### 1NC SPIDERS CP

#### The United States Federal Government should substantially increase investment in smart microgrid technology for installations the plan applies to via a diverse portfolio tailored to individual installation circumstances, including non-nuclear renewable energies for on-site generation, increased backup generation capacity, improvements in energy efficiency and energy storage, intelligent local energy management, and accelerated implementation of the SPIDERS project.

#### Smart microgrids solve DOD grid vulnerability – the combination of the CP’s mechanisms resolves the problems with each individual component

SERDP 12 – the Strategic Environmental Research and Development Program, DoD’s environmental science and technology program, executed in partnership with DOE and EPA, 7/10/12, “DoD Study Finds Microgrids Offer Improved Energy Security for DoD Installations,” <http://www.serdp.org/News-and-Events/News-Announcements/Program-News/DoD-study-finds-microgrids-offer-improved-energy-security-for-DoD-installations>

Advanced microgrids offer a cost-effective solution to military installations' growing vulnerability to the fragile electric grid, according to a study released today by DoD’s Office of Installations and Environment. The study performed by MIT Lincoln Laboratory looked at different microgrid architectures and characteristics and compared their relative cost-effectiveness. The report provides insight into increasing energy security and reducing energy costs through the incorporation of renewable energy resources into microgrids, as well as new market opportunities for DoD in the area of demand response and ancillary services. The study highlights the extent of ongoing microgrid work across DoD. It identified 44 installations that either had existing microgrids, planned installation of microgrids, or conducted microgrid studies or demonstrations at their facilities. The authors interviewed more than 75 people from the military Services, the Office of the Secretary of Defense, and the Department of Energy. The analysis categorized the ongoing microgrid efforts based on several key attributes including size, maturity, the inclusion of renewable resources, and the ability to operate in a grid-tied manner. The analysis confirms the value of microgrids to DoD. The combination of on-site energy generation and storage, together with the microgrid’s ability to manage local energy supply and demand, allow installations to shed non-essential loads and maintain mission-critical loads if the electric grid is disrupted. The report illustrates the largely untapped potential of moving to smarter, next generation microgrids that would accommodate far greater penetration of renewable energy sources, as well as tighter integration with the electrical grid. If solar resources that are increasingly being installed on DoD installations were available during islanded operation of a microgrid, they could significantly extend the islanding time. Moreover, a microgrid that could operate when tied to the grid would offer new opportunities for the DoD to generate cost savings by using backup generation assets during normal operation and generate financial revenue by using advanced ancillary services. One important finding is that there will be no “one size fits all” solution. The location of a military installation influences the options available for energy generation sources, the options available for interaction with the local utility, the characteristics of the local electricity market, and the regulatory environment. The most effective microgrids will be those that take into account the needs of the local commercial electric grid and are configured so that they can earn value helping to meet those needs.

**1NC QER CP**

#### The United States federal government should establish a Quadrennial Energy Review. In the Quadrennial Energy Review, the United States federal government should include a recommendation that the United States Federal Government should provide loan guarantees and fast track licensing restrictions for Small Modular Reactors.

#### Recommending plan mandates through a QER process solves—eonly the CP creates policy sustainability and private sector coordination that unlocks energy innovation

Ernest Moniz, Cecil and Ida Green Professor of Physics and Engineering Systems and Director of the Energy Initiative at the Massachusetts Institute of Technology; Former Clinton Administration Under Secretary of the Department of Energy and as Associate Director for Science in, Spring 2012, “Stimulating Energy Technology Innovation,” Daedalus, Vol. 141, No. 2, Pages 81-93

It should come as no surprise that I do not have the answers for how the government should intersect the latter stages of the innovation process in a general sense. However, PCAST recommended a pragmatic approach to an integrated federal energy policy that would employ all the tools available to the government in a coherent way. Termed **the** Quadrennial Energy Review (**QER**), the process is necessarily complex, but **history suggests** that **anything short of a full multiagency effort is unlikely to provide a robust plan that accounts for the many threads of an energy policy**. Furthermore, a degree of analysis is required that has not been present in previous efforts. Energy policy is derivative of many policies: environment, technology and competitiveness, diplomacy and security, natural resources, and land and food, among many others. Indeed, multiple agencies that are not labeled “energy” have major equities and long-held perspectives on key elements of energy policy. Often, the preferred policies for different agencies’ agendas conflict. Further, states and local governments play a strong role, for example with building codes, and their approaches can vary dramatically in different parts of the country; certainly, California’s energy policies have influenced the national market. The tools available to support innovation are also diverse, ranging from direct support of RD&D to a variety of economic incentives, regulation, standards, and federal procurement, among other instruments. Congress is equally fragmented: in the House of Representatives and Senate, many committees beyond those tasked with energy policy have equities that mirror those of the different executive agencies. To overcome this fragmentationof responsibilities and perspectives, and especially if the goal is a plan that has staying power in advancing adoption and diffusion, PCAST recommended a QER process to provide a multiyear roadmap that:• lays out an integrated view of short-, intermediate-, and long-term objectives for Federal energy policy in the context of economic, environmental, and security priorities; • outlines legislative proposals to Congress; • puts forward anticipated Executive actions (programmatic, regulatory, fiscal, and so on) coordinated across multiple agencies; • **identifies resource requirements** for the RD&D programs **and** for innovation **incentive programs**; and, most important, • provides a strong analytical base.14 This is a tall order intellectually and organizationally. Several process elements are essential to fostering a chance for success. First, the Executive Office of the President (eop) must use its convening power to ensure effective cooperation among the myriad relevant agencies. However, the capacity to carry out such an exercise and to sustain it does not (and should not) reside in the eop. The doe is the logical home for a substantial Executive Secretariat supporting the eop interagency process that would present decision recommendations to the president. However, the scope of the analytical capability needed does not currently reside at the doe or any other agency. The doe needs to build this capability, presumably supplemented by contractor support to gather data, develop and run models, and carry out analysis, such as independent energy-system engineering and economic analysis. Market trends and prices would be part of the analysis, including international markets and robust analyses of uncertainty. The Energy Information Administration can help with some data gathering and models, but its independence from the policy function needs to be preserved. The national laboratories also lack this range of functions, and tasking them with providing the analytical support to the policy process would be regarded as a conflict of interest; their focus is best directed at research, invention, and technology transfer. Building this analysis capacity is a large job that will take time. For the QER to succeed, the government must seek substantial input from many quarters in a transparent way; certainly, ongoing dialogue with Congress and the energy industry are essential. The good news is that members of Congress have supported the development of the QER as a way to present a coherent starting point for congressional action across many committees**.** A hope is that Congress could then use the QER as a basis for a four or five-year authorization that would provide the private sector with the increased confidence needed to make sound clean energy investment decisions. Given the magnitude of the task, PCAST recommended in 2011 that the doe carry out a Quadrennial Technology Review (qtr)–a first step centered in a single department and focused on technology. The qtr resulted in a rebalancing of the R&D portfolio toward the oil dependence challenge through advanced vehicle development, particularly transportation electrification. The key now will be to extend the processes developed for the qtr to the multiagency QER, involving the eop in a leadership role. Taking the next steps in 2012 will maintain momentum and establish the capabilities needed for the QER by early 2015, the time frame recommended by PCAST. While some may view 2015 as a frustratingly long time away, the alternative is to rely on wishes rather than analysis while failing to gain multiple perspectives in a fair and open manner. Rushing the process will result in a poorly done job **that will not accomplish** any of the **key** QER **goals**. Certainly, **it will not bring together succeeding administrations and Congresses around a** reasonably **shared vision** and set of objectives **that can accelerate innovation in service of national competitiveness and environmental and security goals. Continuing with fragmented** and economically inefficient **policies, technologies “du jour,” and frequent shifts** will complicate private-sector decisions **rather than facilitate innovation**. The government unavoidably plays a strong role in the innovation process, even when this is unacknowledged in policy and political debates. The issue now is to present both a set of principles and fact-based analyses supporting coordinated government-wide actions that earn decent buy-in from major stakeholders.

### 1NC Politics

#### Immigration is top of the docket, Obama’s pushing and it will pass

Daniel Halper, online editor, 1-2-2013, “Obama to 'Quickly' Go for Immigration Reform and Gun Control,” Weekly Standard, http://www.weeklystandard.com/blogs/obama-quickly-go-immigration-reform-and-gun-control\_693547.html

President Barack Obama will go for immigration reform and gun control this month, the White House tells the left-leaning Huffington Post. Obama's actions will reportedly be done "quickly." "An Obama administration official said the president plans to push for immigration reform this January. The official, who spoke about legislative plans only on condition of anonymity, said that coming standoffs over deficit reduction are unlikely to drain momentum from other priorities. The White House plans to push forward quickly, not just on immigration reform but gun control laws as well," reports the Huffington Post. "The timeframe is likely to be cheered by Democrats and immigration reform advocates alike, who have privately expressed fears that Obama's second term will be drowned out in seemingly unending showdowns between parties." The outlet claims that it is "unclear what type of immigration policies the White House plans to push in January." No details on what sort of gun control legislation the White House will seek were offered in the article. As Politico reported last month, a "Gang of Eight," a conference of 8 senators from both parties, "has begun to meet to discuss immigration reform." But it is not at all clear what progress this group has made and what immigration laws it might propose. The Huffington Post quotes a Democratic aide who believes "Good news for immigration advocates may have come Tuesday night, when Boehner broke the so-called 'Hastert Rule' and allowed the fiscal cliff bill to come for a vote without support from a majority of his Republican conference. Given opposition to immigration reform by many Tea Party Republicans, the proof that Boehner is willing to bypass them on major legislation is a good sign."

#### PC key

Tom Kludt, staff writer, 1-3-2012, “Report: Obama To Make Push For Immigration Reform This Month,” TPM, http://livewire.talkingpointsmemo.com/entry/report-obama-to-make-push-for-immigration-reform

President Barack Obama is prepared to use his political capital to pursue immigration reform this month, according to a report published Wednesday in the Huffington Post. The report cited an anonymous official in the Obama administration, who suggested that the president is unlikely to be deterred by the protracted fiscal cliff debate that will be revisited in the coming months. As such, the administration will reportedly move quickly on both immigration reform and gun control. The report also quoted an unnamed Senate Democratic aide, who gauged the likelihood of immigration reform to pass Congress. Citing the fiscal cliff deal that passed the House of Represenatives this week with a combination of Republican and Democratic votes, the aide expressed confidence that House Speaker John Boehner (R-OH) will be able to overcome expected opposition from the conservative wing of his caucus. "He already did it with this fiscal issue, so I would not be surprised if when it came down to it he puts up a bill that he just allows to go through with a combination of Democratic and Republican votes, without worrying about a majority of the majority," the aide said.

**Nuclear get dragged into broader debates over energy spending which tanks Obama’s PC**

Gabriel **Nelson**, staff writer, **9-24**-2012, “DOE funding for small reactors languishes as parties clash on debt,” E&E Publishing, http://www.eenews.net/public/Greenwire/2012/09/24/3

It's not just wind and solar projects that are waiting for federal help as **Congress duels over** the importance of **putting taxpayer dollars on the line for** cutting-edge energy projects. Some of the nation's largest **nuclear** power companies are anxious to hear whether they will get a share of a $452 million pot from the Department of Energy for a new breed of reactors that the industry has labeled as a way to lessen the safety risks and construction costs of new nuclear power plants. The grant program for these "small modular reactors," which was announced in January, would mark the official start of a major U.S. foray into the technology even as rising construction costs -- especially when compared to natural-gas-burning plants -- cause many power companies to shy away from nuclear plants. DOE received four bids before the May 21 deadline from veteran reactor designers Westinghouse Electric Co. and Babcock & Wilcox Co., as well as relative newcomers Holtec International Inc. and NuScale Power LLC. Now the summer has ended with no announcement from DOE, even though the agency said it would name the winners two months ago. As the self-imposed deadline passed, companies started hearing murmurs that a decision could come in September, or perhaps at the end of the year. To observers within the industry, it seems that election-year calculations may have sidelined the contest. "The rumors are a'flying," said Paul Genoa, director of policy development at the Nuclear Energy Institute, in an interview last week. "All we can imagine is that **this is now caught up in politics**, and the campaign has to decide whether these things are good for them to announce, and how." Small modular reactors do not seem to be lacking in political support. **The nuclear** lobby has historically courted both Democrats and Republicans and **still sees itself as being in a strong position** with key appropriators on both sides of the aisle. Likewise, top energy officials in the Obama administration have hailed the promise of the new reactors, and they haven't shown any signs of a change of heart. DOE spokeswoman Jen Stutsman said last week that the department is still reviewing applications, but she did not say when a decision will be made. "This is an important multiyear research and development effort, and we want to make sure we take the time during the review process to get the decision right," she wrote in an email. **That the grants haven't been given out** during a taut campaign season, **even as** President **Obama announces agency actions ranging from trade cases to** creating **new national monuments** to make the case for his re-election, **may be a sign that** the **reactors are ensnared in a broader feud over energy spending**. Grant recipients would develop reactor designs with an eye toward eventually turning those into pilot projects -- and the loan guarantees that these first-of-a-kind nuclear plants are using today to get financing would be blocked under the "No More Solyndras" bill that passed the House last week (Greenwire, Sept. 14). Congress has given the grant program $67 million for fiscal 2012, shy of the amount that would be needed annually to reach full funding. If the "sequester" kicks in at year's end and slashes DOE funding or the balance of power changes in Washington, the amount of money available could dwindle yet again. Even the staunchest **supporters** of the federal nuclear program **are acknowledging it is a tough time to promise a** $452 million **check**. Former Sen. Pete Domenici, a New Mexico Republican who pushed for new reactors as chairman of both the Senate Energy and Natural Resources Committee and the Energy and Water Appropriations Subcommittee, said during a brief interview Tuesday that well-designed loan guarantees won't cost too much because they get repaid over time. The cost could be borne by a "tiny little tax" on the nuclear industry, he said. But when it comes to straight-up spending, like the grants that would support getting these cutting-edge reactors ready for their first demonstrations, the solution may not be so clear. **While some Republicans remain staunch supporters of funding for the nuclear power industry, there are others who label the government subsidies as a waste of taxpayer dollars.**

#### Immigration reform key to solving the nursing shortage

Hanlon Law Group, 2012, “Nursing Shortage Should Be Top Priority in Health Care and Immigration Reform,” [www.visaandgreencard.com/CM/Articles/Nursing-Shortage.asp](http://www.visaandgreencard.com/CM/Articles/Nursing-Shortage.asp)

As policymakers, special interest groups, health care professionals and others discuss the need for health care reform in the US and debate how this reform should take place, one of the most important issues to health care is being left out of the debate: the national nursing shortage. So far, the debate over health care has hinged around whether there should be a “public option,” creating room for divisive ideological debate at the expense of any real progress toward improvements to the current broken system. The nursing shortage continues to exacerbate the health care crisis, such that no true healthcare reform can occur without immigration law reform. The health care industry has and continues to face a crisis in fillingcurrent openpositions with trained, skilled nurses. As the baby boomers enter their golden years, an increasing strain is put on the health care system to provide care for this large, aging population. Further compounding the problem is the fact that the current nursing population is aging as well. For example, the average age of nurses in California is 47. The California Institute for Nursing and Health Care estimates that the state will need 108,000 new nurses by 2020 to fill the vacancies left by retiring nurses and to fill the new positions opened up to meet the increased demands for health care. Nationally, the US Bureau of Labor Statistics estimates that 1 million new and replacement nurses will be needed by 2016 to meet staffing needs. Individual states have ramped up their efforts to tackle their individual nursing shortages by offering more grants and scholarships to nursing students and trying to increase enrollments at nursing schools. While these efforts may help meet some of the future nursing needs, they do little to nothing to meet current staffing demands — including the 135,000 open positions across the country for registered nurses. What makes this shortage all the more difficult to understand is the fact that there are hundreds of qualified,availablenurses from other countries who are willing to immigrate to the United States but, because of the immigration system, cannot get a visato enter the country. There are two different categories of visas foreign nurses can apply for to enter the US to work: nonimmigrant visas and immigrant visas. Nonimmigrant visas are temporary visas that allow them to enter the US for a limited amount of time. There are three types of nonimmigrant visas nurses may be eligible for: H1-B visas, TN visas and H-1C visas. Nonimmigrant visas present a couple of difficulties. First, they are valid for a limited amount of time, whereas the nursing crisis is an ongoing problem. Second, there are very few available nonimmigrant visas for which nurses can apply. For example, H1-B visas are only available to those who have a bachelor's degree or higher and many nurses do not have the required educational degree. TN visas, on the other hand, are only available to qualified nurses from Canada and Mexico. Lastly, H1-C visas, which were created specifically to address the nursing shortage, are limited to only 500 per year and currently only 14 hospitals have the required certification to qualify for the visas! The second option, immigrant visas, allows foreign nurses to receive permanent residence in the US, otherwise known as a "green card." Nurses typically are eligible for EB-3 visas, or a "third priority employment-based visa." In order to apply for an immigrant visa, the foreign nurse must be sponsored by a US employer, like a hospital. The employer then must enter a lengthy application process before the foreign nurse can become eligible to apply for a visa. The process includes filing an I-140 petition and labor certification with the US Citizenship and Immigration Services (USCIS) office. Generally, employers seeking to sponsor workers for EB-3 visas also must complete a lengthy application process with the US Department of Labor (DOL) to certify that there is a shortage of US workers for the position and that hiring a foreign worker will not have an adverse affect on the wages or working conditions of US workers. However, nursing is considered a "Schedule A" occupation. This means that the DOL has pre-certified that there is a documented shortage of nurses and that hiring foreign nurses will not displace or adversely affect US nurses. The Schedule A designation is supposed to speed up the application process for employers trying to sponsor foreign nurses by allowing them to bypass the DOL process and skip ahead to filing the petition and labor certification with the USCIS. But even with this designation, it still takes the USCIS an estimated 15 months to process an I-140 Immigrant Visa Petition for a Schedule A nurse. The biggest barrier, however, to bringing more foreign nurses to work in the US is not the application processing time, but how long it takes after the application has been processed until a nurse receives a visa. Once the USCIS has approved the application for the foreign nurse, the nurse then is given a priority date and placed in line for a visa with all of the other approved EB-3 applicants. The current wait time for an available EB-3 visa number is 3-7 years. So this means that hospitals who filed successful petitions for foreign nurses as far back as 2002 still may be waiting for the nurse to begin work. Once the visa number becomes available, then the foreign nurse must either apply for a visa at the US consulate or embassy in his or her home country. If the nurse currently is in the US on a different type of visa, he or she then must apply for a change of immigrant status. Either one of these processes may take months more to process. Waiting 7 or more years for a foreign nurse's immigration process to be fully completed is not helping any hospital with its nursing staff shortages. If anything, the length and complexity of the process serves as a deterrent to hospitals and other health care institutions who may be considering employing foreign nurses. One of the easiest ways to increase the number of nurses and decrease the waiting time in the immigration process is to create a special priority category just for nurses. Under US immigration law, only an act of Congress amending the Immigration and Nationality Act (INA) or an executive order issued by the President can create this new category for immigrant visas. Additionally, the federal government could take action to increase the number of immigrant and nonimmigrant visas available to nurses. This number is set each year by Congress. Currently, there only are 140,000 eligible visas for all five of the EB categories. By increasing the number of available visas and providing nurses with a special priority category for attaining a visa number, the federal government can take significant steps towards addressing the nursing shortage. Meaningful health care reform cannot occur without tackling the nursing shortage. No matter what shape the US health care system takes in the future, there will always be a need for well-trained nurses. Without them, hospital care cannot be expected to improve. Individuals, health care providers and the public must urge their Congressmen to support immigration reform as important means through which to reform the broken US health care system.

#### Nursing shortage impedes efforts to prepare for bioterror attacks

Oncology Times, 07, “Reps. Capps, LaTourette Call for Increased Funding of Nurse Education Programs,” <http://journals.lww.com/oncology-times/Fulltext/2007/07100/Eye_on_Washington.4.aspx>

Nurses also are the cornerstone of bioterrorism and pandemic flu preparedness and response, the letter notes. If these events were to occur, an adequate supply of nurses will be needed to evaluate patients, administer vaccines and medications, perform disease surveillance, and train non-licensed staff. GAO [the Government Accountability Office], the American Hospital Association, and Trust for America's Health have released reports citing the nursing shortage as a major impediment to preparedness efforts.

#### Bioweapon use spreads globally and causes extinction – outweighs nuclear weapons

John Steinbruner, Brookings Senior Fellow, 1997, “Biological weapons: a plague upon all houses,”

Although human pathogens are often lumped with nuclear explosives and lethal chemicals as potential weapons of mass destruction, there is an obvious, fundamentally important difference: Pathogens are alive, weapons are not. Nuclear and chemical weapons do not reproduce themselves and do not independently engage in adaptive behavior; pathogens do both of these things. That deceptively simple observation has immense implications. The use of a manufactured weapon is a singular event. Most of the damage occurs immediately. The aftereffects, whatever they may be, decay rapidly over time and distance in a reasonably predictable manner. Even before a nuclear warhead is detonated, for instance, it is possible to estimate the extent of the subsequent damage and the likely level of radioactive fallout. Such predictability is an essential component for tactical military planning. The use of a pathogen, by contrast, is an extended process whose scope and timing cannot be precisely controlled. For most potential biological agents, the predominant drawback is that they would not act swiftly or decisively enough to be an effective weapon. But for a few pathogens - ones most likely to have a decisive effect and therefore the ones most likely to be contemplated for deliberately hostile use - the risk runs in the other direction. A lethal pathogen that could efficiently spread from one victim to another would be capable of initiating an intensifying cascade of disease that might ultimately threaten the entire world population. The 1918 influenza epidemic demonstrated the potential for a global contagion of this sort but not necessarily its outer limit.

# Case

## Manufacturing

### 1NC No Impact

#### ( ) No wars from econ collapse.

Morris Miller, Winter 2000, Interdisciplinary Science Reviews, “Poverty as a cause of wars?” V. 25, Iss. 4, p pq

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

#### Recession proves

Barnett 2009 – WPR columnist and editor for Esquire, senior managing director of Enterra Solutions (8/24, Thomas, World Politics Review, “The New Rules: Security Remains Stable Amid Financial Crisis”, http://www.worldpoliticsreview.com/articles/4213/the-new-rules-security-remains-stable-amid-financial-crisis)

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. Do I expect to read any analyses along those lines in the blogosphere any time soon? Absolutely not. I expect the fantastic fear-mongering to proceed apace. That's what the Internet is for.

#### Wars happen on economic upswing – WWII proves.

Niall Ferguson, Professor of History at Harvard University. September/October 2006. “The Next War of the World.” Foreign Affairs. New York: Sep/Oct 2006. Vol. 85, Iss. 5; pg. 61. Proquest.

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

#### Collapse of the global economy is inevitable

Thomas Homer-Dixon, holds the Centre for International Governance Innovation Chair of Global Systems at the Balsillie School of International Affairs in Waterloo, Ontario, and is a Professor in the Centre for Environment and Business in the Faculty of Environment, University of Waterloo, January/February 2011, “Unconventional Wisdom: ECONOMIES CAN'T JUST KEEP ON GROWING,” Foreign Policy, www.foreignpolicy.com/articles/2011/01/02/unconventional\_wisdom?page=0,1

Humanity has made great strides over the past 2,000 years, and we often assume that our path, notwithstanding a few bumps along the way, goes ever upward. But we are wrong: Within this century, environmental and resource constraints will likely bring global economic growth to a halt. Limits on available resources already restrict economic activity in many sectors, though their impact usually goes unacknowledged. Take rare-earth elements -- minerals and oxides essential to the manufacture of many technologies. When China recently stopped exporting them, sudden shortages threatened to crimp a wide range of industries. Most commentators believed that the supply crunch would ease once new (or mothballed) rare-earth mines are opened. But such optimism overlooks a fundamental physical reality. As the best bodies of ore are exhausted, miners move on to less concentrated deposits in more difficult natural circumstances. These mines cause more pollution and require more energy. In other wordsfv, opening new rare-earth mines outside China will result in staggering environmental impact. Or consider petroleum, which provides about 40 percent of the world's commercial energy and more than 95 percent of its transportation energy. Oil companies generally have to work harder to get each new barrel of oil. The amount of energy they receive for each unit of energy they invest in drilling has dropped from 100 to 1 in Texas in the 1930s to about 15 to 1 in the continental United States today. The oil sands in Alberta, Canada, yield a return of only 4 to 1. Coal and natural gas still have high energy yields. So, as oil becomes harder to get in coming decades, these energy sources will become increasingly vital to the global economy. But they're fossil fuels, and burning them generates climate-changing carbon dioxide. If the World Bank's projected rates for global economic growth hold steady, global output will have risen almost tenfold by 2100, to more than $600 trillion in today's dollars. So even if countries make dramatic reductions in carbon emissions per dollar of GDP, global carbon dioxide emissions will triple from today's level to more than 90 billion metric tons a year. Scientists tell us that tripling carbon emissions would cause such extreme heat waves, droughts, and storms that farmers would likely find they couldn't produce the food needed for the world's projected population of 9 billion people. Indeed, the economic damage caused by such climate change would probably, by itself, halt growth. Humankind is in a box. For the 2.7 billion people now living on less than $2 a day, economic growth is essential to satisfying the most basic requirements of human dignity. And in much wealthier societies, people need growth to pay off their debts, support liberty, and maintain civil peace. To produce and sustain this growth, they must expend vast amounts of energy. Yet our best energy source -- fossil fuel -- is the main thing contributing to climate change, and climate change, if unchecked, will halt growth.

#### Complexity theory – we can’t innovate our way out of shortages – diminishing returns

Debora MacKenzie, science journalist who writes regularly in New Scientist and other publications, 4-2008, “Why the demise of civilisation may be inevitable,” Climate Ark, http://www.climateark.org/shared/reader/welcome.aspx?linkid=97741

DOOMSDAY. The end of civilisation. Literature and film abound with tales of plague, famine and wars which ravage the planet, leaving a few survivors scratching out a primitive existence amid the ruins. Every civilisation in history has collapsed, after all. Why should ours be any different? Doomsday scenarios typically feature a knockout blow: a massive asteroid, all-out nuclear war or a catastrophic pandemic (see "Will a pandemic bring down civilisation?"). Yet there is another chilling possibility: what if the very nature of civilisation means that ours, like all the others, is destined to collapse sooner or later? A few researchers have been making such claims for years. Disturbingly, recent insights from fields such as complexity theory suggest that they are right. It appears that once a society develops beyond a certain level of complexity it becomes increasingly fragile. Eventually, it reaches a point at which even a relatively minor disturbance can bring everything crashing down. Some say we have already reached this point, and that it is time to start thinking about how we might manage collapse. Others insist it is not yet too late, and that we can - we must - act now to keep disaster at bay. Environmental mismanagement History is not on our side. Think of Sumeria, of ancient Egypt and of the Maya. In his 2005 best-seller Collapse, Jared Diamond of the University of California, Los Angeles, blamed environmental mismanagement for the fall of the Mayan civilisation and others, and warned that we might be heading the same way unless we choose to stop destroying our environmental support systems. Lester Brown of the Earth Policy Institute in Washington DC agrees. He has long argued that governments must pay more attention to vital environmental resources. "It's not about saving the planet. It's about saving civilisation," he says. Others think our problems run deeper. >From the moment our ancestors started to settle down and build cities, we have had to find solutions to the problems that success brings. "For the past 10,000 years, problem solving has produced increasing complexity in human societies," says Joseph Tainter, an archaeologist at Utah State University, Logan, and author of the 1988 book The Collapse of Complex Societies. If crops fail because rain is patchy, build irrigation canals. When they silt up, organise dredging crews. When the bigger crop yields lead to a bigger population, build more canals. When there are too many for ad hoc repairs, install a management bureaucracy, and tax people to pay for it. When they complain, invent tax inspectors and a system to record the sums paid. That much the Sumerians knew. Diminishing returns There is, however, a price to be paid. Every extra layer of organisation imposes a cost in terms of energy, the common currency of all human efforts, from building canals to educating scribes. And increasing complexity, Tainter realised, produces diminishing returns. The extra food produced by each extra hour of labour - or joule of energy invested per farmed hectare - diminishes as that investment mounts. We see the same thing today in a declining number of patents per dollar invested in research as that research investment mounts. This law of diminishing returns appears everywhere, Tainter says. To keep growing, societies must keep solving problems as they arise. Yet each problem solved means more complexity. Success generates a larger population, more kinds of specialists, more resources to manage, more information to juggle - and, ultimately, less bang for your buck. Eventually, says Tainter, the point is reached when all the energy and resources available to a society are required just to maintain its existing level of complexity. Then when the climate changes or barbarians invade, overstretched institutions break down and civil order collapses. What emerges is a less complex society, which is organised on a smaller scale or has been taken over by another group. Tainter sees diminishing returns as the underlying reason for the collapse of all ancient civilisations, from the early Chinese dynasties to the Greek city state of Mycenae. These civilisations relied on the solar energy that could be harvested from food, fodder and wood, and from wind. When this had been stretched to its limit, things fell apart. An ineluctable process Western industrial civilisation has become bigger and more complex than any before it by exploiting new sources of energy, notably coal and oil, but these are limited. There are increasing signs of diminishing returns: the energy required to get each new joule of oil is mounting and although global food production is still increasing, constant innovation is needed to cope with environmental degradation and evolving pests and diseases - the yield boosts per unit of investment in innovation are shrinking. "Since problems are inevitable," Tainter warns, "this process is in part ineluctable." Is Tainter right? An analysis of complex systems has led Yaneer Bar-Yam, head of the New England Complex Systems Institute in Cambridge, Massachusetts, to the same conclusion that Tainter reached from studying history. Social organisations become steadily more complex as they are required to deal both with environmental problems and with challenges from neighbouring societies that are also becoming more complex, Bar-Yam says. This eventually leads to a fundamental shift in the way the society is organised. "To run a hierarchy, managers cannot be less complex than the system they are managing," Bar-Yam says. As complexity increases, societies add ever more layers of management but, ultimately in a hierarchy, one individual has to try and get their head around the whole thing, and this starts to become impossible. At that point, hierarchies give way to networks in which decision-making is distributed. We are at this point. This shift to decentralised networks has led to a widespread belief that modern society is more resilient than the old hierarchical systems. "I don't foresee a collapse in society because of increased complexity," says futurologist and industry consultant Ray Hammond. "Our strength is in our highly distributed decision making." This, he says, makes modern western societies more resilient than those like the old Soviet Union, in which decision making was centralised. Increasing connectedness Things are not that simple, says Thomas Homer-Dixon, a political scientist at the University of Toronto, Canada, and author of the 2006 book The Upside of Down. "Initially, increasing connectedness and diversity helps: if one village has a crop failure, it can get food from another village that didn't." As connections increase, though, networked systems become increasingly tightly coupled. This means the impacts of failures can propagate: the more closely those two villages come to depend on each other, the more both will suffer if either has a problem. "Complexity leads to higher vulnerability in some ways," says Bar-Yam. "This is not widely understood." The reason is that as networks become ever tighter, they start to transmit shocks rather than absorb them. "The intricate networks that tightly connect us together - and move people, materials, information, money and energy - amplify and transmit any shock," says Homer-Dixon. "A financial crisis, a terrorist attack or a disease outbreak has almost instant destabilising effects, from one side of the world to the other." For instance, in 2003 large areas of North America and Europe suffered blackouts when apparently insignificant nodes of their respective electricity grids failed. And this year China suffered a similar blackout after heavy snow hit power lines. Tightly coupled networks like these create the potential for propagating failure across many critical industries, says Charles Perrow of Yale University, a leading authority on industrial accidents and disasters. Credit crunch Perrow says interconnectedness in the global production system has now reached the point where "a breakdown anywhere increasingly means a breakdown everywhere". This is especially true of the world's financial systems, where the coupling is very tight. "Now we have a debt crisis with the biggest player, the US. The consequences could be enormous." "A networked society behaves like a multicellular organism," says Bar-Yam, "random damage is like lopping a chunk off a sheep." Whether or not the sheep survives depends on which chunk is lost. And while we are pretty sure which chunks a sheep needs, it isn't clear - it may not even be predictable - which chunks of our densely networked civilisation are critical, until it's too late. "When we do the analysis, almost any part is critical if you lose enough of it," says Bar-Yam. "Now that we can ask questions of such systems in more sophisticated ways, we are discovering that they can be very vulnerable. That means civilisation is very vulnerable." So what can we do? "The key issue is really whether we respond successfully in the face of the new vulnerabilities we have," Bar-Yam says. That means making sure our "global sheep" does not get injured in the first place - something that may be hard to guarantee as the climate shifts and the world's fuel and mineral resources dwindle. Tightly coupled system Scientists in other fields are also warning that complex systems are prone to collapse. Similar ideas have emerged from the study of natural cycles in ecosystems, based on the work of ecologist Buzz Holling, now at the University of Florida, Gainesville. Some ecosystems become steadily more complex over time: as a patch of new forest grows and matures, specialist species may replace more generalist species, biomass builds up and the trees, beetles and bacteria form an increasingly rigid and ever more tightly coupled system. "It becomes an extremely efficient system for remaining constant in the face of the normal range of conditions," says Homer-Dixon. But unusual conditions - an insect outbreak, fire or drought - can trigger dramatic changes as the impact cascades through the system. The end result may be the collapse of the old ecosystem and its replacement by a newer, simpler one. Globalisation is resulting in the same tight coupling and fine-tuning of our systems to a narrow range of conditions, he says. Redundancy is being systematically eliminated as companies maximise profits. Some products are produced by only one factory worldwide. Financially, it makes sense, as mass production maximises efficiency. Unfortunately, it also minimises resilience. "We need to be more selective about increasing the connectivity and speed of our critical systems," says Homer-Dixon. "Sometimes the costs outweigh the benefits." Is there an alternative? Could we heed these warnings and start carefully climbing back down the complexity ladder? Tainter knows of only one civilisation that managed to decline but not fall. "After the Byzantine empire lost most of its territory to the Arabs, they simplified their entire society. Cities mostly disappeared, literacy and numeracy declined, their economy became less monetised, and they switched from professional army to peasant militia." Staving off collapse Pulling off the same trick will be harder for our more advanced society. Nevertheless, Homer-Dixon thinks we should be taking action now. "First, we need to encourage distributed and decentralised production of vital goods like energy and food," he says. "Second, we need to remember that slack isn't always waste. A manufacturing company with a large inventory may lose some money on warehousing, but it can keep running even if its suppliers are temporarily out of action." The electricity industry in the US has already started identifying hubs in the grid with no redundancy available and is putting some back in, Homer-Dixon points out. Governments could encourage other sectors to follow suit. The trouble is that in a world of fierce competition, private companies will always increase efficiency unless governments subsidise inefficiency in the public interest. Homer-Dixon doubts we can stave off collapse completely. He points to what he calls "tectonic" stresses that will shove our rigid, tightly coupled system outside the range of conditions it is becoming ever more finely tuned to. These include population growth, the growing divide between the world's rich and poor, financial instability, weapons proliferation, disappearing forests and fisheries, and climate change. In imposing new complex solutions we will run into the problem of diminishing returns - just as we are running out of cheap and plentiful energy. "This is the fundamental challenge humankind faces. We need to allow for the healthy breakdown in natural function in our societies in a way that doesn't produce catastrophic collapse, but instead leads to healthy renewal," Homer-Dixon says. This is what happens in forests, which are a patchy mix of old growth and newer areas created by disease or fire. If the ecosystem in one patch collapses, it is recolonised and renewed by younger forest elsewhere. We must allow partial breakdown here and there, followed by renewal, he says, rather than trying so hard to avert breakdown by increasing complexity that any resulting crisis is actually worse. Lester Brown thinks we are fast running out of time. "The world can no longer afford to waste a day. We need a Great Mobilisation, as we had in wartime," he says. "There has been tremendous progress in just the past few years. For the first time, I am starting to see how an alternative economy might emerge. But it's now a race between tipping points - which will come first, a switch to sustainable technology, or collapse?" Tainter is not convinced that even new technology will save civilisation in the long run. "I sometimes think of this as a 'faith-based' approach to the future," he says. Even a society reinvigorated by cheap new energy sources will eventually face the problem of diminishing returns once more. Innovation itself might be subject to diminishing returns, or perhaps absolute limits. Studies of the way by Luis Bettencourt of the Los Alamos National Laboratory, New Mexico, support this idea. His team's work suggests that an ever-faster rate of innovation is required to keep cities growing and prevent stagnation or collapse, and in the long run this cannot be sustainable.

#### Short term collapse is the only mechanism to stop runaway warming – the majority of climate scientists agree

David Roberts, staff writer, 9-18-2012, “Freaked-out climate scientists urge other freaked-out climate scientists to speak up, fight Man,” Grist, http://grist.org/climate-energy/freaked-out-climate-scientists-urge-other-freaked-out-climate-scientists-to-speak-up-fight-man/

In my previous post, I discussed some new modeling which shows that avoiding climate chaos — limiting average global temperature rise to 2 degrees, generally agreed to be the threshold of danger — is still possible, but just barely, and only with massive, immediate, coordinated global action. Can we make the radical changes necessary to meet that challenge? No, say climate scientists Kevin Anderson and Alice Bows in a recent commentary in Nature Climate Change, not “within orthodox political and economic constraints.” There is no political or economic constraint more orthodox than the primacy of economic growth. No solution to climate change that threatens economic growth can get any traction at all — even the most “alarmist” climate hawks fear to tread there. Which is too bad, Anderson and Bows say, because “climate change commitments are incompatible with short- to medium-term economic growth (in other words, for 10 to 20 years).” What’s worse, “work on adapting to climate change suggests that economic growth cannot be reconciled with the breadth and rate of impacts as the temperature rises towards 4 °C and beyond.” In other words: We either give up economic growth voluntarily for a little while or suffer a climate that will reverse economic growth long-term. Yikes. I’ve cited papers by Anderson and Bows before, in my “brutal logic” series. They are extremely pessimistic about the chances of constraining temperature rise to 2 or even 3 degrees. They identify several ways that most climate modeling downplays the severity of the challenge, but their difference with, say, the U.K. group I wrote about yesterday is not so much over projections as what the projections mean in political economy terms. The U.K. group stresses that 2 degrees is still possible. Anderson and Bows stress that, “within orthodox political and economic constraints,” hitting such a target is wildly unlikely. Absent some pretty revolutionary political and economic changes, it won’t happen. For obvious reasons, scientists shy away from saying this kind of thing in public. They don’t want to depress people or come off as “political.” However, say Anderson and Bows, “away from the microphone and despite claims of ‘green growth’, few if any scientists working on climate change would disagree with the broad thrust of this candid conclusion.”

#### Decline solves warming – causes extinction.

Minqi Li, Assistant Professor Department of Economics, University of Utah, 2010, “The 21st Century Crisis: Climate Catastrophe or Socialism” Paper prepared for the David Gordon Memorial Lecture at URPE Summer Conference 2010.

The global average surface temperature is now about 0.8C (0.8 degree Celsius) higher than the pre-industrial time. Under the current trend, the world is on track towards a long-term warming between 4C and 8C. At this level of global warming, the world would be in an extreme greenhouse state not seen for almost 100 million years, devastating human civilization and destroying nearly all forms of life on the present earth (Conner and McCarthy 2009). The scientific community has reached the consensus that the current global warming results from the excessive accumulation in the atmosphere of carbon dioxide (CO2) and other greenhouse gases (such as methane and nitrous oxide) emitted by human economic activities. The capitalist historical epoch has been characterized by the explosive growth of material production and consumption. The massive expansion of the world economy has been powered by fossil fuels (coal, oil, and natural gas). Since 1820, the world economy has expanded by about seventy times and the world emissions of carbon dioxide from fossil fuels burning have increased by about sixty times (see Figure 1). At the United Nations conference on climate change concluded at Copenhagen in December 2009, the world’s governments officially committed to the objective of limiting global warming to no more than 2C. However, according to the “Climate Action Tracker”, despite the official statement, the national governments’ current pledges regarding emission reduction in fact imply a warming of at least 3C by the end of the 21st century with more warming to come in the following centuries (Climate Action Tracker 2010). In reality, all the major national governments are committed to infinite economic growth and none of them is willing to consider any emission reduction policy that could undermine economic growth. This is not simply because of intellectual ignorance or lack of political will. The pursuit of endless accumulation of capital (and infinite economic growth) is derived from the basic laws of motion of the capitalist economic system. Without fundamental social transformation, human civilization is now on the path to self-destruction. The next section (Section 2) reviews the basic scientific facts concerning the climate change crisis. Without an end of economic growth, it is virtually impossible for meaningful climate stabilization to be achieved (Section 3). However, both capitalist enterprises and states are constantly driven to expand production and consumption. The system of nation states effectively rules out a meaningful global political solution to the climate change crisis (Section 4). The climate change crisis is but one of several long-term historical trends that are now leading to the structural crisis of capitalism (Section 5). The resolution of the crisis and the survival of the humanity require the building of a fundamentally different social system that is based on social ownership of the means of production and society-wide planning (Section 6).

#### Economic growth causes war – decline doesn’t cause war

Charles Boehmer, professor of political science at the University of Texas, El Paso and Ph.D. in Political Science from Pennsylvania State University, 2010, “Economic Growth and Violent International Conflict: 1875-1999,” Defence and Peace Economics, June, Vol. 21, Issue 3, pg. 249-268

The theory set forth earlier theorizes that economic growth increases perceptions of state strength, increasing the likelihood of violent interstate conflicts. Economic growth appears to increase the resolve of leaders to stand against challenges and the willingness to escalate disputes. A non-random pattern exists where higher rates of GDP growth over multiple years are positively and significantly related to the most severe international conflicts, whereas this is not true for overall conflict initiations. Moreover, growth of military expenditures, as a measure of the war chest proposition, does not offer any explanation for violent interstate conflicts. This is not to say that growth of military expenditures never has any effect on the occurrence of war, although such a link is not generally true in the aggregate using a large sample of states. In comparison, higher rates of economic growth are significantly related to violent interstate conflicts in the aggregate. States with growing economies are more apt to reciprocate military challenges by other states and become involved in violent interstate conflicts. The results also show that theories from the Crisis-Scarcity perspective lack explanatory power linking GDP growth rates to war at the state level of analysis. This is not to say that such theories completely lack explanatory power in general, but more particularly that they cannot directly link economic growth rates to state behavior in violent interstate conflicts. In contrast, theories of diversionary conflict may well hold some explanatory power, although not regarding GDP growth in a general test of states from all regions of the world across time. Perhaps diversionary theory better explains state behaviors short of war, where the costs of externalizing domestic tensions do not become too costly, or in relation to the foreign policies of particular countries. In many circumstances, engaging in a war to divert attention away from domestic conditions would seemingly exacerbate domestic crisis conditions unless the chances of victory were practically assured. Nonetheless, this study does show that domestic conflict is associated with interstate conflict. If diversionary conflict theory has any traction as an economic explanation of violent interstate conflicts, it may require the study of other explanatory variables besides overall GDP growth rates, such as unemployment or inflation rates. The contribution of this article has been to examine propositions about economic growth in a global study. Most existing studies on this topic focus on only the United States, samples of countries that are more developed on average (due to data availability in the past), or are based on historical information and not economic GDP data. While I have shown that there is no strong evidence linking military expenditures to violent interstate conflicts at the state level of analysis, much of the remaining Growth-as-Catalyst perspective is grounded in propositions that are not directly germane to questions about state conflict behavior, such as those linking state behavior to long-cycles, or those that remain at the systemic level. What answer remains linking economic growth to war once we eliminate military expenditures as an explanation? Considering that the concept of foreign policy mood is difficult to identify and measure, and that the bulk of the literature relies solely on the American historical experience, I do not rely on that concept. It is still possible that such moods affect some decision- makers. Instead, similar to Blainey, I find that economic growth, when sustained over a stretch of years, has its strongest effect on states once they find themselves in an international crisis. The results of this study suggest that states such as China, which have a higher level of opportunity to become involved in violent interstate conflicts due to their capabilities, geographic location, history of conflict, and so on, should also have a higher willingness to fight after enjoying multiple years of recent economic growth. One does not have to assume that an aggressive China will emerge from growth. If conflicts do present themselves, then China may be more likely to escalate a war given its recent national performance.

### 1NC No Impact to Heg

#### No impact to heg

Christopher J. Fettweis, Department of Political Science, Tulane University, 9-26-2011, 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.

## Prolif

### 1NC No Impact

#### No war

Jonathan Tepperman, deputy editor at Newsweek and former Deputy Managing Editor at Foreign Affairs, 8-28-2009, “Why Obama Should Learn to Love the Bomb,” The Daily Beast, http://www.thedailybeast.com/newsweek/2009/08/28/why-obama-should-learn-to-love-the-bomb.html

A growing and compelling body of research suggests that nuclear weapons may not, in fact, make the world more dangerous, as Obama and most people assume. The bomb may actually make us safer. In this era of rogue states and transnational terrorists, that idea sounds so obviously wrongheaded that few politicians or policymakers are willing to entertain it. But that's a mistake. Knowing the truth about nukes would have a profound impact on government policy. Obama's idealistic campaign, so out of character for a pragmatic administration, may be unlikely to get far (past presidents have tried and failed). But it's not even clear he should make the effort. There are more important measures the U.S. government can and should take to make the real world safer, and these mustn't be ignored in the name of a dreamy ideal (a nuke-free planet) that's both unrealistic and possibly undesirable. The argument that nuclear weapons can be agents of peace as well as destruction rests on two deceptively simple observations. First, nuclear weapons have not been used since 1945. Second, there's never been a nuclear, or even a nonnuclear, war between two states that possess them. Just stop for a second and think about that: it's hard to overstate how remarkable it is, especially given the singular viciousness of the 20th century. As Kenneth Waltz, the leading "nuclear optimist" and a professor emeritus of political science at UC Berkeley puts it, "We now have 64 years of experience since Hiroshima. It's striking and against all historical precedent that for that substantial period, there has not been any war among nuclear states." To understand why—and why the next 64 years are likely to play out the same way—you need to start by recognizing that all states are rational on some basic level. Their leaders may be stupid, petty, venal, even evil, but they tend to do things only when they're pretty sure they can get away with them. Take war: a country will start a fight only when it's almost certain it can get what it wants at an acceptable price. Not even Hitler or Saddam waged wars they didn't think they could win. The problem historically has been that leaders often make the wrong gamble and underestimate the other side—and millions of innocents pay the price. Nuclear weapons change all that by making the costs of war obvious, inevitable, and unacceptable. Suddenly, when both sides have the ability to turn the other to ashes with the push of a button—and everybody knows it—the basic math shifts. Even the craziest tin-pot dictator is forced to accept that war with a nuclear state is unwinnable and thus not worth the effort. As Waltz puts it, "Why fight if you can't win and might lose everything?" Why indeed? The iron logic of deterrence and mutually assured destruction is so compelling, it's led to what's known as the nuclear peace: the virtually unprecedented stretch since the end of World War II in which all the world's major powers have avoided coming to blows. They did fight proxy wars, ranging from Korea to Vietnam to Angola to Latin America. But these never matched the furious destruction of full-on, great-power war (World War II alone was responsible for some 50 million to 70 million deaths). And since the end of the Cold War, such bloodshed has declined precipitously. Meanwhile, the nuclear powers have scrupulously avoided direct combat, and there's very good reason to think they always will. There have been some near misses, but a close look at these cases is fundamentally reassuring—because in each instance, very different leaders all came to the same safe conclusion. Take the mother of all nuclear standoffs: the Cuban missile crisis. For 13 days in October 1962, the United States and the Soviet Union each threatened the other with destruction. But both countries soon stepped back from the brink when they recognized that a war would have meant curtains for everyone. As important as the fact that they did is the reason why: Soviet leader Nikita Khrushchev's aide Fyodor Burlatsky said later on, "It is impossible to win a nuclear war, and both sides realized that, maybe for the first time." 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 coauthor 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 in each country did what they had to do to avoid it. Nuclear pessimists—and there are many—insist that even if this pattern has held in the past, it's crazy to rely on it in the future, for several reasons. The first is that today's nuclear wannabes are so completely unhinged, you'd be mad to trust them with a bomb. Take the sybaritic Kim Jong Il, who's never missed a chance to demonstrate his battiness, or Mahmoud Ahmadinejad, who has denied the Holocaust and promised the destruction of Israel, and who, according to some respected Middle East scholars, runs a messianic martyrdom cult that would welcome nuclear obliteration. These regimes are the ultimate rogues, the thinking goes—and there's no deterring rogues. But are Kim and Ahmadinejad really scarier and crazier than were Stalin and Mao? It might look that way from Seoul or Tel Aviv, but history says otherwise. Khrushchev, remember, threatened to "bury" the United States, and in 1957, Mao blithely declared that a nuclear war with America wouldn't be so bad because even "if half of mankind died … the whole world would become socialist." Pyongyang and Tehran support terrorism—but so did Moscow and Beijing. And as for seeming suicidal, Michael Desch of the University of Notre Dame points out that Stalin and Mao are the real record holders here: both were responsible for the deaths of some 20 million of their own citizens. Yet when push came to shove, their regimes balked at nuclear suicide, and so would today's international bogeymen. For all of Ahmadinejad's antics, his power is limited, and the clerical regime has always proved rational and pragmatic when its life is on the line. Revolutionary Iran has never started a war, has done deals with both Washington and Jerusalem, and sued for peace in its war with Iraq (which Saddam started) once it realized it couldn't win. North Korea, meanwhile, is a tiny, impoverished, family-run country with a history of being invaded; its overwhelming preoccupation is survival, and every time it becomes more belligerent it reverses itself a few months later (witness last week, when Pyongyang told Seoul and Washington it was ready to return to the bargaining table). These countries may be brutally oppressive, but nothing in their behavior suggests they have a death wish.

### 1NC Slow

#### Prolif goes slow – no risk of breakout

Jacques Hymans, USC Associate Professor of IR, 4-16-2012, North Korea's Lessons for (Not) Building an Atomic Bomb, www.foreignaffairs.com/articles/137408/jacques-e-c-hymans/north-koreas-lessons-for-not-building-an-atomic-bomb?page=show

Washington's miscalculation is not just a product of the difficulties of seeing inside the Hermit Kingdom. It is also a result of the broader tendency to overestimate the pace of global proliferation. For decades, Very Serious People have predicted that strategic weapons are about to spread to every corner of the earth. Such warnings have routinely proved wrong - for instance, the intelligence assessments that led to the 2003 invasion of Iraq - but they continue to be issued. In reality, despite the diffusion of the relevant technology and the knowledge for building nuclear weapons, the world has been experiencing a great proliferation slowdown. Nuclear weapons programs around the world are taking much longer to get off the ground - and their failure rate is much higher - than they did during the first 25 years of the nuclear age. As I explain in my article "Botching the Bomb" in the upcoming issue of Foreign Affairs, the key reason for the great proliferation slowdown is the absence of strong cultures of scientific professionalism in most of the recent crop of would-be nuclear states, which in turn is a consequence of their poorly built political institutions. In such dysfunctional states, the quality of technical workmanship is low, there is little coordination across different technical teams, and technical mistakes lead not to productive learning but instead to finger-pointing and recrimination. **These problems are debilitating**, and **they cannot be fixed** simply by bringing in more imported parts through illicit supply networks. In short, as a struggling proliferator, North Korea has a lot of company.

### 1NC Nuclear Terror

#### Vanishingly low risk of nuclear terrorism

John Mueller, IR Prof @ Ohio State, PhD, 8-2-2011, “The Truth About Al Qaeda,” Foreign Affairs, http://www.foreignaffairs.com/articles/68012/john-mueller/the-truth-about-al-qaeda?page=show

As a misguided Turkish proverb holds, "If your enemy be an ant, imagine him to be an elephant." The new information unearthed in Osama bin Laden's hideout in Abbottabad, Pakistan, suggests that the United States has been doing so for a full decade. Whatever al Qaeda's threatening rhetoric and occasional nuclear fantasies, its potential as a menace, particularly as an atomic one, has been much inflated. The public has now endured a decade of dire warnings about the imminence of a terrorist atomic attack. In 2004, the former CIA spook Michael Scheuer proclaimed on television's 60 Minutes that it was "probably a near thing," and in 2007, the physicist Richard Garwin assessed the likelihood of a nuclear explosion in an American or a European city by terrorism or other means in the next ten years to be 87 percent. By 2008, Defense Secretary Robert Gates mused that what keeps every senior government leader awake at night is "the thought of a terrorist ending up with a weapon of mass destruction, especially nuclear." Few, it seems, found much solace in the fact that an al Qaeda computer seized in Afghanistan in 2001 indicated that the group's budget for research on weapons of mass destruction (almost all of it focused on primitive chemical weapons work) was some $2,000 to $4,000. In the wake of the killing of Osama bin Laden, officials now have more al Qaeda computers, which reportedly contain a wealth of information about the workings of the organization in the intervening decade. A multi-agency task force has completed its assessment, and according to first reports, it has found that al Qaeda members have primarily been engaged in dodging drone strikes and complaining about how cash-strapped they are. Some reports suggest they've also been looking at quite a bit of pornography. The full story is not out yet, but it seems breathtakingly unlikely that the miserable little group has had the time or inclination, let alone the money, to set up and staff a uranium-seizing operation, as well as a fancy, super-high-tech facility to fabricate a bomb. It is a process that requires trusting corrupted foreign collaborators and other criminals, obtaining and transporting highly guarded material, setting up a machine shop staffed with top scientists and technicians, and rolling the heavy, cumbersome, and untested finished product into position to be detonated by a skilled crew, all the while attracting no attention from outsiders. The documents also reveal that after fleeing Afghanistan, bin Laden maintained what one member of the task force calls an "obsession" with attacking the United States again, even though 9/11 was in many ways a disaster for the group. It led to a worldwide loss of support, a major attack on it and on its Taliban hosts, and a decade of furious and dedicated harassment. And indeed, bin Laden did repeatedly and publicly threaten an attack on the United States. He assured Americans in 2002 that "the youth of Islam are preparing things that will fill your hearts with fear"; and in 2006, he declared that his group had been able "to breach your security measures" and that "operations are under preparation, and you will see them on your own ground once they are finished." Al Qaeda's animated spokesman, Adam Gadahn, proclaimed in 2004 that "the streets of America shall run red with blood" and that "the next wave of attacks may come at any moment." The obsessive desire notwithstanding, such fulminations have clearly lacked substance. Although hundreds of millions of people enter the United States legally every year, and countless others illegally, no true al Qaeda cell has been found in the country since 9/11 and exceedingly few people have been uncovered who even have any sort of "link" to the organization. The closest effort at an al Qaeda operation within the country was a decidedly nonnuclear one by an Afghan-American, Najibullah Zazi, in 2009. Outraged at the U.S.-led war on his home country, Zazi attempted to join the Taliban but was persuaded by al Qaeda operatives in Pakistan to set off some bombs in the United States instead. Under surveillance from the start, he was soon arrested, and, however "radicalized," he has been talking to investigators ever since, turning traitor to his former colleagues. Whatever training Zazi received was inadequate; he repeatedly and desperately sought further instruction from his overseas instructors by phone. At one point, he purchased bomb material with a stolen credit card, guaranteeing that the purchase would attract attention and that security video recordings would be scrutinized. Apparently, his handlers were so strapped that they could not even advance him a bit of cash to purchase some hydrogen peroxide for making a bomb. For al Qaeda, then, the operation was a failure in every way -- except for the ego boost it got by inspiring the usual dire litany about the group's supposedly existential challenge to the United States, to the civilized world, to the modern state system. Indeed, no Muslim extremist has succeeded in detonating even a simple bomb in the United States in the last ten years, and except for the attacks on the London Underground in 2005, neither has any in the United Kingdom. It seems wildly unlikely that al Qaeda is remotely ready to go nuclear. Outside of war zones, the amount of killing carried out by al Qaeda and al Qaeda linkees, maybes, and wannabes throughout the entire world since 9/11 stands at perhaps a few hundred per year. That's a few hundred too many, of course, but it scarcely presents an existential, or elephantine, threat. And the likelihood that an American will be killed by a terrorist of any ilk stands at one in 3.5 million per year, even with 9/11 included.

### 1NC Accidents

#### SMRs are coming – deployment before full review leads to accidents

Ucilia Wang, staff writer, 1-20-2012, “Feds To Finance Small Nuclear Reactor Designs,” http://www.forbes.com/sites/uciliawang/2012/01/20/feds-to-finance-small-nuclear-reactor-designs/

The U.S. Department of Energy on Friday announced a plan to support the design of so-called “small modular nuclear reactors” and popularize their use for power generation. The plan is to fund two reactor designs that will become available for licensing and production by 2022. The department is first asking for advice from the power industry on crafting the details of this project, and it hasn’t said how much it would dole out. But whoever wins the contracts to design the reactors will have to pony up money as well. Small reactors are generally about one-third the size of existing nuclear reactors, and a power plant with small reactors promises to be cheaper to build and easier to obtain permits more quickly than a full-size nuclear power plant, proponents say. Utilities should have more flexibility in modifying the size of a power plant with small reactors – if they need more power, then they can add more reactors over time. Nuclear reactors have historically been designed to be 1-gigawatt or more each because such scale helps to drive down the manufacturing and installation costs. Small reactors can be economical, too, advocates say, because they can be shipped more easily and cheaply around the world. “We think (small, modular nuclear) solves a lot of issues in terms of investments and electricity infrastructure,” Chu said at a press conference a year ago. “And it’s a way for the United States to regain its leadership in nuclear.” Several startups and major power equipment makers are working on small modular nuclear reactors. They include TerraPower, which is backed by Bill Gates and recently received funding from Indian conglomerate Reliance Industries. TerraPower also has been talking to the governments of China, India and Russia, basically countries where nuclear power won’t likely receive the kind of intense opposition that you’ll find in the United States, Germany or Japan. Other venture capital-funded startups include NuScale Power and Hyperion Power Generation (see a list from GigaOm). These companies aren’t just working on shrinking the size of the reactors. They also are investigating the use of different fuels and ways to reduce nuclear waste, for example. Following the energy department’s announcement Friday morning, Westinghouse Electric Co. issued a statement to say it intends to apply for the funding. Westinghouse already is in the nuclear reactor design business. It received approval from the Nuclear Regulatory Commission for a large, 1,154-megawatt nuclear reactor called AP1000 last month. The energy department funded part of the project to design AP1000. Just because small nuclear reactors promise many economic and environmental benefits (they don’t produce dirty air like coal or natural gas power plants do) doesn’t mean they can be developed and made more quickly or cheaply, however. Technology companies also will have to prove that their small nuclear reactors can be just as safe if not safer than the conventional, large-scale nuclear reactors today. The Fukushima nuclear power plant disaster in Japan has shown that a misstep in designing and operating a nuclear plant can have a far greater and more devastating impact than a mistake in running other types of power plants. That means nuclear power companies — and the government — will have to do a lot more to prove that nuclear power should remain an important part of the country’s energy mix.

#### The plan speeds SMRs up and causes accidents

Lyman, ‘11

[Dr. Edwin, Senior Scientist -- Union of Concerned Scientists, “AN EXAMINATION OF THE SAFETY AND ECONOMICS OF LIGHT WATER SMALL MODULAR REACTORS: HEARING before a SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE ONE HUNDRED TWELFTH CONGRESS FIRST SESSION, SPECIAL HEARING, JULY 14, 2011--WASHINGTON DC,” http://www.gpo.gov/fdsys/pkg/CHRG-112shrg72251/html/CHRG-112shrg72251.htm]

Given there is no apparent capital cost benefit for SMRs, we are concerned that the industry is trying to cut the potential operating maintenance costs by asking the NRC for regulatory relief for a number of requirements. These do include reduced operator staffing for each unit and potentially reducing the number of operators that you need to monitor the safety of each individual unit. They also are interested in reducing emergency planning zone sizes and also adjusting security requirements that may end up with a reduced number of security officers. We think one of the early lessons of Fukushima is that you need to prevent serious accidents with significant margins of safety, so now is not the time to start reducing regulatory requirements for small reactors. Emergency planning zone should be maintained. Security certainly should be maintained, especially in light of potential increased threats following the potential for retaliation of the death of Osama bin Laden, and we believe that the multiple reactor issues will require additional enhancements to regulations for collocated units to make sure that you do not have interactions that can affect the safety of each site because of an accident its neighbors.

#### ( ) Human and environmental resiliency prevents extinction from loss of bio-d

Holly Doremus, Professor of Law, U. Cal Davis, 57 Was & Lee L. Rev. 11, winter 2000 is one

The Rhetoric and Reality of Nature Protection: Toward a New Discourse, 57 Wash. & Lee L. Rev. 11 (2000).

In recent years, this discourse frequently has taken the form of the ecological horror story. That too is no mystery. The ecological horror story is unquestionably an attention-getter, especially in the hands of skilled writers [\*46] like Carson and the Ehrlichs. The image of the airplane earth, its wings wobbling as rivet after rivet is carelessly popped out, is difficult to ignore. The apocalyptic depiction of an impending crisis of potentially dire proportions is designed to spur the political community to quick action. Furthermore, this story suggests a goal that appeals to many nature lovers: that virtually everything must be protected. To reinforce this suggestion, tellers of the ecological horror story often imply that the relative importance of various rivets to the ecological plane cannot be determined. They offer reams of data and dozens of anecdotes demonstrating the unexpected value of apparently useless parts of nature. The moth that saved Australia from prickly pear invasion, the scrubby Pacific yew, and the downright unattractive leech are among the uncharismatic flora and fauna who star in these anecdotes. n211 The moral is obvious: because we cannot be sure which rivets are holding the plane together, saving them all is the only sensible course. Notwithstanding its attractions, the material discourse in general, and the ecological horror story in particular, are not likely to generate policies that will satisfy nature lovers. The ecological horror story implies that there is no reason to protect nature until catastrophe looms. The Ehrlichs' rivet-popper account, for example, presents species simply as the (fungible) hardware holding together the ecosystem. If we could be reasonably certain that a particular rivet was not needed to prevent a crash, the rivet-popper story suggests that we would lose very little by pulling it out. Many environmentalists, though, would disagree. n212 Reluctant to concede such losses, tellers of the ecological horror story highlight how close a catastrophe might be, and how little we know about what actions might trigger one. But the apocalyptic vision is less credible today than it seemed in the 1970s. Although it is clear that the earth is experiencing a mass wave of extinctions, n213 the complete elimination of life on earth seems unlikely. n214 Life is remarkably robust. Nor is human extinction probable any time soon. Homo sapiens is adaptable to nearly any environment. Even if the world of the future includes far fewer species, it likely will hold people. n215

### 1NC IAEA DA

#### Nuclear is declining globally – Fukushima and costs

Matthew Roney, President of the Earth Policy Institute, 5-22-2012, “Fukushima Meltdown Hastens Decline of Nuclear Power,” Earth Policy Institute, http://www.earth-policy.org/plan\_b\_updates/2012/update103

On May 5, 2012, Japan shut down its Tomari 3 nuclear reactor on the northern island of Hokkaido for inspection, marking the first time in over 40 years that the country had not a single nuclear power plant generating electricity. The March 2011 earthquake, tsunami, and subsequent Fukushima Daiichi nuclear meltdown shattered public confidence in atomic energy, thus far making it politically impossible to restart any of the reactors taken offline. And the disaster’s legacy has spread far beyond Japan. Some European countries have decided to phase out their nuclear programs entirely. In other countries, nuclear plans are proceeding with caution. But with the world’s fleet of reactors aging, and with new plants suffering construction delays and cost increases, it is possible that world nuclear electricity generation has peaked and begun a long-term decline. Prior to the Fukushima crisis, Japan had 54 reactors providing close to 30 percent of its electricity, with plans to increase this share to more than 50 percent by 2030. But nuclear power dropped to just 18 percent of Japan’s electricity over the course of 2011. When the quake and tsunami hit, 16 reactors had already been temporarily shut down for inspections or maintenance; another 13 underwent emergency shutoffs, including the four Fukushima Daiichi reactors now permanently shut down. Others were subsequently closed due to earthquake vulnerability or for regular inspection. Now that Tomari 3 is offline, all 44,200 megawatts of Japan’s nuclear capacity that are listed as “operational” by the International Atomic Energy Agency (IAEA) are in fact idle with no set date for restart. Next to Japan, the most dramatic shift in nuclear energy policy following Fukushima occurred in Germany. Within days of the disaster, Chancellor Angela Merkel announced that Germany’s seven oldest reactors, all built before 1980, would shut down immediately. And in May 2011, the government declared that Germany would phase out nuclear entirely by 2022. Nuclear power generated 18 percent of the country’s electricity in 2011, down from 24 percent in recent years and well below the peak in 1997 of 31 percent. Just before Germany’s phaseout decision, Switzerland abandoned plans for three new reactors that were going through the approval process. The government also announced that all five of the country’s reactors—which for years had provided some 40 percent of its electricity—will close permanently as their operating licenses expire over the next 22 years. Italy, which had discontinued its nuclear program after the infamous 1986 nuclear disaster in Chernobyl, Ukraine, had in 2010 decided to restart it. But in a June 2011 referendum, more than 90 percent of Italian voters chose to ban nuclear power. Later in 2011, Belgium announced plans to phase out the seven reactors that provide more than half of the country’s electricity. Even in France, with a world-leading 77 percent of its electricity coming from nuclear power, newly elected President François Hollande has said he intends to reduce this share to roughly 50 percent by 2025. According to IAEA data, 13 reactors with a combined 11,400 megawatts were permanently shut down in Japan, Germany, and the United Kingdom in 2011. Seven new reactors totaling 4,000 megawatts were connected to the grid—three in China and one each in India, Iran, Pakistan, and Russia—with less than 1,000 megawatts added through increasing, or “uprating,” existing nuclear plant capacities. As of May 2012, after two new reactor connections in South Korea and two permanent U.K. shutdowns, the world’s 435 operational nuclear reactors total 370,000 megawatts of capacity. Actual nuclear electricity generation in 2011 fell to 2,520 terawatt-hours, 5 percent below the 2006 peak. World Net Electricity Generation from Nuclear Power Plants, 1970-2011 The growth in nuclear generating capacity had slowed to a crawl well before the Fukushima disaster. From 1970 to 1986, cumulative capacity grew at a brisk 19 percent annual rate. Even after Chernobyl, nuclear power capacity grew at 4 percent a year until 1990. But since then the annual growth rate has been just 0.7 percent. (See data.) In contrast to the backlash in places like Japan and Germany, a number of countries reaffirmed their commitment to nuclear power, while indicating that safety would be a priority. This includes the three countries building the most new reactors: China (with 26 reactors under construction), Russia (11), and India (7). Immediately after the Fukushima incident, China suspended its reactor approval process to review the safety of existing plants, but the government has since indicated that the 26,600 megawatts under construction will move forward. Russia still intends to double its nuclear generating capacity by 2020, and India plans to increase its capacity 14-fold to 63,000 megawatts by 2032. Of the 62 reactors the IAEA lists as under construction, only 15 have a projected date for connecting to the grid. (Not one of China’s 26 units under construction does.) Some of these reactors have been listed this way for more than 20 years. A prime example is the only U.S. reactor under construction, the Watts Bar 2 unit in Tennessee, which started construction in 1972. In April 2012, the startup date was moved from August 2012 to sometime in 2015, as the estimated cost rose 68 percent. The United States, home to roughly one quarter of the world’s nuclear generating capacity, gets 19 percent of its electricity from nuclear power. The last new U.S. reactor to connect to the grid was Watts Bar 1 in 1996. In early 2012, the U.S. Nuclear Regulatory Commission approved construction permits for four 1,100-megawatt reactors at two existing nuclear plants in the southeastern states of Georgia and South Carolina, the first permits for new plants since 1978. In that region, utilities are allowed to increase their customers’ rates to defray the cost of nuclear plants even before construction begins. Despite this advantage, the four permitted reactors may well see the kind of delays and cost escalation that have become typical for the industry. For example, in May 2012, Progress Energy announced that grid connection for the first unit of its planned two-reactor project in Florida would be pushed back three years to 2024. With this delay, the estimated total cost jumped from $17 billion to as high as $24 billion. Indeed, unlike other energy technologies such as wind turbines and solar panels, where increasing deployment generally leads to economies of scale and falling costs, nuclear power has seen the opposite trend. Even the most recently completed plant in France cost more than three times as much to build and took twice as long to finish as the first plant did. Nuclear costs would be even more prohibitive if the damages for which nuclear utilities were liable in case of a meltdown were in line with realistic estimates of potential harm. In the United States, nuclear plant operators pay into a $12-billion fund that would be used in case of an accident. But an estimate from Sandia National Laboratory indicates that a worst-case incident could cost more than $700 billion. The poor economic case for nuclear power helps explain why most new nuclear construction is happening in countries with government-controlled electricity markets: private investors are leery of the risks. New nuclear capacity additions over the long term are unlikely to make up for shutdowns as the world’s reactors, already averaging 27 years in operation, age further. Nearly 180 reactors have reached age 30 or higher. The 140 reactors already permanently shut down averaged 23 years of service at the time of closure. While some reactors have been granted lifetime extensions beyond the typical 40 years—many U.S. units have, for example—these may not be as readily approved after the demise of the four Fukushima reactors, which averaged 37 years old when disaster struck. Whether or not nuclear generation has truly peaked will depend on a number of factors, including how many Japanese reactors resume operation, how many licenses are extended for aging reactors worldwide, and the pace and magnitude of uprating existing units. But regardless of whether the peak has already come or will do so soon, poor economics and sluggish new construction indicate that nuclear power is on a decline path. Rather than replacing this energy source with fossil fuels, thus boosting carbon emissions and encouraging runaway climate change, the world can use this opportunity to pursue a much safer electricity sector powered largely by wind, solar, and geothermal energy. We know that the potential is there: leading carbon-emitting countries—including China, the United States, India, Russia, and Japan—could meet their electricity needs with wind alone.

#### IAEA resources are stable now but fragile

Yukiya Amano, director-general of the IAEA, 12-6-2012, “A Conversation with IAEA Director-General Yukiya Amano,” CFR, http://www.cfr.org/energyenvironment/conversation-iaea-director-general-yukiya-amano/p29628

Q: Thanks. Thank you. Steven Dolley with Platts. Director General, has IAEA received pledges of sufficient funding to implement fully the post-Fukushima action plan? And if not, do you expect that additional pledges of funding will be received at the ministerial? If there's not going to be sufficient funding, what aspects of the plan might need to be slowed or curtailed? MR. AMANO: The current priority for us related to safety is the implementation of the additional action plan for the nuclear safety. And it requires resources. One is financial resource, and another is human resource. So far a number of countries generously made their nationals available as cost-free experts, and Japan made a financial contribution and made some experts available for us. There are areas where we need, frankly, that we have to send peer review missions. Peer review missions means we need people and some fund to send people. We need to review the safety standards – again, we need the fund. And we are convening international expert to our meetings, and that requires some fund. So our – so far we have been financing these activities by the fund mainly contributed by Japan. But that fund is running out. On top of that, we cannot use the Japanese fund for – on the activities like making a report on Japan's accident, using Japan's money to make a report on Japan is a conflict of interest, and I don't want to do. And Japanese government doesn't want to do either. So we need funds. In addition to that, another scarce resource is human resource. When we send missions, we need very good international experts. And again, this is a very scarce resource. Good experts are in demand everywhere nowadays. We need to compete with other companies and other sectors. United States has been generously made their experts available for us, as well as some other countries. And we keep counting on them, and we keep on appealing other countries which are in a position to do so to provide us more extrabudgetary contribution to support the activities, to enhance safety after Fukushima Daiichi accident.

#### Plan causes massive IAEA overstretch—-only SMRs link— causes

Dr. Edwin Lyman 11, Senior Scientist, Global Security Program, Union of Concerned Scientists, July 14, 2011, Testimony Before the Energy and Water Development Subcommittee, Committee on Appropriations, U.S. Senate, “An Examination of the Safety and Economics of Light Water Small Modular Reactors,” <http://www.ucsusa.org/assets/documents/nuclear_power/lyman-appropriations-subcom-7-14-11.pdf>

The distributed deployment of small reactors would also put great strains on existing licensing and inspection resources. Nuclear reactors are qualitatively different from other types of generating facilities, not least because they require a much more extensive safety and security inspection regime. Similarly, deployment of individual small reactors at widely distributed and remote sites around the world would strain the resources of the International Atomic Energy Agency (IAEA) and its ability to adequately safeguard reactors to guard against proliferation, since IAEA inspectors would need to visit many more locations per installed megawatt around the world. Maintaining robust oversight over vast networks of SMRs around the world would be difficult, if feasible at all.

#### Overstretch means IAEA can’t contain meltdowns

Ivonnne Marschall, energy analyst for Monsters and Critics, 6-22-2007, "IAEA Warns Cash Shortage Will Affect Nuclear Security Work" <http://news.monstersandcritics.com/europe/features/article_1321201.php/IAEA_warns_cash_shortage_will_affect_nuclear_security_work>

Vienna - The International Atomic Energy Agency (IAEA) will not be in a position to do its job if it does not receive a substantial budget increase, IAEA Director General Mohamed ElBaradei warned. In a statement to the UN nuclear watchdog's 35-nation board on 15 June, obtained by Deutsche Presse-Agentur dpa, ElBaradei said the failure to reach agreement on the agency's budget did not 'augur well for the agency, in terms of either our function or our credibility.' Unusually candidly the IAEA chief told the delegates that the agency would fail to properly react to a nuclear accident like Chernobyl or might miss a clandestine nuclear weapons programme if its funding is not significantly increased. 'But my colleagues and I cannot sit here and tell you that the agency is able to fulfill its functions if in fact it cannot.' 'The safeguards function is being eroded over time. Today we cannot consistently do environmental sampling analysis ourselves due in part to the unreliability of an instrument that is 28-years-old.' The situation with regards to nuclear safety was equally dire, he added. If a Chernobyl-type accident occurred, the IAEA 's incident and emergency centre would be hard pressed to carry out its functions. ElBaradei's words come at a time when North Korea is slowly moving ahead with implementing a deal struck in February to dismantle its nuclear programme and the international community is trying to find a solution for Iran's refusal to heed UN calls to stop enriching uranium. ElBaradei was expected to meet with Iranian chief nuclear negotiator Ali Larijani on Friday in Vienna. As an increasing number of countries moves towards nuclear power, the IAEA's scope of work both in promoting nuclear energy as well as safeguarding nuclear facilities is likely to expand even further.

### 1NC Exaggerated

#### Framing issue – proliferation is always exaggerated

Robert Farley, assistant professor at the Patterson School of Diplomacy and International Commerce at the University of Kentucky, 11-16-2011, "Over the Horizon: Iran and the Nuclear Paradox," 11-16, [www.worldpoliticsreview.com/articles/10679/over-the-horizon-iran-and-the-nuclear-paradox](http://www.worldpoliticsreview.com/articles/10679/over-the-horizon-iran-and-the-nuclear-paradox)

But states and policymakers habitually overestimate the impact of nuclear weapons. This happens among both proliferators and anti-proliferators. Would-be proliferators seem to expect that possessing a nuclear weapon will confer “a seat at the table” as well as solve a host of minor and major foreign policy problems. Existing nuclear powers fear that new entrants will act unpredictably, destabilize regions and throw existing diplomatic arrangements into flux. These predictions almost invariably turn out wrong; nuclear weapons consistently fail to undo the existing power relationships of the international system. The North Korean example is instructive. In spite of the dire warnings about the dangers of a North Korean nuclear weapon, the region has weathered Pyongyang’s nuclear proliferation in altogether sound fashion. Though some might argue that nukes have “enabled” North Korea to engage in a variety of bad behaviors, that was already the case prior to its nuclear test. The crucial deterrent to U.S. or South Korean action continues to be North Korea’s conventional capabilities, as well as the incalculable costs of governing North Korea after a war. Moreover, despite the usual dire predictions of nonproliferation professionals, the North Korean nuclear program has yet to inspire Tokyo or Seoul to follow suit. The DPRK’s program represents a tremendous waste of resources and human capital for a poor state, and it may prove a problem if North Korea endures a messy collapse. Thus far, however, the effects of the arsenal have been minimal. Israel represents another case in which the benefits of nuclear weapons remain unclear. Although Israel adopted a policy of ambiguity about its nuclear program, most in the region understood that Israel possessed nuclear weapons by the late-1960s. These weapons did not deter Syria or Egypt from launching a large-scale conventional assault in 1973, however. Nor did they help the Israeli Defense Force compel acquiescence in Lebanon in 1982 or 2006. Nuclear weapons have not resolved the Palestinian question, and when it came to removing the Saddam Hussein regime in Iraq, Israel relied not on its nuclear arsenal but on the United States to do so -- through conventional means -- in 2003. Israeli nukes have thus far failed to intimidate the Iranians into freezing their nuclear program. Moreover, Israel has pursued a defense policy designed around the goal of maintaining superiority at every level of military escalation, from asymmetrical anti-terror efforts to high-intensity conventional combat. Thus, it is unclear whether the nuclear program has even saved Israel any money. The problem with nukes is that there are strong material and normative pressures against their use, not least because states that use nukes risk incurring nuclear retaliation. Part of the appeal of nuclear weapons is their bluntness, but for foreign policy objectives requiring a scalpel rather than a sledgehammer, they are useless. As a result, states with nuclear neighbors quickly find that they can engage in all manner of harassment and escalation without risking nuclear retaliation. The weapons themselves are often more expensive than the foreign policy objectives that they would be used to attain. Moreover, normative pressures do matter. Even “outlaw” nations recognize that the world views the use of nuclear -- not to mention chemical or biological -- weapons differently than other expressions of force. And almost without exception, even outlaw nations require the goodwill of at least some segments of the international community. Given all this, it is not at all surprising that many countries eschew nuclear programs, even when they could easily attain nuclear status. Setting aside the legal problems, nuclear programs tend to be expensive, and they provide relatively little in terms of foreign policy return on investment. Brazil, for example, does not need nuclear weapons to exercise influence in Latin America or deter its rivals. Turkey, like Germany, Japan and South Korea, decided a long time ago that the nuclear “problem” could be solved most efficiently through alignment with an existing nuclear power. Why do policymakers, analysts and journalists so consistently overrate the importance of nuclear weapons? The answer is that everyone has a strong incentive to lie about their importance. The Iranians will lie to the world about the extent of their program and to their people about the fruits of going nuclear. The various U.S. client states in the region will lie to Washington about how terrified they are of a nuclear Iran, warning of the need for “strategic re-evaluation,” while also using the Iranian menace as an excuse for brutality against their own populations. Nonproliferation advocates will lie about the terrors of unrestrained proliferation because they do not want anyone to shift focus to the manageability of a post-nuclear Iran. The United States will lie to everyone in order to reassure its clients and maintain the cohesion of the anti-Iran block. None of these lies are particularly dishonorable; they represent the normal course of diplomacy. But they are lies nevertheless, and serious analysts of foreign policy and international relations need to be wary of them. Nonproliferation is a good idea, if only because states should not waste tremendous resources on weapons of limited utility. Nuclear weapons also represent a genuine risk of accidents, especially for states that have not yet developed appropriately robust security precautions. Instability and collapse in nuclear states has been harrowing in the past and will undoubtedly be harrowing in the future. All of these threats should be taken seriously by policymakers. Unfortunately, as long as deception remains the rule in the practice of nuclear diplomacy, exaggerated alarmism will substitute for a realistic appraisal of the policy landscape.

### 1NC Norms Resilient

#### Non-prolif norms are resilient

Jacques Hymans, Professor of International Relations at USC, 2006, “Theories of Nuclear Proliferation,” Nonproliferation review, google scholar

First, on the macro picture of proliferation, idealists say: Don’t hyperventilate . Many societies contain advocates for nuclear armament, but they also invariably contain many influential people who do not want the bomb\*and many of those frankly can imagine almost no circumstance that would change their minds. It is not an accident or a lucky break that there are so few nuclear weapon states in the world today. The norm of nuclear nonproliferation has been very stable for decades, and an analysis of the demand side of the proliferation equation offers much reason to believe that the norm will continue to remain robust into the future.

### 1NC No Exports

#### Manufacturing capacity kills SMR exports

ITA, International Trade Administration, February, U.S. Department of Commerce, 2011 "The Commercial Outlook for U.S. Small Modular Nuclear Reactors", <http://trade.gov/publications/pdfs/the-commercial-outlook-for-us-small-modular-nuclear-reactors.pdf>)

There are also domestic policies that hinder U.S. SMR competitiveness, with some policies relevant to all nuclear suppliers and some specific to SMR deployment, both at home and abroad. One obstacle is diminished manufacturing capacity. U.S. nuclear competitiveness is hampered because U.S. manufacturing capacity has been eroded through the lack of new reactor construction during the past few decades. Some government resources to help manufacturers are not appropriate for nuclear suppliers, or the resources exclude the suppliers entirely. For example, only two U.S. nuclear manufacturers qualified for the advanced energy manufacturing tax credit. The timeline to be eligible for the credit requires a facility to be up and running four years from certification. Some U.S. firms say that the timeline is too short for many nuclear suppliers; just acquiring the high-precision machines necessary to retool and rebuild capacity can require a lead time of several years. Some U.S. suppliers also note that the United States currently levies tariffs between 3.3 percent and 5.2 percent on key nuclear reactor components, but the tariffs are currently suspended in some cases (specifically for reactor pressure vessels and steam turbine generators that were ordered before July 31, 2006). Tariffs around the world, particularly in the European Union and South Korea, are higher on such components. Coupled with significant foreign government support, foreign suppliers can more easily enter the U.S. market, while U.S. manufacturers face a significant trade barrier in key foreign markets.

#### No nuclear exports—bureaucracy and foreign government competition

NEI, Nuclear Energy Institute, Winter 2012, “U.S. Nuclear Export Rules Hurt Global Competitiveness,” <http://www.nei.org/resourcesandstats/publicationsandmedia/insight/insightwinter2012/us-nuclear-export-rules-hurt-global-competitiveness/>

Today, U.S. dominance of the global nuclear power market has eroded as suppliers from other countries compete aggressively against American exporters. U.S. suppliers confront competitors that benefit from various forms of state promotion and also must contend with a U.S. government that has not adapted to new commercial realities. The potential is tremendous—$500 billion to $740 billion in international orders over the next decade, representing tens of thousands of potential American jobs, according to the U.S. Department of Commerce. With America suffering a large trade deficit, nuclear goods and services represent a market worth aggressive action. However, antiquated U.S. government approaches to nuclear exports are challenging U.S. competitiveness in the nuclear energy market. New federal support is needed if the United States wants to reclaim dominance in commercial nuclear goods and services—and create the jobs that go with them. “The U.S. used to be a monopoly supplier of nuclear materials and technology back in the ’50s and ’60s,” said Fred McGoldrick, former director of the Office of Nonproliferation and Export Policy at the State Department. “That position has eroded to the point where we’re a minor player compared to other countries.” America continues to lead the world in technology innovation and know-how. So what are the issues? And where is the trade? Effective coordination among the many government agencies involved in nuclear exports would provide a boost to U.S. suppliers. “Multiple U.S. agencies are engaged with countries abroad that are developing nuclear power, from early assistance to export controls to trade finance and more,” said Ted Jones, director for supplier international relations at NEI. The challenge is to create a framework that allows commercial nuclear trade to grow while ensuring against the proliferation of nuclear materials. “To compete in such a situation, an ongoing dialogue between U.S. suppliers and government needs to be conducted and U.S. trade promotion must be coordinated at the highest levels,” Jones said. Licensing U.S. Exports Jurisdiction for commercial nuclear export controls is divided among the Departments of Energy and Commerce and the Nuclear Regulatory Commission and has not been comprehensively updated to coordinate among the agencies or to reflect economic and technological changes over the decades. The State Department also is involved in international nuclear commerce. It negotiates and implements so-called “123 agreements” that allow for nuclear goods and services to be traded with a foreign country. The federal agencies often have different, conflicting priorities, leading to a lack of clarity for exporters and longer processing times for export licenses.“The U.S. nuclear export regime is the most complex and restrictive in the world and the least efficient,” § Marked 09:28 § said Jones. “Furthermore, it is poorly focused on items and technologies that pose little or no proliferation concern. By trying to protect too much, we risk diminishing the focus on sensitive technologies and handicapping U.S. exports.” A case in point is the Energy Department’s Part 810 regulations. While 123 agreements open trade between the United States and other countries, Part 810 regulates what the United States can trade with another country. For certain countries, it can take more than a year to obtain “specific authorizations” to export nuclear items. Because other supplier countries authorize exports to the same countries with fewer requirements and delays, the Part 810 rules translate into a significant competitive disadvantage for U.S. suppliers. Today, 76 countries require a specific authorization, but DOE has proposed almost doubling that number—to include for the first time countries that have never demonstrated a special proliferation concern, that are already part of the global nuclear supply chain, and that plan new nuclear infrastructure. The proposed Part 810 rule would do nothing to reduce lengthy license processing times, said Jones. Other nuclear supplier countries impose strict guidelines on their licensing agencies for timely processing of applications. Equivalent licenses must be processed in fewer than nine months in France, fewer than 90 days in Japan and 15 days in South Korea. One possible solution, said McGoldrick, would be to set similar deadlines for issuance of licenses. U.S. agencies “could have deadlines set forth in the new [Part 810] regulations, which would give the relevant government agencies specified times in which to act on a license. Time could be exceeded only under certain circumstances,” said McGoldrick. Instituting Same Rules for Everyone At stake is not just the nation’s manufacturing base, but thousands of jobs. In 2008, all exports supported more than 10 million jobs, according to “The Report to the President on the National Export Initiative.” One of the report’s recommendations was to expand opportunities for U.S. commercial nuclear exports.