virus (**HIV), H5N1 (Avian Influenza) and H1N1 (Swine Flu), Rabies**, Rift Valley Fever, **and Trypanosomosis**. Classical or traditional techniques for diagnosing threatening diseases **are well in place, but** **often lack the sensitivity and specificity needed** to make accurate and timely diagnoses of diseases. **Nuclear and nuclear related technologies have these features and are** therefore increasingly being used to complement traditional diagnostic and tracing technologies to **improve the early and rapid diagnosis and control of animal diseases through tracing and vaccination strategies** [II-1]. The IAEA, through the development and application of nuclear and nuclear-related technologies, is at the forefront of developing and validating early and rapid diagnostic techniques that are simple to use, inexpensive and can be applied in a “laboratory limited” environment, such as those located in rural and decentralized areas; in the tracing of diseases through the application of stable isotope techniques; and in the application of irradiation technologies to provide safe and user friendly vaccines. The application of nuclear technologies, in combination with conventional technologies, **has contributed to concrete improvements in the number, condition and health of animals resulting in improved livelihoods for millions of people worldwide**. For example, it is estimated that the eradication of rinderpest saves Africa more than 1 billion USD per year (FAO). The unique characteristics of nuclear technologies not only contribute to our efforts to reduce transboundary animal disease risks, but also to the tracing and monitoring of animal movements (e.g. the tracing of disease infected migratory birds), as well as to the timely and proactive control and prevention of diseases through the use of vaccines. B. Nuclear and Nuclear-Related Techniques for Disease Diagnosis Nuclear applications have driven modern biotechnological research by providing more sensitive, specific and cost effective diagnostic platforms or assays to detect and characterize the disease pathogens [II-1]. Many of these nuclear based applications are being used in Member States for diagnosis of TADs such as rinderpest and rabies. The use of nuclear technologies allows the detection and characterization of pathogens **within 24 hours of their onset**, helping to differentiate one particular virus strain from another [II-2]. An example of this differentiation is noted in the case of the Influenza A H1N1 virus, from Influenza A H5N1. Nuclear techniques are also important in determining the nucleic acid sequence that describes the capacity of a particular virus strain to cause a disease. Different strains of the 2 same virus may affect birds and also humans e.g Influenza A H5N1 low pathogenicity versus Influenza A H5N1 high pathogenicity. (Fig. II-1) [II-3]. The latter causes deaths in more than 60% of infected humans. The isotopic analysis of the genetic make-up of such a virus can be used by health authorities in making decisions ranging from public notification – as was the case of Influenza A H1N1 (low pathogen) - to immediate pandemic action in the case of Influenza A H1N1 (high pathogen) [II-4]. This information not only aids disease control personnel and policy makers in their attempts to control and eliminate veterinary and public health pathogens, but also forms the basis for decision-making that affects transboundary trade and travel. . FIG. II-1. Phosphor-32 labelled protein-DNA analysis to study the operational control of active and non-active pathogenic genes to determine why certain pathogens are more aggressive than others. Nucleic acid sequence differences were observed in the Late Promoter (LP) and Early Promoter (EP) regions of the RNA transcription responsible genes of different Avian Influenza strains Radioisotope-labelled assays that use isotope levels that are below the limit of disposal are under development. Isotope-based nucleic acid hybridization approaches are used to detect genetic material in host tissues that will allow direct identification of infected animals as well as provide information of epidemiological importance in relation to the strain type or variant of the agent. These tests depend on the preparation of suitable DNA probes labelled with sulphur-35 or phosphor-32 and their amplification in vitro by a nucleic acid amplification technique (PCR) to increase the amount of the specific target. Nucleic acid thermal amplification technologies shorten the time for a test result to less than a day and in many cases a result can be obtained within an hour [II-1]. Recent successes using this technology include the development of tests to diagnose diseases such as the Peste des Petit Ruminants disease and capripox virus disease (the collective word for goatpox, sheeppox and cattlepox viruses) and in the sequencing of the different genomes. To set up an appropriate control against the outbreak of one of the three poxviruses in a livestock herd, the outbreak virus needs to be identified. Currently, the capripox virus family, although closely related, requires three different vaccines for protection, i.e. there is no cross-protection between the different capripox virus strains. Sheeppox virus, goatpox virus and cattlepox or lumpy skin disease virus, the third member of the capripox virus genus (Fig. II-2) can be 3 differentiated using the nuclear related thermal amplification real-time PCR approach, thereby selecting the correct vaccine to protect against the homologous pathogen [II-5]. FIG. II-2. Discrimination of sheeppox virus, cattlepox or lumpy skin disease virus and goatpox virus based on their genetic sequence differences is possible using molecular DNA thermal amplification technologies. The Y-axis indicates the signal amplitude and the X-axis the temperature in degrees celsius. Nuclear technologies are also vital to animal disease diagnosis where rapid decision-making would be an advantage, and especially in situations where the suspected disease occurs in difficult to reach or remote areas that are far from the laboratory [II-1]. The time saved by determining whether a disease is present or not, **could be the difference between containing a disease at its point of origin and protecting human lives** or preventing the spread of a disease to an animal market place or further afield. Conventional molecular techniques including thermal amplification or PCR require sophisticated, expensive equipment (Fig. II-3). A robust test at the molecular level, i.e. the loop mediated isothermal amplification (LAMP) PCR, has been developed using nuclear techniques, which is a more cost effective alternative to thermal DNA amplification. The LAMP PCR can be carried out within 30 to 60 minutes in a simple water bath at constant temperature and the presence or absence of the isothermally amplified DNA product can be detected visually, i.e. a change in color (Fig. II-4). Another advantage of the LAMP PCR platform is that it can be developed for use on-site or on farm as a penside (point of care) rapid diagnostic test [II-1]. FIG. II-3. Different models of thermal DNA amplification cyclers (PCR Machines). Isothermal DNA amplification technologies will reduce our reliance on this expensive equipment. 4 FIG. II-4. Visible color changes in reaction tubes allow discrimination of positive and negative results when using the isothermal DNA amplification or LAMP PCR for diagnosing avian influenza. C. Migratory Connectivity: Using Stable Isotope Analysis to Determine the Role that Wild Birds Play in Disease Outbreaks A unique use of nuclear techniques is the ability to trace wild birds in order to determine if and whether they may contribute to the spread of the Bird Flu. Highly Pathogenic Avian Influenza (HPAI - Influenza A, H5N1 Bird Flu) causes disease and death in wild birds and poultry, and can also affect humans. HPAI outbreaks have resulted in losses of hundreds of millions of birds and caused serious economic damage to the poultry industry worldwide. In addition, **Bird Flu is a zoonotic disease with a high mortality in humans** and consequently has led to the death of several hundred people. Historically, similar **influenza epidemics have killed millions of people, and the threat of a pandemic disease caused by Bird Flu today, makes it one of the most important animal and human health hazards currently facing humanity** [II-3]. There is evidence that wild birds can be infected with Bird Flu and it is possible that migratory wild fowl could play a role in its dissemination (Fig. II-5). FIG. II-5. The origins and flight-path of migrating bar-headed geese can be established by using stable isotope analysis of flight feathers. Given the potential for wild birds to spread Bird Flu, more information is required about their movement. Millions of birds fly each year to and from over-wintering sites and a more concerted effort is required to investigate the poorly known routes of migrant birds in Africa, the Americas, Asia-Pacific, Central Asia and Europe. An ideal approach is to use a non-5 invasive stable isotope analysis (SIA), to establish the origin and flight-path of a migratory bird [II-6, II-7]. Stable isotopes are currently used for tracing food origin. They provide a unique signature to a specific location, based on the availability of the isotope, which is also incorporated into animal products [II-6]. Their signature composition is dependant on the soil, water and plant chemical composition of each location. This feed and water signature is unique to each location and can be traced in the deposits (e.g. feathers) of the birds [II-7]. A small number of natural isotopes are involved in important biological and ecological processes. They are measured by mass spectrometry to determine isotopic differences relative to international standards and reported as ratios in delta (δ) units as parts per thousand. Of most interest are the hydrogen (δD) ratios found in metabolically inert, seasonally grown tissues, such as feathers and claws that accurately reflect the ratios in lakes, rivers and oceans and in groundwater in the migratory path of the birds. The isotopic signatures of a few individuals are representative of an entire population, hence any of the individuals from that population can provide information on movement. Feathers retain this information until replaced or moulted, which typically occurs only once per year. If the isotope profile of a particular bird population is known, any individuals from that population can provide information on the global migration of that species [II-8]. The hydrogen isotope composition of potable water varies spatially across the globe but global grids of hydrogen water isotopes have been constructed that can then be compared to animal samples of known or unknown origin. These grids are constructed using the data from the IAEA’s Global Network for Isotopes in Precipitation (GNIP). Collecting isotope data from feathers of migratory bird species will reveal migration patterns; enable identification of the breeding areas of birds sampled in intermediate stopover sites; and in samples collected from disease outbreak sites, might provide greater understanding of the role that wild birds play as carriers of disease [II-9]. Currently, measurements of stable isotopes are done using costly isotope ratio mass spectrometry (IRMS) systems that require a well-equipped laboratory. However, newly introduced analyzers (Fig. II-6) with near infrared laser technology are small, transportable and require low maintenance, making it more affordable to measure isotopes. There are currently no conventional techniques which allow this kind of tracing of diseases. FIG. II-6. A low cost answer to isotope ratio mass spectrometry (IRMS). This stable water isotope analyzer uses an infrared laser for measurement. D. Radiation Inactivation: the Future “Gold Standard” in Vaccine Development Vaccination is a cost-effective way of preventing and controlling disease. Although anti-viral and anti-bacterial vaccine development has been successful, there are few vaccines for parasitic diseases because of the risk of further infection by active parasites in the vaccine. The inactivation of pathogens via irradiation is promising because it is a reliable method of applying a safe vaccine - 100% inactivated - against pathogenic diseases [II-10]. Their 6 potency has been tested and success has been achieved with the advent of the first human radiation-attenuated anti-parasite vaccine for malaria. For many pathogens, a relatively low dose of gamma irradiation from a cobalt-60 source is sufficient to inactivate the organism, e.g. malaria irradiation at 150 Rad, Fasciola irradiation at 30 Gy, Brucella irradiation at 6kGy, while viral pathogens require higher doses e.g. RVF irradiation at 25kGy. This opens a new approach to immunization, especially when dealing with problematic diseases, like Rift Valley Fever and various helminth (parasitic worms) and protozoal (unicellular parasites) diseases [II-11, II-12]. **There is a considerable body of evidence to suggest that radiation-attenuated or radiation-inactivated vaccines are safer as well as a more effective and feasible “gold standard” for vaccine efficacy**. Conventional alternative vaccines, such as recombinant vaccines, have not yet lived up to their promise to achieve comparable and effective levels of protection as those provided by irradiated vaccines.

#### Disease spread will cause extinction

**Leather ’11** (10/12/11 (Tony, “The Inevitable Pandemic” <http://healthmad.com/conditions-and-diseases/the-inevitable-pandemic/>, PZ)

You will have pictured this possible scenario many times, living in a country where people are suddenly dropping like flies because of some mystery virus. Hospitals full to overflowing, patients laid out in corridors, because of lack of room, health services frustrated, because they just can’t cope. You feel panic with no way of knowing who will be the next victim, intimate personal contact with anyone the death of you, quite possibly. This is no scene from a movie, or even a daydream, but UK reality in 1998, when the worst influenza epidemic in living memory swept savagely across the country. Whilst this was just one epidemic in one country, how terrifying is the idea that a global pandemic would see this horror story repeated many times over around the globe, death toll numbers in the millions. Humanity is outnumbered many fold by bacteria and viruses, the deadliest of all killers among these microscopic organisms. Death due to disease is a threat we all live with daily, trusting medical science combat it, but the fact is, frighteningly, that we have yet to experience the inevitable pandemic that might conceivably push humanity to the edge of extinction because so many of us become victims. Devastating viral diseases are nothing new. Bubonic plague killed almost half all Roman Empire citizens in542AD. Europe lost three quarters of the population to the Black Death in 1334. One fifth of Londoners succumbed to the 1665 Great Plague, and Russia was the site of the first official influenza pandemic, in 1729, which quickly spread to Europe and America, at the costs of many thousands of lives. Another epidemic of so-called Russian flu, originating in 1889 in central Asia spreading rapidly around the world, European death toll alone 250,000 people. In 1918 so-called Spanish Influenza killed 40million people worldwide, another strain originating Hong Kong in 1969 killed off 700,000, a 1989 UK epidemic killing 29,000. Small numbers, granted, as compared to the world population of seven billion, but the truth is that, should a true world pandemic occur, western governments will of course want to save their own people first, potentially globally disastrous. World Health Organisation laboratories worldwide constantly monitor and record new strains of virus, ensuring drug companies maintain stockpiles against most virulent strains known, maintaining a fighting chance of coping with new pandemics. They do theoretical models of likely effects of new pandemics, their predictions making chilling reading. Put into perspective, during a pandemic, tanker loads of antiviral agents, which simply do not exist would be needed so prioritizing vaccination recipients would be inevitable. Such a pandemic would, in UK alone, be at least 10 times deadlier than previously experienced, likely number of dead in first two months 72,000 in London alone. Any new virus would need a three to six month wait for effective vaccine, so the devastation on a global scale, flu virus notoriously indifferent to international borders, would be truly colossal. Our knowledge of history should be pointing the way to prepare for that living nightmare of the next, inevitable world pandemic. The microscopic villains of these scenarios have inhabited this planet far longer than we have, and they too evolve. It would be comforting to think that humanity was genuinely ready, though it seems doubtful at best.

### Uranium

#### Plan solves uranium importation

**Humi ’11 –** professor at Worcester Polytechnic University

(Mayer Humi, professor at Worcester Polytechnic, “Assessment of Alternative Energy Technologies and Recommendations for a National Energy Policy”, Interactive Qualifying Project Report by undergraduates, 3-9-2011, http://www.wpi.edu/Pubs/E-project/Available/E-project-030811-183047/unrestricted/Assesment\_of\_Alternative\_Energy.pdf)

Once the Uranium has been used in the nuclear reactor until it is deemed as depleted, no longer have the U-235 concentration to undergo fission, the spent fuel rods are placed in on-site water tanks for several years. Even though the Uranium is no longer undergoing fission, it is still emanating heat from the radioactive elements decaying that were created as a result of the fission process. The water pools not only cool the rods, but also protect plant operators from any radiation from the decay occurring. As of 2002, there were 165,000 depleted fuel rod assemblies, stored at 70 locations in the U.S. 76 This is a major concern in the U.S. as our current nuclear waste policy does not allow for reprocessing/recycling of the spent fuel. In 1977, President Carter announced, “We will defer 30 indefinitely the commercial reprocessing and recycling of plutonium produced in the U.S. nuclear power programs.” 77 At the time the rationale was based upon India testing a nuclear weapon made from weapons-grade fuel produced from a civilian energy plant. The movement to eliminate the possibility of further nuclear war was not followed by the rest of the world. Later the Nuclear Waste Policy Act of 1982 would be placed into effect, the result of which is a direct disposal of commercial reactors and government defense waste and research. 78 As a result of President Carter’s decision to no longer recycle/reprocess nuclear waste, the only means of disposal is storage. A majority of depleted nuclear fuel is stored at the nuclear power plant for several years, after which time it could then be moved to a dry cask storage container with air-cooling for further on-site storage, they are typically special concrete or steel containers. The final step in the U.S. is to collect the on-site storage depleted fuel rods and transport them to a permanent underground repository. There is currently no satisfactory location for this within the U.S. To date there is 60,000 metric tons of commercial used fuel, 13,000 tons of government held used fuel and defense-related high level radioactive waste, and 2000 metric tons produced by the 104 nuclear power plants currently in operation in the U.S. 79 With the primary storage being on-site a permanent storage facility needs to be found, or the policy for reprocessing/recycling needs to be revisited so that future Uranium does not need to be imported. “Owners and operators of U.S. civilian power reactors purchase the equivalent of 53 million pounds [24,000 metric tons] of uranium during 2008.” 80 In 1987 congress amended the Nuclear Waste Policy Act such that the only site for the Department of Energy to conduct a characterization of the geology of Yucca Mountain, Nevada. The site seemed promising as a deep geological repository for high level nuclear waste, as it contains volcanic ash material that is believed to be suitable to store radioactive waste for hundreds of thousands of years required to make radiation levels of the waste projected to be disposed there safe. High opposition in the state of Nevada made any plans to place a facility in the mountains very difficult and as of 2009 the site was deemed unacceptable by the Obama administration, 81 funding was cut to the project in the 2010 budget.31 The other nuclear waste management site currently located in the U.S. is the Waste Isolation Pilot Plant. It has been in operation since 1999, and is licensed to dispose of transuranic waste and mixed waste generated from the Department of Defense. Transuranic waste consists of radioactive waste with chemical elements that have atomic numbers past Uranium (92). Waste is placed 2150 feet below the surface of the earth in a 3000 foot thick salt formation which has been stable for 250 million years. The site is located in the Salado and Castile Formations 26 miles east of Carlsbad, New Mexico in Eddy County. The site has a permit to dispose of waste for 10,000 years that has been left from research and the production of nuclear weapons. 82 As with crude oil, nuclear power is a limited resource with Uranium as the basis of the energy production as opposed to oil. In contrast, Uranium is semi-renewable in that once the Uranium rods have been depleted by the fission they can then be re-enriched or used in a breeder reactor which produces more nuclear fuel than it consumes. As mentioned above the U.S. does not partake in the reusing of nuclear waste due to the concerns for creation of nuclear weapons observed in other countries.

#### U.S. uranium dependence causes nuclear war

**Konstantiov 12 –** professor of math at Moscow State and member of numerous scientific/geological councils

(Mihail Konstantiov, Professor of Mathematics with the University of Architecture, Civil Engineering and Geodesy (UACEG), Bulgaria, Vice-Chancellor of UACEG (1999-2003), Member of scientific councils and commissions, Member of the Board of IICREST. He has authored 30 books and over 500 scientific papers. He has participated in international scientific projects of EU and NATO and realized research and lecturing visits in British, German and French universities. Prof. Konstantinov has been Member and Vice Chair of the Central Election Commission of Bulgaria and Voting coordinator of OSCE (1997-) as well as the Bulgarian representative at the Council of Europe on electronic voting. In addition to his scientific publications, he has authored more than 300 articles in Bulgarian editions devoted to social and political issues with emphasis on election practice and legislation., “Uranium time bomb ticking”, Europost, 2-11-2012, http://www.europost.bg/article?id=3763)

In 1945, the US had three nucle­ar bombs - two plu­to­ni­um-based devi­ces and a ura­ni­um-based one. The first one was det­o­nat­ed on a test site in New Mex­i­co, and the sec­ond and third ones over Jap­a­nese ter­ri­to­ry. On 6 August 1945, the then-only ura­ni­um-based bomb was thrown over the Jap­a­nese city of Hiro­shi­ma. What hap­pened is well known and I will not re-tell it. More­over, this sto­ry deals with nucle­ar weap­ons but they are not the main char­ac­ters. Almost 20 years ago, an agree­ment was inked under which the US under­took to help dis­man­tle Rus­sian nucle­ar war­heads and con­vert the ura­ni­um from them into fuel for nucle­ar reac­tors. The rea­son is sim­ple - the pro­ce­dure is expen­sive, Rus­sia was weak and poor at the time, and in addi­tion, Amer­i­can tech­nol­o­gy back then was sig­nif­i­cant­ly ahead of the Rus­sian one. The amounts of con­vert­ed ura­ni­um are mas­sive - more than 500 ton­nes. Thus Rus­sian ura­ni­um turns into fuel for US nucle­ar pow­er plants. At present, this fuel is used to pro­duce 10% of the elec­tri­cal pow­er in the US. This is more than the ener­gy pro­duced from renew­a­ble sour­ces, such as sun, wind and water, there. This idyll, how­e­ver, is com­ing to its end. First, the US-Rus­sia agree­ment for Rus­sian war­heads con­ver­sion expires next year and Rus­sia is high­ly unlike­ly to extend it. More­over, Rus­sians now have good tech­nol­o­gy for that pur­pose and will prob­a­bly want to leave their ura­ni­um for them­selves. And sec­ond, if the agree­ment is extend­ed, the amounts of war­heads sub­ject to dis­man­tling will soon be exhaust­ed any­way as the agreed lim­its are reached. Glob­al mar­kets have already start­ed sus­pect­ing what is going to hap­pen with the expir­ing US-Rus­sia agree­ment for war­head ura­ni­um. And not only with it. Indeed, ura­ni­um oxide pri­ces have gone wild sur­ging to almost $70/lb (1lb is 454 gr.) in Jan­u­ary this year from $40/lb in Sep­tem­ber 2011. Such a 70% ral­ly in ura­ni­um price over just 3-4- months is not sus­tain­a­ble and even a cer­tain edg­ing down can be expect­ed. Still, the **trend** is clear - ura­ni­um dearth is loom­ing, as well as dearth of oth­er stra­te­gic nat­u­ral resour­ces. We have repeat­ed­ly stat­ed this but let us under­score it again. The glob­al cri­sis is **most of all** a resource cri­sis. It is finan­cial inso­far as it has became clear that the sys­tem allow­ing some peo­ple to print mon­ey while oth­ers work and bring them oil and oth­er goods will not last for good. The antic­i­pat­ed ura­ni­um short­age in the com­ing dec­ade is tru­ly strik­ing and is esti­mat­ed at 500m lb! One of the rea­sons is the fast devel­op­ing econ­o­mies of Chi­na and India, along with oth­er coun­tries like Bra­zil and Tur­key. It is where the bulk of the 147 reac­tors expect­ed to become oper­a­tion­al in these 10 years will be locat­ed. **A major consum­er** of ura­ni­um, the US cur­rent­ly has a demand for 60m lb a year but pro­du­ces only 3m lb. Still, this is the way things are at present. And what will hap­pen aft­er the US Nucle­ar Reg­u­la­to­ry Com­mis­sion reviews and poten­tial­ly approves new nucle­ar reac­tor pro­pos­als? They are 26 or so. And more are in the pipe­line. The sit­u­a­tion in India is even more dra­mat­ic - an increase in the share of nucle­ar ener­gy in elec­tric­i­ty pro­duc­tion is expect­ed from 2.5% at present to 25%. In oth­er words, India will need 10 times as much ura­ni­um as it does now if the far-reach­ing plan is put to prac­tice. Chi­na has more hum­ble aspi­ra­tions and is gear­ing to raise the share of nucle­ar facil­i­ties in elec­tric­i­ty pro­duc­tion only ...three times. And Chi­na, much like the US, does not have suf­fi­cient domes­tic sup­ply. We can con­tin­ue with sta­tis­tics, but things are evi­dent any­way. A war is around the cor­ner. In the best-case sce­nar­io, this will be a price war over ura­ni­um and in par­tic­u­lar ura­ni­um oxide. Pri­ces in the order of $100 or even $200/lb no longer seem far-fetched. Price lev­els of $500-$1000-$2000/lb have even been men­tioned and this will have its swift and dras­tic impli­ca­tions. Still, if a reac­tor costs $4bn, why not pay $1000/lb of ura­ni­um? Or else, the 4-bil­lion invest­ment will go down the drain. Anoth­er explod­ing glob­al mar­ket is the one for rare earth ele­ments with hard-to-pro­nounce Lat­in names such as Neo­dym­i­um, Ceri­um, Lan­tha­num, Gal­li­um, Gado­lin­i­um, Thu­li­um… If we have a look at Men­de­leev's peri­od­ic table, they are squeezed some­where at the bot­tom. But then, all the elec­tron­ics around us, all com­put­ers, fibre optics, all sat­el­lites and in gen­er­al every­thing under­ly­ing our high-tech civ­il­i­za­tion would be utter­ly impos­si­ble but for these exot­ic hard-to-extract ele­ments. The price of each of them has dou­bled and tri­pled in a year alone. And the pri­ces of some of them have soared six­fold in the same peri­od. Com­pared with rare earth ele­ments, gold and plat­i­num are like a tame kit­ten. It nat­u­ral­ly eats and swells but at a rate of only up to 40% a year. And what about the lith­i­um under­ly­ing the idea of elec­tric vehi­cles stag­ing a mass entrance into our dai­ly life and econ­o­my if and when oil is exhaust­ed? But it is in rare ele­ments where the secret of future skir­mish­es over resour­ces lies. Because across the world, they are real­ly hard to extract but Chi­na holds 97% of their glob­al pro­duc­tion! No mis­take, Chi­na pro­du­ces 33 times as much rare met­als as the rest of the world. This may as well be changed some day as cur­rent­ly huge efforts and mon­ey are put into look­ing for rare met­als around the globe. Hypo­thet­i­cal­ly, only a third of the res­erves is in Chi­na with the oth­er two thirds lying some­where else. Too bad it is any­one's guess where, although Cana­da, South Afri­ca and some Afri­can coun­tries are con­sid­ered prom­is­ing in this regard. Still, for the time being this is how things are: Chi­na has almost every­thing and the rest of the world hard­ly any­thing. Does any­one have any doubts why Chi­na has the ambi­tion to become the top dog? Of course, the world is by no means tread­ing water in one oth­er respect: sub­sti­tute tech­nol­o­gies are sought for that would not be so crit­i­cal­ly depend­ent on rare earth ele­ments, yet, more in the long rath­er than short run. By the way, why are we dis­cuss­ing ura­ni­um pri­ces along with all oth­er sorts of pri­ces in US dol­lars? The answer is clear: because the dol­lar is the glob­al reserve cur­ren­cy. The rea­son for this, though, is more com­pli­cat­ed. True, the US is the larg­est econ­o­my for the time being. But it is also among the most indebt­ed coun­tries in the world. And its debt is increas­ing­ly sur­ging. Still, this is not the most impor­tant. The most impor­tant thing is that the US has the most pow­er­ful, most mobile and one of the most effect­ive armies in the world. Lit­tle like­ly is it for some­one to reject the US dol­lar as a reserve cur­ren­cy while the 82nd Air­borne Divi­sion of the US Army, based at Fort Bragg North Car­o­li­na, is the holy ter­ror it is at the moment. And there is much more to it than the 82nd Divi­sion. So the time bomb of ura­ni­um and rare earth ele­ments dearth is tick­ing. And lit­tle idea do we have of the time it is set for. Or wheth­er, when it final­ly goes off, some­body might remem­ber the first mas­sive appli­ca­tion of ura­ni­um, which turned thou­sands into ash­es some 67 years ago. **And be temp­ted to use it again**. For 67 years now, we have been show­ing rea­son and sur­viv­ing. Let us hope fierce defi­cien­cy of nat­u­ral resour­ces, food and water that is loom­ing will not take it away from us.

### Pu238

#### Reprocessing solves Pu-238

Packard ’12 – member of the James Randi Educational Foundation

(Steven, “The U.S. Space Program’s Plutonium-238 Crisis”, Depleted Cranium, 1-6-2012, http://depletedcranium.com/americas-plutonium-238-crisis/)

The plutonium that can be extracted from light water spent fuel contains significant amounts of plutonium-238, but it’s combined with other isotopes of plutonium, making it unusable. Separating out the plutonium-238 would require a complex plutonium enrichment system, which is far less practical than simply preparing the plutonium-238 on its own.¶ To produce plutonium-238, the first thing that is required is neptunium-237. Neptunium-237 is produced as a byproduct of the reprocessing of spent fuel. When a nucleus of uranium-235 absorbs a neutron, it will usually fission. However, in a thermal spectrum reactor, some of the uranium-235 (about 18%) will absorb a neutron and not fission. Instead, the uranium-235 becomes uranium-236. Uranium-236 has a low neutron cross-section, so most of the uranium-236 generated in a reactor will just remain uranium-236, but a small amount of it does absorb a neutron and become uranium-237. Uranium-237 has a very short half-life of only six days, decaying to neptunium-237. Another source of neptunium-237 in spent fuel is the alpha decay or americium-241. Spent fuel contains about .7 grams of np-237 for every one hundred kilograms of fuel. That might not seem like much, but fuel reprocessing operations routinely go through hundreds of tons of fuel. Because Np-237 is the only isotope of neptunium present in spent fuel in any significant quantity, it does not require any enrichment. Instead, simply chemically separating the neptunium out yields nearly 100% neptunium-237.¶ After removing the neptunium-237, it is fabricated into targets which are irradiated with neutrons in a high flux reactor. The targets are then removed and processed to separate out the plutonium-238 that is produced. The plutonium-238 is then fabricated into RTG fuel tablets.¶ The United States ended the practice of spent fuel reprocessing in 1977 when it was banned by the Carter Administration because of “proliferation concerns.” Since then, the ban has been lifted, but as all reprocessing operations were shut down in the 1970’s and little support can be found for restarting the practice, the US still has no capacity to reprocess spent fuel. After 1977, some material from plutonium production reactors continued, which yielded some neptunium-237, but that also ended in 1992, with the end of the cold war.¶ Today, the United States reprocesses no fuel at all and therefore cannot produce any neptunium-237. There may still be some of the material remaining, though it’s doubtful that very much is left. It should still be possible to obtain Np-237, purchasing it from countries with major spent fuel reprocessing programs, such as Russia, France or Japan. However, this depends entirely on the willingness of such nations to provide it and may be expensive, since additional steps beyond normal reprocessing are required to produce the highly concentrated neptunium necessary for plutonium-238 production.

#### Solves planetary science

Squyres et al ’12 – Chair of the Planetary Science Decadal Survey

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Radioisotope Power Systems are necessary for powering spacecraft at large distances from the Sun; in the extreme radiation environment of the inner Galilean satellites; in the low light levels of high martian latitudes, dust storms, and night; for extended operations on the surface of Venus; and during the long lunar night. With some 50 years of technology development and use of 46 such systems on 26 previous and currently flying spacecraft, the technology, safe handling, and utility of these units are not in doubt. Of the more than 3,000 nuclides, plutonium-238 stands out as the safest and easiest to procure isotope for use on robotic spacecraft. This report’s recommended missions cannot be carried out without new plutonium-238 production or com pleted deliveries from Russia. There are no technical alternatives to plutonium-238, and the longer the restart of production is delayed, the more it will cost. The committee is alarmed at the limited availability of plutonium-238 for planetary exploration. Without a restart of domestic production of plutonium-238, it will be impossible for the United States, or any other country, to conduct certain important types of planetary missions after this decade.

#### PU-238 key ---- only isotope for RPS power generation in robotic spacecraft

Hoover and McNutt et al ‘9 – co-chairs of the Radioisotope Power Systems Committee

(William H., US Air Force, Ralph L., Applied Physics Laboratory at John Hopkins, DOUGLAS M. ALLEN, Schafer Corporation SAMIM ANGHAIE, University of Florida, Gainesville RETA F. BEEBE, New Mexico State University WARREN W. BUCK, University of Washington, Bothell BEVERLY A. COOK, Jet Propulsion Laboratory SERGIO B. GUARRO, The Aerospace Corporation ROGER D. LAUNIUS, Smithsonian Institution FRANK B. McDONALD, University of Maryland, College Park ALAN R. NEWHOUSE, Independent Consultant, Hollywood, Maryland JOSEPH A. SHOLTIS, JR., Sholtis Engineering and Safety Consulting SPENCER R. TITLEY, University of Arizona, Tucson EMANUEL TWARD, Northrop Grumman Space Technology EARL WAHLQUIST, U.S. Department of Energy (retired) staff ALAN C. ANGLEMAN, Study Director, Aeronautics and Space Engineering Board DWAYNE A. DAY, Program Officer, Space Studies Board CATHERINE A. GRUBER, Editor, Space Studies Board and Aeronautics and Space Engineering Board SARAH M. CAPOTE, Program Associate, Aeronautics and Space Engineering Board (through November 2008) CELESTE A. NAYLOR, Senior Program Assistant, Space Studies Board (from November 2008 through January 2009) ANDREA M. REBHOLZ, Program Associate, Aeronautics and Space Engineering Board (from February 2009) CHARLES F. KENNEL, Scripps Institution of Oceanography, University of California, San Diego, Chair A. THOMAS YOUNG, Lockheed Martin Corporation (retired), Vice Chair DANIEL N. BAKER, University of Colorado STEVEN J. BATTEL, Battel Engineering CHARLES L. BENNETT, Johns Hopkins University YVONNE C. BRILL, Aerospace Consultant ELIZABETH R. CANTWELL, Oak Ridge National Laboratory ANDREW B. CHRISTENSEN, Dixie State College and Aerospace Corporation ALAN DRESSLER, The Observatories of the Carnegie Institution JACK D. FELLOWS, University Corporation for Atmospheric Research FIONA A. HARRISON, California Institute of Technology JOAN JOHNSON-FREESE, Naval War College KLAUS KEIL, University of Hawaii MOLLY K. MACAULEY, Resources for the Future BERRIEN MOORE III, University of New Hampshire ROBERT T. PAPPALARDO, Jet Propulsion Laboratory JAMES PAWELCZYK, Pennsylvania State University SOROOSH SOROOSHIAN, University of California, Irvine JOAN VERNIKOS, Thirdage LLC JOSEPH F. VEVERKA, Cornell University WARREN M. WASHINGTON, National Center for Atmospheric Research CHARLES E. WOODWARD, University of Minnesota ELLEN G. ZWEIBEL, University of Wisconsin RICHARD E. ROWBERG, Interim Director (from March 2, 2009) MARCIA S. SMITH, Director (through March 1, 2009), RAYMOND S. COLLADAY, Lockheed Martin Astronautics (retired), Chair CHARLES F. BOLDEN, JR., Jack and Panther, LLC ANTHONY J. BRODERICK, Aviation Safety Consultant AMY BUHRIG, Boeing Commercial Airplanes Group PIERRE CHAO, Center for Strategic and International Studies INDERJIT CHOPRA, University of Maryland, College Park ROBERT L. CRIPPEN, Thiokol Propulsion (retired) DAVID GOLDSTON, Princeton University R. JOHN HANSMAN, Massachusetts Institute of Technology PRESTON HENNE, Gulfstream Aerospace Corporation JOHN M. KLINEBERG, Space Systems/Loral (retired) RICHARD KOHRS, Independent Consultant IVETT LEYVA, Air Force Research Laboratory, Edwards Air Force Base EDMOND SOLIDAY, United Airlines (retired) RICHARD E. ROWBERG, Interim Director (from March 2, 2009) MARCIA S. SMITH, Director (through March 1, 2009)Radioisotope Power Systems: An Imperative for Maintaining U.S. Leadership in Space Exploration, National Academies Press, 2009)

For nearly 50 years, the United States has led the world in the scientific exploration of space. U.S. spacecraft have circled Earth, landed on the Moon and Mars, orbited Jupiter and Saturn, and traveled beyond the orbit of Pluto and out of the ecliptic. These spacecraft have sent back to Earth images and data that have greatly expanded human knowledge, though many important questions remain unanswered. Spacecraft require electrical energy. This energy must be available in the outer reaches of the solar system where sunlight is very faint. It must be available through lunar nights that last for 14 days, through long periods of dark and cold at the higher latitudes on Mars, and in high-radiation fields such as those around Jupiter. Radioisotope power systems (RPSs) are the only available power source that can operate unconstrained in these environments for the long periods of time needed to accomplish many missions, and plutonium-238 (238Pu) is the only practical isotope for fueling them. The success of historic missions such as Viking and Voyager, and more recent missions such as Cassini and New Horizons, clearly show that RPSs—and an assured supply of 238Pu—have been, are now, and will continue to be essential to the U.S. space science and exploration program. Multi-Mission Radioisotope Thermoelectric Generators (MMRTGs) are the only RPS currently available. MMRTGs convert the thermal energy that is released by the natural radioactive decay of 238Pu to electricity using thermocouples. This is a proven, highly reliable technology with no moving parts.

#### Unmanned spaceflight is key to human missions to Mars

Chow ’11 – associate producer at NPR’s Science Friday

(Denise, “What’s Next for Mars Exploration?”, SPACE.com, 11-26-2011, http://www.space.com/13739-nasa-mars-exploration-future.html)

NASA launched its newest, largest and most sophisticated rover yet to Mars on Saturday (Nov. 26), marking an important step toward the agency's ambitious goal of one day landing humans on the surface of the Red Planet. The Mars Science Laboratory, or Curiosity rover, lifted off from the Cape Canaveral Air Force Station in Florida. After an 8 1/2-month journey, the rover is expected to arrive at the Red Planet in August 2012. Once on the surface, Curiosity will investigate whether the planet is or ever was habitable. The rover is also equipped with 10 different instruments that will allow it to dig, drill, and shoot a laser into rocks to examine the chemical makeup of Martian soil and dust. The mission will help scientists understand the environment and atmosphere of Mars, which will be essential for planning a manned mission to the planet. "The goal [is] to send humans to Mars and return them back again safely — in order to return them back safely, we really need to know about the surface properties," Doug Ming, a co-investigator for the Mars Science Laboratory, said in a news briefing Wednesday (Nov. 23) from the Kennedy Space Center in Cape Canaveral, Fla. [Photos: NASA's Curiosity Rover Launches to Mars] Curiosity will characterize Martian dust by drilling into rocks and studying their chemical properties, Ming explained. The rover will also be able to determine how pervasive the dust is on the surface of the planet. These analyses will help address two key questions for a future manned mission: how will Mars' global dust storms affect vehicles and hardware on the planet, and what are the possible toxic effects of Martian dust? NASA is aiming to send humans to Mars in the mid-2030s. But before then, many important questions about the planet will need to be answered. "Another key investigation is to determine if there are resources on Mars that we can use for human missions," Ming said. Data from Curiosity is expected to paint a clearer picture of the environment of Mars, including whether oxygen and water can be extracted from subsurface water ice, or even from the atmosphere itself, Ming said. A manned mission to Mars will also be a lengthy undertaking, which requires mission planners to investigate how to grow food on the planet for the crew. By examining the surface properties of Mars, Curiosity will explore this possibility. The rover is also equipped with an instrument that will measure the amount of radiation on the Martian surface, which could be a critical stumbling block for a future human mission. Previous studies of the effect of space radiation and the link to cancer "suggests our tolerance for long-duration spaceflight is about as long as it takes to get to Mars," said John Charles, a program scientist in NASA's human research program. This would leave astronauts at risk for the duration of their stay on the Red Planet, plus the return trip home to Earth. Scientists in the human research program will continue to study space radiation, as well as other medical and health concerns on long spaceflights. Researchers are also conducting ongoing studies of propulsion technology, in hopes of developing a more efficient way of traveling to and from Mars, which will cut down on the amount of time in space. But, before humans step foot on Mars, NASA and the European Space Agency aim to complete a series of robotic sample return missions to the Red Planet. The Mars Astrobiology Explorer Cacher (MAX-C) expedition is envisioned as a joint effort to collect dirt samples from Mars and bring them back to Earth in order to gain a greater understanding of the conditions on the planet. Earlier this year, the National Research Council released its Planetary Science Decadal Survey, which represents a consensus of the scientific community's goals for planetary science over the next 10 years. A sample return mission was deemed the highest priority, but it was recommended that the cost be kept under $2.5 billion. In an increasingly difficult budgetary climate, the details of the joint effort are still being worked out. The agency is currently aiming to launch the series of missions between 2016 and 2018. "We really do envision probably having more robotic missions prior to a human mission," said Bret Drake, deputy chief architect of NASA's Human Spaceflight Architecture Team. "Also pinnacle is a sample return mission. Bringing back via robotic, uncrewed mission samples of Mars would really facilitate human exploration."

#### Mars col solves extinction ---- springboards into further exploration ---- de-escalates all impacts

Schulze-Makuch and Davies ’10 – professor of earth and environmental science and theoretical physicist

(Dirk Schulze-Makuch, Ph.D., and Paul Davies, Ph.D., School of Earth and Environmental Sciences, Washington State University and the Beyond Center, Arizona State University, Journal of Cosmology, October-November 2010, Vol 12, 3619-3626)

There are several reasons that motivate the establishment of a permanent Mars colony. We are a vulnerable species living in a part of the galaxy where cosmic events such as major asteroid and comet impacts and supernova explosions pose a significant threat to life on Earth, especially to human life. There are also more immediate threats to our culture, if not our survival as a species. These include global pandemics, nuclear or biological warfare, runaway global warming, sudden ecological collapse and supervolcanoes (Rees 2004). Thus, the colonization of other worlds is a must if the human species is to survive for the long term. The first potential colonization targets would be asteroids, the Moon and Mars. The Moon is the closest object and does provide some shelter (e.g., lava tube caves), but in all other respects falls short compared to the variety of resources available on Mars. The latter is true for asteroids as well. Mars is by far the most promising for sustained colonization and development, because it is similar in many respects to Earth and, crucially, possesses a moderate surface gravity, an atmosphere, abundant water and carbon dioxide, together with a range of essential minerals. Mars is our second closest planetary neighbor (after Venus) and a trip to Mars at the most favorable launch option takes about six months with current chemical rocket technology. In addition to offering humanity a "lifeboat" in the event of a mega-catastrophe, a Mars colony is attractive for other reasons. Astrobiologists agree that there is a fair probability that Mars hosts, or once hosted, microbial life, perhaps deep beneath the surface (Lederberg and Sagan 1962; Levin 2010; Levin and Straat 1977, 1981; McKay and Stoker 1989; McKay et al. 1996; Baker et al. 2005; Schulze-Makuch et al. 2005, 2008, Darling and Schulze-Makuch 2010; Wierzchos et al. 2010; Mahaney and Dohm 2010). A scientific facility on Mars might therefore be a unique opportunity to study an alien life form and a second evolutionary record, and to develop novel biotechnology therefrom. At the very least, an intensive study of ancient and modern Mars will cast important light on the origin of life on Earth. Mars also conceals a wealth of geological and astronomical data that is almost impossible to access from Earth using robotic probes. A permanent human presence on Mars would open the way to comparative planetology on a scale unimagined by any former generation. In the fullness of time, a Mars base would offer a springboard for human/robotic exploration of the outer solar system and the asteroid belt. Finally, establishing a permanent multicultural and multinational human presence on another world would have major beneficial political and social implications for Earth, and serve as a strong unifying and uplifting theme for all humanity.

## Courts

### 2AC (Plain Russia)

#### Court alone links to politics but the perm doesn’t

Meazell ’12 – associate professor of environmental law at Wake Forest University

(Emily Hammond Meazell, was previously associate professor of law at Florida State, Oklahoma, and Georgia, Presidential Control, Expertise, and the Deference Dilemma, 61 DUKE L.J. 1763 2012)

1. Expertise. Since the dawn of the modern administrative state, expertise has played an important role as an anchor of regulatory legitimacy that has shaped the relationship between courts and agencies. As a theory of agency behavior, expertise is viewed as providing a shield from political influence, as well as reflecting a preoccupation with administrators as technocrats. 32 When Professor James Landis famously described administrators as implementing “the great judge[’s]” vision of “man’s destiny upon this earth,” 33 he spoke for a great number who believed that administrators could reach good outcomes by applying their expertise to given sets of facts. 34 Indeed, facts—especially those grounded in science—dictated outcomes for these technocrats, who could do their work free from political influences. 35 The importance of expertise, moreover, is a part of the narrative explaining legislative delegations to administrative agencies. Just as courts are generalists, so too is Congress. Delegation to experts is a pragmatic way to get the work of regulating done by those who can bring special expertise to bear on any number of complex issues. Relying on agency expertise is also politically expedient because it permits legislators to avoid making unpopular decisions and to transfer that cost instead to agencies. 36 Naturally, expertise also figures into judicial review as a reason for deference to agencies. This ground for deference was historically extremely strong. In an early ratemaking case, for example, the Supreme Court remarked that “the product of expert judgment . . . carries a presumption of validity.” 37 That superdeferential approach has not entirely survived the advent of hardlook review; 38 nevertheless, expertise remains a common justification for judicial deference. This trend makes some sense: even if regulators are captured by rent-seeking regulated entities, as a matter of comparative institutional expertise, courts cannot come close to duplicating the scientific and factfinding capabilities of agencies. 39 Agencies can conduct their own science, after all; courts are relegated to reviewing a record post hoc. Accordingly, expressions of deference on the basis of expertise persist in the case law. 40 And ultimately, a prevailing reason that courts insist that they may not substitute their judgment for that of agencies is because of the agencies’ expertise. 41 But although courts will not substitute their judgment for that of agencies, the impact of hard-look review—and the reasoned-decisionmaking requirement generally—is to create a feedback loop that provides important information to stakeholders and Congress. This occurs in two ways: First, it gives agencies an incentive to provide full descriptions of their work during the rulemaking or adjudicatory process, thus enabling stakeholders and Congress to serve oversight functions using that information. 42 Second, courts undertaking hardlook review provide accessible descriptions of scientific and technical matters; their opinions function as translations for the many consumers of administrative law, thereby furthering access to information and enabling oversight. 43 Either way, an agency’s expertise serves an important role by helping to legitimize its activities.

#### Doesn’t solve—using the DOE and avoiding the Courts are key to private industry support of reprocessing

Berry and Tolley ’10 – professors of energy policy and economics

[Professors R. Stephen Berry and George S. Tolley, “Nuclear Fuel Reprocessing Future Prospects and Viability”, University of Chicago Humanities, 11-29-2010, http://humanities.uchicago.edu/orgs/institute/bigproblems/Team7-1210.pdf]

The American combination of fragmented power, little reliance on bureaucratic expertise, an independent judiciary, and opposing interest groups greatly undermines the ability of the U.S. government to credibly commit to the nuclear power industry. In France, despite substantial anti-nuclear interest groups, the impermeability of the institutional setup—no division of power, weak judiciary, and reliance on bureaucratic expertise—effectively prevents activists from influencing policy outcomes. 64 The French exploration into commercial nuclear energy and subsequent promotion of nuclear energy was the result of “a perceived shortage of enriched uranium, a need for weapons-grade materials, and the desire for energy independence from foreign states.” 65 In contrast to the U.S., the political environment in regards to nuclear energy in France has remained stable over the course of the last fifty years. In 1955, three government organizations banded together to promote nuclear power; namely: Electricité de France (EDF—the state—owned utility empowered by the Ministère de l’Industrie et des Finances), the Commissariat à l’Energie Atomique (CEA—with a promotional mission parallel to America’s AEC), and Production d’Electricité d’Origine Nucléaire (PEON—an advisory group to the CEA comprised of CEA, EDF, state, and industry representatives). 66 The nuclear industry maintains a high degree of central planning and state integration. 67 This political environment has provided the means for credible government commitment to the industry. Though there has been strong anti-nuclear rhetoric domestically in France the well insulated governmental setup towards nuclear energy has prevented these groups access to any policy-making forum. Further, these groups are afforded less influential power toward the industry due to a weaker judiciary than is present in the U.S. 68 Therefore, the uncertainty surrounding the commitment of the government toward the nuclear industry in France is far less than in the U.S. The French political structure “can carry out a long-term policy while ignoring the fluctuations of public opinion.” 69 This lack of “uncertainty” is important when we consider the effect that it has on transaction costs for the utilities attempting to employ nuclear facilities and investors realizing a return on their outlays. The U.S. political structure has led to an increase in transaction costs for its domestic nuclear industry, while the French structure is able to mitigate similar types of increases. As a result of the political structure, transaction costs for the nuclear industry are higher in the U.S. than they are in France. In opening the policy forum to anti-nuclear interest groups, the U.S. nuclear industry experienced procedural delays and increased compliance costs for nuclear facilities. From 1954 to 1979, the average lead times, including the time from order through commercial operation, increased from 2 to 6 years in France and from 3 to nearly 13 years in the United States. 70 Further, French programs typically presented greater stability in lead times as well as fewer delays than in the United States. 71 The nuclear industry in the U.S has seen an increase in uncertainty for their transaction costs in order to protect their large sunk costs. This has resulted in an increased perception of risk on the part of investors and subsequently increased the cost of capital for the technology: “lengthening the regulatory process increases the capital costs of the plant by pushing the revenue received from operation further into the future and by adding to the total interest payments on construction loans.” 72 **This political institutional framework provides an understanding of** the challenges which confront nuclear reprocessing in the U.S.

#### Doesn’t solve Russia—

#### DOE is the vehicle for international reprocessing cooperation

Peters ’12 – deputy laboratory director for programs at Argonne National Lab

(Mark T. Peters, American Nuclear Society, “Recycling Used Nuclear Fuel: Balancing Energy and Waste Management Policies”, Testimony to the U.S. House of Representatives, 6-6-2012)

In the United States, the primary organization with responsibility for the research and development of used fuel recycling technologies is the Department of Energy’s Office of Nuclear Energy (DOE-NE), through its Fuel Cycle Research and Development program. This program supports research to develop and evaluate separations and treatment processes for used nuclear fuel that will enable the transition from the current open fuel cycle practiced in the United States to a sustainable, environmentally acceptable, and economic closed fuel cycle. Ongoing projects related to reprocessing and waste management include: • Using advanced modeling and simulation coupled with experiments to optimize the design and operation of separations equipment. • Exploring an innovative one-step extraction process for americium and curium, radionuclides that are major contributors to nuclear waste toxicity, to reduce the cost of aqueous-based used-fuel treatment. • Further developing pyrochemical processes for used fuel treatment. These processes enable the use of compact equipment and facilities, treatment of used fuel shortly after discharge from a reactor, and reduction of secondary waste generation. • Developing highly durable and leach-resistant waste forms of metal, glass, and ceramic composition for safe, long-term disposal. However, it must be noted that the United States increasingly relies on collaborative arrangements with foreign research institutions and universities to conduct research in these areas. For example, Argonne, Idaho, and other U.S. national laboratories are working with the Korea Atomic Energy Research Institute, in a series of joint studies sponsored by the United States and Republic of Korea, to study disposition options for used nuclear fuel, including pyroprocessing, in order to develop economic, sustainable long-term solutions, consistent with non-proliferation objectives, for nuclear energy production and waste management. The state of U.S nuclear research facilities is declining compared to steady investments being made in countries such as France, Russia, Japan, and Republic of Korea. More importantly, those governments, as part of their national energy policies, have committed to the development and deployment of advanced fast reactor technologies, which are an important element of an integrated energy and waste management policy.

#### No internal net benefit—undermining agency policy delegitimizes the Court

Metzger ‘5 – associate professor at Columbia Law School

(Gillian Metzger, “The Story of Vermont Yankee: A Cautionary Tale of Judicial Review and Nuclear Waste”, " (2005). Columbia Public Law & Legal Theory Working Papers. Paper 0592. http://lsr.nellco.org/columbia\_pllt/0592)

Strong words, but the Court saved its harshest language for its assessment of the D.C. Circuit’s decision in the Consumers Power proceeding. According to the Court, the appellate court’s decision reversing the grant of Consumers Power’s construction permit “borders on the Kafkaesque”: Nuclear energy may some day be a cheap, safe source of power or it may not. But Congress has made a choice to at least try nuclear energy. . . . The fundamental policy questions appropriately resolved in Congress and in the state legislatures are not subject to reexamination in the federal courts. 118 The Court could not have made plainer its view that the D. C. Circuit had overstepped its proper role and illegitimately used its judicial review function to advance its judges’ own policy preferences. This harsh tone prompted a protest by senior D.C. Circuit Judge Fahy, who had sat on the Aeschliman panel. In a memo to the other circuit judges, which he also sent to Chief Justice Burger, Judge Fahy remarked that while he expected reversal, he “was surprised . . . by the severity” and “the unseemly character of the criticism heaped upon us”—criticism he argued was unfair and rested on the Court’s failure to recognize that the D.C. Circuit had not stopped construction of the Consumers Power reactors. 119

#### No solvency –

#### The Court will roll back

Sherman 11 – Associated Press (Mark, 07/03, “Justice Ginsburg’s future plans closely watched,” Lexis)

Democrats and liberals have a nightmare vision of the Supreme Court's future: President Barack Obama is defeated for re-election next year and Justice Ruth Bader Ginsburg, at 78 the oldest justice, soon finds her health will not allow her to continue on the bench. The new Republican president appoints Ginsburg's successor, cementing conservative domination of the court, and soon the justices roll back decisions in favor of abortion rights and affirmative action.

## Politics

### 2AC

#### Middle East conflict won’t escalate

Maloney 7 (Suzanne, Senior Fellow – Saban Center for Middle East Policy, Steve Cook, Fellow – Council on Foreign Relations, and Ray Takeyh, Fellow – Council for Foreign Relations, “Why the Iraq War Won’t Engulf the Mideast”, International Herald Tribune, 6-28, http://www.brookings.edu/views/op-ed/maloney20070629.htm)

Yet, **the Saudis, Iranians, Jordanians, Syrians, and others are very unlikely to go to war** either to protect their own sect or ethnic group or to prevent one country from gaining the upper hand in Iraq. The reasons are fairly straightforward. **First**, **Middle Eastern leaders**, like politicians everywhere, **are primarily interested in one thing**: **self-preservation**. **Committing forces** to Iraq **is an inherently risky proposition**, **which**, **if the conflict went badly**, [and] could threaten domestic **political stability**. Moreover, **most Arab armies are geared toward regime protection rather than projecting power** and thus have little capability for sending troops to Iraq. **Second**, **there is cause for concern about the so-called blowback scenario in which jihadis returning** from Iraq **destabilize their home countries**, **plunging the region into conflict**. **Middle Eastern leaders are preparing for this possibility**. Unlike in the 1990s, when Arab fighters in the Afghan jihad against the Soviet Union returned to Algeria, Egypt and Saudi Arabia and became a source of instability, **Arab security services are being vigilant about who is coming in and going from their countries**. In the last month, the Saudi government has arrested approximately 200 people suspected of ties with militants. **Riyadh is also building a 700 kilometer wall** along part of its frontier with Iraq in order **to keep militants out of the** kingdom. Finally, **there is no precedent for Arab leaders to commit forces to conflicts in which they are not directly involved**. The Iraqis and the Saudis did send small contingents to fight the Israelis in 1948 and 1967, but they were either ineffective or never made it. In the 1970s and 1980s, Arab countries other than Syria, which had a compelling interest in establishing its hegemony over Lebanon, never committed forces either to protect the Lebanese from the Israelis or from other Lebanese. The civil war in Lebanon was regarded as someone else's fight.

#### Data disproves hegemony impacts

FETTWEIS 11 Christopher J. Fettweis, Department of Political Science, Tulane University, 9/26/11, Free Riding or Restraint? Examining European Grand Strategy, Comparative Strategy, 30:316–332, EBSCO

It is perhaps worth noting that there is no evidence to support a direct relationship between the relative level of U.S. activism and international stability. In fact, the limited data we do have suggest the opposite may be true. During the 1990s, the United States cut back on its defense spending fairly substantially. By 1998, the United States was spending $100 billion less on defense in real terms than it had in 1990.51 To internationalists, defense hawks and believers in hegemonic stability, this irresponsible “peace dividend” endangered both national and global security. “No serious analyst of American military capabilities,” argued Kristol and Kagan, “doubts that the defense budget has been cut much too far to meet America’s responsibilities to itself and to world peace.”52 On the other hand, if the pacific trends were not based upon U.S. hegemony but a strengthening norm against interstate war, one would not have expected an increase in global instability and violence. The verdict from the past two decades is fairly plain: The world grew more peaceful while the United States cut its forces. No state seemed to believe that its security was endangered by a less-capable United States military, or at least none took any action that would suggest such a belief. No militaries were enhanced to address power vacuums, no security dilemmas drove insecurity or arms races, and no regional balancing occurred once the stabilizing presence of the U.S. military was diminished. The rest of the world acted as if the threat of international war was not a pressing concern, despite the reduction in U.S. capabilities. Most of all, the United States and its allies were no less safe. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Clinton, and kept declining as the Bush Administration ramped the spending back up. No complex statistical analysis should be necessary to reach the conclusion that the two are unrelated. Military spending figures by themselves are insufficient to disprove a connection between overall U.S. actions and international stability. Once again, one could presumably argue that spending is not the only or even the best indication of hegemony, and that it is instead U.S. foreign political and security commitments that maintain stability. Since neither was significantly altered during this period, instability should not have been expected. Alternately, advocates of hegemonic stability could believe that relative rather than absolute spending is decisive in bringing peace. Although the United States cut back on its spending during the 1990s, its relative advantage never wavered. However, even if it is true that either U.S. commitments or relative spending account for global pacific trends, then at the very least stability can evidently be maintained at drastically lower levels of both. In other words, even if one can be allowed to argue in the alternative for a moment and suppose that there is in fact a level of engagement below which the United States cannot drop without increasing international disorder, a rational grand strategist would still recommend cutting back on engagement and spending until that level is determined. Grand strategic decisions are never final; continual adjustments can and must be made as time goes on. Basic logic suggests that the United States ought to spend the minimum amount of its blood and treasure while seeking the maximum return on its investment. And if the current era of stability is as stable as many believe it to be, no increase in conflict would ever occur irrespective of U.S. spending, which would save untold trillions for an increasingly debt-ridden nation. It is also perhaps worth noting that if opposite trends had unfolded, if other states had reacted to news of cuts in U.S. defense spending with more aggressive or insecure behavior, then internationalists would surely argue that their expectations had been fulfilled. If increases in conflict would have been interpreted as proof of the wisdom of internationalist strategies, then logical consistency demands that the lack thereof should at least pose a problem. As it stands, the only evidence we have regarding the likely systemic reaction to a more restrained United States suggests that the current peaceful trends are unrelated to U.S. military spending. Evidently the rest of the world can operate quite effectively without the presence of a global policeman. Those who think otherwise base their view on faith alone.

#### The economy is resilient

**Lamy ’11**(Pascal Lamy is the Director-General of the World Trade Organization. Lamy is Honorary President of Paris-based think tank Notre Europe. Lamy graduated from the prestigious Sciences Po Paris, from HEC and ÉNA, graduating second in his year of those specializing in economics. “System Upgrade” BY PASCAL LAMY | APRIL 18, 2011)

The bigger test came with the 2008-2009 Great Recession, the first truly global recession since World War II. When the international economy went into free fall, trade went right along with it. Production and supply are today thoroughly global in nature, with most manufactured products made from parts and materials imported from many other countries. These global value chains have a multiplier effect on trade statistics, which explains why, as the global economy contracted by 2 percent in 2009, trade volume shrank by more than 12 percent. This multiplier effect works the other way around as well: **Growth returned** to 4.6 percent and trade volume grew by a record 14.5 percent over the course of 2010. Projections for trade in 2011 are also strong, with WTO economists predicting that trade volume will rise 6.5 percent during the current year. This sharp rebound in trade has proved two essential things: **Markets stayed open despite ever-stronger pressures to close them**, and trade is an indispensible tool for economic recovery, particularly for developing countries, which are more dependent on trade. Shortly after the crisis broke out, we in the WTO began to closely monitor the trade policy response of our member governments. Many were fearful that pressures to impose trade restrictions would prove too powerful for governments to resist. But **this is not what happened**. Instead, the system of rules and disciplines, agreed to over 60 years of negotiations, **held firm**. In **a series of reports** prepared for WTO members and the G-20, we found that governments acted **with great restraint**. At no time did the trade-restrictive measures imposed cover more than 2 percent of world imports. Moreover, **the measures** **used** -- anti-dumping duties, safeguards, and countervailing duties to offset export or production subsidies -- **were those which**, in the right circumstances, **are permissible under WTO rules**. I am not suggesting that every safeguard measure or countervailing duty imposed during those difficult days was in compliance with WTO rules, but responses to trade pressures were generally undertaken within an internationally agreed-upon framework. Countries by and large resisted overtly noncompliant measures, such as breaking legally binding tariff ceilings or imposing import bans or quotas. As **markets stayed open, trade flows began to shift**, **and countries** that shrugged off the impact of the crisis and **continued to grow** -- notably China, India, and Brazil -- became ever-more attractive markets for countries that were struggling, including those in Europe and North America. Trade has been a powerful engine for growth in the developing world, a fact reflected in the far greater trade-to-GDP ratios we see there. In 2010, developing countries' share of world trade expanded to a record 45 percent, and this trend looks set to continue. Decisions made in Brasilia, Beijing, and New Delhi to open their respective economies to trade have been instrumental in enabling these countries to lift hundreds of millions of people out of poverty.

#### DA inevitable – Obama will cave

Morrissey 2-6. [Ed, political columnist, "How Obama lost his edge over the GOP on spending" Fiscal Times -- www.thefiscaltimes.com/Columns/2013/02/06/How-Obama-Lost-His-Edge-Over-the-GOP-on-Spending.aspx#page1]

As Orszag predicted, Obama won one battle, but may be losing the war. And it has become very apparent that Obama hasn’t even really prepared to fight it.¶ Republicans, on the other hand, have carefully shaped the political battlefield ever since the beginning of the year. They wisely avoided a head-on battle over the debt ceiling by lifting it for four months, with a commitment to authorizing any additional borrowing past the statutory limit ex post facto. That allowed the House GOP to focus on the true problem of rapidly-escalating national debt, bloated budgets, and massive annual deficits: federal spending. ¶ John Boehner pledged to his caucus that he would no longer follow a crisis model of budgeting, and would instead insist on normal-order budgeting and conference committees to deal with differences between the House and Senate. The demand put enough pressure on Harry Reid and the Senate that new Budget chair Patty Murray pledged to produce a Senate budget resolution this spring – the first in four years.¶ After having shaped that battlefield, the GOP then changed its position on the next “cliff”: the sequester. The budget mechanism proposed by the White House and approved by both Republicans and Democrats in August 2011 will cut $1.2 trillion in spending over the next ten years, starting immediately on March 1. Republicans in 2012 had rung alarm bells over cuts to defense spending – which was exactly why Obama and his team proposed the automatically applied default cuts in the first place. At the time, they expected that the GOP would abhor cuts to defense so much that the White House would keep its leverage in budget negotiations.¶ Surprise! After the tax fight concluded, Republicans decided that the sequester, while far from perfect, was at least a step in the right direction. Since it automatically applies – just as those across-the-board tax-rate increases did in the New Year’s Day battle – House Republicans can do nothing and get their spending cuts. And now it’s Obama who finds himself grasping for leverage, and finding none.¶ The desperation began to show this week. Barack Obama blinked first by announcing that he was requesting another postponement of the automatic cuts in order to produce a “balanced” deficit-reduction package. Congress, Obama said, “should at least pass a smaller package of spending cuts and tax reforms” instead of allowing the sequester to go through. Boehner reminded Obama that the House has twice passed such measures, only to go nowhere in the Democratic-controlled Senate. ¶ The White House also tried taking a page from the (unsuccessful) Republican playbook of 2012 by claiming that American industry would have to lay off workers if the sequestration hit. “There is no reason,” Obama intoned, “that the jobs of thousands of Americans who work in national security or education or clean energy, not to mention the growth of the economy, should be put in jeopardy.”¶ Obama provided plenty of dire warnings about the damage that his own budget-gimmick proposal may do if it becomes active in less than four weeks. What Obama hasn’t provided is an actual solution for replacing his previous solution. In fact, Obama hasn’t yet provided a budget proposal for FY2014, despite having a statutory requirement to do so by now – making four budget proposals out of Obama’s five opportunities that arrived late. Instead of offering specific proposals for spending cuts to replace the sequester, Obama offered a vague demand for “tax reform” that would increase revenue again.¶ This deadline has been in place for months. It became clear weeks ago that Republicans would likely allow the sequester to go forward, at least long enough to put pressure on replacement cuts from Democrats, and would be in position to refuse to raise any more revenue. And yet Obama not only sounded like someone shocked out of a reverie, he offered nothing to resolve the standoff – and neither did Harry Reid and Senate Democrats, not even an offer to take up the bill approved by the House in the last session if passed again.¶ ¶ Boehner has triumphed in at least exposing the White House’s fumbling on spending issues – and he wasted no time in driving the point home. “Yesterday the president warned of grave economic consequences if the sequester were to go into effect, but he didn’t announce any specific plans of how he would address it,” he pointed out after Obama’s demand for a delay. “He didn’t bother to outline how he would replace the sequester, which he suggested and insisted upon in August of 2011. He didn’t even tell us when we might see his budget, which is again late, and how he would address the sequester in his budget.”¶ In short, the President has no plan, and no leverage. With the tax rates and Alternative Minimum Tax fixes now permanent, Obama has no more leverage to force the House into bending to his will. His one gimmick to force Republicans to cave into his demands for higher taxes and more spending just backfired, and Obama has nothing more to offer. After almost four years of budget cliffs and gimmicks, Barack Obama will have to accept that reality and get serious about budget reform on the other side of the ledger.

#### PC not key

The Hill 2-5-13. thehill.com/blogs/on-the-money/budget/281123-obama-to-request-delay-in-sequester-cuts

With a little more than three weeks to go until the cuts begin, Obama’s statement from the White House did little to move negotiations forward on a possible sequester replacement. ¶ Congressional Republicans immediately rejected Obama’s call for tax increases and said bipartisan cuts can easily be found to replace the sequester.¶ The back-and-forth raised questions about whether Obama and Republicans are even intent on getting a deal, or whether they are more concerned about who will be blamed if sequestration goes forward. ¶ Speaker John Boehner (R-Ohio), who has said he will no longer negotiate with Obama on a deficit-reduction package, in a statement released before Obama’s comments emphasized that it was the White House that first proposed the sequester and that Republicans had twice voted to replace the “arbitrary cuts” with common-sense spending cuts.

#### No econ impact to the sequester.

WSJ 2-6-13. online.wsj.com/article/SB10001424127887324156204578276262281998922.html?mod=googlenews\_wsj

Fear not. As always in Washington when there is talk of cutting spending, most of the hysteria is baseless. The nearby table from the House Budget Committee shows that programs are hardly starved for money. In Mr. Obama's first two years, while private businesses and households were spending less and deleveraging, federal domestic discretionary spending soared by 84% with some agencies doubling and tripling their budgets.¶ Spending growth has slowed since Republicans took the House in 2011. Still, from 2008-2013 federal discretionary spending has climbed to $1.062 trillion from $933 billion—an increase of 13.9%. Domestic programs grew by 16.6%, much faster than the 11.6% for national security.¶ Transportation funding alone climbed to $69.5 billion in 2010 with the stimulus from $10.7 billion in 2008, and in 2013 the budget is still $17.9 billion, or about 67% higher. Education spending more than doubled in Mr. Obama's first two years and is up 18.6% to $68.1 billion from 2008-2013.¶ But wait—this doesn't include the recent Hurricane Sandy relief bill. Less than half of that $59 billion is going to storm victims while the rest is a spending end-run around the normal appropriations process. Add that money to the tab, and total discretionary domestic spending is up closer to 30% from 2008-2013. The sequester would claw that back by all of about 5%.¶ More troublesome are the cuts in defense, but for security not economic reasons. The sequester cuts the Pentagon budget by 7%. This fits Mr. Obama's evident plan to raid the military to pay for social programs like ObamaCare.¶ But at least high priorities such as troop deployments are exempt from the cuts. And there is waste in the Pentagon: Start with the billions spent on "green energy" programs at DOD, bases that are no longer needed, and runaway health-care costs. Mr. Obama could work with Congress to pass those reforms so as not to cut weapons and muscle, but he has refused.¶ The most disingenuous White House claim is that the sequester will hurt the economy. Reality check: The cuts amount to about 0.5% of GDP. The theory that any and all government spending is "stimulus" has been put to the test over the last five years, and the result has been the weakest recovery in 75 years and trillion-dollar annual deficits.¶ The sequester will help the economy by leaving more capital for private investment. From 1992-2000 Democrat Bill Clinton and (after 1994) a Republican Congress oversaw budgets that cut federal outlays to 18.2% from 22.1% of GDP. These were years of rapid growth in production and incomes.¶ The sequester will surely require worker furloughs and cutbacks in certain nonpriority services. But most of those layoffs will happen in the Washington, D.C. area, the recession-free region that has boomed during the Obama era.

#### Also no impact to the budget

Norman Ornstein, AEI Politics Boss, 1/23/13, Ornstein: No Budget, No Pay Is No Solution, www.rollcall.com/news/ornstein\_no\_budget\_no\_pay\_is\_no\_solution-221054-1.html?pos=oopih

There is no doubt that the charge that the Senate has not produced a budget in three years has resonated with many voters; I hear it over and over again from both Republican partisans and independents. I happen to agree with former Senate Budget Chairman Kent Conrad of North Dakota that the charge is false and that the Budget Control Act is a budget that passed the Senate in 2011 and is more like a budget resolution on steroids because it is a law, not a resolution.¶ That brings us to the next point. Having a budget is nice, but not much more than that. In general, it does not have all that much force. A congressional budget does not require a presidential signature and, absent a set of reconciliation instructions, is far from the be-all and end-all of congressional power or responsibility. The fact is that going back to 1990, at least, the major actions on the budget, the ones taken to keep deficits under control, have been done not through the regular order of the budget process but through extraordinary negotiations that include the White House and congressional leaders. That was true with the Andrews Air Force Base negotiations in 1990, when the politics were dramatically less dysfunctional than those we have faced in the Obama years. Over the past three years, any Senate budget resolution would have been dead on arrival in the House.¶ It may be different now, of course. The Senate is likely to pass a budget, under reconciliation to avoid a filibuster, that includes a substantial increase in revenue from oil companies, other corporations and wealthy individuals, along with some cuts in the growth of programs, as a counter to House Budget Chairman Paul D. Ryan’s budget. Maybe that will bring House and Senate leaders together, and maybe it will lead to what we need: a third $1.2 trillion to $1.5 trillion in deficit reduction over the next 10 years that would stabilize the debt-to-gross domestic product ratio at a sustainable level. It would involve compromise between the parties and chambers; $400 billion to $600 billion in revenues, most of it from reducing deductions and credits, and $600 billion to $800 billion in program reductions, most of it from entitlements, and it would alter the sequester formula to provide a more rational formula of cuts in discretionary spending than mindless, across-the-board ones.

#### Nominations laundry list thumps

Thurlow 2-5. [Tom, political writer, "Obama's Political Capital" Red State -- www.redstate.com/tfthurlow/2013/02/05/obamas-political-capital/]

President Obama blows through his own political capital just as fast as he blows through America’s financial capital. Neither case of over-spending is sustainable, and we will just have to wait to see which spending spree is forced to end first.¶ But this further confirms my suspicion that President Obama’s brains are the most over-rated to occupy the Oval Office in generations. Take his recent nominations, which are a mess.¶ Last week’s Senate hearings on Senator Hagel’s confirmation as defense secretary were a disaster. Senator McCain pressed Senator Hagel to confirm or deny Hagel’s earlier statement that the Surge in Iraq was “the greatest foreign policy blunder since the Vietnam War.” Senator Ted Cruz pointed out that Senator Hegal, during an interview with the Al Jazeera English network in 2009 had agreed with a questioner who said that the United States appeared and acted like the world’s bully. As Paul Mirengoff at the Powerline Blog wrote, “if he were a Broadway play, Hagel would close after one performance.”¶ There were also a number of past anti-Semitic, or at least anti-Israel statements about which Senator Hagel was questioned. About the only thing about the hearing that was reassuring to those who take national defense seriously was that Hagel bumbled so much he sounded like he may have dementia. Let’s face it, a demented defense secretary may not be as bad as an anti-American defense secretary who is purposefully soft on defense and unconcerned about looming problems with Iran’s nuclear program.¶ Senator Lindsey Graham has threatened a hold on the Hagel nomination, and he should. Not only is a defense secretary an important policy position, but as has been pointed out by Republican critics that in any given foreign crisis, the defense secretary will be one of the few advisors in the room, advising the president.¶ Next up: a nomination battle for a Treasury secretary nominee, Jacob Lew, who has never worked in a bank except as an attorney for Citibank, and has held many different government jobs, most recently President Obama’s chief of staff. Definitely a financial industry lightweight. Lew has also been accused of misleading the public on deficits. About the only thing that stands out about Jacob Lew as Treasury secretary is the fact that his signature — which will appear on all of our currency – looks like a bunch of circles. Oddly enough, it doesn’t appear as if Lew has had any medical training.¶ After that, brace yourself for President Obama’s nominee for director of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Todd Jones. Jones is the current acting director of ATF and has been criticized by a local Democratic FBI office director as being politically well-connected but incompetent and soft on gun and violent crime prosecutions.¶ Past presidents have had difficult times in their second terms, but the difficulty is usually with big proposals. President George W. Bush unsuccessfully tried to pass privatization of Social Security and immigration reform in his second term. President Reagan spent his second term solidifying his victory in the Cold War and simplified the tax code, lowering the top marginal tax rate to 28%. Meanwhile, President Obama is trying to get Charles Hagel approved as defense secretary, Jacob Lew at Treasury secretary, and Todd Jones as ATF director, not grand plans by any means.¶ President Obama may get these nominees approved by a majority of senators. But the question is: why is he fighting these particular battles? He could have easily found better qualified nominees for these positions and fought bigger battles on some substantive legislative proposals. Why spend what remaining political capital he has on these problematic appointments? I have a theory, and here goes.¶ As liberal as he is, President Obama prefers to settle scores with his political adversaries even more than getting big liberal proposals passed. There were some clues dropped in the recent campaign. In one speech President Obama told his audience, who booed after Gov. Romney was mentioned, “don’t boo … voting is the best revenge.” This follows a slip he made a couple years earlier when he encouraged Latinos to punish their “enemies,” and when he warned African Americans that a Republican take-over of Congress would mean “hand-to-hand combat up here on Capitol Hill.”¶ These Freudian slips and others show the resentment that President Obama feels towards anyone who opposes him. Opposing ideas are not to be argued against; their proponents are to be personally defeated and the victory noted. Somewhere in his brain the president is keeping score, and he relishes announcing to his opponents, as he did in his first term, “I won.”¶ It is a pettiness that may work out well for the conservative cause. After all, the best way to block any future liberal proposals is to not have them proposed in the first place. The Hagel, Lew and Jones nominations, and the spending of President Obama’s political capital needed to advance these nominations, may be just the ticket to stall any future liberal proposals.

#### Gun control thumps

Pace 2-4. [Julie, AP writer, "Obama talks gun control in Minneapolis: 'It's time to do something'" Oroville Mercury Register -- www.orovillemr.com/news/ci\_22516665/obama-goes-minneapolis-campaign-assault-weapons-ban]

With his gun proposals dividing Congress, President Barack Obama took his case for universal background checks and for banning some military-style weapons to the upper Midwest on Monday, looking to build public support for his measures and to apply pressure on lawmakers.¶ Obama argued that there's bipartisan support for a system to undertake criminal checks on gun buyers and for gun trafficking laws but, acknowledging the political challenges he faces, would only say that the assault weapons ban deserves a vote in Congress.¶ "We don't have to agree on everything to agree it's time to do something," he said.¶ Before his remarks, Obama held a roundtable discussion at the Minneapolis Police Department Special Operations Center, speaking with law enforcement and community leaders.¶ Obama made his pitch in Minnesota, a Democratic-leaning state where officials have been studying ways to reduce gun-related attacks and accidents for several years. His visit to the Minneapolis Police Department's Special Operations Center marked the first time Obama has campaigned on his controversial proposals outside of Washington.¶ "Changing the status quo is never easy," Obama said. "This will be no exception. The only way we can reduce gun violence in this county is if it the American people decide it's important, if you decide it's important -- parents and teachers, police officers and pastors, hunters and sportsmen, Americans of¶ every background stand up and say, 'This time, it's got to be different.'"¶ Ahead of the trip, the White House released a photo of the president skeet shooting at Camp David, the presidential retreat. Obama cited skeet shooting when asked in a recent interview whether he had ever shot a gun.¶ The president unveiled his sweeping package of proposals for curbing gun violence last month in response to the mass shooting at a Newtown, Conn., elementary school. He vowed to use the full weight of his office to fight for the proposals, many of which face tough opposition from congressional lawmakers and the powerful National Rifle Association.

#### PC theory is wrong- winners win

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

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

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

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

[Matt note: gender paraphrased]

#### Executive agency rulemaking shields the link—Obama will back away from domestic political defenses of the plan if Congress presses him

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

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

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

#### Plan changes perception of waste—studies and polls show big support for reprocessing

Jenkins-Smith et al 12

[Hank C. Jenkins-Smith, Carol L. Silva, Kerry G. Herron, Sarah R. Trousset, and Rob P. Rechard, “Enhancing the Acceptability and Credibility of a Repository for Spent Nuclear Fuel”, National Academy of Engineering of the National Academies, The Bridge on Managing Nuclear Waste, Summer 2012, Volume 42, Number 2, http://www.nae.edu/Publications/Bridge/59220/59232.aspx]

The effects of combining a repository with a reprocessing facility are shown in Table 2. Again, the changes in support are shown for those who initially opposed, were neutral, or supported each option. As with co-location of a repository with a national research laboratory, co-location of a repository with a reprocessing facility also increased support. Among those who either initially opposed the repository or were neutral, nearly half said the addition of the reprocessing capability would increase support for the repository. A smaller percentage said the combination would decrease support. Given the consistent and generally supportive attitudes of most Americans toward reprocessing (as discussed above), the increase in support for repositories co-located with reprocessing facilities is not surprising and could be helpful in informing policies. The implications are that public acceptance of an SNF repository is sensitive to the overall design attributes of the facility. If it is exclusively for disposal, the perceived risks and associated negative images tend to dominate perceptions (especially when SNF has been designated a “waste”). If the facility is more heterogeneous, that is, it includes design elements that address offsetting risk/benefits (such as a laboratory or reprocessing facility), thus attaching resource value to SNF, prospects for public acceptance improve.

#### Public opinion is key to the agenda

**NYT** (blog) 8/5/**10** (8/5/10, " A Broken Senate, or an Unpopular Agenda? ", http://douthat.blogs.nytimes.com/2010/08/05/a-broken-senate-or-an-unpopular-agenda/)

In a recent bloggingheads conversation with Matt Yglesias, I tried to make the point that we're unlikely to get sweeping procedural reform in Congress anytime soon — despite liberal optimism on that front — because nobody who isn't immersed in the angst of movement liberalism sees the first two years of the Obama administration as a period of gridlock and inaction. That conversation took place before George Packer came out with his epic New Yorker story on the dysfunctions of the Senate, which makes the strongest possible case that the institution is incapable of governing the country. I recommend reading the whole thing — but I'd also associate myself with this comment, from David Frum:

To the extent that the [Obama] agenda has not passed, the causes are bigger than the slow motion of the Senate. Look again at George Packer’s list of stalled initiatives. On how many is the American public clamoring for immediate action? On how many is the Obama agenda on the wrong side of public opinion altogether?

#### Plan’s massively popular in Congress

Press Action 3/12/12 (“US Nuclear Industry Operates as if Fukushima Never Happened”) <http://www.pressaction.com/news/weblog/full_article/nuclearsubsidies03122012/>

Both Democrats and Republicans have had a long love affair with commercial nuclear power, and the relationship is showing no signs of losing steam. Since the 1950s, members of both parties have enthusiastically lavished electric utility companies with expensive gifts, ranging from subsidies to protection from liability for disasters to loan guarantees, all underwritten by U.S. taxpayers. The political calculus is simple: nuclear power enjoys unanimous support in Washington. Try to name one member of the U.S. Senate or House of Representatives who favors shutting down the nation’s 104 commercial nuclear reactors. Federal agencies, from the Atomic Energy Commission to the Department of Energy to the Nuclear Regulatory, have worked diligently through the years to promote nuclear power. At the state level, support for nuclear power also is extremely strong, although there are some politicians—albeit a tiny number—who have publicly called for the closure of certain nuclear plants. On the one-year anniversary of the start of the nuclear disaster at the Fukushima Dai-ichi nuclear power plant in Japan, one would assume a voice in official Washington would have emerged calling for an end to the nation’s experiment with nuclear power. In Germany, government officials made the decision to phase out nuclear power by 2022 in response to Fukushima. There’s no such sentiment among the ruling elite in the United States. Locating a member of Congress opposed to the continued operation of nuclear power plants is as hard as finding a lawmaker who favors breaking ties with Israel over its mistreatment of Palestinians for the last 60 years. In fact, it’s more than hard, it’s impossible. It’s very rare to find an issue where there is a noteworthy difference between Democrats and Republicans. When there are differences, they tend to be subtle, although party officials and the corporate media will attempt to sensationalize a slight difference to create an impression that the U.S. political system permits honest and real debate.

# 1AR vs Michigan DH

## Advantage CP

### 1AR

#### No IFR adoption, all empirics prove- this is the best card ever

**Lovins ‘09** [Amory, Cofounder and Chief Scientist of the Rocky Mountain Institute, 1993 MacArthur Fellow, one of the TIME 100 most influential people and Foreign Policy 100 Influential thinkers, "’New’ Nuclear Reactors: Same Old Story,” Nuclear Monitor, June 26, [http://www.nirs.org/factsheets/lovinsonifretc.pdf-http://www.nirs.org/factsheets/lovinsonifretc.pdf](http://www.nirs.org/factsheets/lovinsonifretc.pdf-http%3A//www.nirs.org/factsheets/lovinsonifretc.pdf)]

The dominant type of new nuclear power plant, light-water reactors (LWRs), proved impossible to finance in the robust 2005–08 capital market, despite new U.S. subsidies approaching or exceeding their total construc- tion cost. New LWRs are now so costly and slow that they save 2–20 times less carbon, approximately 20–40 times slower, than mi- cro power and efficient end-use. As this becomes evident, other kinds of reactors are being proposed instead--novel designs that claim to solve LWRs’ problems of eco- nomics, proliferation, and waste. Even cli- mate-protection pioneer Jim Hansen says these “Generation IV” reactors merit rapid R&D. But on closer examination, the two kinds most often promoted -Integral Fast Re- actors (IFRs) and thorium reactors--reveal no economic, environmental, or security ration- ale, and the thesis is unsound for any nuclear reactor. Integrated Fast Reactors (IFRs) The IFR--a pool-type, liquid-sodium cooled fast-neutron reactor plus an ambitious new nuclear fuel cycle--was abandoned in 1994, and General Electric’s S-PRISM design in 2003, due to both proliferation concerns and dismal economics. Federal funding for fast breeder reactors halted in 1983, but in the past few years, enthusiasts got renewed Bush Ad- ministration support by portraying the IFR as a solution to proliferation and nuclear waste. It’s neither. Fast reactors were first offered as a way to make more plutonium to augment and ulti- mately replace scarce uranium. Now that ura- nium and enrichment are known to get cheaper while reprocessing, cleanup, and nonproliferation get costlier--destroying the economic rationale--IFRs have been reframed as a way to destroy the plutonium (and similar transuranic elements) in long-lived radioac- tive waste. Two or three redesigned IFRs could in principle fission the plutonium pro- duced by each four LWRs without making more net plutonium. However, most LWRs will have retired before even one commercial- size IFR could be built; LWRs won’t be re- placed with more LWRs because they’re grossly uncompetitive; and IFRs with their fuel cycle would cost even more and probably be less reliable. It is feasible today to “burn” plutonium in LWRs, but this isn’t done much because it’s very costly, makes each kg of spent fuel 7x hotter, enhances risks, and makes certain transuranic isotopes that com- plicate operation. IFRs could do the same thing with similar or greater problems, offer- ing no advantage over LWRs in proliferation resistance, cost, or environment. IFRs’ reprocessing plant, lately reframed a “recycling center,” would be built at or near the reactors, coupling them so neither works without the other. Its novel technology, re- placing solvents and aqueous chemistry with high-temperature pyrometallurgy and electro refining, would incur different but major challenges, greater technical risks and repair problems, and speculative but probably worse economics. (Argonne National Laboratory, the world’s experts on it, contracted to pyro- process spent fuel from the EBRII--a small IFR-like test reactor shut down in 1994 --by 2035, at a cost DOE estimated in 2006 at ap- proximately 50× today’s cost of fresh LWR fuel.) Reprocessing of any kind makes waste man- agement more difficult and complex, in- creases the volume and diversity of waste streams, increases by several--to manifold the cost of nuclear fueling, and separates bomb- usable material that can’t be adequately meas- ured or protected. Mainly for this last reason, all U.S. Presidents since Gerald Ford in 1976 (except G.W. Bush in 2006–08) discouraged it. An IFR/pyroprocessing system would give any country immediate access to over a thou- sand bombs’ worth of plutonium to fuel it, facilities to recover that plutonium, and ex- perts to separate and fabricate it into bomb cores--hardly a path to a safer world. IFRs might in principle offer some safety ad- vantages over today’s light-water reactors, but create different safety concerns, including the sodium coolant’s chemical reactivity and ra- dioactivity. Over the past half century, the world’s leading nuclear technologists have built about three dozen sodium-cooled fast reactors, 11 of them Naval. Of the 22 whose histories are mostly reported, over half had sodium leaks, four suffered fuel damage (in- cluding two partial meltdowns), several others had serious accidents, most were prematurely closed, and only six succeeded. Admiral Rickover canceled sodium-cooled propulsion for USS Seawolf in 1956 as “expensive to build, complex to operate, susceptible to pro- longed shutdown as a result of even minor malfunctions, and difficult and time- consuming to repair.” Little has changed. As Dr. Tom Cochran of NRDC notes, fast reactor programs were tried in the US, UK, France, Germany, Italy, Japan, the USSR, and the US and Soviet Navies. All failed. After a half-century and tens of billions of dollars, the world has one operational commercial-sized fast reactor (Russia’s BN600) out of 438 commercial power reac- tors, and it’s not fueled with plutonium. IFRs are often claimed to “burn up nuclear waste” and make its “time of concern . . . less than 500 years” rather than 10,000–100,000 years or more. That’s wrong: most of the ra- dioactivity comes from fission products, in- cluding very-long-lived isotopes like iodine- 129 and technicium-99, and their mix is broadly similar in any nuclear fuel cycle. IFRs’ wastes may contain less transuranics, but at prohibitive cost and with worse occupa- tional exposures, routine releases, accident and terrorism risks, proliferation, and disposal needs for intermediate- and low-level wastes. It’s simply a dishonest fantasy to claim that such hypothetical and uneconomic ways to recover energy or other value from spent LWR fuel mean “There is no such thing as nuclear waste.” Of course, the nuclear indus- try wishes this were true. No new kind of reactor is likely to be much, if at all, cheaper than today’s LWRs, which re- main grossly uncompetitive and are getting more so despite five decades of maturation. “New reactors” are precisely the “paper reac- tors” Admiral Rickover described in 1953. An academic reactor or reactor plant almost always has the following basic characteristics: (1) It is simple. (2) It is small. (3) It is cheap. (4) It is light. (5) It can be built very quickly. (6) It is very flexible in purpose. (7) Very lit- tle development will be required. It will use off the shelf components. (8) The reactor is in the study phase. It is not being built now. On the other hand a practical reactor can be distinguished by the following characteristics: (1) It is being built now. (2) It is behind schedule. (3) It requires an immense amount of development on apparently trivial items. (4) It is very expensive. (5) It takes a long time to build because of its engineering de- velopment problems. (6) It is large. (7) It is heavy. (8) It is complicated. Every new type of reactor in history has been costlier, slower, and harder than projected. IFRs’ low pressure, different safety profile, high temperature, and potentially higher thermal efficiency (if its helium turbines didn’t misbehave as they have in all previous reactor projects) come with countervailing disadvantages and costs that advocates assume away, contrary to all experience. Thorium reactors Some enthusiasts prefer fueling reactors with thorium--an element 3 times as abundant as uranium but even more uneconomic to use. India has for decades failed to commercialize breeder reactors to exploit its thorium depos- its. But thorium can’t fuel a reactor by itself: rather, a uranium- or plutonium fueled reactor can convert thorium-232 into fissionable (and plutonium-like, highly bomb-usable) ura- nium-233. Thorium’s proliferation, waste, safety, and cost problems differ only in detail from uranium’s: e.g., thorium ore makes less mill waste, but highly radioactive U-232 makes fabricating or reprocessing U-233 fuel hard and costly. And with uranium-based nu- clear power continuing its decades-long eco- nomic collapse, it’s awfully late to be thinking of developing a whole new fuel cycle whose problems differ only in detail from current versions. Spent LWR fuel “burned” in IFRs, it’s claimed, could meet all humanity’s energy needs for centuries. But renewables and efficiency can do that forever at far lower cost, with no proliferation, nuclear wastes, or major risks. Moreover, any new type of reactor would probably cost even more than today’s models: even if the nuclear part of a new plant were free, the rest--two-thirds of its capital cost--would still be grossly uncompetitive with any efficiency and most renewables, sending out a kilowatt-hour for ~9–13¢/kWh instead of new LWRs’ ~12–18+¢. In contrast, the average U.S. wind farm completed in 2007 sold its power (net of a 1¢/ kWh subsidy that’s a small fraction of nuclear subsidies) for 4.5¢/kWh. Add ~0.4¢ to make it dispatch- able whether the wind is blowing or not and you get under a nickel delivered to the grid. Most other renewables also beat new thermal power plants too; cogeneration is often com- parable or cheaper, and efficiency is cheaper than just running any nuclear- or fossil-fueled plant. Obviously these options would also easily beat proposed fusion reactors that are sometimes claimed to be comparable to to- day’s fission reactors in size and cost. And unlike any kind of hypothetical fusion or new fission reactor--or LWRs, which have a mar- ket share below 2%--efficiency and micro power now provide at least half the world’s new electrical services, adding tens of times more capacity each year than nuclear power does. It’s a far bigger gamble to assume that the nuclear market loser will become a winner than that these winners will turn to losers. Small reactors Toshiba claims to be about to market a 200- kWe nuclear plant (~5,000x smaller than to- day’s norm); a few startup firms like Hype- rion Power Generation aim to make 10¢/kWh electricity from miniature reactors for which it claims over 100 firm orders. Unfortunately, 10¢ is the wrong target to beat: the real com- petitor is not other big and costly thermal power plants, but micro power and negawatts, whose delivered retail cost is often ~1– 6¢/kWh. Can one imagine in principle that mass-production, passive operation, automa- tion (perhaps with zero operating and security staff), and supposedly failsafe design might enable hypothetical small reactors to approach such low costs? No, for two basic reasons: • Nuclear reactors derive their claimed advan- tages from highly concentrated sources of heat, and hence also of radiation. But the shielding and thermal protection needed to contain that concentrated energy and exploit it (via turbine cycles) are inherently unable to scale down as well as technologies whose dif- ferent principles avoid these issues. • By the time the new reactors could be proven, accepted by regulators and the public, financed, built, and convincingly tested, they couldn’t undercut the then prices of negawatts and micro power that are beating them by 2– 20x today--and would have gained decades of further head start on their own economies of mass production. In short, the notion that different or smaller reactors plus wholly new fuel cycles (and, usually, new competitive conditions and political systems) could overcome nuclear energy’s inherent problems is not just decades too late, but fundamentally a fantasy. Fanta- sies are all right, but people should pay for their own. Investors in and advocates of small-reactor innovations will be disappointed. But in due course, the aging advo- cates of the half-century-old reactor concepts that never made it to market will retire and die, their credulous young devotees will re- learn painful lessons lately forgotten, and the whole nuclear business will complete its slow death of an incurable attack of market forces. Meanwhile, the rest of us shouldn’t be dis- tracted from getting on with the winning in- vestments that make sense, make money, and really do solve the energy, climate, and proliferation problems, led by business for profit.

## Politics

### No turns case

#### Econ doesnt turn prolif or Russia

Barnett, 09 – Senior Managing Director of Enterra Solutions LLC, Contributing Editor and Online Columnist for Esquire (Thomas P.M, “The New Rules: Security Remains Stable Amid Financial Crisis,” Aprodex, Asset Protection Index, 8/25/09 http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx)

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. Now, as global economic news brightens and recovery -- surprisingly led 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.

### UQ

#### Obama is rhetoric – he has no plan.

Knudsen 2-5. [Patrick, Grover M. Hermann Senior Fellow in Federal Budgetary Affairs at The Heritage Foundation, "Obama’s Sequester Proposal: Details AWOL" The Foundry -- blog.heritage.org/2013/02/05/obamas-sequester-proposal-details-awol/]

In another stunning failure of leadership, President Obama today asked Congress to delay the scheduled across-the-board spending cuts, including those that will decimate the national defense budget—but once again offered no specific policies that he would support.¶ “Obama did not outline a specific proposal,” wrote The Washington Post, but he said that “Congress should adopt measures to postpone the automatic spending reductions, known as the sequester, for a few months.”¶ Congress should—while the just-re-elected President leads from behind. Obama did, however, call for more tax increases—he terms them “reforms”—to be included. This is another round of his increasingly tiresome “balanced approach” to reducing his massive deficits.¶ Sequestration, which threatens to slash defense spending by roughly 10 percent, has hung over the budget for more than a year. Twice the House of Representatives has passed a package of alternative spending reductions to replace the defense cuts for one year. The Senate ignored them. Obama ignored them. On January 2, when the cuts were supposed to start, Congress and the President simply chose to put them off for another two months.¶ What’s needed, of course, is a serious plan to address the spending crisis. Sequestration is not that, yet the President offered no proposals for reprioritizing these cuts in a thoughtful way. Moreover, his complete lack of any substantive proposals that would put the government on a path to a balanced budget at any time—let alone within a decade—is appalling. Instead of showing the way with responsible spending cuts, the President wants to put off the only cuts he and Congress have enacted.¶ Now, with the President’s budget delayed until at least mid-March, Obama tells lawmakers that they need to come up with a solution—but offers nothing of his own. Thus Obama makes himself commander in chief of a military establishment in danger of being hollowed out by reckless, mechanical spending cuts that he refuses to address and an economy drowning in spending and debt.

### 1AR – Ext.

#### Pol cap is a myth – alternative explanations exist for any scenario where “pol cap” worked

Moraes 1/8 – freelance writer in politics

(Frank, PhD in Atmospheric Physics, writer of political commentary and novels, “Political capital is a myth”, Tufts Roundtable Commons, 1-18-2013, http://www.trcommons.org/2013/01/political-capital-is-a-myth/)

Yesterday, Jonathan Chait metaphorically scratched his head: “Nominating Hagel Most Un-Obama Thing Ever.” He can’t understand this nomination given that (1) Hagel will be a hard sell and (2) Obama doesn’t much listen to his advisers anyway. It is interesting speculation, but I wouldn’t have even thought about it had he not written, “Why waste political capital picking a fight that isn’t essential to any policy goals?”¶ This brought to mind something that has been on my mind for a while, as in posts like “Bipartisan Consensus Can Bite Me.” I’m afraid that just like Santa Claus and most conceptions of God, “Political Capital” is a myth. I think it is just an idea that Villagers find comforting. It is a neat narrative in which one can straightjacket a political fight. Otherwise, it is just bullshit.¶ Let’s go back to late 2004, after Bush Jr was re-elected. He said, “I earned capital in the political campaign and I intend to spend it.” What was this thing that Bush intended to spend? It is usually said that political capital is some kind of mandate from the masses. But that is clearly not what Bush meant. He got a mandate to fuck the poor and kill the gays. But he used his political capital to privatize Social Security. One could say that this proves the point, but does anyone really think if Bush had decided to use his political capital destroying food stamps and Medicaid that he would have succeeded any better? The truth was that Bush’s political capital didn’t exist.¶ Let’s look at more recent events: the Fiscal Cliff. Obama didn’t win that fight because the people who voted for him demanded it. He won it because everyone knew that in the new year he would still be president. Tax rates were going up. Boehner took the Fiscal Cliff deal because it was the best deal that he felt he could get. He didn’t fold because of some magic political capital that Obama could wave over him.¶ There is no doubt that public opinion does affect how politicians act. Even politicians in small safe districts have to worry that larger political trends may end up making them look stupid, out of touch, or just cruel. But beyond that, they really don’t care. If they did, then everyone in the House would now be a Democrat: after all, Obama won a mandate and the associated political capital. But they don’t, because presidential elections have consequences — for who’s in the White House. They don’t have much consequence for the representative from the Third District of California.

#### Prefer our studies- theirs are discredited and the consensus has shifted because of this

**Klein ‘3-19** [Ezra Klein is the editor of Wonkblog and a columnist at the Washington Post, as well as a contributor to MSNBC and Bloomberg, , “The Unpersuaded, Who listens to a President?”, March 19, 2012, <http://www.newyorker.com/reporting/2012/03/19/120319fa_fact_klein?currentPage=all>]

In 1993, George Edwards, the director of the Center for Presidential Studies, at Texas A. & M. University, sponsored a program in Presidential rhetoric. The program led to a conference, and the organizers asked their patron to present a paper. Edwards didn’t know anything about Presidential rhetoric himself, however, so he asked the organizers for a list of the best works in the field to help him prepare. Like many political scientists, Edwards is an **empiricist**. He deals in numbers and tables and charts, and even curates something called the Presidential Data Archive. The studies he read did not impress him. One, for example, concluded that “public speech no longer attends the processes of governance—it is governance,” but offered **no rigorous evidence**. Instead, the author justified his findings with vague statements like “One anecdote should suffice to make this latter point.” Nearly twenty years later, Edwards still sounds offended. “They were talking about Presidential speeches as if they were doing literary criticism,” he says. “I just started underlining the claims that were faulty.” As a result, his conference presentation, “Presidential Rhetoric: What Difference Does It Make?,” was less a contribution to the research than a frontal assault on it. The paper consists largely of quotations from the **other political scientists’** work, **followed by comments such as “He is able to offer no systematic evidence,” and “We have no reason to accept such a conclusion**,” **and** “Sometimes **the authors’ assertions, implicit or explicit, are clearly wrong.” Edwards ended his presentation with a study of his own**, on Ronald Reagan, who is generally regarded as one of the Presidency’s great communicators. Edwards wrote, “If we cannot find evidence of the impact of the rhetoric of Ronald Reagan, then we have reason to reconsider the broad assumptions regarding the consequences of rhetoric.” As it turns out, there was reason to reconsider. Reagan succeeded in passing major provisions of his agenda, such as the 1981 tax cuts, but, Edwards wrote, “surveys of public opinion have found that support for regulatory programs and spending on health care, welfare, urban problems, education, environmental protection and aid to minorities”—all programs that the President opposed—“increased rather than decreased during Reagan’s tenure.” Meanwhile, “support for increased defense expenditures was decidedly lower at the end of his administration than at the beginning.” In other words, people were less persuaded by Reagan when he left office than they were when he took office. Nor was Reagan’s Presidency distinguished by an unusually strong personal connection with the electorate. A study by the Gallup organization, from 2004, found that, compared with all the Presidential job-approval ratings it had on record, Reagan’s was slightly below average, at fifty-three per cent. It was only after he left office that Americans came to see him as an unusually likable and effective leader. According to Edwards, Reagan’s real achievement was to take advantage of a transformation that predated him. Edwards quotes various political scientists who found that conservative attitudes peaked, and liberal attitudes plateaued, in the late nineteen-seventies, and that Reagan was the beneficiary of these trends, rather than their instigator. Some of Reagan’s closest allies support this view. Martin Anderson, who served as Reagan’s chief domestic-policy adviser, wrote, “What has been called the Reagan revolution is not completely, or even mostly, due to Ronald Reagan. . . . It was the other way around.” Edwards later wrote, “As one can imagine, I was a big hit with the auditorium full of dedicated scholars of rhetoric.” **Edwards’s views are no longer considered radical in political-science** circles, in part **because** **he has marshalled so much evidence in support of them**. In his book “On Deaf Ears: The Limits of the Bully Pulpit” (2003), **he expanded the poll-based rigor** that he applied to Reagan’s rhetorical influence **to** that of nearly **every** other **President since the nineteen-thirties**. Franklin Delano Roosevelt’s fireside chats are perhaps the most frequently cited example of Presidential persuasion. Cue Edwards: “He gave only two or three fireside chats a year, and rarely did he focus them on legislation under consideration in Congress. It appears that FDR only used a fireside chat to discuss such matters on four occasions, the clearest example being the broadcast on March 9, 1937, on the ill-fated ‘Court-packing’ bill.” Edwards also quotes the political scientists Matthew Baum and Samuel Kernell, who, in a more systematic examination of Roosevelt’s radio addresses, found that they fostered “less than a 1 percentage point increase” in his approval rating. His more traditional speeches didn’t do any better. He was unable to persuade Americans to enter the Second World War, for example, until Pearl Harbor.

### WW

#### Uniquely true now- Obama gets it and the political atmosphere is right- wins key now

Hirsh, 2-7 – National Journal chief correspondent

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

**Amid today’s atmosphere of Republican self-doubt,** **a new, more mature Obama** seems to be emerging, one who has his agenda clearly in mind and will ride the mood of the country more adroitly. If he can get some early wins—as he already has, apparently, on the fiscal cliff and the upper-income tax increase—that will create momentum, and one win may well lead to others. “Winning wins.” **Obama** himself **learned** some **hard lessons over the past four years about the falsity of the political-capital concept**. Despite his decisive victory over John McCain in 2008, he fumbled the selling of his $787 billion stimulus plan by portraying himself naively as a “post-partisan” president who somehow had been given the electoral mandate to be all things to all people. So Obama tried to sell his stimulus as a long-term restructuring plan that would “lay the groundwork for long-term economic growth.” The president thus fed GOP suspicions that he was just another big-government liberal. Had he understood better that the country was digging in against yet more government intervention and had sold the stimulus as what it mainly was—a giant shot of adrenalin to an economy with a stopped heart, a pure emergency measure—he might well have escaped the worst of the backlash. But by laying on ambitious programs, and following up quickly with his health care plan, he only sealed his reputation on the right as a closet socialist.

#### It’s use it or lose it—only a risk Obama is seen as hoarding political capital

McConnell 12/26

(Scott, “About Obama More than Hagel”, The American Conservative, 12-26-2012, http://www.theamericanconservative.com/about-obama-more-than-hagel/)

It’s really at this point about Obama more than Hagel, his backbone, his readiness to fight when he meets opposition. A replay of the Chas Freeman debacle of the last administration on a far larger scale would signal that Obama will likely capitulate to Netanyahu in his second term, much as he did in the first. The President is in danger of becoming known as a figure who won’t put up a fight when facing opposition, someone who hoards political capital–saving it up for what is not exactly clear.

**It’s faster than their links ----- perception key**

(compromises look weak)

Norman Ornstein (resident scholar, American enterprise institute) 9/10/2001 Roll Call

In a system where a President has limited formal power, **perception matters**. The reputation for success - the belief by other political actors that even when he looks down, a president will find a way to pull out a victory - is the most valuable resource a chief executive can have. Conversely, the widespread belief that the Oval Office occupant is on the defensive, on the wane or without the ability to win under adversity can lead to disaster, as individual lawmakers calculate who will be on the winning side and negotiate accordingly. In simple terms, winners win and losers lose more often than not.

#### Only a risk of the turn – Obama has completely abandoned negotiation with opposition

Lauter 1/19

(David, “Obama comes out swinging for second term”, LA Times, 1-19-2012, http://articles.latimes.com/2013/jan/19/nation/la-na-adv-inaug-fever-20130120)

During the first term, Obama and his aides engaged in lengthy negotiations and offered concessions aimed at winning a handful of Republican votes during battles over healthcare and the economic stimulus.¶ That effort proved futile, whether because of Obama's inability to reach across the aisle (the Republican view), the intransigence of his opposition (the Democratic version) or the inherent problems of compromise in a divided country.¶ During the presidential campaign, Obama and top aides suggested that the Republican determination to oppose him would wane if he won reelection. "The fever will break," became a favored White House metaphor.¶ That hasn't happened, and the current White House strategy tacitly acknowledges that bridging the partisan gaps will probably remain beyond Obama's power. At the same time, Obama and his advisors feel more confident they can prevail — as they did during the "fiscal cliff" battle over tax rates in December.