### 2AC T

#### 1) We meet their interpretation – NRC requirements restrict the quantity of energy produced because they mandate that zero energy can be produced from SMR’s that don’t meet the requirements established for large reactors. The aff’s that they say are topical like offshore drilling cannot be coherently distinguished from NRC restrictions

#### 2) The negatives interpretation is overlimiting – there are no restrictions that define the amount of energy that can be produced in the United States. Incentive aff’s don’t check because of the states counterplan and the importance of restrictions in the literature. Prefer underlimiting to overlimiting. The 1AC is the foundation of the debate which means the quality of affirmative options determine the quality of resulting debates and the productive value of debate. Democracy assistance topic proves.

#### 3) Counter Interpretation –

#### a) Restriction means limitation or qualification

Mattice, US District Judge, 07

(Wright v. Tenn. Bd. of Examiners in Psychology, 2004 Tenn. App. LEXIS 875)

In the instant case, the Court is required to interpret the word "restriction" as used by the parties in the Agreement. The parties apparently agree that the legal definition of restriction--"a limitation or qualification," Black's Law Dictionary 1341 (8th ed. 1999)--is a good place to start. Thus, the Court must determine whether the board's supervision requirement falls within this definition.

#### b) That limitation has to be legally imposed – includes regulation

Gerald N. Hill and Kathleen T. Hill – 2005, the Free Dictionary, http://legal-dictionary.thefreedictionary.com/Restrictions

restriction n. any limitation on activity, by statute, regulation or contract provision. In multi-unit real estate developments, condominium and cooperative housing projects, managed by homeowners' associations or similar organizations are usually required by state law to impose restrictions on use. Thus, the restrictions are part of the "covenants, conditions and restrictions," intended to enhance the use of common facilities and property, recorded and incorporated into the title of each owner.

#### 4) Prefer the counter interpretation’s legal definition

#### a) Predictability – legal definitions with the intent to define are the most precise and the law provides a neutral universally accessible definition base. Their definition promotes context specific distortions.

#### b) Education - the law determines the scope of public policy responses and thus determines how scholars write about energy production restrictions. Ensures substantive and meaningful debates based in on the ground realities.

#### 5) Our interpretation is not under limiting – we only allow aff’s that make something legal that is currently illegal – process and effectual restrictions would not be topical. Advantage and solvency requirements check their ludicrous limits claims.

#### Their example is about Milk not about energy – not specific

### 2AC Growth Good/Yes War

#### Economic decline causes war –

Failed States – Economic decline causes states to turn into hotspots of terrorism and pandemics – cause extinction

Reversal of Democracy – Turns their impact – autocratic regimes will exploit the environment to maintain their power

Scares Allies – US economic decline makes allies doubt our commitment – makes them engage in regional nuclear war

Chinese expansionism – China will revert to aggressive nationalism and attack the rest of Asia – draws in all major powers

Green & Schrage + Lieberthal & O’Hanlon

#### No transition because of energy sources – that’s McNelis – mindset shifts are insufficient to meet demand in electricity, practical action is key

#### Alternatives to growth kill hundreds of millions and cause global conflict—we can’t “*turn off*” the economy.

Barnhizer 6 — David R. Barnhizer, Emeritus Professor at Cleveland State University’s Cleveland-Marshall College of Law, 2006 (“Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government,” *Georgetown International Environmental Law Review* (18 Geo. Int'l Envtl. L. Rev. 595), Available Online to Subscribing Institutions via Lexis-Nexis)

The scale of social needs, including the need for expanded productive activity, has grown so large that it cannot be shut off at all, and certainly not abruptly. It cannot even be ratcheted down in any significant fashion without producing serious harms to human societies and hundreds of millions of people. Even if it were possible to shift back to systems of local self-sufficiency, the consequences of the transition process would be catastrophic for many people and even deadly to the point of continual conflict, resource wars, increased poverty, and strife. What are needed are concrete, workable, and pragmatic strategies that produce effective and intelligently designed economic activity in specific contexts and, while seeking efficiency and conservation, place economic and social justice high on a list of priorities. n60 The imperative of economic growth applies not only to the needs and expectations of people in economically developed societies but also to people living in nations that are currently economically underdeveloped. Opportunities must be created, jobs must be generated in huge numbers, and economic resources expanded to address the tragedies of poverty and inequality. Unfortunately, natural systems must be exploited to achieve this; we cannot return to Eden. The question is not how to achieve a static state but how to achieve what is needed to advance social justice while avoiding and mitigating the most destructive consequences of our behavior.

#### Economic decline triggers food insecurity, worse environmental destruction and transition will fail. Growth empirically drives environmental and social improvements.

Mead, 12 --- Professor of Foreign Affairs and Humanities at Bard College (7/28/2012, Walter Russell, “The Energy Revolution 4: Hot Planet?” <http://blogs.the-american-interest.com/wrm/2012/07/28/the-energy-revolution-4-hot-planet/>, JMP)

Capitalism is not, Monbiot is forced to admit, a fragile system that will easily be replaced. Bolstered by huge supplies of oil, it is here to stay. Industrial civilization is, as far as he can now see, unstoppable. Gaia, that treacherous slut, has made so much oil and gas that her faithful acolytes today cannot protect her from the consequences of her own folly. Welcome to the New Green Doom: an overabundance of oil and gas is going to release so much greenhouse gas that the world is going to fry. The exploitation of the oil sands in Alberta, warn leading environmentalists, is a tipping point. William McKibben put it this way in an interview with Wired magazine in the fall of 2011: I think if we go whole-hog in the tar sands, we’re out of luck. Especially since that would doubtless mean we’re going whole-hog at all the other unconventional energy sources we can think of: Deepwater drilling, fracking every rock on the face of the Earth, and so forth. Here’s why the tar sands are important: It’s a decision point about whether, now that we’re running out of the easy stuff, we’re going to go after the hard stuff. The Saudi Arabian liquor store is running out of bottles. Do we sober up, or do we find another liquor store, full of really crappy booze, to break into? A year later, despite the success of environmentalists like McKibben at persuading the Obama administration to block a pipeline intended to ship this oil to refineries in the US, it’s clear (as it was crystal clear all along to anyone with eyes to see) that the world has every intention of making use of the “crappy liquor.” Again, for people who base their claim to world leadership on their superior understanding of the dynamics of complex systems, greens prove over and over again that they are surprisingly naive and crude in their ability to model and to shape the behavior of the political and economic systems they seek to control. If their understanding of the future of the earth’s climate is anything like as wish-driven, fact-averse and intellectually crude as their approach to international affairs, democratic politics and the energy market, the greens are in trouble indeed. And as I’ve written in the past, the contrast between green claims to understand climate and to be able to manage the largest and most complex set of policy changes ever undertaken, and the evident incompetence of greens at managing small (Solyndra) and large (Kyoto, EU cap and trade, global climate treaty) political projects today has more to do with climate skepticism than greens have yet understood. Many people aren’t rejecting science; they are rejecting green claims of policy competence. In doing so, they are entirely justified by the record. Nevertheless, the future of the environment is not nearly as dim as greens think. Despairing environmentalists like McKibben and Monbiot are as wrong about what the new era of abundance means as green energy analysts were about how much oil the planet had. The problem is the original sin of much environmental thought: Malthusianism. If greens weren’t so addicted to Malthusian horror narratives they would be able to see that the new era of abundance is going to make this a cleaner planet faster than if the new gas and oil had never been found. Let’s be honest. It has long been clear to students of history, and has more recently begun to dawn on many environmentalists, that all that happy-clappy carbon treaty stuff was a pipe dream and that nothing like that is going to happen. A humanity that hasn’t been able to ban the bomb despite the clear and present dangers that nuclear weapons pose isn’t going to ban or even seriously restrict the internal combustion engine and the generator. The political efforts of the green movement to limit greenhouse gasses have had very little effect so far, and it is highly unlikely that they will have more success in the future. The green movement has been more of a group hug than a curve bending exercise, and that is unlikely to change. If the climate curve bends, it will bend the way the population curve did: as the result of lots of small human decisions driven by short term interest calculations rather than as the result of a grand global plan. The shale boom hasn’t turned green success into green failure. It’s prevented green failure from turning into something much worse. Monbiot understands this better than McKibben; there was never any real doubt that we’d keep going to the liquor store. If we hadn’t found ways to use all this oil and gas, we wouldn’t have embraced the economics of less. True, as oil and gas prices rose, there would be more room for wind and solar power, but the real winner of an oil and gas shortage is… coal. To use McKibben’s metaphor, there is a much dirtier liquor store just down the road from the shale emporium, and it’s one we’ve been patronizing for centuries. The US and China have oodles of coal, and rather than walk to work from our cold and dark houses all winter, we’d use it. Furthermore, when and if the oil runs out, the technology exists to get liquid fuel out of coal. It isn’t cheap and it isn’t clean, but it works. The newly bright oil and gas future means that we aren’t entering a new Age of Coal. For this, every green on the planet should give thanks. The second reason why greens should give thanks for shale is that environmentalism is a luxury good. People must survive and they will survive by any means necessary. But they would much rather thrive than merely survive, and if they can arrange matters better, they will. A poor society near the edge of survival will dump the industrial waste in the river without a second thought. It will burn coal and choke in the resulting smog if it has nothing else to burn. Politics in an age of survival is ugly and practical. It has to be. The best leader is the one who can cut out all the fluff and the folderol and keep you alive through the winter. During the Battle of Leningrad, people burned priceless antiques to stay alive for just one more night. An age of energy shortages and high prices translates into an age of radical food and economic insecurity for billions of people. Those billions of hungry, frightened, angry people won’t fold their hands and meditate on the ineffable wonders of Gaia and her mystic web of life as they pass peacefully away. Nor will they vote George Monbiot and Bill McKibben into power. They will butcher every panda in the zoo before they see their children starve, they will torch every forest on earth before they freeze to death, and the cheaper and the meaner their lives are, the less energy or thought they will spare to the perishing world around them.But, thanks to shale and other unconventional energy sources, that isn’t where we are headed. We are heading into a world in which energy is abundant and horizons are open even as humanity’s grasp of science and technology grows more secure. A world where more and more basic human needs are met is a world that has time to think about other goals and the money to spend on them. As China gets richer, the Chinese want cleaner air, cleaner water, purer food — and they are ready and able to pay for them. A Brazil whose economic future is secure can afford to treasure and conserve its rain forests. A Central America where the people are doing all right is more willing and able to preserve its biodiversity. And a world in which people know where their next meal is coming from is a world that can and will take thought for things like the sustainability of the fisheries and the protection of the coral reefs. A world that is more relaxed about the security of its energy sources is going to be able to do more about improving the quality of those sources and about managing the impact of its energy consumption on the global commons. A rich, energy secure world is going to spend more money developing solar power and wind power and other sustainable sources than a poor, hardscrabble one. When human beings think their basic problems are solved, they start looking for more elegant solutions. Once Americans had an industrial and modern economy, we started wanting to clean up the rivers and the air. Once people aren’t worried about getting enough calories every day to survive, they start wanting healthier food more elegantly prepared. A world of abundant shale oil and gas is a world that will start imposing more environmental regulations on shale and gas producers. A prosperous world will set money aside for research and development for new technologies that conserve energy or find it in cleaner surroundings. A prosperous world facing climate change will be able to ameliorate the consequences and take thought for the future in ways that a world overwhelmed by energy insecurity and gripped in a permanent economic crisis of scarcity simply can’t and won’t do. Greens should also be glad that the new energy is where it is. For Monbiot and for many others, Gaia’s decision to put so much oil into the United States and Canada seems like her biggest indiscretion of all. Certainly, a United States of America that has, in the Biblical phrase, renewed its youth like an eagle with a large infusion of fresh petro-wealth is going to be even less eager than formerly to sign onto various pie-in-the-sky green carbon treaties. But think how much worse things would be if the new reserves lay in dictatorial kleptocracies. How willing and able would various Central Asia states have been to regulate extraction and limit the damage? How would Nigeria have handled vast new reserves whose extraction required substantially more invasive methods? Instead, the new sources are concentrated in places where environmentalists have more say in policy making and where, for all the shortcomings and limits, governments are less corruptible, more publicly accountable and in fact more competent to develop and enforce effective energy regulations. This won’t satisfy McKibben and Monbiot (nothing that could actually happen would satisfy either of these gentlemen), but it is a lot better than what we could be facing. Additionally, if there are two countries in the world that should worry carbon-focused greens more than any other, they are the United States and China. The two largest, hungriest economies in the world are also home to enormous coal reserves. But based on what we now know, the US and China are among the biggest beneficiaries of the new cornucopia. Gaia put the oil and the gas where, from a carbon point of view, it will do the most good. In a world of energy shortages and insecurity, both the US and China would have gone flat out for coal. Now, that is much less likely. And there’s one more reason why greens should thank Gaia for shale. Wind and solar aren’t ready for prime time now, but by the time the new sources start to run low, humanity will have mastered many more technologies that can used to provide energy and to conserve it. It’s likely that Age of Shale hasn’t just postponed the return of coal: because of this extra time, there likely will never be another age in which coal is the dominant industrial fuel. It’s virtually certain that the total lifetime carbon footprint of the human race is going to be smaller with the new oil and gas sources than it would have been without them. Neither the world’s energy problems nor its climate issues are going away any time soon. Paradise is not beckoning just a few easy steps away. But the new availability of these energy sources is on balance a positive thing for environmentalists as much as for anyone else. Perhaps, and I know this is a heretical thought, but perhaps Gaia is smarter than the greens.

#### Authoritarianism turn – Green & Schrage

#### Complexity is sustainable---it’s key to energy innovation and problem-solving that make even highly complex societies sustainable

Tainter 9 – Joseph A. Tainter, Global Institute of Sustainability and School of Human Evolution and Social Change at Arizona State University, September 9, 2009, “Human Resource Use: Timing and Implications for Sustainability,” online:http://www.theoildrum.com/node/5745

In conclusion, sustainability is not the achievement of stasis. It is not a passive consequence of having fewer humans who consume more limited resources. One must work at being sustainable. The challenges that any society (or other institution) might confront are, for practical purposes, endless in number and infinite in variety. This being so, sustainability is a matter of solving problems. In the conventional view, complexity follows energy. If so, then we should be able to forego complexity voluntarily and reduce our consumption of the resources that it requires. This approach to sustainability implicitly sees the future as a condition of stasis with no challenges. In actuality, major infusions of surplus energy are rare in human history. More commonly, complexity increases in response to problems. Complexity emerging through problem solving typically precedes the availability of energy, and compels increases in its production. Complexity is not something that we can ordinarily choose to forego. Applying this understanding leads to two conclusions. The first is that the solutions commonly recommended to promote sustainability–conservation, simplification, pricing, and innovation–can do so only in the short term. Secondly, long-term sustainability depends on solving major societal problems that will converge in coming decades, and this will require increasing complexity and energy production. Sustainability is not a condition of stasis. It is, rather, a process of continuous adaptation, of perpetually addressing new or ongoing problems and securing the resources to do so.

#### Growth solves environmental damage and decline accelerates it---Speth is wrong

Adler 8 – Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation at Case Western Reserve University School of Law, Fall 2008, “Green Bridge to Nowhere,” The New Atlantis, online:http://www.thenewatlantis.com/publications/green-bridge-to-nowhere

According to Speth, “most environmental deterioration is a result of systemic failures of capitalism.” This is an odd claim, as the least capitalist nations of the world also have the worst environmental records. The ecological costs of economic statism are far worse than those of economic liberty. The environmental record of the various Soviet regimes amply bears this out: The West’s ecological nightmares were the Soviet bloc’s environmental realities. This is not due to any anomaly of the Soviet system. Nations with greater commitment to capitalist institutions experience greater environmental performance. While Speth occasionally acknowledges pockets of environmental progress, he hardly stops to consider the reasons why some environmental resources have been conserved more effectively than others. Fisheries are certainly declining throughout much of the world — some 75 percent of fisheries are fully or over-exploited — but not everywhere. It is worth asking why. Tropical forests in less-developed nations are declining even as most temperate forests in industrialized nations are rebounding. Recognizing these different trends and identifying the key variables is essential to diagnosing the real causes of environmental deterioration and prescribing a treatment that will work. Speth acknowledges that much of the world is undergoing “dematerialization,” such that economic growth far outpaces increases in resource demand, but seems not to appreciate how the capitalist system he decries creates the incentives that drive this trend. Were it not for market-driven advances in technological capability and ecological efficiency, humanity’s footprint on the Earth would be far greater. While modern civilization has developed the means to effect massive ecological transformations, it has also found ways to produce wealth while leaving more of the natural world intact. Market competition generates substantial incentives to do more with less — thus in market economies we see long and continuing improvements in productive efficiency. This can be seen everywhere from the replacement of copper with fiber optics (made from silica, the chief component in sand) and the light-weighting of packaging to the explosion of agricultural productivity and improvements in energy efficiency. Less material is used and disposed of, reducing overall environmental impacts from productive activity. The key to such improvements is the same set of institutional arrangements that Speth so decries: property rights and voluntary exchange protected by the rule of law — that is, capitalism. As research by Wheaton College economist Seth Norton and many others has shown, societies in which property rights and economic freedoms are protected experience superior economic and environmental performance than those societies subject to greater government control. Indeed, such institutions have a greater effect on environmental performance than the other factors, such as population growth, that occupy the attention of Speth and so many other environmental thinkers.

### AT: Rare Earth Metal 2AC

#### Non-unique – global nuclear power is inevitable, only a question of small or large reactors (Read WNN Card)

#### China is dominant now – REMs are key to multiple industries

Dent 9

Peter C. Dent, Vice President of Business Development at Electron Energy Corporation, August 2009, “HIGH PERFORMANCE MAGNET MATERIALS: RISKY SUPPLY CHAIN,” online: http://www.electronenergy.com/media/amp16708p27.pdf

Today, nearly 100% of the world’s rare earth metals and over 94% of rare earth oxides come from China. This dominance has become unmistakable during the past decade, and has been accompanied by a steep decline in U.S. production capabilities. It is most notable in the NdFeB (neodymium-iron-boron) market, for which there is currently no domestic production. Chinese dominance is further demonstrated by its production of over 85% of hard ferrite and 65% of Alnico and SmCo (samarium cobalt) magnet materials. These facts are significant because magnet materials are the backbone of manufacturing technologies that support U.S. energy and defense markets. The loss of production capabilities has also resulted in a brain drain of engineers with permanent magnet materials capabilities. In a recent article entitled “Offshoring Technology Innovation: A Case Study of Rare-Earth Technology,” by Fifare, Veloso, and Davidson in the Journal of Operations Management, (Vol. 26, 2008), the authors described the current situation. They showed that after the domestic bonded NdFeB magnet industry went to China, innovation by U.S. industry dropped dramatically. The drop was measured by the drop in the number of patents involving bonded NdFeB magnets. Chinese President Jiang Zemin stated in 1999 that China must “improve the development and applications of rare earths and change the resource advantage into economic superiority.” China has accomplished this aim through hard work, improving technologies and manufacturing, and low labor costs and practices. For example, intellectual property rights abuses in China resulted in a series of lawsuits in 2003 and 2004 by the two key worldwide patent holders who have cross-licensed over 600 patents in NdFeB technologies. Magnequench, a North American company with Chinese operations; and Sumitomo (now Hitachi metals), a Japanese firm with Japanese operations, fought non-licensed Chinese NdFeB sales by suing magnet users such as Walmart, Dell Computer, and others based on U.S. product sales – a rather upside-down way to enforce IP abuses in China. At the present time, there are nine Chinese licensees and sublicensees to these master patents, according to the Hitachi Metals website. However, as many as one hundred companies in China could be producing NdFeB magnets. This is in stark contrast to the total lack of NdFeB manufacturing in the United States.

#### REE recycling solves the impact

Recycling Today 10/3/12 (“Solvay Opens Rare Earth Metals Recycling Plants in France” <http://www.recyclingtoday.com/solvay-rare-earth-recycling-plants-france.aspx>)

Solvay Group, a chemical group headquartered in Brussels, has officially opened two rare earth metals recycling plants in France. The two plants are designed to allow the company to diversify its supply of rare earth metals and preserve resources. Solvay says it has developed a process to recover rare earth metals from end-of-life products, such as light bulbs, batteries and magnets. Research into and development of the process began in 2007 and tool two years, followed by two years of industrialization studies and site selection, according to the company. The investment was officially approved in 2011. Solvay says it focused initially on low-energy light bulbs because the recovery channels already existed. The light bulbs have an ample amount of six different rare earths—lanthanum, cerium, terbium, yttrium, europium and gadolinium—which Solvay it is in position to recycle while preserving 100 percent of their functional properties. Used light bulbs are collected, sorted and processed by specialized companies that recycle various components (glass, metals, plastics, mercury). The luminescent powders are shipped to Solvay Group's facility in Saint-Fons, France, where the rare earth concentrate is extracted. From there, the material is sent to Solvay’s second rare earth metals recycling facility in Charente Maritime, France, which is equipped with sophisticated separation technology, according to the company. Once the rare earth metals have been separated, they are reformulated into luminescent precursors to be reused to manufacture new lamps, Solvay says. “Used in small quantities, rare earths play the role of ‘vitamins’ vital for the continuing development of new technologies, especially green technologies,” says Du Hua, director of Solvay Rare Earths Systems business unit. “Global demand for rare earths is growing at more than 6 percent per year, making these elements a strategic raw material. Recycling allows us to develop a new source of supply, and we aim to become the benchmark European player in this area.”

#### Nuclear power isn’t a major use of REEs – no unique link

Humphries 2012 – specialist in energy policy (June 8, Marc, “Rare Earth Elements: The Global Supply Chain” <http://www.fas.org/sgp/crs/natsec/R41347.pdf>)

Currently, the dominant end uses for rare earth elements in the United States are for automobile catalysts and petroleum refining catalysts, use in phosphors in color television and flat panel displays (cell phones, portable DVDs, and laptops), permanent magnets and rechargeable batteries for hybrid and electric vehicles, and numerous medical devices (see Table 1). There are important defense applications such as jet fighter engines, missile guidance systems, antimissile defense, and satellite and communication systems. Permanent magnets containing neodymium, gadolinium, dysprosium, and terbium are used in numerous electrical and electronic components and new-generation generators for wind turbines. About 75% of permanent magnet production is concentrated in China. See Table 1 for selected end uses of rare earth elements.

#### China is cutting exports now

Berst 2012 (August 9, Jesse, “China's rare earth supply to get even rarer (and why that should worry you)” <http://www.smartgridnews.com/artman/publish/Business_Global/China-s-rare-earth-supply-to-get-even-rarer-and-why-that-should-worry-you-5034.html#.UGzLK03A_w4>)

China's announcement Wednesday that it has started what is said to be the world's first exchange for rare earths was overshadowed (at least in the U.S. and Europe) by its plans to cut its exports of rare earth metals by 20%. The Chinese government said the reduction is needed to raise environmental standards in its mining sector and preserve its limited rare earth resources, according to a story in BusinessGreen. While other countries have rare earths, they stopped mining for them in the 1990s when cheaper ores from China hit the market. China maintains about 90-95% of the world's rare earth production. It's not the first time China has lowered rare earth export quotas. They were cut in 2009 and again in the first half of this year.

#### Status quo solves – investment in non-Chinese REE sources

CNBC 2011 (June 12, “China's Control on Rare Earths Supply to End: Quest CEO” <http://www.cnbc.com/id/47776452/China_s_Control_on_Rare_Earths_Supply_to_End_Quest_CEO>)

China’s dominance over rare earths supply could be challenged in the coming years as investors pour money into exploration prjects outside China, says the CEO of Canadian rare earths miner Quest Rare Minerals. Ultrapure Cerium “China’s intentions to control exports have forced non-Chinese consumers to look for alternative sources,” Peter Cashin told CNBC’s "Cash Flow" on Tuesday. China currently controls around 95 percent of the world’s rare earths market, but the flood of investment in international projects has seen production outside China ramp up. U.S.-based Molycorp has been increasing its rare earth production as part of the $895 million modernization and expansion of the Mountain Pass project in California. While Australia-listed Lynas is targeting first production from its Western Australian Mount Weld project this quarter. Quest Rare Minerals also expects to start production in the coming years to feed this rising demand. The miner is currently developing several rare earth projects in Canada, including the Strange Lake project, which is North America’s largest deposit of heavy rare earths. Cashin is targeting 2017 as the startup date for production at the Strange Lake project.

### AT: Immigration DA

#### Can’t steal, build, or buy a bomb- experts agree

Peter Bergen- fellow @ the New America Foundation and NYU’s Center on Law and Security- Sept 2010, Reevaluating Al-Qa`ida’s Weapons of Mass Destruction Capabilities, Combating Terrorism Center @ West Point, CTC Sentinel, Vol 3 Issue 9, http://www.isn.ethz.ch/isn/Digital-Library/Publications/Detail/?ots591=0c54e3b3-1e9c-be1e-2c24-a6a8c7060233&lng=en&id=122242

Bin Ladin’s and al-Zawahiri’s portrayal of al-Qa`ida’s nuclear and chemical weapons capabilities in their post-9/11 statements to Hamid Mir was not based in any reality, and it was instead meant to serve as psychological warfare against the West. There is no evidence that al-Qa`ida’s quest for nuclear weapons ever went beyond the talking stage. Moreover, al-Zawahiri’s comment about “missing” Russian nuclear suitcase bombs floating around for sale on the black market is a Hollywood construct that is greeted with great skepticism by nuclear proliferation experts. This article reviews al-Qa`ida’s WMD efforts, and then explains why it is unlikely the group will ever acquire a nuclear weapon. Al-Qa`ida’s WMD Efforts In 2002, former UN weapons inspector David Albright examined all the available evidence about al-Qa`ida’s nuclear weapons research program and concluded that it was virtually impossible for al-Qa`ida to have acquired any type of nuclear weapon.8 U.S. government analysts reached the same conclusion in 2002.9 There is evidence, however, that al-Qa`ida experimented with crude chemical weapons, explored the use of biological weapons such as botulinum, salmonella and anthrax, and also made multiple attempts to acquire radioactive materials suitable for a dirty bomb.10 After the group moved from Sudan to Afghanistan in 1996, al-Qa`ida members escalated their chemical and biological weapons program, innocuously code-naming it the “Yogurt Project,” but only earmarking a meager $2,000-4,000 for its budget.11 An al-Qa`ida videotape from this period, for example, shows a small white dog tied up inside a glass cage as a milky gas slowly filters in. An Arabic-speaking man with an Egyptian accent says: “Start counting the time.” Nervous, the dog barks and then moans. After struggling and flailing for a few minutes, it succumbs to the poisonous gas and stops moving. This experiment almost certainly occurred at the Darunta training camp near the eastern Afghan city of Jalalabad, conducted by the Egyptian Abu Khabab.12 Not only has al-Qa`ida’s research into WMD been strictly an amateur affair, but plots to use these types of weapons have been ineffective. One example is the 2003 “ricin” case in the United Kingdom. It was widely advertised as a serious WMD plot, yet the subsequent investigation showed otherwise. The case appeared in the months before the U.S.-led invasion of Iraq, when media in the United States and the United Kingdom were awash in stories about a group of men arrested in London who possessed highly toxic ricin to be used in future terrorist attacks. Two years later, however, at the trial of the men accused of the ricin plot, a government scientist testified that the men never had ricin in their possession, a charge that had been first triggered by a false positive on a test. The men were cleared of the poison conspiracy except for an Algerian named Kamal Bourgass, who was convicted of conspiring to commit a public nuisance by using poisons or explosives.13 It is still not clear whether al-Qa`ida had any connection to the plot.14 In fact, the only post-9/11 cases where al-Qa`ida or any of its affiliates actually used a type of WMD was in Iraq, where al-Qa`ida’s Iraqi affiliate, al-Qa`ida in Iraq (AQI), laced more than a dozen of its bombs with the chemical chlorine in 2007. Those attacks sickened hundreds of Iraqis, but the victims who died in these assaults did so largely from the blast of the bombs, not because of inhaling chlorine. AQI stopped using chlorine in its bombs in Iraq in mid-2007, partly because the insurgents never understood how to make the chlorine attacks especially deadly and also because the Central Intelligence Agency and U.S. military hunted down the bomb makers responsible for the campaign, while simultaneously clamping down on the availability of chlorine.15 Indeed, a survey of the 172 individuals indicted or convicted in Islamist terrorism cases in the United States since 9/11 compiled by the Maxwell School at Syracuse University and the New America Foundation found that none of the cases involved the use of WMD of any kind. In the one case where a radiological plot was initially alleged—that of the Hispanic-American al-Qa`ida recruit Jose Padilla—that allegation was dropped when the case went to trial.16 Unlikely Al-Qa`ida Will Acquire a Nuclear Weapon Despite the difficulties associated with terrorist groups acquiring or deploying WMD and al-Qa`ida’s poor record in the matter, there was a great deal of hysterical discussion about this issue after 9/11. Clouding the discussion was the semantic problem of the ominous term “weapons of mass destruction,” which is really a misnomer as it suggests that chemical, biological, and nuclear devices are all equally lethal. In fact, there is only one realistic weapon of mass destruction that can kill tens or hundreds of thousands of people in a single attack: a nuclear bomb.17 The congressionally authorized Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism issued a report in 2008 that typified the muddled thinking about WMD when it concluded: “It is more likely than not that a weapon of mass destruction will be used in a terrorist attack somewhere in the world by the end of 2013.”18 The report’s conclusion that WMD terrorism was likely to happen somewhere in the world in the next five years was simultaneously true but also somewhat trivial because terrorist groups and cults have already engaged in crude chemical and biological weapons attacks.19 Yet the prospects of al-Qa`ida or indeed any other group having access to a true WMD—a nuclear device—is near zero for the foreseeable future. If any organization should have developed a serious WMD capability it was the bizarre Japanese terrorist cult Aum Shinrikyo, which not only recruited 300 scientists—including chemists and molecular biologists—but also had hundreds of millions of dollars at its disposal.20 Aum embarked on a large-scale WMD research program in the early 1990s because members of the cult believed that Armageddon was fast-approaching and that they would need powerful weapons to survive. Aum acolytes experimented with anthrax and botulinum toxin and even hoped to mine uranium in Australia. Aum researchers also hacked into classified networks to find information about nuclear facilities in Russia, South Korea and Taiwan.21 Sensing an opportunity following the collapse of the Soviet Union, Aum recruited thousands of followers in Russia and sent multiple delegations to meet with leading Russian politicians and scientists in the early 1990s. The cult even tried to recruit staff from inside the Kurchatov Institute, a leading nuclear research center in Moscow. One of Aum’s leaders, Hayakawa Kiyohide, made eight trips to Russia in 1994, and in his diary he made a notation that Aum was willing to pay up to $15 million for a nuclear device.22 Despite its open checkbook, Aum was never able to acquire nuclear material or technology from Russia even in the chaotic circumstances following the implosion of the communist regime.23 In the end, Aum abandoned its investigations of nuclear and biological weapons after finding them too difficult to acquire and settled instead on a chemical weapons operation, which climaxed in the group releasing sarin gas in the Tokyo subway in 1995. It is hard to imagine an environment better suited to killing large numbers of people than the Tokyo subway, yet only a dozen died in the attack.24 Although Aum’s WMD program was much further advanced than anything al-Qa`ida developed, even they could not acquire a true WMD. It is also worth recalling that Iran, which has had an aggressive and well-funded nuclear program for almost two decades, is still some way from developing a functioning nuclear bomb. Terrorist groups simply do not have the resources of states. Even with access to nuclear technology, it is next to impossible for terrorist groups to acquire sufficient amounts of highly enriched uranium (HEU) to make a nuclear bomb. The total of all the known thefts of HEU around the world tracked by the International Atomic Energy Agency between 1993 and 2006 was just less than eight kilograms, well short of the 25 kilograms needed for the simplest bomb;25 moreover, none of the HEU thieves during this period were linked to al-Qa`ida. Therefore, even building, let alone detonating, the simple, gun-type nuclear device of the kind that was dropped on Hiroshima during World War II would be extraordinarily difficult for a terrorist group because of the problem of accumulating sufficient quantities of HEU. Building a radiological device, or “dirty bomb,” is far more plausible for a terrorist group because acquiring radioactive materials suitable for such a weapon is not as difficult, while the construction of such a device is orders of magnitude less complex than building a nuclear bomb. Detonating a radiological device, however, would likely result in a relatively small number of casualties and should not be considered a true WMD. There is also the concern that a state may covertly provide a nuclear device to a terrorist group. This was one of the underlying rationales to topple Saddam Hussein’s government in Iraq in 2003. Yet governments are not willing to give their “crown jewels” to organizations that they do not control, and giving a terrorist group a nuclear weapon would expose the state sponsor to large-scale retaliation.26 The United States destroyed Saddam’s regime on the mere suspicion that he might have an active nuclear weapons program and that he might give some kind of WMD capacity to terrorists. Also, nuclear states are well-aware that their nuclear devices leave distinctive signatures after they are detonated, which means that even in the unlikely event that a government gave a nuclear weapon to terrorists, their role in the plot would likely be discovered.27 Just as states will not give nuclear weapons to terrorists, they are unlikely to sell them either. This leaves the option of stealing one, but nuclear-armed states, including Pakistan, are quite careful about the security measures they place around the most strategic components of their arsenals. After 9/11, the United States gave Pakistan approximately $100 million in aid to help secure its nuclear weapons.28 The U.S. Department of Defense has assessed that “Islamabad’s nuclear weapons are probably stored in component form,”29 meaning that the weapons are stored unassembled with the fissile core separated from the non-nuclear explosive.30 Such disassembling is just one layer of protection against potential theft by jihadists.31 A further layer of protection is Permissive Action Links (PAL), essentially electronic locks and keys designed to prevent unauthorized access to nuclear weapons; Pakistan asserts that it has the “functional equivalent” of these.32 As a result of these measures, Michael Maples, the head of the U.S. Defense Intelligence Agency at the time, told the Senate Armed Services Committee in March 2009 that “Pakistan has taken important steps to safeguard its nuclear weapons.”33

#### No internal link --- Obama and congress can multitask and Obama’s capital is not enough to ensure passage. GOP House will block.

Soto, 1/4 --- Senior Analyst for Latino Decisions and Fellow at the Center for Politics and Governance at the LBJ School of Public Affairs at the University of Texas, at Austin (Dr. Victoria M. DeFrancesco Soto, 1/4/2013, “Opinion: Immigration reform will not be easy, but it’s not impossible,” <http://nbclatino.com/2013/01/04/opinion-immigration-reform-will-not-be-easy-but-its-not-impossible/>)

Sure there’s the drama of the fiscal cliff, but that issue has become more of a permanent fixture than a temporary distraction from other issues. The next couple of months will be consumed by fiscal reform and perhaps gun control. But that doesn’t mean our executive and Congress can’t multi-task.Unlike in his first administration, the president seems to be on board and ready for rolling up his sleeves and getting into immigration reform, but that won’t cut it. The problem for immigration reform in 2013 is rooted in Capital Hill. The president’s support is a necessary condition for any major policy overhaul, but it is not a sufficient condition. Let’s just assume the president can arm-wrestle the Senate Democrats and a few Senate Republicans into supporting his immigration reform. Two out of three won’t cut it.The Republican-controlled House is what stands in the way of immigration reform. More specifically, the GOP’s split mindset regarding Latinos and immigration is what will likely prevent the president from crossing off immigration reform from his 2013 to-do list.There are moderate GOP voices, such as that of Jeb Bush, that are calling for Republicans to not just go along, but lead in an immigration overhaul effort. These are the folks who see the demographic handwriting on the wall and recognize that the Republican Party cannot survive by alienating the fastest-growing segment of the electorate. However, those voices are few and far between.

#### Debt ceiling and gun control are sooner and make the link inevitable

Nakamura and Bahrampour, 1/4 (David Nakamura Tara Bahrampour, 1/4/2013, Washington Post, “Obama prioritizing immigrant issues,” Factiva)

Although Obama has pledged to push for comprehensive legislation early in his second term, the White House's timetable has been complicated by the prospect of another round of fiscal negotiations over the debt ceiling in February and the president's pledge to support a gun-control bill in the wake of the mass school shooting in Newtown, Conn. Both of those issues are likely to embroil the White House in bitter, time-consuming political battles with Republicans, particularly in the GOP-controlled House. Advocates said they are hopeful that Republicans will respond more favorably to immigration reform because the party is eager to broaden its appeal to minority groups in the wake of Obama's election victory.

#### Burns capital

The Nation, 12/23 (“us gun association says guns needed to stop evil,” 12/23/2012, Factiva)

The National Rifle Association's response to the Connecticut school shooting means any effort to pass new gun-control laws must overcome opposition from an organisation with longstanding clout in Congress.NRA chief executive officer Wayne LaPierre on Friday dismissed calls for tighter gun limits and instead recommended armed school guards following the massacre of 20 children and six adults. That stance puts the NRA on a collision course with President Barack Obama, who promised after the December 14 rampage to make abating gun violence a second-term priority. While not unexpected, the NRA's continued resistance to new firearms restrictions will make it more difficult to enact such measures, said Robert Spitzer, a political scientist who has written four books on gun control. "It's going to be a hard fight," Spitzer said. Obama has called for reinstating an assault-weapons ban that expired in 2004, closing loopholes that allow gun buyers to escape background checks and restricting high-capacity ammunition clips. In a video posted on Google's YouTube website, the president urged gun-control advocates to pressure Congress to act. To overcome NRA opposition, Spitzer said, Obama will have to spend some of the political capital he gained with his re- election last month. The Fairfax, Virginia-based gun-rights group spent US$12 million (Bt360 million) seeking to deny Obama a second term. "It's the ideal moment of any newly elected president to offer a new idea," said Spitzer, who is chairman of the political science department at the State University of New York at Cortland. In addition, the Newtown killings, in which most of the victims were first-graders, "shocked people in a way that other mass shootings did not", he said. "When that happens, the NRA is at its low point of political influence." Still, the NRA remains a formidable force, with 4 million members and a well-funded political advocacy arm that, including its political action committee, spent $35 million for the 2012 election, according to the Centre for Responsive Politics, a Washington-based research group.

#### Logical policymaker pass the plan and pass immigration reform

#### Biden solves --- he can negotiate deals for the administration

Fifield, 1/5 (Anna, 1/5/2013, The Irish Times, “Down-to-earth Biden rising to challenge on Capitol Hill,” Factiva)

The vice-president will become a more important player in the second termWhen Joseph Biden was taking new senators through a practice run of their swearing-in ceremony this week, doubtless one of the most adrenalin-inducing experiences of their lives, the US vice-president could not help but crack a string of jokes. “This guy looks like he still plays for South Carolina,” Biden (70), who served 36 years in the US Senate, said of Tim Scott (47), the newly appointed Republican senator for South Carolina, as he met the former football player and his family in the hallowed chamber this week. “Need any help on your pecs, man, give me a call,” said Biden. This is vintage Biden – the down-to-earth blue-collar Joe who puts people at ease in even the most formal of settings, but who can never be relied upon to keep his foot out of his mouth. More prominent role After four years as US president Barack Obama’s deputy, a revitalised Biden is set to play an increasingly prominent role in the administration’s second term.“Biden is becoming a very important player not just because he knows the Senate and senators trust him, but because Obama has a very strong relationship with him,” says Norman Ornstein, a veteran political analyst who has known the vice-president for decades. Biden’s long experience in the Senate – stretching back to the time when “bipartisan” was not a slanderous term – has made him Obama’s go-to guy when he needs someone to bang heads together on Capitol Hill. During their first term, Biden was called in to help broker deals on the contentious healthcare reforms – which he had initially advised Obama against pushing – and extending the Bush-era tax cuts in 2010. As the US teetered on the edge of the fiscal precipice last week, it was Biden who was dispatched to the Hill to work out a deal with Mitch McConnell, the Republican leader in the Senate, after majority leader Harry Reid’s efforts came to nothing. “The vice-president and I have worked together on solutions before, and I believe we can again,” McConnell said. Analysts say this McConnell-Biden arrangement is likely to become the cornerstone of dealmaking over the next few years.After the deal was passed by the House, Biden stood at Obama’s side in the White House close to midnight as the president said: “I want to thank the work that was done by my extraordinary vice-president, Joe Biden.” During their first term, Biden’s main areas of responsibility in the White House were Iraq and the Recovery Act, both of which have come to an end. In their second term, Biden can be expected to take on a leading – if somewhat behind-the-scenes – role pushing the president’s ambitious legislative agenda. Gun control First up is gun control, one of the most politically sensitive issues around. Obama has appointed Biden head of a taskforce to look for ways to avoid recurrences of last month’s Sandy Hook school killings. Biden, after six years of work, shepherded a gun control Bill through the Senate in 1994, and refused to yield to Republican pressure when an assault weapon ban was tacked on to it. He has already started pushing for the president’s other top legislative priority – comprehensive immigration reform.“In one sense, we have a long way to go, bringing 11 million Hispanics out of the shadows and into the light of day,” Biden told the Congressional Hispanic Caucus Institute this week. “What’s different today is that the rest of the nation, the rest of America, recognises it’s time. It’s your time.” The role Biden will play over the next year will be a chance for him to overcome perceptions that he is an “amiable buffoon”. Countering such perceptions will be important because Biden has not ruled out making another run for the presidency in 2016. Although he will be 74 by then, he is in good shape and works out regularly.

#### The nuclear industry has congress in its pocket – funding, speeches

Union of Concerned Scientists, ’10 (February 1, “Nuclear Industry Spent Hundreds of Millions of Dollars Over the Last Decade to Sell Public, Congress on New Reactors, New Investigation Finds” <http://www.ucsusa.org/news/media_alerts/nuclear-industry-spent-millions-to-sell-congress-on-new-reactors-0343.html>)

The nuclear industry claims that there is increased public support for nuclear power as a solution to climate change, and some members of Congress are arguing that massive incentives for new nuclear reactors are critical to passing a climate and energy bill. Today, the Obama administration is expected to propose tripling the amount of loan guarantees to the industry to $54 billion and there are proposals in Congress to add billions more through a new "clean" energy fund and other incentives to support nuclear power expansion. Where did all this support for new nuclear reactors come from? Let's follow the money. Growing support for new nuclear power comes after an extensive decade-long campaign in which companies and unions related to the industry have spent more than $650 million on lobbying and campaign contributions from 1999 through 2008, according to a new analysis by former Los Angeles Times reporter Judy Pasternak, now with the Investigative Reporting Workshop at American University. In the first three quarters of 2009 alone, the nuclear energy industry spent $84 million lobbying Congress. "In many ways, the nuclear power industry's efforts to win support are a textbook case of how the influence game is played in Washington," Pasternak reports. "Besides the money spent on lobbying and campaign contributions, the industry, led by the NEI [Nuclear Energy Institute], has created a network of allies who give speeches, quote one another approvingly and showcase one another on their Web sites. The effect is an echo chamber of support for nuclear power." Two of the industry's celebrity spokespeople, former EPA Administrator Christine Todd Whitman and former Greenpeace activist Patrick Moore, have been stumping around the country, writing op-eds, and appearing on TV to extoll the virtues of nuclear power as the co-directors of the Clean and Safe Energy Coalition, but they rarely, if ever, mention that the NEI created the coalition and is its sole funder.

#### Nuclear power is popular with policymakers and the public

Todd Whitman 2012 - CASEnergy Co-Chair, Former EPA Administrator and New Jersey Governor(August 12, Christine, “Nuclear Power Garners Bipartisan Support” <http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php?comments=expandall#comments>)

It’s clear from the debate around the merits and drawbacks of various electricity and fuel sources that energy policy can be a highly polarizing topic. In fact, it’s arguable that there is no energy option that holds a truly bipartisan appeal: Every form of energy faces pockets of dissent. This makes crafting universally accepted energy policy particularly challenging. Fortunately, there are rare areas for bipartisan agreement among policymakers around specific energy policy issues that must be central to future investment in America’s energy portfolio. Policymakers agree that whatever sources we invest in, they must be sufficient both to meet growing energy demand and environmental requirements. They agree that the energy we invest in should support growth in American jobs and in the economy. They agree that our energy portfolio should be sustainable over time, aligned with our broader national goals. The energy policy that I’ve seen garner consistent support from the left and the right over the years is also one with which I’m deeply familiar. This policy involves building a diverse portfolio of low-carbon energy sources, featuring a renewed investment in nuclear energy. And it’s not just policymakers from both sides of the aisle who support nuclear energy – it’s everyday energy consumers as well. According to a Gallup poll conducted in March of this year, nearly 60 percent of Americans support the use of nuclear energy to meet our nation’s electricity needs, and a majority support expanding America’s use of nuclear power. Next-generation nuclear energy projects are underway in Georgia, South Carolina and Tennessee, thanks in part to steady popular support, as well as support from President Obama, bipartisan congressional leaders and other policymakers at the federal and state levels. An additional 10 combined construction and operating licenses for 16 plants are under review by the Nuclear Regulatory Commission. This support is founded in the fact that nuclear energy, safely managed, provides an efficient, reliable source of energy. In fact, nuclear power is the only baseload source of carbon-free electricity. It provides nearly two-thirds of the nation’s low-carbon electricity, and will continue to be an important source of energy well into the future given the advent of innovative large and small reactor designs. The use of nuclear energy prevents more than 613 million metric tons of carbon dioxide every year – as much CO2 as is emitted by every passenger car in America. Bipartisan support for nuclear energy also stems from the boost that it provides to local job markets and to local and state economies. As nuclear energy expands and as more than half of the industry workforce approaches retirement, the industry offers growing opportunities for well-paying careers. The industry already supports more than 100,000 jobs, and the combination of retirements and the construction of new facilities could create as many as 25,000 new jobs in the near term. What’s more, the construction of a nuclear facility spurs the creation of other local jobs in industries ranging from manufacturing to hospitality. The industry generates between $40 and $50 billion in revenue and electricity sales, or some $470 million in total economic output and $40 million in labor wages at each U.S. facility every year. That’s a powerful economic engine and a positive impact that leaders are embracing. As America refocuses on cleaner energy policies that help boost our economy, nuclear power is becoming a clear and critical part of a secure, sustainable energy portfolio. We need electricity and we want clean air; with nuclear energy we can have both. It’s a source of power that leaders on both sides of the aisle can support.

### AT: Security K 2AC

#### Our framework is that the alternative should be judged on the efficacy of its response to existing institutional practices

#### This means that the neg should have to answer the following questions – what is the alternative institution/social order that should be put into place? Is that feasible? What would have to be done to create that change and what would be the consequences of those actions?

#### This is particularly true for the aff – deterrence is an institutional logic that shapes IR independent of individual knowledge production – evaluate their alts effectiveness through the lens of inter-state threat perception – this argument also proves IR predictions are possible

Moore ’04

Dir. Center for Security Law @ University of Virginia, 7-time Presidential appointee, & Honorary Editor of the American Journal of International Law, Solving the War Puzzle: Beyond the Democratic Peace, John Norton Moore, page 27-31.

As so broadly conceived, there is strong evidence that deterrence, that is, the effect of external factors on the decision to go to war, is the missing link in the war/peace equation. In my War/Peace Seminar, I have undertaken to examine the level of deterrence before the principal wars of the twentieth century.10 This examination has led me to believe that in every case the potential aggressor made a rational calculation that the war would be won, and won promptly.11 In fact, the longest period of time calculated for victory through conventional attack seems to be the roughly six reeks predicted by the German General Staff as the time necessary ) prevail on the Western front in World War I under the Schlieffen Plan. Hitler believed in his attack on Poland that Britain and France could not take the occasion to go to war with him. And he believed his 1941 Operation Barbarossa against the Soviet Union that “[w]e have only to kick in the door and the whole rotten structure will come crashing down."12 In contrast, following Hermann Goering's failure to obtain air superiority in the Battle of Britain, Hitler called off the invasion of Britain and shifted strategy to the nighttime bombing of population centers, which became known as the Blitz, in a mistaken effort to compel Britain to sue for peace. Calculations in the North Korean attack on South Korea and Hussein’s attack on Kuwait were that the operations would be completed in a matter of days. Indeed, virtually all principal wars in the twentieth century, at least those involving conventional invasion, were preceded by what I refer to as a "double deterrence absence." That is, the potential aggressor believed that they had the military force in place to prevail promptly and that nations that might have the military or diplomatic power to prevent this were not dined to intervene.  This analysis has also shown that many of the perceptions we have about the origins of particular wars are flatly wrong. Anyone who seriously believes that World War I was begun by competing alliances drawing tighter should examine the al historical record of British unwillingness to enter a clear military alliance with the French or to so inform the Kaiser! Indeed, this pre-World War I absence of effective alliance and resultant war contrasts sharply with the laterrobust NATO alliance and absence of World War III.14 Considerable other evidence seems to support this historical analysis as to the importance of deterrence. Of particular note, Yale Professor Donald Kagan, a preeminent United States historian who has long taught a seminar on war, published in 1995 a superb book On the Origins of War and the Preservation of Peace.15 In this book heconducts a detailed examination of the Peloponnesian War, World War I, Hannibal's War, and World War II, among other case studies. A careful reading of these studies suggests that each war could have been prevented by achievable deterrence and that each occurred in the absence of such deterrence.16 Game theory seems to offer yet further support for the proposition that appropriate deterrence can prevent war. For example, Robert Axelrod's famous 1980s experiment in an iterated prisoner's dilemma, which is a reasonably close proxy for many conflict settings in international relations, repeatedly showed the effectiveness of a simple tit for tat strategy.17Such a strategy is at core simply a basic deterrent strategy of influencing behavior through incentives. Similarly, much of the game-theoretic work on crisis bargaining (and danger of asymmetric information) in relation to war and the democratic peace assumes the importance of deterrence through communication of incentives.18 The well-known correlation between war and territorial contiguity seems also to underscore the importance of deterrence and is likely principally a proxy for levels of perceived profit and military achievability of aggression in many such settings. It should further be noted that the democratic peace is not the only significant correlation with respect to war and peace, although it seems to be the most robust. Professors Russett and Oneal, in recently exploring the other elements of the Kantian proposal for "Perpetual Peace," have also shown a strong and statistically significant correlation between economically important bilateral trade between two nations and a reduction in the risk of war between them. Contrary to the arguments of "dependency theorists," such economically important trade seems to reduce the risk of war regardless of the size relationship or asymmetry in the trade balance between the two states. In addition, there is a statistically significant association between economic openness generally and reduction in the risk of war, although this association is not as strong as the effect of an economically important bilateral trade relationship.° Russett and Oneal also show a modest independent correlation between reduction in the risk of war and higher levels of common membership in international organizations.20 And they show that a large imbalance of power between two states significantly lessens the risk of major war between them.21 All of these empirical findings about war also seem to directly reflect incentives; that is, a higher level of trade would, if foregone in war, impose higher costs in the aggregate than without such trade,22 though we know that not all wars terminate trade. Moreover, with respect to trade, a, classic study, Economic Interdependence and War, suggests that the historic record shows that it is not simply aggregate levels of bilateral trade that matters, but expectations as to the level of trade into the future.23 This directly implicates expectations of the war decision maker as does incentive theory, and it importantly adds to the general finding about trade and war that even with existing high levels of bilateral trade, changing expectations from trade sanctions or other factors affecting the flow of trade can directly affect incentives and influence for or against war. A large imbalance of power in a relationship rather obviously impacts deterrence and incentives. Similarly, one might incur higher costs with high levels of common membership in international organizations through foregoing some of the heightened benefits of such participation or otherwise being presented with different options through the actions or effects of such organizations. These external deterrence elements may also be yet another reason why democracies have a lower risk of war with one another. For their freer markets, trade, commerce, and international engagement may place them in a position where their generally higher level of interaction means that aggression will incur substantial opportunity costs. Thus, the "mechanism" of the democratic peace may be an aggregate of factors affecting incentives, both external as well as internal factors. Because of the underlying truth in the relationship between higher levels of trade and lower levels of war, it is not surprising that theorists throughout human history, including Baron de Montesquieu in 1748, Thomas Paine in 1792, John Stuart Mill in 1848, and, most recently, the founders of the European Union, have argued that increasing commerce and interactions among nations would end war. Though by themselves these arguments have been overoptimistic, it may well be that some level of "globalization" may make the costs of war and the gains of peace so high as to powerfully predispose to peace. Indeed, a 1989 book by John Mueller, Retreat From Doomsday,24 postulates the obsolescence of major war between developed nations (at least those nations within the "first and second worlds") as they become increasingly conscious of the rising costs of war and the rising gains of peace. In assessing levels of democracy, there are indexes readily available, for example, the Polity III25 and Freedom House 26 indexes. I am unaware of any comparable index with respect to levels of deterrence that might be used to test the importance of deterrence in war avoidance?' Absent such an accepted index, discussion about the importance of deterrence is subject to the skeptical observation that one simply defines effective deterrence by whether a war did or did not occur. In order to begin to deal with this objection and encourage a more objective methodology for assessing deterrence, I encouraged a project to seek to develop a rough but objective measure of deterrence with a scale from minus ten to plus ten based on a large variety of contextual features that would be given relative weighting in a complex deterrence equation before applying the scaling to different war and nonwar settings.28 On the disincentive side of the scale, the methodology used a weighted calculation of local deterrence, including the chance to prevent a short- and intermediate-term military victory, and economic and political disincentives; extended deterrence with these same elements; and contextual communication and credibility multipliers. On the incentive side of the scale, the methodology also used a weighted calculation of perceived military, economic, and political benefits. The scales were then combined into an overall deterrence score, including, an estimate for any effect of prospect theory where applicable.2 This innovative first effort uniformly showed high deterrence scores in settings where war did not, in fact, occur. Deterring a Soviet first strike in the Cuban Missile Crisis produced a score of +8.5 and preventing a Soviet attack against NATO produced a score of +6. War settings, however, produced scores ranging from -2.29 (Saddam Hussein's decision to invade Kuwait in the Gulf War), -2.18 (North Korea's decision to invade South Korea in the Korean War), -1.85 (Hitler's decision to invade Poland in World War II), -1.54 (North Vietnam's decision to invade South Vietnam following the Paris Accords), -0.65 (Milosevic's decision to defy NATO in Kosovo), +0.5 (the Japanese decision to attack Pearl Harbor), +1.25 (the Austrian decision, egged on by Germany, to attack Serbia, which was the real beginning of World War I), to +1.75 (the German decision to invade Belgium and France in World War I). As a further effort at scaling and as a point of comparison, I undertook to simply provide an impressionistic rating based on my study of each pre-crisis setting. That produced high positive scores of +9 for both deterring a Soviet first strike during the Cuban Missile Crisis and NATO's deterrence of a Warsaw Pact attack and even lower scores than the more objective effort in settings where wars had occurred. Thus, I scored North Vietnam's decision to invade South Vietnam following the Paris Accords and the German decision to invade Poland at the beginning of World War II as -6; the North Korean/Stalin decision to invade South Korea in the Korean War as -5; the Iraqi decision to invade the State of Kuwait as -4; Milosevic's decision to defy NATO in Kosovo and the German decision to invade Belgium and France in World War I as -2; and the Austrian decision to attack Serbia and the Japanese decision to attack Pearl Harbor as -1. Certainly even knowledgeable experts would be likely to differ in their impressionistic scores on such pre-crisis settings, and the effort at a more objective methodology for scoring deterrence leaves much to be desired. Nevertheless, both exercises did seem to suggest that deterrence matters and that high levels of deterrence can prevent future war. Following up on this initial effort to produce a more objective measure of deterrence, two years later I encouraged another project to undertake the same effort, building on what had been learned in the first iteration. The result was a second project that developed a modified scoring system, also incorporating local deterrence, extended deterrence, and communication of intent and credibility multipliers on one side of a scale, and weighing these factors against a potential aggressor's overall subjective incentives for action on the other side of the scale.3° The result, with a potential range of -5.5 to +10, produced no score higher than +2.5 for eighteen major wars studied between 1939 and the 1990 Gulf War.31 Twelve of the eighteen wars produced a score of zero or below, with the 1950-53 Korean War at -3.94, the 1965-75 Vietnam War at -0.25, the 1980-88 Iran-Iraq War at -1.53, and the 1990-91 Gulf War at -3.83. The study concluded that in more than fifty years of conflict there was "no situation in which a regime elite/decision making body subjectively faced substantial disincentives to aggressive military action and yet attacked."32 Yet another piece of the puzzle, which may clarify the extent of deterrence necessary in certain settings, may also assist in building a broader hypothesis about war. In fact, it has been incorporated into the just-discussed efforts at scoring deterrence. That is, newer studies of human behavior from cognitive psychology are increasingly showing that certain perceptions of decision makers can influence the level of risk they may be willing to undertake, or otherwise affect their decisions.33 It now seems likely that a number of such insights about human behavior in decision making may be useful in considering and fashioning deterrence strategies. Perhaps of greatest relevance is the insight of "prospect theory," which posits that individuals evaluate outcomes with respect to deviations from a reference point and that they may be more risk averse in settings posing potential gain than in settings posing potential loss.34 The evidence of this "cognitive bias," whether in gambling, trading, or, as is increasingly being argued, foreign policy decisions generally, is significant. Because of the newness of efforts to apply a laboratory based "prospect theory" to the complex foreign policy process generally, and particularly ambiguities and uncertainties in framing such complex events, our consideration of it in the war/peace process should certainly be cautious. It does, however, seem to elucidate some of the case studies. In the war/peace setting, "prospect theory" suggests that deterrence may not need to be as strong to prevent aggressive action leading to perceived gain. For example, there is credible evidence that even an informal warning to Kaiser Wilhelm II from British Foreign Secretary Sir Edward Grey, if it had come early in the crisis before events had moved too far, might have averted World War I. And even a modicum of deterrence in Kuwait, as was provided by a small British contingent when Kuwait was earlier threatened by an irredentist Iraqi government in 1961, might have been sufficient to deter Saddam Hussein from his 1990 attack on Kuwait. Similarly, even a clear United States pledge for the defense of South Korea before the attack might have prevented the Korean War. Conversely, following the July 28 Austrian mobilization and declaration of war against Serbia in World War I, the issue for Austria may have begun to be perceived as loss avoidance, thus requiring much higher levels of deterrence to avoid the resulting war. Similarly, the Rambouillet Agreement may have been perceived by Milosevic as risking loss of Kosovo and his continued rule of Serbia and, as a result, may have required higher levels of NA-TO deterrence to have prevented Milosevic's actions in defiance. Certainly NATO's previous hesitant responses in 1995 against Milosevic in the Bosnia phase of the Yugoslav crisis and in 1998-99 in early attempts to deal with Kosovo did not create a high level of deterrence.35 One can only surmise whether the killing in Kosovo could have been avoided had NATO taken a different tack, both structuring the issue less as loss avoidance for Milosevic and considerably enhancing deterrence. Suppose, for example, NATO had emphasized that it had no interest in intervening in Serbia's civil conflict with the KLA but that it would emphatically take action to punish massive "ethnic cleansing" and other humanitarian outrages, as had been practiced in Bosnia. And on the deterrence side, it made clear in advance the severity of any NATO bombardment, the potential for introduction of ground troops if necessary, that in any assault it would pursue a "Leadership Strategy" focused on targets of importance to Milosevic and his principal henchmen (including their hold on power), and that it would immediately, unlike as earlier in Bosnia, seek to generate war crime indictments of all top Serbian leaders implicated in any atrocities. The point here is not to second-guess NATO's actions in Kosovo but to suggest that taking into account potential "cognitive bias," such as "prospect theory," may be useful in fashioning effective deterrence. "Prospect theory" may also have relevance in predicting that it may be easier to deter (that is, lower levels are necessary) an aggression than to undo that aggression. Thus, much higher levels of deterrence were probably required to compel Saddam Hussein to leave Kuwait than to prevent him initially from invading that state. In fact, not even the presence of a powerful Desert Storm military force and a Security Council Resolution directing him to leave caused Hussein to voluntarily withdraw. As this real-world example illustrates, there is considerable experimental evidence in "prospect theory" of an almost instant renormalization of reference point after a gain; that is, relatively quickly after Saddam Hussein took Kuwait, a withdrawal was framed as a loss setting, which he would take high risk to avoid. Indeed, we tend to think of such settings as settings of compellance, requiring higher levels of incentive to achieve compulsion producing an action, rather than deterrence needed for prevention. One should also be careful not to overstate the effect of "prospect theory" or to fail to assess a threat in its complete context. We should remember that a belated pledge of Great Britain to defend Poland before the Nazi attack did not deter Hitler, who believed under the circumstances that the British pledge would not be honored. It is also possible that the greater relative wealth of democracies, which have less to gain in all out war, is yet another internal factor contributing to the "democratic peace."36 In turn, this also supports the extraordinary tenacity and general record of success of democracies fighting in defensive settings as they may also have more to lose. In assessing adequacy of deterrence to prevent war, we might also want to consider whether extreme ideology, strongly at odds with reality, may be a factor requiring higher levels of deterrence for effectiveness. One example may be the extreme ideology of Pol Pot leading him to falsely believe that his Khmer Rouge forces could defeat Vietnam.37 He apparently acted on that belief in a series of border incursions against Vietnam that ultimately produced a losing war for him. Similarly, Osama bin Laden's 9/11 attack against America, hopelessly at odds with the reality of his defeating the Western World and producing for him a strategic disaster, seems to have been prompted by his extreme ideology rooted in a distorted concept of Islam at war with the enlightenment. The continuing suicide bombings against Israel, encouraged by radical rejectionists and leading to less and less for the Palestinians, may be another example. If extreme ideology is a factor to be considered in assessing levels of deterrence, it does not mean that deterrence is doomed to fail in such settings but only that it must be at higher levels (and properly targeted on the relevant decision elites behind the specific attacks) to be effective, as is also true in perceived loss or compellance settings.38 Even if major war in the modern world is predominantly a result of aggression by nondemocratic regimes, it does not mean that all nondemocracies pose a risk of war all, or even some, of the time. Salazar's Portugal did not commit aggression. Nor today do Singapore or Bahrain or countless other nondemocracies pose a threat. That is, today nondemocracy comes close to a necessary condition in generating the high risk behavior leading to major interstate war. But it is, by itself, not a sufficient condition for war. The many reasons for this, of course, include a plethora of internal factors, such as differences in leadership perspectives and values, size of military, and relative degree of the rule of law, as well as levels of external deterrence.39 But where an aggressive nondemocraticregime is present and poses a credible military threat, then it is the totality of external factors, that is, deterrence, that become crucial.

#### The aff solves best – only shoring up deterrence creates predictability in threat perception – the alternative is cultural bias or suspicious gut reaction

Lupovici 8 – Post-Doctoral Fellow Munk Centre for International Studies University of Toronto (Amir, “Why the Cold War Practices of Deterrence are Still Prevalent: Physical Security, Ontological Security and Strategic Discourse,”  [http://www.cpsa-acsp.ca/papers-2008/Lupovici.pdf](http://www.cpsa-acsp.ca/papers-2008/Lupovici.pdf" \t "_blank)

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

#### Predictions can be qualitative – you can make predictions based on different probabilities

#### Applying complexity theory leads to policy paralysis and numerous other failures

HENDRICK ‘9 (Diane; Department of Peace Studies – University of Bradford, “Complexity Theory and Conflict Transformation: An Exploration of Potential and Implications,” June, <http://143.53.238.22/acad/confres/papers/pdfs/CCR17.pdf>)

It is still relatively early days in the application of complexity theory to social sciences and there are doubts and criticisms, either about the applicability of the ideas or about the expectations generated for them. It is true that the translation of terms from natural science to social science is sometimes contested due to the significant differences in these domains, and that there are concerns that the meanings of terms may be distorted, thus making their use arbitrary or even misleading. Developing new, relevant definitions for the new domain applications, where the terms indicate a new idea or a new synthesis that takes our understanding forward, are required. In some cases, particular aspects of complexity theory are seen as of only limited applicability, for example, self-organisation (see Rosenau‘s argument above that it is only relevant in systems in which authority does not play a role). There are those who argue that much that is being touted as new is actually already known, whether from systems theory or from experience, and so complexity theory cannot be seen as adding value in that way. There are also concerns that the theory has not been worked out in sufficient detail, or with sufficient rigour, to make itself useful yet. Even that it encourages woolly thinking and imprecision.

In terms of application in the field, it could be argued that it may lead to paralysis, in fear of all the unexpected things that could happen, and all the unintended consequences that could result, from a particular intervention. The proposed adaptability and sensitivity to emerging new situations may lead to difficulties in planning or, better expressed, must lead to a different conception of what constitutes planning, which is, in itself, challenging (or even threatening) for many fields. The criteria for funding projects or research may not fit comfortably with a complexity approach, and evaluation, already difficult especially in the field of conflict transformation, would require a re-conceptualisation. Pressure for results could act as a disincentive to change project design in the light of emergent processes. There may be the desire to maintain the illusion of control in order to retain the confidence of funders. On the other hand, there are fears that complexity may be used as an excuse for poor planning, and implementation, which is a valid concern for funders. In addition, there may be scepticism that the co-operation and co-ordination between different researchers or interveners, (let alone transdisciplinary undertakings) appropriate to working on complex problem domains, will not work due to differing mental models, competing interests and aims, competition for funding, prestige, etc. Such attempts appear, therefore, unrealistic or unfeasible.

#### Defer to best evidence to resolve impacts – only way to avoid dogmatism and create effective policy analysis

Sil ‘2k

Rudra Sil, assistance professor of Political Science @ the University of Pennsylvania. “Beyond boundaries?: disciplines, paradigms, and theoretical integration in International Studies. 2001. P. 161.

In the end, there may be no alternative to relying on the judgment of other human beings, and this judgment is difficult to form in the absence of empirical findings. However, instead of clinging to the elusive idea of a uniform standard for the empirical validation of theories, it is possible to simply present a set of observational statements—whether we call it "data" or "narrative"—for the modest purpose of rendering an explanation or interpretation more plausible than the audience would allow at the outset. In practice, this is precisely what the most committed positivists and inter-pretivists have been doing anyway; the presentation of "logically consistent" hypotheses "supported by data" and the ordering of facts in a "thick" narrative are both ultimately designed to convince scholars that a particular proposition should be taken more seriously than others. Social analysis is not about final truths or objective realities, but nor does it have to be a meaningless world of incommensurable theories where anything goes. Instead, it can be an ongoing collective endeavor to develop, evaluate, and refine general inferences—be they in the form of models, partial explanations, descriptive inferences, or interpretations—in order to render them more "sensible" or "plausible" to a particular audience. In the absence of a consensus on the possibility and desirability of a full-blown explanatory science of international and social life, it is important to keep as many doors open as possible. This does not require us to accept each and every claim without some sort of validation, but perhaps the community of scholars can be more tolerant about the kinds of empirical referents and logical propositions that are employed in validating propositions by scholars embracing all but the most extreme epistemological positions.

### 1AR K wave

**Economic wave theory is wrong**

Coggan, 2003

[Philip, June 7, “Technically, These Methods Don’t Work” Financial Times]

As Niederhoffer and Kenner write: "The problem with technical analysis is that **practitioners and advocates fail to follow standard scientific procedure in presenting and evaluating its techniques. Technical analysis is so rife with subjective interpretations that it must be regarded as more of a religion than a method,** complete with priests who bewilder the unwashed at high-priced seminars." **One has to be** even more **suspicious of claims that financial markets move in long and short term patterns that can be found in nature**. Take Elliott wave theory, which says that markets move in patterns of five and three - an up phase (itself consisting of three ups and two downs) and a down phase (comprising two downs and an up). Believers in Elliott wave theory argue that this is a "fractal" pattern in which a small part replicates the whole. So Elliott waves can be found within a day's trading period and on a scale that spans centuries. Hence the belief in the "long wave" or "grand supercycle" that can be traced all the way back to the 18th century. The problem with **such an ambitious theory is** that it is **completely unprovable. Financial data of the most rudimentary kind only date back around 300 years. So if there is a grand supercycle lasting centuries, we can only record one of them**. And to date, the current bear market hardly demonstrates "grand supercycle" strength - most indices dropped to six-year lows, not 60-year nadirs. Economic students might recall **the "Kondratieff wave**" that appeared to indicate a cycle of 54-56 years, after peaks in 1819, 1873 and 1929. When the 1987 crash came, some were quick to announce that Kondratieff had returned. But **1987 proved to be a blip**. Maybe 2000 will turn out to be the latest Kondratieff peak, although **the economic downturn to date is nothing like as bad as the previous examples. But if the "regular" cycle has now extended to 71 years, maybe it's not that regular and maybe it's no more useful than saying "economic dislocations occur from time to time** but we can't tell when". **It is human nature to look for patterns**. Sometimes it can be useful; if dark clouds are above, it is likely to rain. But often we 'see' patterns that are not there, we can be "fooled by randomness" to cite the excellent book of Nassim Nicholas Taleb\*\*. Indeed, as people react to the patterns they perceive, their behaviour can change. Alas, that means there **is no "answer" - no universal law that can be divined from lines on a graph**. Life is simply not that easy.

### 1AR EKC

#### Kuznets curve theory is true for CO2--- growth’s the only way to slow warming

Tierney 9 – John Tierney, Science Columnist for the New York Times, April 21, 2009, “Use Energy, Get Rich and Save the Planet,” online:http://www.nytimes.com/2009/04/21/science/earth/21tier.html?\_r=1&pagewanted=print

Their equation was I=PAT, which means that environmental impact is equal to population multiplied by affluence multiplied by technology. Protecting the planet seemed to require fewer people, less wealth and simpler technology — the same sort of social transformation and energy revolution that will be advocated at many Earth Day rallies on Wednesday. But among researchers who analyze environmental data, a lot has changed since the 1970s. With the benefit of their hindsight and improved equations, I’ll make a couple of predictions: 1. There will be no green revolution in energy or anything else. No leader or law or treaty will radically change the energy sources for people and industries in the United States or other countries. No recession or depression will make a lasting change in consumers’ passions to use energy, make money and buy new technology — and that, believe it or not, is good news, because... 2. The richer everyone gets, the greener the planet will be in the long run. I realize this second prediction seems hard to believe when you consider the carbon being dumped into the atmosphere today by Americans, and the projections for increasing emissions from India and China as they get richer. Those projections make it easy to assume that affluence and technology inflict more harm on the environment. But while pollution can increase when a country starts industrializing, as people get wealthier they can afford cleaner water and air. They start using sources of energy that are less carbon-intensive — and not just because they’re worried about global warming. The process of “decarbonization” started long before Al Gore was born. The old wealth-is-bad IPAT theory may have made intuitive sense, but it didn’t jibe with the data that has been analyzed since that first Earth Day. By the 1990s, researchers realized that graphs of environmental impact didn’t produce a simple upward-sloping line as countries got richer. The line more often rose, flattened out and then reversed so that it sloped downward, forming the shape of a dome or an inverted U — what’s called a Kuznets curve. In dozens of studies, researchers identified Kuznets curves for a variety of environmental problems. There are exceptions to the trend, especially in countries with inept governments and poor systems of property rights, but in general, richer is eventually greener. As incomes go up, people often focus first on cleaning up their drinking water, and then later on air pollutants like sulfur dioxide. As their wealth grows, people consume more energy, but they move to more efficient and cleaner sources — from wood to coal and oil, and then to natural gas and nuclear power, progressively emitting less carbon per unit of energy. This global decarbonization trend has been proceeding at a remarkably steady rate since 1850, according to Jesse Ausubel of Rockefeller University and Paul Waggoner of the Connecticut Agricultural Experiment Station. “Once you have lots of high-rises filled with computers operating all the time, the energy delivered has to be very clean and compact,” said Mr. Ausubel, the director of the Program for the Human Environment at Rockefeller. “The long-term trend is toward natural gas and nuclear power, or conceivably solar power. If the energy system is left to its own devices, most of the carbon will be out of it by 2060 or 2070.” But what about all the carbon dioxide being spewed out today by Americans commuting to McMansions? Well, it’s true that American suburbanites do emit more greenhouse gases than most other people in the world (although New Yorkers aren’t much different from other affluent urbanites). But the United States and other Western countries seem to be near the top of a Kuznets curve for carbon emissions and ready to start the happy downward slope. The amount of carbon emitted by the average American has remained fairly flat for the past couple of decades, and per capita carbon emissions have started declining in some countries, like France. Some researchers estimate that the turning point might come when a country’s per capita income reaches $30,000, but it can vary widely, depending on what fuels are available. Meanwhile, more carbon is being taken out of the atmosphere by the expanding forests in America and other affluent countries. Deforestation follows a Kuznets curve, too. In poor countries, forests are cleared to provide fuel and farmland, but as people gain wealth and better agricultural technology, the farm fields start reverting to forestland.

### 1AR Environment

#### Growth solves environmental damage and decline accelerates it

Adler 8 – Jonathan H. Adler, Professor of Law and Director of the Center for Business Law and Regulation at Case Western Reserve University School of Law, Fall 2008, “Green Bridge to Nowhere,” The New Atlantis, online:http://www.thenewatlantis.com/publications/green-bridge-to-nowhere

According to Speth, “most environmental deterioration is a result of systemic failures of capitalism.” This is an odd claim, as the least capitalist nations of the world also have the worst environmental records. The ecological costs of economic statism are far worse than those of economic liberty. The environmental record of the various Soviet regimes amply bears this out: The West’s ecological nightmares were the Soviet bloc’s environmental realities. This is not due to any anomaly of the Soviet system. Nations with greater commitment to capitalist institutions experience greater environmental performance. While Speth occasionally acknowledges pockets of environmental progress, he hardly stops to consider the reasons why some environmental resources have been conserved more effectively than others. Fisheries are certainly declining throughout much of the world — some 75 percent of fisheries are fully or over-exploited — but not everywhere. It is worth asking why. Tropical forests in less-developed nations are declining even as most temperate forests in industrialized nations are rebounding. Recognizing these different trends and identifying the key variables is essential to diagnosing the real causes of environmental deterioration and prescribing a treatment that will work. Speth acknowledges that much of the world is undergoing “dematerialization,” such that economic growth far outpaces increases in resource demand, but seems not to appreciate how the capitalist system he decries creates the incentives that drive this trend. Were it not for market-driven advances in technological capability and ecological efficiency, humanity’s footprint on the Earth would be far greater. While modern civilization has developed the means to effect massive ecological transformations, it has also found ways to produce wealth while leaving more of the natural world intact. Market competition generates substantial incentives to do more with less — thus in market economies we see long and continuing improvements in productive efficiency. This can be seen everywhere from the replacement of copper with fiber optics (made from silica, the chief component in sand) and the light-weighting of packaging to the explosion of agricultural productivity and improvements in energy efficiency. Less material is used and disposed of, reducing overall environmental impacts from productive activity. The key to such improvements is the same set of institutional arrangements that Speth so decries: property rights and voluntary exchange protected by the rule of law — that is, capitalism. As research by Wheaton College economist Seth Norton and many others has shown, societies in which property rights and economic freedoms are protected experience superior economic and environmental performance than those societies subject to greater government control. Indeed, such institutions have a greater effect on environmental performance than the other factors, such as population growth, that occupy the attention of Speth and so many other environmental thinkers.