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## Contention One

### Current supply is absolutely unsustainable

### 1. The economics of shale are horrid

**Ahmed, Institute for Policy Research and Development executive director, 1-10-13**

(Nafeez, “The Great Oil Swindle”, http://www.fpif.org/articles/the\_great\_oil\_swindle, DOA: 1-17-13, ldg/atl)

But there are further reasons for concern. For how reliable is the IEA's data? In a series of investigations for the Guardian and Le Monde, Lionel Badal exposed in 2009 how key data was deliberately fudged at the IEA under U.S. pressure to artificially inflate official reserve figures. Not only that, but Badal later discovered that as early as 1998, extensive IEA data exploding assumptions of "sustained economic growth and low unemployment" had been systematically suppressed for political reasons according to several whistleblowers. With the IEA's research under such intense U.S. political scrutiny and interference for 12 years, its findings should perhaps not always be taken at face value. The same goes, even more so, for Maugeri's celebrated Harvard report. By any meaningful standard, this was hardly an independent analysis of oil industry data. Funded by two oil majors—Eni and British Petroleum (BP)—the report was not peer-reviewed, and contained a litany of elementary errors. So egregious are these errors that Dr. Roger Bentley, an expert at the UK Energy Research Centre, told ex-BBC financial journalist David Strahan that "Mr. Maugeri’s report misrepresents the decline rates established by major studies, [and] it contains glaring mathematical errors... I am astonished Harvard published it." What the scientists say In contrast to the blaring media attention generated by Maugeri's report, three peer-reviewed studies published in reputable science journals in the first half of 2012 offered a less than jubilant perspective. A paper published in Nature by Sir David King, the UK's former chief government scientist, found that despite reported increases in oil reserves and tar sands, natural gas, and shale gas production, depletion of the world’s existing fields is still running at 4.5 percent to 6.7 percent per year. They firmly dismissed notions that a shale gas boom would avert an energy crisis, noting that production at shale gas wells drops by as much as 60 to 90 percent in the first year of operation. The paper received little, if any, media fanfare. In March, Sir King's team at Oxford University's Smith School of Enterprise and the Environment published another peer-reviewed paper in Energy Policy, concluding that the industry had overstated world oil reserves by about a third. Estimates should be downgraded from 1150-1350 billion barrels to 850-900 billion barrels. "While there is certainly vast amounts of fossil fuel resources left in the ground,” the authors argued, “the volume of oil that can be commercially exploited at prices the global economy has become accustomed to is limited and will soon decline." The study was largely blacked out in the media (except for a solitary report in the Telegraph, to its credit). In June—the same month as Maugeri's deeply flawed analysis—Energy published an extensive analysis of oil industry data by U.S. financial risk analyst Gail Tverberg, who found that since 2005, "world [conventional] oil supply has not increased." He argued that this was "a primary cause of the 2008-2009 recession" and that the "expected impact of reduced oil supply" will mean the "financial crisis may eventually worsen." But all the media attention was on the oil man's oil-funded report. Tverberg's peer-reviewed study in a reputable science journal, with its somewhat darker message, was ignored. What happens when the shale boom... goes boom? These scientific studies are not the only indications that something is deeply wrong with the IEA's assessment of prospects for shale gas production and accompanying economic prosperity. Indeed, Business Insider reports that far from being profitable, the shale gas industry is facing huge financial hurdles. "The economics of fracking are horrid," observes U.S. financial journalist Wolf Richter. "Production falls off a cliff from day one and continues for a year or so until it levels out at about 10 percent of initial production." The result is that "drilling is destroying capital at an astonishing rate, and drillers are left with a mountain of debt just when decline rates are starting to wreak their havoc. To keep the decline rates from mucking up income statements, companies had to drill more and more, with new wells making up for the declining production of old wells. Alas, the scheme hit a wall, namely reality." Just a few months ago, Exxon CEO Rex Tillerson complained that the lower prices resulting from the U.S. natural gas glut were dramatically decreasing profits. This problem is compounded by the swiftly plummeting production rates at shale wells, which start high but fall fast. Although, Exxon had officially insisted in shareholder meetings that it was not losing money on gas, Tillerson candidly told a meeting at the Council on Foreign Relations: "We are all losing our shirts today. We're making no money. It's all in the red." The oil industry has actively and deliberately attempted to obscure the challenges facing shale gas production. A seminal New York Times investigation in 2011 found that despite a public stance of extreme optimism, the U.S. oil industry is "privately skeptical of shale gas." According to the Times, "the gas may not be as easy and cheap to extract from shale formations deep underground as the companies are saying, according to hundreds of industry e-mails and internal documents and an analysis of data from thousands of wells." The emails revealed industry executives, lawyers, state geologists and market analysts voicing "skepticism about lofty forecasts" and questioning "whether companies are intentionally, and even illegally, overstating the productivity of their wells and the size of their reserves." Though corroborated by independent studies, such revelations have been largely ignored by journalists and policymakers. But we ignore them at our peril. Arthur Berman, a 32-year veteran petroleum geologist who worked with Amoco (prior to its merger with BP), on the same day as the release of the IEA's 2012 annual report, told OilPrice that "the decline rates shale reservoirs experience... are incredibly high." Citing the Eagleford shale—the "mother of all shale oil plays"—he pointed out that the "annual decline rate is higher than 42 percent." Just to keep production flat, oil companies will have to drill "almost 1000 wells in the Eagleford shale, every year... Just for one play, we're talking about $10 or $12 billion a year just to replace supply. I add all these things up and it starts to approach the amount of money needed to bail out the banking industry. Where is that money going to come from?" Chesapeake Energy recently found itself in exactly this situation, forcing it to sell assets to meet its obligations. "Staggering under high debt," reported the Washington Post, Chesapeake said "it would sell $6.9 billion of gas fields and pipelines—another step in shrinking the company whose brash chief executive had made it a leader in the country’s shale gas revolution." The sale was forced by a "combination of low natural gas prices and excessive borrowing." The worst-case scenario is that several large oil companies find themselves facing financial distress simultaneously. If that happens, according to Berman, "you may have a couple of big bankruptcies or takeovers and everybody pulls back, all the money evaporates, all the capital goes away. That's the worst-case scenario." To make matters worse, Berman has shown conclusively that the industry exaggerated EURs (Estimated Ultimate Recovery) of shale wells using flawed industry models that, in turn, have fed into the IEA's future projections. Berman is not alone. Writing in Petroleum Review, U.S. energy consultants Ruud Weijermars and Crispian McCredie argued there remains strong "basis for reasonable doubts about the reliability and durability of U.S. shale gas reserves," which have been "inflated" under new Security & Exchange Commission rules. The eventual consequences of the current gas glut, in other words, are more than likely to be an unsustainable shale bubble that collapses under its own weight, precipitating a supply collapse and price spike. Rather than fuelling prosperity, the shale revolution will instead boost a temporary recovery masking deeper, structural instabilities. Inevitably, those instabilities will collide, leaving us with an even bigger financial mess, on a faster trajectory toward costly environmental destruction.

### 2. Overproduction ensures gas bubble—causes rapid collapse of the industry

**Callahan, PhD Chemist, 12**

(Jonathan, worked for almost 20 years as a data analysis/data visualization expert for various Federal science agencies, February 6, 2012, “Gas boom goes bust”, <http://www.energybulletin.net/stories/2012-02-06/gas-boom-goes-bust>, 2/5/13, atl)

The current boom in drilling for ‘unconventional’ gas has helped raise US production to levels not seen since the early 1970′s. This has been an incredible boon to consumers and has kept spot prices contained below $5 per million BTU for the past year, recently dropping below $3/mmbtu. Unfortunately, this price is below the cost of production for many of these new wells. When the flood of investment currently pouring into natural gas drilling operations dries up, the inevitable bust will be as scary as the boom was exciting. The Problem A well written and realistic overview of the situation appeared in a Dec. 6, 2011 article in Rigzone: [Musings: Imagining The Future for The Natural Gas Industry](http://www.rigzone.com/news/article.asp?a_id=113141). In this article, author G. Allen Brooks focuses on the damaging impact low natural gas prices have on the industry. The following excerpt captures the main message of the article: Gas shale wells are expensive to drill and complete as well are the cost of the leases on which they are drilled. Even though initial gas production from shale wells is huge, the low price has depressed the amount of cash companies are receiving. As a result, producers are spending well in excess of their cash flows. To supplement cash flow, producers have engaged in every known trick in the finance book to boost available funds. These tactics include hedging forward future production whenever high prices are available, tapping Wall Street to raise equity and debt, and seeking out relationships such as joint ventures with larger, and often foreign, oil and gas companies. In order to access Wall Street capital, producers have needed to demonstrate that they are being successful in exercising a strategy for aggressive wealth creation. That means aggressively buying acreage and drilling wells. Exercising a successful strategy often creates a vicious cycle – more acreage and wells equals increased production and depressed prices. This cycle will continue as long as the music (Wall Street’s money) continues to flow. Once that stops, we will see how many producers can find a chair in the room. In the meantime, the fun continues! Let’s review the pertinent facts and big trends to try to understand the situation and get a sense of the most likely outcomes. The Backstory In recent years, the news media have contained lot of hype and misinformation about energy issues. Energy reporting is plagued with incorrect/inconsistent use of units, misleading charts and a general lack of critical thinking. In order to put the current natural gas crisis in context we need to understand the role of natural gas in the United States economy. A review of publicly available data can help provide unbiased answers to several key questions. Question 1) How does natural gas figure into our overall energy consumption? Figure 1) from the [Energy Export data browser](http://mazamascience.com/OilExport) shows US energy consumption of the five primary sources of energy: nuclear, coal, oil, gas and hydro-electric. Data are in consistent units of “million tonnes of oil equivalent” (mtoe) as provided in the[British Petroleum Statistical Review](http://www.bp.com/sectionbodycopy.do?categoryId=7500&contentId=7068481). [[1](http://www.energybulletin.net/stories/2012-02-06/gas-boom-goes-bust#footnote_0_940)] The general trend toward increased energy consumption is obvious as are dips due to the 1973 and 1980 oil crises as well as the economic crash in 2008. Initial data for 2010 show a return to increased consumption following the massive injection of Federal stimulus money. We can also see that oil is the primary source of energy in the United States and that natural gas has recently outpaced coal in importance. In 2010, natural gas accounted for 30% of total energy use. Figure 1) US consumption of energy from primary sources. Question 2) What is the balance of production and consumption for natural gas? Figure 2) uses the difference between production and consumption data to estimate net imports/exports of natural gas. Production matched consumption throughout the 70′s and 80′s. Since 1990, the US has had a pretty steady import habit with almost all of the imports coming from Canada. [[2](http://www.energybulletin.net/stories/2012-02-06/gas-boom-goes-bust#footnote_1_940)] Production has been increasing quite steadily since 2006 but we have also seen increased consumption some years resulting in only a small decrease in imports. Nevertheless, it would only take a modest conservation effort for the US to become “energy independent” with respect to natural gas. Unless, that is, more consumption switches from using oil as a fuel to using natural gas. As we saw in Figure 1), replacing even a fraction of our oil use with natural gas would quickly overwhelm US natural gas supply. Figure 2) Production (gray), consumption (black line) and imports (red) of natural gas. Question 3) How is natural gas used in the United States? The US Energy Information Administration has data on [Natural Gas Consumption by End Use](http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_m.htm). Figure 3) shows the categories tracked by the EIA along with one more that appears to be planning for the future. Natural gas vehicles currently account for only 0.14% of total consumption. Figure 3) US Natural Gas consumption by sector. Question 4) How have natural gas prices evolved? Figure 4) brings together data from three different EIA datasets [[3](http://www.energybulletin.net/stories/2012-02-06/gas-boom-goes-bust#footnote_2_940)] It is clear that prices before the year 2000 were relatively stable compared with prices after 2000. The increase in drilling rig activity after 2000 is also evident along with a significant increase in marketed production of natural gas beginning in about 2006. Figure 4) US Natural Gas Production, Active Rigs and Wellhead Price It’s worth having a closer look at the period since 2000 as seen in Figure 5). Here we can see how the number of active rigs often closely follows the price with a 6-12 month delay. The connection between number of rigs and production is less obvious but it seems clear that the sustained rise in active rigs after about 2002 has been responsible for the steady increase in production since 2006. Surprisingly, the rapid drop-off in drilling activity since 2009 has yet to result in any decrease in production. A detailed explanation of the four price spikes seen in the chart is given in a March 6, 2009 Oil Drum post: [The Anatomy of a Natural Gas Price Spike – Past and Future](http://www.theoildrum.com/node/5169). Figure 5) Natural gas production, rigs and price since 2000. Question 5) How much natural gas is in storage? According to the EIA [Short Term Energy Outlook](http://www.eia.gov/forecasts/steo/report/natgas.cfm), a warm winter has left the use US with record amounts of natural gas in storage for this time of year. Figure 6) shows that the US is currently above the upper range of historical levels and are projected to stay there. Nothing is certain, of course. A disruptive hurricane, a bitterly cold and extended winter, or a punishing summer heat wave could bring storage back down. But without any of these extreme-weather events the EIA is projecting that the natural gas glut will continue for at least the next two years. Figure 6) Natural gas storage levels. The Finance Story As is evident in the graphs above, a recent increase in natural gas production, combined with decreased consumption due to a warm winter, is leading to a supply demand imbalance and very low prices in the United States. The question that now arises is: To what extent can current prices support additional drilling? To answer this question, we need to understand how energy companies use the markets to hedge — to sell product forward to lock in a price. Question 6) How does ‘hedging’ work? Drilling a natural gas well takes time, typically from 3-6 months from spudding until completion. When drilling begins, companies have an estimate of what it will cost to complete a well. If they hire talented geologists, they will have a reasonable guess as to the amount of natural gas they hope to find. What they don’t know is what price that natural gas will command 6 months – 2 years down the road. For this they have two options: 1) gamble that the price in a year will be high enough to generate a profit; or 2) ‘hedge’ by selling production forward on the futures market. There is always a market today for natural gas that is to be delivered in the future. ([Henry Hub natural gas futures](http://www.cmegroup.com/trading/energy/natural-gas/natural-gas.html)). The sellers of these futures contracts are the natural gas producers who want to guarantee a price minimum. The buyers of these futures contracts are typically large consumers of natural gas like power plants who want lock in a price maximum. It’s basically the same thing as buying a season’s worth of heating oil at a fixed price the summer before the winter heating season. We can do a little time traveling by looking at what the futures contracts for natural gas were two years ago when the now 1-year-old producing wells were first penciled out on corporate balance sheets. A futures chain simply connects the futures contracts for one month out, two months out, etc. to form a continuous chain when plotted. Figure 7) shows futures chains for natural gas leading up to January 23, 2010. On that date, the futures chain had a seasonal cycle which shows that natural gas prices are generally expected to go up for the winter heating season and then down in the spring. Figure 7) also shows what was expected at that time to be a generally increasing price trend. Figure 7) Natural Gas futures chain from Jan 23, 2010. On January 23, 2010, natural gas for delivery in February of 2012 could have been hedged (sold forward) at ~ $7/mmbtu and would have generated a tidy profit if well completion costs ended up in the $4/mmbtu range. (Please note that futures prices are given per million BTU while production is given in units of thousand cubic feet. The conversion factor depends upon the gas stream but is typically somewhere between 1020-1100 BTU/thousand cubic feet. A very rough conversion is 1 thousand cubic feet (kcf) ≈ 1 million BTU (mmbtu).) Things looked a little different in late January, 2012 as seen in figure 8). On January 22, 2012, if companies hedged 100% of their production 6-24 months out they would have gotten less than $4/mmbtu in February 2014. Figure 8) Natural gas futures chain from January 22, 2012 To make things clearer, lets take a look at the evolution of a single futures contract — the four-month futures contract. If you started drilling a well today you might hope to have significant production in four months and could lock in a price with the four-month futures contract. Figure 9) shows how the price of that contract has evolved over the last two years, briefly touching $4/mmbtu on a few occasions before moving decidedly lower on October 15, 2011. Figure 9) Evolution of natural gas four month futures contract. Question 7) Who can make money at these prices? From figure 4) we know that prices below $4/mmbtu were typical before 2000 but very rare since then. Given our lead off quote’s contention that “gas shale wells are expensive to drill and complete” we need an assessment of which shale gas plays can turn a profit when prices are below $4/mmbtu. Luckily, Goldman Sachs already did this analysis as reported in a [recent presentation by Range Resources](http://www.google.com/url?sa=t&rct=j&q=%22goldman%20sachs%22%20%22shale%20gas%22%20range%20resources%20ventura&source=web&cd=1&ved=0CDAQFjAA&url=http%3A%2F%2Fphx.corporate-ir.net%2FExternal.File%3Fitem%3DUGFyZW50SUQ9NDUxNzk4fENoaWxkSUQ9NDc2OTUwfFR5cGU9MQ%3D%3D%26t%3D1&ei=XOclT4iNGuapiALDxdzMBw&usg=AFQjCNHs4hIMvTioPan422oVmrRtg534lA&sig2=zjzB4LVt82pgZAcanUMaZQ). (I would encourage anyone interested in shale gas production and finance to look at this report. While I am often skeptical of corporate reports, this presentation answered a number of questions with detailed information and charts.) Slide 11 from this report contains information from the Goldman Sachs report on the NYMEX price required to produce a 12% Internal Rate of Return — the threshold for a project to receive financing. Transcribing the information from the Range Resource presentation and adding on $3/mmbtu and $4/mmbtu thresholds paints a rather ugly picture for the shale gas industry today as seen in figure 10). A detailed and even less optimistic study of well performance and potential profitability in various shale gas plays also appeared in an August 5, 2011 Oil Drum post: U.S. Shale Gas: Less Abundance, Higher Cost. Figure 10) Relative profitability of various shale gas plays The Bust The situation depicted in figure 10) is not just theoretical. With current spot and future prices below the cost of production, some companies are in trouble. Here are some newsworthy items to convince you that the jig is up — whatever the President said in the State of the Union speech. Jan 20: [Form 8-K for EQT CORP](http://biz.yahoo.com/e/120120/eqt8-k.html) In light of lower natural gas prices, the resultant reduction in projected cash flow, and consistent with its determination to live within its means financially, EQT Corporation has decided to suspend development in the Huron indefinitely. Jan 23: [Natural gas glut, low prices, prompt Chesapeake to cut exploration and production](http://www.washingtonpost.com/business/industries/natural-gas-glut-low-prices-prompt-chesapeake-to-cut-exploration-and-production/2012/01/23/gIQAJ8UoKQ_story.html) Faced with decade-low natural gas prices that have made some drilling operations unprofitable, Chesapeake Energy Corp. says it will drastically cut drilling and production of the fuel in the U.S. Jan 24: Prices continue to slide on gushers of natural gas “It would not surprise me to see gas prices below $2,” Schenker said. “If supply continues to outstrip demand in a massive way throughout the year, it’s going to be hard to find a bottom for the market.” Jan 26: Carbo Ceramics down almost 20% following disappointing earnings report Noting “challenges beyond typical seasonality,” the company said the severe decline in natural gas prices during the quarter led E&Ps to reduce capital spending, leading to a sequential reduction of about 70% in its Haynesville proppant sales volumes. Jan 30: [Comstock to focus drilling on oil plays](http://www.upstreamonline.com/live/article300752.ece) US producer Comstock Resources has become the latest gas-focused player to shift its investment away from natural gas amid low prices. Jan 30: [Natural gas price drops after Energy Dept. report shows supplies well above 5-year average](http://www.washingtonpost.com/business/markets/natural-gas-price-drops-after-energy-dept-report-shows-supplies-well-above-5-year-average/2012/01/26/gIQAzMcTTQ_story.html) Barring any unseasonable swings in the weather, natural gas companies likely will trim production by another 2 billion cubic feet per day this year, independent energy analyst Stephen Smith said. The Consequences Clearly, low prices are going to affect many in the industry. But that is not all. Low gas prices put pressure on other sources of energy used to produce electricity. Natural gas competes against coal and wind and solar photovoltaics and is now the lowest cost provider. We should expect 2012 to be a year in which we see a variety of knock-on effects: Natural gas producers and investors with poor hedge books and too much debt will end up in bankruptcy court. Drilling operations will focus on liquids-rich plays only. Jobs creation in the natural gas drilling industry will fall well short of expectations. Several older coal-fired plants will close. New wind power generation will fall — especially if the production tax credit is not extended. Natural gas fueled fleet vehicles should become more popular. Low gas prices will have positive and negative ripple effects throughout the economy. The final question one has to ask is: “How long will prices stay this low?” And that is one for which there is simply not enough public information available. It would take a serious accounting effort, using the production stats from all producing gas wells to make some decent estimates about decline rates. The bottom line is that natural gas is a cyclical industry which recently enjoyed a very large boom. As night follows day, a bust is sure to come. Based on the information presented above, I would humbly submit that it has just arrived.

### 3. New fracking regulations

**Plumer, Washington Post, 2012**

(Brad, “How states are regulating fracking (in maps)”, 7-16, <http://www.washingtonpost.com/blogs/ezra-klein/wp/2012/07/16/how-states-are-regulating-fracking-in-maps/>, DOA: 1-17-13, ldg)

Armed with new drilling techniques, companies are spreading out across the United States, cracking open shale rock in search of vast new stores of natural gas. It’s not an exaggeration to say that hydraulic fracturing, or “fracking,” has revolutionized the U.S. energy industry. Cheap natural gas has become America’s top source for electricity, displacing coal and bringing back jobs to once-decaying states like Ohio.But the fracking boom has also led to plenty of environmental concerns. Local communities are worried that the chemicals used to pry open the shale rock can contaminate nearby drinking water supplies. (So far, there’s scant evidence this is happening in places like Pennsylvania, but the science is still in its infancy.) Excess gas is often vented off, producing air pollution. And the disposal of fracking wastewater underground appears to be linked to earthquakes in places like Ohio. Confronted with these worries, states have responded with a patchwork of different regulations. But there’s a lot of variation between different states. And here’s a good way to track what’s going on: A helpful series of new maps, put together by Resources for the Future (RFF), gives an overview of how 31 states with significant shale gas reserves are treating different aspects of fracking. Here, for instance, is a look at which states require companies to disclose the chemicals they use in drilling. (Fracking is exempt from federal disclosure rules under the Safe Water Drinking Act.) Some states, like Pennsylvania — which sits above the gas-rich Marcellus shale formation — now require a full disclosure of chemicals. By contrast, Kansas, which is just beginning to see widespread fracking activity, is further behind: Meanwhile, the map below details how different states treat the “venting” or release of excess gas into the air. Just 22 of the 31 gas states have restrictions on this process, which can release both heat-trapping methane into the atmosphere as well as “volatile organic compounds” such as benzene that can produce smog and trigger health problems. Some states ban this practice entirely; others restrict it to emergencies or require that operators not harm public health: There are many more maps on RFF’s Web site, which is worth poking around on. In an introductory essay, RFF’s Nathan Richardson notes that these maps still provide just a partial picture — the details of laws matter, and more importantly, different states may enforce their rules with different levels of vigor. But it’s an invaluable resource all the same. The regulation of fracking has become a low-level campaign issue, as well. The Obama administration is gradually putting forward federal regulations. The Department of Interior is drafting rules for fracking on publicly-owned lands (where about 38 percent of the country’s gas reserves sit, according to the American Petroleum Institute). The Environmental Protection Agency, meanwhile, is slowly getting in on regulation and has proposed rules that will require all producers to phase out venting by 2015 and capture their waste methane instead. Mitt Romney, by contrast, has criticized the federal approach. In his “Believe in America” economic plan (pdf), he warns that the EPA should not “pursue overly aggressive interventions designed to discourage fracking altogether.” By contrast, Romney praises states for having “carefully and effectively regulated the process for decades.” Indeed, many Republicans believe that fracking regulations should be mainly left to the states, which can issue rules more speedily and can tailor regulations to the specific needs of their communities. Environmentalists, by contrast, worry that this will create a race to the bottom whereby states pare back their rules — or enforce them weakly — in order to compete for business. Both sides agree that addressing the public health and environmental aspects of fracking isn’t costless. The International Energy Agency recently estimated that addressing all of the various concerns could boost the price of natural gas by roughly 7 percent. Yet the IEA also warned that if these rules weren’t adopted, public outcry and protests could stop the shale gas boom altogether. Anti-fracking protests like those in New York state could become the norm. And that, the IEA notes, could prove even more costly to the gas industry

## Contention Two

### Naval power makes war unthinkable—decline in leadership collapses trade, ensures piracy spread, and sparks multiple scenarios for nuclear war—shipbuilding and a strong industrial base ensures resiliency

**Eaglen, Heritage Foundation Research Fellow for National Security Studies, 11**

(Mackenzie, Allison Center for Foreign Policy Studies, May, 16, 2011, “Thinking about a Day without Sea Power: Implications for U.S. Defense Policy”, http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy, 2/16/13, atl)

America is a maritime power, and a strong U.S. Navy is both in America’s long-term interest and essential to the nation’s prosperity. Yet U.S. sea power is in decline. If not reversed, this decline could pass the tipping point, leaving the country economically and strategically unable to reverse course, which would have profound economic and geopolitical consequences. Members of Congress and the Navy need to work together to develop long-range technology road maps, foster innovation, and properly fund and manage shipbuilding to ensure that the future Navy has the size and capabilities needed to protect and advance U.S. interests around the world. Not since the end of World War II has America more urgently needed honest and clear thinking about its enduring national interests and a bipartisan commitment to build up the civilian and military capabilities necessary to protect them. Yet Washington is increasingly looking inward. Policymakers spend enormous energy arguing about tactics without thinking about strategy. They react to today’s events rather than planning for the future. Without a common purpose and driven by the desire to save money, they take steps that will reduce military spending in the short term but vastly increase the danger and cost to America in the long term. The margins of U.S. military superiority are narrowing for every military service and in every domain. After the Cold War, military overmatch had seemingly become an American birthright and helped to uphold the implicit contract that most Americans have had with the all-volunteer military: that U.S.forces would never be put in a “fair fight.” This is simply no longer the case, as indicated by America’s recent experience in Iraq and Afghanistan and potential challenges from Iran and China. Before some of America’s core defense capabilities disappear without discussion or debate, Congress and the services would be wise to step back and examine the costs and benefits of these long-held capabilities, many of which are fundamental to U.S. military primacy. Understanding a world without these U.S. advantages will highlight their essential role both in creating and maintaining the economic and geopolitical position that America enjoys today and in fostering U.S. prosperity in the future. Congress should use this thought exercise to inform its oversight of the services and to restore the legislative branch’s legitimate role in policymaking. Providing Security That Protects and Bolsters the U.S. Economy Modern American sea power—represented for the purposes of this paper by the U.S. Navy and its expeditionary land force, the U.S. Marine Corps—is the most flexible, adaptable, useful, and powerful naval force the world has ever known. The ascendance of American sea power since the fall of the Soviet Union has been so benign and complete that many nations have forgone traditional investments in their own naval forces,[[1]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn1) confident in the peace and stability provided by the United States or convinced of the futility of trying to challenge so powerful a force head-on: [T]he strong tendency toward counterhegemonic balancing in the European system during the last five centuries has not been replicated in the global maritime system. High concentrations of naval power (and in the economic correlates of naval power) tend to generate alliances with the leading power rather than against it. The decision of many of the strongest powers in the contemporary system to ally with the United States rather than against it in the Cold War and post–Cold War periods is fully consistent with behavior in the global system for the last five centuries.[[2]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn2) The overwhelming majority of world commerce moves virtually unmolested across the great expanse of the maritime commons. This is as near a “given” on the international scene as can be conjured. So engrained is this sense of security in the free flow of goods across the world’s oceans that the activities of a relatively insignificant group of brigands off the East African coast have caught the world’s attention, forcing many to consider for the first time the impact of sea power on their lives. American sea power is taken for granted. Policymakers in the United States, friendly and allied governments, executive officers of international conglomerates, and would-be competitors are all affected by the daily operations of the world’s most pervasive and successful naval power, but few ever consider what the world would be like without it. Exploring this question is the central aim of this paper. The U.S. Air Force recently considered the operational implications of a “Day Without Space.” The exercise vividly demonstrated the U.S. military’s dependence on the communications and surveillance infrastructure provided by the nation’s satellites. Out of operational necessity, forces turned to backup networks, some of which current operators had long since forgotten how to operate nimbly. This eye-opening exercise has caused military planners to think more profoundly about air operations in a space-denied environment. However, as difficult as such operations may have been, backups were available. These backups may have become technologically outmoded and may be less secure from enemy intrusion, and their operators may need to call upon skills long since atrophied, but in the end, the backups existed. Implications of the Loss of Preponderant Sea Power How the United States might replace its preponderant sea power—if that day ever comes—seems less straightforward. Indeed, the question seems almost ludicrous. The United States is a maritime nation, bordered by two oceans and for much of its history protected by them. Over the past 60 years, the oceans have been highways for worldwide trade that has helped to lift more than a billion people out of poverty,[[3]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn3) and those sea lanes have been patrolled by the U.S. Navy, the world’s preeminent naval power. The U.S. Navy’s global presence has added immeasurably to U.S. economic vitality and to the economies of America’s friends and allies, not to mention those of its enemies. World wars, which destroyed Europe and much of East Asia, have become almost incomprehensible thanks to the “nuclear taboo” and preponderant American sea power. If these conditions are removed, all bets are off. For more than five centuries, the global system of trade and economic development has grown and prospered in the presence of some dominant naval power. Portugal, Spain, the Netherlands, the United Kingdom, and now the U.S. have each taken a turn as the major provider of naval power to maintain the global system. Each benefited handsomely from the investment: [These navies], in times of peace, secured the global commons and ensured freedom of movement of goods and people across the globe. They supported global trading systems from the age of mercantilism to the industrial revolution and into the modern era of capitalism. They were a gold standard for international exchange. These forces supported national governments that had specific global agendas for liberal trade, the rule of law at sea, and the protection of maritime commerce from illicit activities such as piracy and smuggling.[[4]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn4) A preponderant naval power occupies a unique position in the global order, a special seat at the table, which when unoccupied creates conditions for instability. Both world wars, several European-wide conflicts, and innumerable regional fights have been fueled by naval arms races, inflamed by the combination of passionate rising powers and feckless declining powers. This thought experiment cannot go so far as to conjure “a day without the U.S. Navy,” because it strains credulity to believe the nation would ever do without one. Yet for much of its history, the country had little more than a coastal defense force. In other periods, America has maintained small, far-flung cruising squadrons that in no way compare to the combat power arrayed continuously in the Middle East and the Western Pacific for the past two decades. The relevant question is: “What would a day without preponderant American sea power be like?” Building the current level of American sea power has taken enormous resources and many decades,[[5]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn5)and the size of the fleet is not likely to be dramatically reduced in the near term. More likely, incremental cuts based on faulty premises and a lack of strategic direction will, over time, diminish American sea power as the country’s vision of itself becomes more modest and its sense of destiny and centrality is reduced. While ill-considered procurement reductions will slowly reduce the number of ships and aircraft in the Navy, financial decisions could also erode the Navy’s ability to deploy credible and relevant forces persistently, regardless of how many ships the Navy may have. Today’s Navy is experiencing extreme levels of stress. [[6]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn6) While the fleet has shrunk by about 15 percent since 1998,[[7]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn7) the number of ships deployed overseas has remained constant at about 100. Each ship goes to sea longer and more often, resulting in problems such as the well-publicized shortfalls in surface ship condition.[[8]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn8) With no surge capacity left in the fleet, each new casualty ripples through the schedules of dozens of ships. With the end of supplemental funding, Navy maintenance funding will be cut by almost 20 percent this year. In this context, a relatively small additional reduction in maintenance funding could render a Navy with 250–280 ships capable of keeping only 50 to 60 ships at sea. Even if the Navy can sustain today’s number of ships or even grow slightly over the next decade as predicted by current Navy shipbuilding plans, the fleet will increasingly be composed of smaller and less capable littoral combat ships and logistics ships, such as Joint High Speed Vessels. This trend toward a fleet for engagement and maritime security could be enabled by the country’s increasingly modest vision of itself and the erosion of its sense of destiny and centrality. With ship design times of 20 years or longer and service lives of up to 50 years, the fleet could degrade to a point at which the country will be economically and strategically unable to reverse course. The nation and the most versatile element of its military power would then continue to decline to second-rate status. An absolute decline in American sea power would probably span decades, but the examples of the Soviet Union and previous naval powers unable to deploy and maintain a robust fleet demonstrate how rapidly a navy can become hollow and unable to influence events abroad. As the U.S. fleet evolves toward a less capable mix and the costs of maintaining aging submarines, destroyers, and carriers mount, the U.S. Navy could easily find itself with an effectively smaller fleet in the future. Newer, smaller ships would ply waters abroad, while the combat power that helped to win two world wars and deter the Soviet Union would remain at home in a reduced operating status for financial reasons. This would leave the Navy and the nation ill-prepared for a future economic and security crisis. A Thought Experiment “Advancing the clock,” a construct used in wargaming, is a useful method for evaluating the effects of a decline in sea power. This paper posits a scenario in which events are accelerated, not as a prediction of how the future will play out so much as to bring about a set of events that are useful for thinking about the challenge at hand. For the purpose of this paper, these circumstances play out over five years and result in a dramatically reduced Navy and Marine Corps that would field one-quarter of the forces currently in the inventory. Obviously, if these events did transpire, the United States might have much larger problems than its reduced Navy. However, the scenario demonstrates the extent to which sea power is a mirror of America’s greatness and the extent to which America’s future is tied to the great oceans that break on its shores. It is difficult to consider a chain of events that would lead to a Navy that is a fraction of its present size (approximately 70 ships), and it is inconceivable that such a decline would happen over a relatively short period of time. However, the dramatic decline of the Soviet (and subsequently Russian) Navy after the Cold War demonstrates how quickly a great naval power can contract. The events that led to the decline of the Soviet Union and its navy were (from some points of view) catastrophic, and the events of this scenario would be similarly damaging. Scenario: Severe Degradation of U.S. Naval Capabilities. The primary reason to consider a near-term scenario is that, if the U.S. gradually declined over the course of decades, another nation could slowly rise in its place and assume much of the world leadership that the United States currently exercises. The changes produced by such a decline would occur slowly and incrementally, with each successive step deviating only slightly from the status quo. Currently, although China may have the resources to assume world leadership, it appears disinclined to assume that role quickly, and no other nation possesses the means or the will to do so. Therefore, in considering the present value of sea power, it is more useful to create a scenario in which U.S. sea power declines quickly and radically rather than one in which it is slowly superseded. In essence, this scenario divines the worth of an asset by evaluating the impact of its absence. The scenario described here is inspired by work done by Decision Strategies International (DSI) for the U.S. Navy’s Strategic Planning Process, with which one of the authors was loosely associated in 2006–2007.[[9]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn9) In this scenario, events unfold in a world that is very unstable and unsafe. International cooperation declines dramatically as countries hoard natural resources and the U.S. struggles against the strength of other resource-rich and economically robust regions of the world. Like the recession of 2008, the main trigger for this catastrophe is the international finance system. In 2020, several major European nations default on their debt, causing a flight of private money from the formal financial systems of the European Union (EU), the U.S., and Japan. Contagion in the financial markets plunges the world economy into global depression. Virtually every major Western nation finds itself in horrific economic straits, and only nations without expansive social safety nets are able to meet current obligations. Those with robust social welfare programs face aging populations, smaller workforces, and drastic cuts in services that spill over into all sectors of their economies. The U.S. economy contracts from $20 trillion in 2020 to $12 trillion in 2025. During this time, two separate U.S. presidential Administrations seek and obtain significant cuts in the size of the U.S. armed forces. Homeland security becomes the sole focus of the Department of Defense, with policymakers concentrating primarily on port and border security, land-based strategic nuclear forces, anti-terrorism, and managing civil unrest. Islamic terrorism accelerates the turn inward, which had abated in the second decade of the 21st century, as terrorists take advantage of the weakened condition of the West, especially the United States. Two “dirty bomb” explosions in 2021 accelerate the worldwide redeployment of U.S. military forces to home bases as the nation demands protection from terrorism. By 2025, U.S. international influence has all but disappeared, and U.S. efforts to counter Islamic terrorism garner little worldwide support due to economic and political interests. While the worldwide depression is devastating, it is less so in China, which in 2015 began to rebalance its economy aggressively toward domestic consumption. A China–Russia entente dominates the international distribution of resources and is ascendant economically. A global “basket currency” replaces the dollar as the reserve currency of choice, and Southeast Asia leads in technology development. Global maritime trade declines dramatically due to rising oil prices, terrorism, and piracy, and international cooperation to provide enhanced security does not materialize. With the decrease in long-haul international trade, regional trade blocs become the dominant mode of commerce. Even as the depression reduces demand, supply is reduced further. The United Nations is ineffective and ignored, a relic of an age of international cooperation long since past. Worldwide competition for declining energy resources increases, exacerbated by a global decline in energy innovation as commercial investment slows dramatically. Industrial nations with domestic access to energy engage in power politics, creating even more conflict in an already unstable world. In this environment, Americans are not embraced internationally, and the U.S. military loses many of its basing rights as it redeploys to the United States. Implications for Naval Force Structure. In 2025, the Navy consists of 70 deployable ships. The rest of the fleet is either mothballed or kept pierside as a result of the worldwide depression. All aircraft carriers and all but six attack submarines are sidelined as the Navy cuts back dramatically on expensive nuclear engineers and pilots. Additionally, the Navy completely deemphasizes projecting power and sea control beyond territorial waters. It maintains a fleet of four ballistic missile submarines, with one in maximum readiness and capable of launching its missiles, including the possibility of pierside launch. While deemphasizing power projection decimates the carrier force, the amphibious force is cut less severely, both because of the flexibility of these platforms and because they are highly valued for their usefulness in defense support to civil authority missions, such as disaster relief and internal security. All forward-deployed forces redeploy to the naval bases in Norfolk, Virginia, and San Diego, California. A third naval base in Bangor, Washington, remains open to support the four remaining ballistic missile submarines. A greatly diminished U.S. Coast Guard maintains a presence in Hawaii. All other naval bases are closed. The fleet of 70 ships consists of six attack submarines, four ballistic missile submarines, eight aviation-capable amphibious ships, eight other amphibious ships, 15 destroyers, and 29 small combatants. In addition to these 70 ships, the Navy operates two hospital ships, which are in heavy domestic demand. The Navy does not operate a logistics force because all fueling, provisioning, and arming is done in port. The Navy’s operational mandate is homeland defense, and its activities have become largely indistinguishable from those of the Coast Guard. Some Members of Congress call for combining the two services. Lacking its traditional mobility provider and the mandate for expeditionary operations, the U.S. Marine Corps is disestablished. There is one remaining private shipyard suitable for building both conventional and nuclear combatants. Fear of an irreversible loss of specialized shipbuilding trades is at an all-time high. The ship repair business has disappeared, and all depot-level maintenance is conducted in two heavily subsidized public shipyards. The U.S.-flagged merchant marine consists solely of vessels engaged in Jones Act[[10]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn10) trade, and there is no commercial shipbuilding in the United States. The U.S. Navy ceases to conduct exercises with allies and partners, although it does cooperate in maritime security operations with Canadian maritime forces. Global Implications. Under a scenario of dramatically reduced naval power, the United States would cease to be active in any international alliances. While it is reasonable to assume that land and air forces would be similarly reduced in this scenario, the lack of credible maritime capability to move their bulk and establish forward bases would render these forces irrelevant, even if the Army and Air Force were retained at today’s levels. In Iraq and Afghanistan today, 90 percent of material arrives by sea, although material bound for Afghanistan must then make a laborious journey by land into theater. China’s claims on the South China Sea, previously disputed by virtually all nations in the region and routinely contested by U.S. and partner naval forces, are accepted as a fait accompli, effectively turning the region into a “Chinese lake.” China establishes expansive oil and gas exploration with new deepwater drilling technology and secures its local sea lanes from intervention. Korea, unified in 2017 after the implosion of the North, signs a mutual defense treaty with China and solidifies their relationship. Japan is increasingly isolated and in 2020–2025 executes long-rumored plans to create an indigenous nuclear weapons capability.[[11]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn11) By 2025, Japan has 25 mobile nuclear-armed missiles ostensibly targeting China, toward which Japan’s historical animus remains strong. China’s entente with Russia leaves the Eurasian landmass dominated by Russia looking west and China looking east and south. Each cedes a sphere of dominance to the other and remains largely unconcerned with the events in the other’s sphere. Worldwide, trade in foodstuffs collapses. Expanding populations in the Middle East increase pressure on their governments, which are already stressed as the breakdown in world trade disproportionately affects food importers. Piracy increases worldwide, driving food transportation costs even higher. In the Arctic, Russia aggressively asserts its dominance and effectively shoulders out other nations with legitimate claims to seabed resources. No naval power exists to counter Russia’s claims. India, recognizing that its previous role as a balancer to China has lost relevance with the retrenchment of the Americans, agrees to supplement Chinese naval power in the Indian Ocean and Persian Gulf to protect the flow of oil to Southeast Asia. In exchange, China agrees to exercise increased influence on its client state Pakistan. The great typhoon of 2023 strikes Bangladesh, killing 23,000 people initially, and 200,000 more die in the subsequent weeks and months as the international community provides little humanitarian relief. Cholera and malaria are epidemic. Iran dominates the Persian Gulf and is a nuclear power. Its navy aggressively patrols the Gulf while the Revolutionary Guard Navy harasses shipping and oil infrastructure to force Gulf Cooperation Council (GCC) countries into Tehran’s orbit. Russia supplies Iran with a steady flow of military technology and nuclear industry expertise. Lacking a regional threat, the Iranians happily control the flow of oil from the Gulf and benefit economically from the “protection” provided to other GCC nations. In Egypt, the decade-long experiment in participatory democracy ends with the ascendance of the Muslim Brotherhood in a violent seizure of power. The United States is identified closely with the previous coalition government, and riots break out at the U.S. embassy. Americans in Egypt are left to their own devices because the U.S. has no forces in the Mediterranean capable of performing a noncombatant evacuation when the government closes major airports. Led by Iran, a coalition of Egypt, Syria, Jordan, and Iraq attacks Israel. Over 300,000 die in six months of fighting that includes a limited nuclear exchange between Iran and Israel. Israel is defeated, and the State of Palestine is declared in its place. Massive “refugee” camps are created to house the internally displaced Israelis, but a humanitarian nightmare ensues from the inability of conquering forces to support them. The NATO alliance is shattered. The security of European nations depends increasingly on the lack of external threats and the nuclear capability of France, Britain, and Germany, which overcame its reticence to military capability in light of America’s retrenchment. Europe depends for its energy security on Russia and Iran, which control the main supply lines and sources of oil and gas to Europe. Major European nations stand down their militaries and instead make limited contributions to a new EU military constabulary force. No European nation maintains the ability to conduct significant out-of-area operations, and Europe as a whole maintains little airlift capacity. Implications for America’s Economy. If the United States slashed its Navy and ended its mission as a guarantor of the free flow of transoceanic goods and trade, globalized world trade would decrease substantially. As early as 1890, noted U.S. naval officer and historian Alfred Thayer Mahan described the world’s oceans as a “great highway…a wide common,” underscoring the long-running importance of the seas to trade.[[12]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn12) Geographically organized trading blocs develop as the maritime highways suffer from insecurity and rising fuel prices. Asia prospers thanks to internal trade and Middle Eastern oil, Europe muddles along on the largesse of Russia and Iran, and the Western Hemisphere declines to a “new normal” with the exception of energy-independent Brazil. For America, Venezuelan oil grows in importance as other supplies decline. Mexico runs out of oil—as predicted—when it fails to take advantage of Western oil technology and investment. Nigerian output, which for five years had been secured through a partnership of the U.S. Navy and Nigerian maritime forces, is decimated by the bloody civil war of 2021. Canadian exports, which a decade earlier had been strong as a result of the oil shale industry, decline as a result of environmental concerns in Canada and elsewhere about the “fracking” (hydraulic fracturing) process used to free oil from shale. State and non-state actors increase the hazards to seaborne shipping, which are compounded by the necessity of traversing key chokepoints that are easily targeted by those who wish to restrict trade. These chokepoints include the Strait of Hormuz, which Iran could quickly close to trade if it wishes. More than half of the world’s oil is transported by sea. “From 1970 to 2006, the amount of goods transported via the oceans of the world…increased from 2.6 billion tons to 7.4 billion tons, an increase of over 284%.”[[13]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn13) In 2010, “$40 billion dollars [sic] worth of oil passes through the world’s geographic ‘chokepoints’ on a daily basis…not to mention $3.2 trillion…annually in commerce that moves underwater on transoceanic cables.”[[14]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn14) These quantities of goods simply cannot be moved by any other means. Thus, a reduction of sea trade reduces overall international trade. U.S. consumers face a greatly diminished selection of goods because domestic production largely disappeared in the decades before the global depression. As countries increasingly focus on regional rather than global trade, costs rise and Americans are forced to accept a much lower standard of living. Some domestic manufacturing improves, but at significant cost. In addition, shippers avoid U.S. ports due to the onerous container inspection regime implemented after investigators discover that the second dirty bomb was smuggled into the U.S. in a shipping container on an innocuous Panamanian-flagged freighter. As a result, American consumers bear higher shipping costs. The market also constrains the variety of goods available to the U.S. consumer and increases their cost. A Congressional Budget Office (CBO) report makes this abundantly clear. A one-week shutdown of the Los Angeles and Long Beach ports would lead to production losses of $65 million to $150 million (in 2006 dollars) per day. A three-year closure would cost $45 billion to $70 billion per year ($125 million to $200 million per day). Perhaps even more shocking, the simulation estimated that employment would shrink by approximately 1 million jobs.[[15]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn15) These estimates demonstrate the effects of closing only the Los Angeles and Long Beach ports. On a national scale, such a shutdown would be catastrophic. The Government Accountability Office notes that: [O]ver 95 percent of U.S. international trade is transported by water[;] thus, the safety and economic security of the United States depends in large part on the secure use of the world’s seaports and waterways. A successful attack on a major seaport could potentially result in a dramatic slowdown in the international supply chain with impacts in the billions of dollars.[[16]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn16) As of 2008, “U.S. ports move 99 percent of the nation’s overseas cargo, handle more than 2.5 billion tons of trade annually, and move $5.5 billion worth of goods in and out every day.” Further, “approximately 95 percent of U.S. military forces and supplies that are sent overseas, including those for Operations Iraqi Freedom and Enduring Freedom, pass through U.S. ports.”[[17]](http://www.heritage.org/research/reports/2011/05/thinking-about-a-day-without-sea-power-implications-for-us-defense-policy" \l "_ftn17) General Conclusions. This simple thought experiment is designed to highlight the impact of the loss of preponderant American sea power. Because this is a scenario-based excursion, it is important to retain perspective. In order to create this absence of sea power, a Hobbesian nightmare had to be imposed, although a slow erosion of naval power in the next decade could leave the country dramatically unprepared for something less than Hobbes might conjure. Certainly, America would have many important needs if such a scenario became reality. Yet the scenario’s description shows the extent to which America’s power as a maritime nation depends on its ability to field and operate a global fleet that aggressively protects its interests even as it provides a benign security environment for other nations to enjoy. Put another way, the cost of maintaining a fleet that can project power and presence around the globe—even if it encourages others to underinvest in their naval forces—produces substantial national security and economic benefits for the American people, and these benefits far outweigh the costs of maintaining it.

### Trade collapse independently causes war-it’s linear

**Hillebrand, Kentucky diplomacy professor, 2010**

(Evan, “Deglobalization Scenarios: Who Wins? Who Loses?”, Global Economy Journal, Volume 10, Issue 2, ebsco, ldg)

A long line of writers from Cruce (1623) to Kant (1797) to Angell (1907) to Gartzke (2003) have theorized that economic interdependence can lower the likelihood of war. Cruce thought that free trade enriched a society in general and so made people more peaceable; Kant thought that trade shifted political power away from the more warlike aristocracy, and Angell thought that economic interdependence shifted cost/benefit calculations in a peace-promoting direction. Gartzke contends that trade relations enhance transparency among nations and thus help avoid bargaining miscalculations. There has also been a tremendous amount of empirical research that mostly supports the idea of an inverse relationship between trade and war. Jack Levy said that, “While there are extensive debates over the proper research designs for investigating this question, and while some empirical studies find that trade is associated with international conflict, most studies conclude that trade is associated with peace, both at the dyadic and systemic levels” (Levy, 2003, p. 127). There is another important line of theoretical and empirical work called Power Transition Theory that focuses on the relative power of states and warns that when rising powers approach the power level of their regional or global leader the chances of war increase (Tammen, Lemke, et al, 2000). Jacek Kugler (2006) warns that the rising power of China relative to the United States greatly increases the chances of great power war some time in the next few decades. The IFs model combines the theoretical and empirical work of the peac ethrough trade tradition with the work of the power transition scholars in an attempt to forecast the probability of interstate war. Hughes (2004) explains how he, after consulting with scholars in both camps, particularly Edward Mansfield and Douglas Lemke, estimated the starting probabilities for each dyad based on the historical record, and then forecast future probabilities for dyadic militarized interstate disputes (MIDs) and wars based on the calibrated relationships he derived from the empirical literature. The probability of a MID, much less a war, between any random dyad in any given year is very low, if not zero. Paraguay and Tanzania, for example, have never fought and are very unlikely to do so. But there have been thousands of MIDs in the past and hundreds of wars and many of the 16,653 dyads have nonzero probabilities. In 2005 the mean probability of a country being involved in at least one war was estimated to be 0.8%, with 104 countries having a probability of at least 1 war approaching zero. A dozen countries12, however, have initial probabilities over 3%. The globalization scenario projects that the probability for war will gradually decrease through 2035 for every country—but not every dyad--that had a significant (greater than 0.5% chance of war) in 2005 (Table 6). The decline in prospects for war stems from the scenario’s projections of rising levels of democracy, rising incomes, and rising trade interdependence—all of these factors figure in the algorithm that calculates the probabilities. Not all dyadic war probabilities decrease, however, because of the power transition mechanism that is also included in the IFs model. The probability for war between China and the US, for example rises as China’s power13 rises gradually toward the US level but in these calculations the probability of a China/US war never gets very high.14 Deglobalization raises the risks of war substantially. In a world with much lower average incomes, less democracy, and less trade interdependence, the average probability of a country having at least one war in 2035 rises from 0.6% in the globalization scenario to 3.7% in the deglobalization scenario. Among the top-20 war-prone countries, the average probability rises from 3.9% in the globalization scenario to 7.1% in the deglobalization scenario. The model estimates that in the deglobalization scenario there will be about 10 wars in 2035, vs. only 2 in the globalization scenario15. Over the whole period, 2005-2035, the model predicts four great power wars in the deglobalization scenario vs. 2 in the globalization scenario.16 Deglobalization in the form of reduced trade interdependence, reduced capital flows, and reduced migration has few positive effects, based on this analysis with the International Futures Model. Economic growth is cut in all but a handful of countries, and is cut more in the non-OECD countries than in the OECD countries. Deglobalization has a mixed impact on equality. In many non-OECD countries, the cut in imports from the rest of the world increases the share of manufacturing and in 61 countries raises the share of income going to the poor. But since average productivity goes down in almost all countries, this gain in equality comes at the expense of reduced incomes and increased poverty in almost all countries. The only winners are a small number of countries that were small and poor and not well integrated in the global economy to begin with—and the gains from deglobalization even for them are very small. Politically, deglobalization makes for less stable domestic politics and a greater likelihood of war. The likelihood of state failure through internal war, projected to diminish through 2035 with increasing globalization, rises in the deglobalization scenario particularly among the non-OECD democracies. Similarly, deglobalization makes for more fractious relations among states and the probability for interstate war rises.

### Two internal links

### First is steel—

### It’s try or die for the industry—plan saves it from collapse

**Elmquist, Bloomberg reporter, 12/31**

(December 31, 2012, “Shale-Gas Revolution Spurs Wave of New U.S. Steel Plants: Energy”, http://www.bloomberg.com/news/2012-12-31/shale-gas-revolution-spurs-wave-of-new-u-s-steel-plants-energy.html, 2/16/13, atl)

The U.S. shale-gas revolution, which has revitalized chemicals companies and prompted talk of domestic energy self-sufficiency, is attracting a wave of investment that may revive profits in the steel industry. Austrian steelmaker [Voestalpine AG (VOE)](http://www.bloomberg.com/quote/VOE:AV) said Dec. 19 it may construct a 500 million-euro ($661 million) factory in the U.S. to benefit from cheap gas. [Nucor Corp. (NUE)](http://www.bloomberg.com/quote/NUE:US), the most valuable U.S. steelmaker, plans to start up a $750 million [Louisiana](http://topics.bloomberg.com/louisiana/) project in mid-2013. They’re among at least five U.S. plants under consideration or being built that would use gas instead of coal to purify iron ore, the main ingredient in steel. “That technology has been around 30 years, but for 29 years gas prices in the U.S. were so high that the technology was not economical,” said [Michelle Applebaum](http://topics.bloomberg.com/michelle-applebaum/), managing partner at consulting firm Steel Market Intelligence in [Chicago](http://topics.bloomberg.com/chicago/). “This is how steel will be built moving forward.” The new capacity may signal a turnaround for an industry that has suffered from overcapacity since the financial crisis and collapse in commodity prices four years ago. U.S. steelmakers have struggled to stay profitable amid sluggish domestic demand, depressed prices and competition from Chinese imports. While [global steel output](http://www.bloomberg.com/quote/IISTTOTL:IND) has grown by 14 percent since 2008, U.S. production has shrunk 3.4 percent. Gas Plunge The newest group of steel projects are so-called direct- reduced iron plants, which account for the first stage of steelmaking. DRI technology produces iron for about $324 a ton, Nucor said in a November presentation. That’s $82 a ton, or 20 percent, cheaper than using a conventional blast furnace, the [Charlotte](http://topics.bloomberg.com/charlotte/), North Carolina-based steelmaker said. Foreign competitors are now following Nucor’s lead. A joint venture between [Australia](http://topics.bloomberg.com/australia/)’s Bluescope Steel Ltd. (BSL) and commodity trader Cargill Inc. plans to build a DRI plant in [Ohio](http://topics.bloomberg.com/ohio/), Biliana Pehlivanova and Shiyang Wang, analysts at Barclays Plc in [New York](http://topics.bloomberg.com/new-york/), said in a Dec. 18 report. [India](http://topics.bloomberg.com/india/)’s Essar Global Ltd. plans one for [Minnesota](http://topics.bloomberg.com/minnesota/), Barclays said. Nucor may announce a second DRI plant as soon as 2013, bringing the company’s domestic iron-making capacity to 5 million tons per year, according to Aldo Mazzaferro, a steel analyst at Macquarie Capital USA Inc. in New York. Nucor agreed last month to pay Canadian energy company Encana Corp. $3 billion over two decades for a joint venture that will develop gas wells to supply its DRI capacity. No one at BlueScope and Essar responded to messages seeking comment on the DRI projects. [Lisa Clemens](http://topics.bloomberg.com/lisa-clemens/), a Cargill spokeswoman, declined to comment about any iron-making expansion at the company’s North Star BlueScope joint venture. Katherine Miller, a Nucor spokeswoman, declined to comment about a possible second DRI plant. Chemical Boom Hydraulic fracturing of shale rock formations from [Texas](http://topics.bloomberg.com/texas/) to [West Virginia](http://topics.bloomberg.com/west-virginia/) has boosted supplies of gas and sent prices plunging by as much as half in the past two years. Gas futures reached a decade low of $1.91 per million British thermal units in April in New York trading. “The shale revolution is triggering an avalanche of industrial expansion plans,” Barclays’ Pehlivanova and Wang said. There’s been a reversal of fortune for U.S. chemical producers after years of decline. Shares of LyondellBasell Industries NV have more than doubled since it emerged from bankruptcy in 2010. The company is now among chemical producers planning billions of dollars of plants around the Gulf of Mexico to capitalize on cheaper gas. Fertilizer companies including CF Industries Holdings Inc. also are planning to construct gas- fueled plants. Gas Exports? “Other companies from around the world that consume gas may be attracted to move their facilities to the U.S. market, which would then provide even more steel consumption and manufacturing capacity,” said Macquarie’s Mazzaferro. “It could result in a re-industrialization of the U.S.” Still, gas may not get much cheaper from here. Prices are up 75 percent from their April low and will average $3.70 per million British thermal units next year, or about 31 percent more than in 2012, according to the median of 21 estimates compiled by Bloomberg. Gas for February delivery fell 3.4 percent to settle at $3.351 per million British thermal units in New York. That price trend may continue if the U.S. starts exports. A Dec. 5 study by NERA Economic Consulting found that the country would benefit more from shipping liquefied natural gas than using it all domestically. Sempra Energy and Exxon Mobil Corp. are among energy companies seeking export permits. Vanishing Profits At the same time, there’s no guarantee that steel demand in the U.S. will improve. Domestic [steel-industry](http://topics.bloomberg.com/steel-industry/) capacity utilization is at 74 percent, according to data from the [American Iron and Steel Institute](http://topics.bloomberg.com/american-iron-and-steel-institute/). Utilization was 91 percent in August 2008, the month before the bankruptcy of Lehman Brothers Holdings Inc. Steelmakers’ earnings haven’t recovered. Nucor will post a $504 million net income for this year, according to the average of seven analysts’ estimates compiled by Bloomberg. That’s less than a third of what the company earned in 2008. U.S. Steel Corp., the country’s biggest producer by volume, is expected to post a fourth consecutive [annual loss](http://www.bloomberg.com/quote/X:US).

### Steel is an indispensable to overall military function—failure to sustain consistent supply ensures incapacitating dependence

**Lasoff, Kelley & Drye Law partner, 07**

(Laurence J., has nearly three decades of experience helping a broad spectrum of clients navigate the complex regulatory hurdles of [international trade](http://www.kelleydrye.com/attorneys/laurence_lasoff) and customs, in addition to managing the government relations and public policy challenges faced by U.S. companies and industry trade associations, Industry Trade Advisory Committee on Consumer Goods: Advisor on Trade Negotiations, Department of Commerce and Office of U.S. Trade Representative, “Steel and the National Defense”, http://www.ssina.com/news/releases/pdf\_releases/steel\_and\_national\_defense\_0107.pdf, 2/21/13, atl)

This analysis presented by the U.S. steel industry addresses the importance of domestically produced steel to our nation’s overall national defense objectives and the increased need for steel to bolster our economic and military security. The President and other U.S. government leaders have recognized repeatedly the critical interdependence of steel and national security. The American steel industry and the thousands of skilled men and women who comprise its workforce produce high quality, cost-competitive steel products for military use in applications ranging from aircraft carriers and nuclear submarines to Patriot and Stinger missiles, armor plate for tanks and field artillery pieces, as well as every major military aircraft in production today. These critical applications require consistent, high quality on-shore supply sources. While leading-edge defense applications represent only a small portion of overall domestic sales of steel products, defense-related materials are produced on the same equipment, using some of the same technology, and are developed by the same engineers who support the larger commercial businesses of steel companies in the U.S. Thus, the companies are not typical defense contractors who derive the majority of their sales and profits from their defense business. It is the overall financial health of U.S. steel producers, and not simply the profitability of their defense business, that is essential to their ability to be reliable defense suppliers. The domestic steel industry also believes that, over an extended period of time, the United States could lose much of its steel-related manufacturing base if U.S. steel consumers continue to move production offshore due to market-distorting foreign government incentives and due to unsound economic policies at home. If we continue to lose our manufacturing base due to market distorting foreign competition or U.S. economic policies that are hostile to domestic investment and U.S.-based manufacturing, it could become impossible to produce here; **the U.S. military would lose its principal source of strategic metals**; **and we as a nation would become dangerously dependent upon unreliable foreign sources of supply**. The U.S. steel industry, consisting of all carbon and alloy steel producers and specialty metal producers, employs more than 160,000 highly skilled workers who produce over $60 billion of high quality steel and high-technology specialty alloy products annually. The industry includes state-of-the-art, large and small electric arc furnace producers (or “mini mills”) that make steel from recycled scrap, and highly efficient large “integrated” steel producers who make steel from virgin materials and recycled steel. 3 Steel is produced in many forms, including flat-rolled and long products, carbon pipe and tube products, wire and other fabricated products. Carbon and alloy steel is used in all major end-use markets, including construction, automotive, machinery, appliance and containers. Specialty steels are high technology, high value materials, produced by small and medium-sized companies. These specialty metals are used in extreme environments that demand exceptional hardness, toughness, strength and resistance to heat, corrosion and abrasion, such as in the aerospace and chemical processing industries. **All segments of the domestic steel industry contribute directly or indirectly to the defense industrial base**. Criticality of the Steel Industry to the National Defense and the Defense Infrastructure The U.S. carbon/alloy and specialty steel industries are vital partners to American defense contractors and to the DOD. **Domestic and specialty metals are found in virtually every military platform**. **Whether it is missiles, jet aircraft, submarines, helicopters, Humvees® or munitions, American-made steels and specialty metals are crucial components of U.S. military strength**. A few examples follow: 1. The Joint Strike fighter F135 engine, the gears, bearings, and the body itself, will use high performance specialty steels and superalloys produced by U.S. specialty steel companies. 2. Land based vehicles such as the Bradley Fighting Vehicle, Abrams Tank, and the family of Light Armored Vehicles use significant tonnage of steel plate per vehicle. **3. Steel plate is used in the bodies and propulsion systems of the naval fleet.** 4. The control cables on virtually all military aircraft, including fighter jets and military transport planes, are produced from steel wire rope. Numerous additional examples illustrating how steel and specialty metals directly support the U.S. defense industrial base are provided in Appendices 1 and 2. **These materials are an integral part of many diversified military applications and**, as such, **are in a continuing state of technological development.** Steel’s importance to the military must also be looked at in a broader context to include both direct and indirect steel shipments to the military infrastructure that are **needed to support our defense efforts, both at home and overseas** -- e.g., all of the steel that goes into the rails, rail cars, ground vehicles, tanks, ships, military barracks, fences and bases, which are not classified as shipments to ordinance, aircraft, shipbuilding or other military uses. The September 11 attacks on the United States made it clear that (1) steel will be needed to “harden” existing U.S. infrastructure and installations and (2) a strong and viable domestic steel industry will be needed to provide immediate steel deliveries when and where required. Consider the potential difficulties the U.S. would face in defending, maintaining and rebuilding infrastructure in an environment where our nation is largely dependent upon foreign steel. By 4 becoming even more dangerously dependent upon offshore sources of steel, the United States would experience sharply reduced security preparedness in the face of: • Highly variable, and certainly higher, costs; • Uncertain supply, impacted by unsettled foreign economies and politics; • Quality, design and performance problems; • Inventory problems, long lead times and extended construction schedules. In Appendix 3 of this paper, we illustrate how the U.S. depends upon a healthy American steel industry to meet the growing U.S. demands for steel-intensive infrastructure. **Engineers and contractors on sophisticated infrastructure projects require an uninterrupted** supply of quality steel that they can depend upon to meet the performance characteristics of a project’s design, delivered on time, and at a competitive cost. U.S. national economic security requires a strong and viable domestic steel industry to meet all of these criteria on a consistent basis.

### Second is Shipbuilding, the benefits are massive—OCS development provides sustained stimulus

**Mason, LSU chair of banking, 2011**

(Joseph, House Natural Resources Subcommittee on Energy and Mineral Resources Hearing; Fisheries, Wildlife, Oceans and Insular Affairs Legislative Hearing on H.R. 306, H.R. 588, S. 266 and H.R. 285”, 4-6, lexis, ldg)

Apart from national energy concerns, however, economic considerations also favor increased development of OCS energy resources. Specifically, the boost provided to local onshore economies by offshore production would be particularly welcome in the present economic climate. Similar to fiscal alternatives presently under consideration, OCS development would provide a long-run economic stimulus to the U.S. economy because the incremental output, employment, and wages provided by OCS development would be spread over many years. Unlike those policies, however, this stimulus would not require government expenditures to support that long-term growth. A. The Present State of Offshore U.S. Oil and Gas Production Despite its importance, U.S. oil and natural gas production in offshore areas is currently limited to only a few regions. At the present time, oil and gas is only actively produced off the coast of six U.S. states: Alabama, Louisiana, Mississippi, Texas, California, and Alaska. The Energy Information Administration (EIA) reports that Alabama, Louisiana, Mississippi, and Texas are the only coastal states that provide access to all or almost all of their offshore energy resources. Only two additional states--Alaska and California--are producing any offshore energy supplies. All California OCS Planning Areas and most Alaska OCS Planning Areas, however, were not open to any new facilities until the recent end of the Congressional and Presidential moratoria. The remaining 16 coastal states are not open to new production and are not presently extracting any offshore energy resources. Even without those remaining sixteen states, plus California and Alaska, the OCS is already the most important source of U.S. energy supplies. According to the MMS, "the Federal OCS is a major supplier of oil and natural gas for the domestic market, contributing more energy (oil and natural gas) for U.S. consumption than any single U.S. state or country in the world." That is, OCS production presently meets more U.S. energy demand than any other single source, including Saudi Arabia. B. Offshore Oil Production Stimulates Onshore Economies Offshore oil and gas production has a significant effect on local onshore economies as well as the national economy. There are broadly three "phases" of development that contribute to state economic growth: (1) the initial exploration and development of offshore facilities; (2) the extraction of oil and gas reserves; and (3) refining crude oil into finished petroleum products. Industries supporting those phases are most evident in the sections of the Gulf of Mexico that are currently open to offshore drilling. For example, the U.S. shipbuilding industry - based largely in the Gulf region - benefits significantly from initial offshore oil exploration efforts. Exploration and development also requires specialized exploration and drilling vessels, floating drilling rigs, and miles and miles of steel pipe, as well as highly educated and specialized labor to staff the efforts. The onshore support does not end with production. A recent report prepared for the U.S. Department of Energy indicates that the Louisiana economy is "highly dependent on a wide variety of industries that depend on offshore oil and gas production" and that offshore production supports onshore production in the chemicals, platform fabrication, drilling services, transportation, and gas processing. Fleets of helicopters and U.S.-built vessels also supply offshore facilities with a wide range of industrial and consumer goods, from industrial spare parts to groceries. As explained in Section IV.G, however, the distance between offshore facilities and onshore communities can affect the relative intensity of the local economic effects. The economic effects in the refining phase are even more diffuse than the effects for the two preceding phases. Although significant capacity is located in California, Illinois, New Jersey, Louisiana, Pennsylvania, Texas, and Washington, additional U.S. refining capacity is spread widely around the country. As a result, refinery jobs, wages, and tax revenues are even more likely to "spill over" into other areas of the country, including non-coastal states like Illinois, as those are home to many refining and chemical industries that ride the economic coattails of oil exploration and extraction. II. OFFSHORE OIL AND GAS RESERVE ESTIMATES AND THE SOURCES OF THEIR ECONOMIC BENEFITS As described in my 2009 white paper, "The Economic Contribution of Increased Offshore Oil Exploration and Production to Regional and National Economies," available at www.americanenergyalliance.org/images/aea\_offshore\_updated\_final.pdf, significant oil and gas reserves lie under the U.S. Outer Continental Shelf (OCS). According to the Energy Information Administration (EIA), the OCS (including Alaskan OCS Planning Areas) contains approximately 86 billion barrels of recoverable oil and approximately 420 trillion cubic feet of recoverable natural gas. As noted by the White House, however, the OCS estimates are conservative. Of the total OCS reserves, a significant portion was unavailable to exploration until recently. Specifically, Presidential and Congressional mandates banned production from OCS Planning Areas covering approximately 18 billion barrels of recoverable oil and 77.61 trillion cubic feet of recoverable natural gas. These bans covered approximately 31 percent of the total recoverable OCS oil reserves and 25 percent of the total recoverable OCS natural gas reserves. Economic benefits of utilizing OCS reserves accrue from three primary sources: (1) exploration/platform investments; (2) production; and (3) refining. Sources (1) and (3) produce initial effects--that is, new industry expenditures--today; in contrast, source (2) produce economic effects only once production begins. The analysis therefore considers "initial" economic effects as those that flow from exploration or investments in new refining capacity and long-term economic effects as those that flow from production and ongoing refining. A. Exploration and Offshore Facility Development In contrast to other industries, the high fixed investment costs associated with offshore oil and gas production produce large initial investments that reverberate throughout the economy. Once oil or gas reserves are located, billions of additional dollars must be spent before the well produces even $1 of revenue. For example, oil exploration costs can amount to between $200,000 and $759,000 per day per site. Additional production in the U.S. will also require a costly expansion refining capacity as well. Taken together, the fixed expenditures that precede actual offshore oil and gas production can amount to billions of dollars. For example, Chevron's "Tahiti" project in the Gulf of Mexico is representative of the large investments that firms must make before production is achieved. In 2002, Chevron explored the Tahiti lease--which lies 100 miles off the U.S. coast at a depth of 4,000 feet--and found "an estimated 400 million to 500 million barrels of recoverable resources." Chevron estimates that it will take seven years to build the necessary infrastructure required to begin production at Tahiti. The firm estimates that its total development costs will amount to "$4.7 billion--before realizing $1 of return on our investment." As a typical U.S. offshore project, the Tahiti project provides a wealth of information regarding the up-front investment costs, length of investment, and lifespan of future OCS fields. As noted above, the Tahiti field is estimated to hold between 400 million and 500 million barrels of oil and oil equivalents (primarily natural gas) and is expected to require an initial fixed investment of $4.7 billion. Using the mid-point reserve estimate of 450 million barrels of oil equivalent, up-front development costs amount to approximately $10.44 per barrel of oil reserves or $1.86 per 1,000 cubic feet of natural gas reserves. These costs will be spread over 7 years, resulting in average up-front development expenditures equal to $1.49 per barrel of oil and $0.27 per 1,000 cubic feet of natural gas. Chevron also estimates that the Tahiti project will produce for "up to 30 years". Although investment and production times vary widely, the analysis that follows uses the Tahiti project numbers - an average initial investment period of seven years followed by an average production period of 30 years - as indicative of the "typical" offshore project. I will thus assume an average initial investment period of seven years followed by an average production period of 30 years. The speed of OCS development also factors into the analysis. Because most areas of the U.S. OCS have been closed to new exploration and production for almost forty years, it is unclear how quickly firms would move to develop new offshore fields. Given its large potential reserves, however, the OCS is sure to attract significant investment. Without the benefit of government data, a rough estimate suggests that annual total investment in OCS fields would be $9.09 billion per year. Those annual expenditures are expected to last, on average, the full seven years of the development phase. Additional investment in states that already support significant production - Alabama, Louisiana, Mississippi, and Texas - are limited. Some of the greatest benefits accrue to areas that are home to enormous - but unavailable - total reserves: California and Florida. B. Production The likely value of state recoverable oil and gas reserves are estimated using the likely lifetime revenue that could be generated by the project. In that case, average wholesale energy prices provide the information necessary to translate reserves into revenues. Taking the simple average of the EIA's latest inflation-adjusted energy price forecasts through 2030 as provided by its Annual Energy Outlook 2009, the average inflation-adjusted price of oil will be $110.64 per barrel and the average inflation-adjusted price of natural gas will be $6.83 per thousand cubic feet. At these prices, the estimated OCS reserves are worth about $13 trillion. The value of each state's available reserves are calculated as the sum of (1) its share of available OCS Planning Area oil reserves times $110.64 per barrel and (2) its share of available OCS Planning Area natural gas reserves times $6.83 per thousand cubic feet. The same method applies to the valuation of total state OCS reserves. By those estimation methods, states such as California, facing a budget crisis in the current recession, have an estimated $1.65 trillion in resources available in nearby OCS planning areas. Florida, while not facing as dire a fiscal crisis, has about $0.55 trillion in resources available in nearby OCS planning areas. Hence, a permanent relaxation of all federal OCS production moratoria would unlock more than $3.4 trillion in new production among all the coastal states. C. Investments in Incremental Refining Capacity Since U.S. refineries are presently operating near maximum capacity increased offshore oil and gas production would also spur investment in new refineries. The U.S. refining industry is presently operating at 97.9 percent of capacity and can no longer depend on excess foreign refining to meet production shortfalls arising from seasonality or repairs. In response, many large refiners are already considering refinery expansions: ConocoPhillips announced that it planned to spend $6.5 billion to $7 billion on capacity expansion at its U.S. facilities; Chevron has also considered a major refinery expansion; and while Shell is completing a $7 billion expansion and its Port Arthur, Texas refinery they are considering further expansion elsewhere. Additional refinery investments are likely to occur in the few U.S. states that already host significant U.S. refineries. This result is largely due to environmental restrictions that severely limit the placement of new refining capacity. Current capacity is primarily concentrated in California, Louisiana, and Texas. The U.S. presently has an operating refining capacity of approximately 6.287 billion barrels of crude oil per year. Conservative estimates of OCS production would add approximately 3.773 billion barrels per year, or about sixty percent of current U.S. operating refinery capacity. Because some OCS refining production would most likely substitute for foreign production, however, the analysis conservatively assumes that only one-quarter of this new OCS production necessitates additional U.S. refinery capacity. That is, I estimate that U.S. refinery demand would increase by 943.25 million barrels per year, or 15 percent of current installed capacity. Even this modest capacity increase would require substantial new investments. In response to existing capacity constraints, Shell is already increasing the capacity of its Port Arthur, Texas refinery. This expansion will take approximately two and one-half years to complete and cost $7 billion. The facility will add 325,000 barrels per day (or 118.6 million barrels per year) in new capacity, at a cost of approximately $59.02 per barrel of new annual capacity. As noted above, since tough environmental regulations effectively limit new refinery capacity to a few states, refinery investments are likely to be limited to only a few states with large existing capacity. These states can be reasonably assumed to be the same states the already have large installed refinery capacity. Hence, incremental refinery capacity will be added predominantly in states already home to large refining capacity--those with a present capacity of more than 200 million barrels per year. There are seven such states: California, Illinois, Louisiana, New Jersey, Pennsylvania, Texas, and Washington. Expected increases in offshore oil production will induce approximately $22 billion in refining capacity investments each year for two and one half years. California, Texas, and Louisiana will receive the bulk of this investment, but investments of more than $1 billion annually can be expected in Illinois, New Jersey, Pennsylvania, and Washington. III. INCREASED INVESTMENTS IN OFFSHORE OIL AND GAS PRODUCTION WILL CAUSE SUBSTANTIAL INCREASES IN WAGES, EMPLOYMENT, AND TAXES, AND PROFOUND EFFECTS ON COMMUNITIES THROUGHOUT THE NATION Onshore state and local economies benefit from the development of OCS reserves by providing goods and services to offshore oil and gas extraction sites. Onshore communities provide all manner of goods and services required by offshore oil and gas extraction. A variety of industries are involved in this effort: shipbuilders provide exploration vessels, permanent and movable platforms, and resupply vessels; steelworkers fashion the drilling machinery and specialized pipes required for offshore resource extraction; accountants and bankers provide financial services; and other onshore employees provide groceries, transportation, refining, and other duties. These onshore jobs, in turn, support other jobs and other industries (such as retail and hospitality establishments). The statistical approach known as an "input-output" analysis measures the economic effects associated with a particular project or economic development plan. This approach, which was pioneered by Nobel Prize winner Wassily Leontif, has been refined by the U.S. Department of Commerce. The most recent version of the Commerce Department's analysis is known as the Regional Input-Output Modelling System, or "RIMS II." The RIMS II model provides a variety of multipliers that measure how an economic development project--such as offshore drilling--would "trickle down" through the economy providing new jobs, wages, and government revenues. This analysis can be broken down into two parts: (1) a "direct" analysis measuring the benefits that arise from industries that directly supply offshore oil and gas exploration and (2) the "final" analysis that measures the direct and indirect benefits associated with offshore exploration. The RIMS II model is the standard method governmental authorities use to evaluate the benefits associated with an economic development project. According to the Commerce Department, the RIMS II model has been used to evaluate the economic effects of many projects, including: opening or closing military bases, tourist expenditures, new energy facilities, opening or closing manufacturing plants, shopping malls, sports stadiums, and new airport or port facilities. A. Opening OCS Planning Areas would Unleash More than $11 trillion in Economic Activity The broadest measure of the incremental effect of increased OCS oil and natural gas extraction is the effect on total economic output. Until OCS production begins, onshore communities will realize only the benefits associated with offshore investment. These benefits take two forms: (1) the development of the offshore facilities themselves and (2) the expansion of onshore refining capacity. These two effects, taken together, provide a rough approximation of the additional output that would be created by allowing greater access to offshore reserves. Of course, the investment expenditures and resulting output estimated above is only made to facilitate oil and gas extraction. Once extraction begins, additional economic activity continues for the lifetime of the oil and natural gas reserves. Using the total U.S. multipliers (2.2860 for refining and 2.3938 for extraction), the total increase in U.S. output from initial investment is estimated to be a total of about $0.5 trillion, or approximately $73 billion per year for the first seven years the OCS is open. For comparative purposes, a $73 billion stimulus amounts to approximately 0.5 percent of total U.S. output (GDP) per year. Increased OCS oil and gas extraction would yield approximately $5.75 trillion in new coastal state output over the lifetime of the fields. Approximating the total increase in output associated with increasing offshore resource production throughout the U.S. (including states in the interior), yields approximately $2.45 trillion in additional output. The total increase in output in the United States is estimated to total approximately $8.2 trillion or about $273 billion per year, which amounts to just over two percent of GDP. Because the OCS areas are currently unavailable, the entire amount--$8.2 trillion--is completely new output created by a simple change in policy allowing resource extraction in additional OCS Planning Areas. B. Opening OCS Planning Areas could Create Millions of New Jobs An economic expansion tied to increased OCS resource production would also create millions of new jobs both in the extraction industry and in other sectors that serve as suppliers or their employees. The annual increase in coastal state employment from initial investments in previously unavailable OCS planning areas and additional refining capacity is estimated to be 185,320 full-time jobs per year. Again, this number does not consider the spill-over effects of investment in productive capacity and refining to other U.S. states. The total increase in U.S. employment from the investment phase is approximately 271,570 full-time jobs per year. Applying the BEA multipliers to the estimated production value results in approximately 870,000 coastal state jobs in addition to the jobs created during the initial investment phase. Again, the total increase in U.S. employment in all states (including those in the interior) resulting from increased OCS production is 340,000 greater, for a total of approximately 1,190,000 jobs be sustained for the entire OCS production period. Increased investment and production in previously unavailable OCS oil and gas extraction and the ancillary industries that support the offshore industry would produce thousands of new jobs in stable and valuable industries. Among the 271,572 jobs created in the investment phase and sustained during the first seven years of the investment cycle. The majority of new positions (162,541 jobs, or 60 percent) would be created in high-skills fields, such as health care, real estate, professional services, manufacturing, administration, finance, education, the arts, information, and management. Although the largest total increase in employment in the production phase would occur (quite naturally) in the mining industry, significant numbers of jobs would be created in other industries. Again, many of these new jobs would be created in high-skills fields, representing approximately 49 percent of all new jobs and approximately 61 percent of all new non-mining jobs. C. Opening OCS Planning Areas can Release Trillions of Dollars of Wages to Workers Hit by Recession Those jobs pay wages. OCS development is estimated to yield approximately $10.7 billion in new wages in coastal states each year. OCS production would yield approximately $1.406 trillion in additional wage income to workers in coastal states over the lifetime of the fields (or $46 billion per year over 30 years). Across the U.S., the investment phase would generate approximately $15.7 billion in additional annual wages per year for the first seven years and $70 billion per year for the next thirty years, or approximately $2.1 trillion in additional wage income. BLS data suggest that all four broad industry classifications related to oil and gas extraction pay higher wages and similar jobs in other industries. Jobs in: (1) Oil and Gas Extraction, (2) Pipeline Transportation of Crude Oil, (3) Petroleum and Coal Products Manufacturing, and (4) Support Activities for Mining, typically pay higher wages than the average American job. Taking this broader measure, the average job created by increased offshore oil and gas production pays approximately 28 percent more than the average U.S. job. D. Opening OCS Planning Areas can Contribute Trillions of Dollars in Taxes and other Public Revenues to Local, State, and Federal Governments Greater output, more jobs, and higher wages translate into higher tax collections and increases in other sources of public revenues. The MMS Report to Congress suggests that public revenues derived from OCS extraction are significant--the U.S. federal government has collected more than $156 billion in lease and levy payments for OCS oil and natural gas production. Note that this amount counts only lease and royalty payments and thus does not include any sales and income taxes paid by firms or workers supported by OCS production. Conservative estimates suggest that seven years of initial annual exploration and refining investments would produce approximately $4.8 billion annually in coastal state and local tax revenue and $11.1 billion in U.S. federal tax income. Over thirty years of production, I estimate that the extraction phase of OCS development would yield approximately $561 billion ($18.7 billion per year) in coastal state and local tax revenue and approximately $1.64 trillion ($54.7 billion per year) in new U.S. federal tax income.

### Key to seabasing capabilities—ensures naval flexibility that sustains global deterrence-- solves war

**Etter, was United States Deputy Under Secretary of Defense for S&T from 1998 to 2001, 06**

(Dr. Delores M., Assistant Secretary of the Navy from 2005 to 2007, “Statement Of The Honorable Dr. Delores M. Etter. Assistant Secretary Of The Navy (Research, Development And Acquisition)”, Before The Seapower Subcommittee Of The Senate Armed Services Committee On The Navy’s Shipbuilding Program April 6, 2006, ), 2/22/13, Atl)

Seabasing represents a complex capability, a system-of-systems able to move at will. Seabasing, enabled by joint integrated and operational concepts, is the employment of ships and vessels with organic strike fires and defensive shields of sensors and weapons, strike and transport aircraft, communications and logistics. We will use the sea as maneuver space to create uncertainty for adversaries and protect the Joint force while receiving, staging and integrating scalable forces, at sea, that are capable of a broad range of missions. Its inherent freedom of movement, appropriate scalability, and sustainable persistent power provides full spectrum capabilities, from support of theater engagement strategies, to rapid response to natural or man made disasters, to MCOs from raids, to swift defeat of enemies, to scale of major combat and decisive operations. In order to achieve this capability, the Navy and Marine Corps must be forward based, forward deployed (on naval shipping), and forward engaged to maintain global presence as addressed in the 2006 Quadrennial Defense Review (QDR) to meet these challenges. The Seabased Navy will be distributed, netted, immediately employable and rapidly deployable, greatly increasing its operational availability through innovative concepts such as, for example, Sea Swap (where deemed appropriate) and the Fleet Response Plan. At the same time, innovative transformational platforms under development such as MPF(F), LHA(R) and High-Speed Connectors, will be instrumental to the Sea Base. The Fleet Response Plan is the maintenance, training, and operational framework through which the Navy meets global Combatant Commander demand signals for traditional (e.g., GWOT, major combat operations, humanitarian assistance/disaster relief, shaping and stability operations, counter piracy, etc.) and emerging mission sets (e.g., riverine warfare, NECC, medical outreach). The Fleet Response Plan is mission-driven, capabilities-based, and provides the right readiness at the right time (within fiscal constraints). It enables responsive and dependable forward presence. With the Fleet Response Plan we can deploy a more agile, flexible and scalable naval force capable of surging quickly to deal with unexpected threats, humanitarian disasters, and contingency operations. Sea Swap is an initiative designed to keep a single hull continuously deployed in a given theater, replacing the entire crew at six-months intervals. The primary objective is to effectively and efficiently increase forward Naval presence without increasing operating cost. SEAPOWER 21 We developed the Sea Power 21 vision in support of our National Military Strategy. The objective of Sea Power 21 is to ensure this nation possesses credible combat capability on scene to promote regional stability, to deter aggression throughout the world, to assure the access of Joint forces and to fight and win should deterrence fail. Sea Power 21 guides the Navy’s transformation from a threat–based platform centric structure to a capabilities-based, fully integrated force. The pillars of Sea Power 21 -- Sea Strike, Sea Shield, and Sea Basing -- are integrated by FORCEnet which will be the means by which the power of sensors, networks, weapons, warriors and platforms are harnessed in a networked combat force. This networked force will provide the strategic agility and persistence necessary to prevail in the continuing GWOT, as well as the speed and overwhelming power to seize the initiative and swiftly defeat any regional peer competitor in MCOs. Extending FORCEnet to our allies and partners in the form of Multinational Information Sharing Networks will represent an unprecedented level of interoperability for both GWOT and MCO. The immeasurable advantage of this effort is the effective association of a “1000-ship Navy” built from our own core capabilities combined with the coordinated efforts of our allies and partners in today’s challenging global environment. During the last year, the Chief of Naval Operations (CNO) established a focused effort to clearly define Naval force structure requirements. The Navy recently submitted to Congress its 2007 Annual Long Range Plan for Construction of Naval Vessels. This plan begins our movement toward a more balanced force that meets the future national security requirements outlined in the FY 2006 Quadrennial Defense Review with acceptable risk and is designed to replenish the fleet, while stabilizing workload and funding requirements. As this 30 year shipbuilding plan evolves over the next year, it will produce an investment plan that is both executable and affordable based on balancing several factors: Naval force operational capability; risk; and, the ability of the shipbuilding industrial base to execute the plan. FY 2006 QUADRENNIAL DEFENSE REVIEW (QDR 06) The fiscal and temporal realities associated with the design and development of modern, sophisticated weapons systems requires a significantly different approach to procurement and operation of or forces and resources. It is this dynamic that is propelling the Navy forward in the transformational arena. As recognized in QDR 06, the size and capabilities of our force are driven by the challenges we will face. The capacity of the force is determined by its global posture in peacetime and the requirement to respond from this posture, as well as to surge, in crisis. In the case of our Navy, it is based upon the need for a ubiquitous but carefully tailored maritime presence that can provide our President and our allies with strategic options in support of dynamic security requirements. QDR 06 developed guidance to achieve the national defense and national military strategies and shaping the future force to improve capabilities and expand capacity to address four priorities: Defeat Terrorist Extremists; Defending the Homeland in Depth; Shaping the Choices of Countries at Strategic Crossroads and; Preventing Hostile State and Non-state Actors from Acquiring or Using Weapons of Mass Destruction. QDR 06 sets a 20-year course for the Department of Defense and provides an opportunity to continue to reshape the U.S. armed forces to meet current and emerging security responsibilities. The QDR 06 construct places new emphasis on the unique operational demands associated with homeland defense and the GWOT, shifts focus from optimizing for conflicts in two particular regions to building a portfolio of capabilities with global reach and serves as a bridge from today’s threat-based force to a future capabilities-based transformational force. FORCE STRUCTURE Force structure requirements were developed and validated through detailed joint campaign and mission level analysis, optimized through innovative sourcing initiatives (Fleet Response Plan (FRP), Sea Swap, forward posturing) that increase platform operational availability, and balanced with shipbuilding industrial base requirements. This force structure was developed using a capabilities-based approach measured against the anticipated threats for the Fiscal Year 2020 timeframe. The future Navy will remain sea based, with global speed and persistence provided by forward deployed forces, supplemented by rapidly deployable forces through the FRP. To maximize return on investment, the Navy that fights the GWOT and executes Maritime Security Operations will be complementary to the Navy required to fight and win in any MCO. This capabilities-based, threat-oriented Navy can be disaggregated and distributed world wide to support Combatant Commander GWOT demands. The resulting distributed and netted force, working in conjunction with our joint and maritime partners, will provide both actionable intelligence through persistent, Maritime Domain Awareness, and the ability to take action where and when a threat is identified. The same force can be rapidly aggregated to provide the strength needed to defeat any potential adversary in an MCO. The warships represented by this shipbuilding plan will sustain operations in forward areas longer, be able to respond more quickly to emerging contingencies, and generate more sorties and simultaneous attacks against greater numbers of multiple targets and with greater effect than our current fleet. Employing a capabilities-based approach to calculate the size and composition of the future force required to meet expected Joint Force demands in peace and in the most stressing construct of the Defense Planning Guidance, along with detailed assessments of risk associated with affordability and instabilities in the industrial base, the analysis concluded that a Fleet of about 313 ships is the minimum force necessary to meet all the demands, and to pace the most advanced technological challengers well into the future, with an acceptable level of risk. THIRTY -YEAR NAVAL FORCE SIZE The 30-year shipbuilding plan and the resulting ship inventory, as outlined in the Fiscal Year 2007 Annual Long-Range Plan for Construction of Naval Vessels, represent the baseline as reflected in the 2007 President’s Budget submission. There will be subsequent studies and analysis that will continue to balance affordability with capability and industrial base capacity. As part of the Fiscal Year 2008 budget development process, the Navy will be exploring alternative approaches to attaining the future force structure and ship mix while retaining the necessary capabilities for Joint Force operations. Overall, this plan reflects the Navy’s commitment to stabilize the demand signal to the industrial base while still achieving the appropriate balance of affordability and capability in all ship Classes. Also, although there is risk with this plan, and not a lot of excess capacity to accommodate the unforeseen, we believe the risk is moderate and manageable. Areas of special interest include: Carriers Eleven aircraft carriers and their associated air wings are needed to ensure our ability to provide coverage in any foreseeable contingency and do so with meaningful, persistent combat power. While the Navy requirement for Carriers remains a minimum of 11 operational vessels, past delays in beginning the CVN-21 program will result in the Navy’s having only 10 operational Carriers in Fiscal Year 2013 and Fiscal Year 2014. This shortfall will require some combination of shorter turn-around times between deployments, higher OPTEMPO and PERSTEMPO, and restructured Carrier maintenance cycles. Nuclear Attack Submarines (SSN) An SSN force of 48 boats is needed to meet submarine tasking in support of Homeland Defense, GWOT/Irregular Warfare, and conventional campaigns. However, total SSN numbers will drop below 48 between 2020 and 2034. Our remaining fast attack submarine force will require a combination of shorter turn-around times between deployments, higher OPTEMPO and PERSTEMPO, and restructured maintenance cycles to mitigate the impact of this force structure shortfall. Navy is also pursuing a number of cost reduction initiatives intended to lower SSN 774 acquisition costs to $2.0B (Fiscal Year 2005 dollars) at a stable build rate of two-per-year commencing with Fiscal Year 2012 as cited in QDR 06. Amphibious Ships Our amphibious capability provides the Joint Forcible Entry capacity necessary to support the sea base as a lodgment point for Joint operations. The current Defense Department force-sizing construct requires the capability to respond to two major "swiftly defeat the efforts" events– each of which could require a minimum of 15 capable amphibious ships. One of these crises may further necessitate the use of a Marine Expeditionary Force, thus requiring a total of 30 operationally available amphibious ships. The Marine Corps aviation combat element requires ten large-deck amphibious ships to support a Marine Expeditionary Force. Today’s 35 amphibious warships can surge the required 30 operationally available warships and provide the peacetime rotation base for Marine Expeditionary Units in up to three regions. As a Navy and Marine Corps Team, we are striving to maintain the capability to project two Marine Expeditionary Brigades assault echelons in support of the Combatant Commander. SHIPBUILDING PROGRAMS There has been considerable activity within shipbuilding over the last year. Currently, there are 37 Naval ships under construction in the United States: 1 CVN, 13 DDGs, 1 LHD, 4 LPDs, 9 T-AKEs, 2 Littoral Combat Ships (LCS) and 7 VIRGINIA Class submarines. Four additional LPDs have ongoing contract negotiations. In 2005 the Department delivered the lead ship for our newest Class of Amphibious Transport Dock Ships USS SAN ANTONIO, LPD 17, initiating a new era of amphibious assault capabilities that are aligned to the littoral regions. In January 2006, the Navy commissioned the LPD 17. The Navy also commissioned three DDGs in 2005. We also laid the keel for the 8th ship of the LHD Class, the second and third LEWIS & CLARK Auxiliary Dry Cargo & Ammunition ship (T-AKE), and the third VIRGINIA Class submarine. In 2005, the Navy completed the Engineered Refueling Overhaul (ERO) and conversion of the USS OHIO (SSGN 726) the first SSGN and redelivered the submarine to the fleet in February 2006. In March 2005, the Navy also completed the Refueling Complex Overhaul (RCOH) of CVN 69. Fiscal year 2007 will see the Navy’s previous R&D efforts begin to bear fruit. The first increment of procurement of the lead two DD(X) destroyers is programmed. Follow on Littoral Combat Ships are programmed, which will accelerate the Navy’s capabilities to defeat anti-access threats close to shore. Transformation is most apparent in Fiscal Year 2007 where new construction increases to seven ships from the four in President’s FY 2006 Budget request. The total number of new ships procured over the Future Years Defense Program is 51, averaging 10 ships per year including DD(X), CG(X), LCS, T-AKE, VIRGINIA Class SSN, CVN 21, MPF(F) family of ships, LPD 17, JHSV, and LHA(R). Our Fiscal Year 2007 Budget request calls for construction of seven ships: two ZUMWALT Class (DD(X)) destroyers, one VIRGINIA Class submarine; one LEWIS & CLARK (T-AKE) Class Auxiliary Dry Cargo & Ammunition ship; the LHA 6 Amphibious Assault Ship; and two LCS. In addition, we have requested funding for advance procurement of the tenth and eleventh VIRGINIA Class submarines, the ninth SAN ANTONIO Class Amphibious Transport Dock ship, and the CVN 21. Modernization efforts to be funded in Fiscal Year 2007 include the second increment of the split funded CVN 70 RCOH, the second year of advance procurement for CVN 71 RCOH, ERO of an SSBN, modernization of TICONDEROGA Class cruisers and ARLEIGH BURKE Class destroyers, and the service life extension for six Landing Craft Air Cushion (LCAC). A stable shipbuilding industry is essential to sustain minimum employment levels and retain critical skills to meet our requirements for an affordable and capable force structure. We must align the industrial base for long-term force development through split funding, advanced procurement, and cost savings incentives. We must build ships more efficiently, cost effectively, and quickly. To do this, we are committed to help provide stability in the shipbuilding plan and rigorously control requirements. Costs and production schedules must be kept within contractual limits. Industry must be viewed as a trusted partner while we provide a stable baseline upon which to plan. The Navy continues to analyze operational requirements, ship designs and costs, acquisition plans and tools and industrial base capacity to further improve its shipbuilding plan. Full funding and support for execution of this plan is crucial to transforming the U.S. Navy to a force tuned to the 21st Century and its evolving requirements.

## Three

### 2013 is a turning point for Indian natural gas- US is key to solidify transition

**Srivastava, World Security Network Foundation Editor for India, 13**

(Siddharth, Senior Writer, Asia Times Online, India Correspondent, Siliconeer, Former India Contributor, Business Times (Singapore), Former Correspondent, The Times of India, February 26, 2013, “India hopeful for more LNG imports”, http://interfaxenergy.com/natural-gas-news-analysis/lng/india-hopeful-for-more-lng-imports/, 3/15/13, atl)

With many of India’s largest oil and gas companies looking to expand the country’s LNG regasification capacity, many believe 2013 will mark a turning point for the gas retail industry, which is in growing need of more supplies. The shift towards greater LNG imports has already started this year, after state-controlled gas distributor Gail commissioned its 5 mtpa Dabhol terminal in Maharashtra (see India’s third LNG terminal starts up, 10 January 2013). India has two other terminals – Hazira and Dahej, both in Gujarat – and a fourth – the Kochi facility in Kerala – is due online in the near future. “The gas retailing space in India is going to witness high growth because of new linkages and an expanding consumer base,” Gail Chairman and Managing Director BC Tripathi told Interfax. “Entities, including Gail, do not want to lose out on opportunities.’’ A month after commissioning the terminal, in fact, Gail signed gas transmission agreements for two power plants in Bangalore, one of India’s business hubs. The gas will be carried along a 1,000 km pipeline with a capacity of 16 million cubic metres per day (MMcm/d). With new projects coming online, India’s LNG imports are expected to rise to 73 MMcm/d in 2012-2013 and 105 MMcm/d in 2013-2014, according to the Indian Ministry of Petroleum and Natural Gas. This means the share of LNG in India’s total gas consumption would rise from 25% in 2011-2012 to 41% in 2012-2013, and 50% in 2013-2014. Future plans India’s first three LNG import projects were centred on the northwestern state of Gujarat – which has seen rapid economic growth over the past decade – and the country’s business capital of Mumbai, in Maharashtra. However, future developments are focused on the eastern state of Andhra Pradesh, which was expected to receive large volumes of gas from the offshore Krishna Godavari D6 (KG-D6) Block. Instead, the block’s production has disappointed, leaving a number of new gas-fired power plants in the state without supply (see [India’s huge new generator sits idle, waiting for gas](http://interfaxenergy.com/natural-gas-news-analysis/asia-pacific/indias-huge-new-generator-sits-idle-waiting-for-gas/), 8 March 2012). “These investments will feed the rapidly industrialising states of Andhra Pradesh, Tamil Nadu and Orissa,” T Shridhar, a former director at the petroleum ministry, told Interfax. “The need is the result of the eastern offshore KG-D6 gas fields’ failing to deliver on projected output.” Gail is one of the companies looking to build a regasifier in Andhra Pradesh, after signing an agreement for the 3.5 mtpa Kakinada facility with GDF Suez and the state government. State-run Petronet LNG, likewise, is planning to build the 5 mtpa Gangavaram terminal in Andhra Pradesh by 2016, and carrying out a feasibility study for a terminal at Ennore, in the southeastern state of Tamil Nadu (see [India’s falling output drives east coast LNG plans](http://interfaxenergy.com/natural-gas-news-analysis/lng/indias-falling-output-drives-east-coast-lng-plans/), 6 February 2012). Royal Dutch Shell, which operates the 3.6 mtpa Hazira terminal, also said in May 2012 it was working with India’s Reliance Power to build an FSRU near Kakinada and expected to begin importing around 5 mtpa in 2014. Reliance Power has built a 2.4 GW gas-fired generator in Andhra Pradesh – the largest in the country – but has been unable to start it because of the decline in KG-D6 production. “India is an important market for LNG, and the states of Gujarat and Andhra Pradesh have the highest demand for gas in India,” De la Rey Venter, Shell’s global head of LNG, said at the time. Shell is also working to expand the Hazira terminal’s capacity to 5 mtpa by the end of this year, he added. Over-optimistic? While the Indian government and industry have touted the potential for filling the country’s supply-demand gap with LNG in the next few years, analysts at Wood Mackenzie said the shortfall will continue to be a problem – especially as the KG-D6 Block’s output continues to decline. The block’s production fell from 20 billion cubic metres in 2010 to 11 bcm in 2012, and partners Reliance Industries and BP do not expect to reverse the trend until at least 2014. “This will constrain gas availability to the market, mainly impacting the power sector in the medium term,” Nicholas Browne, Wood Mackenzie’s senior gas market analyst, said of the KG-D6 Block’s decline in a report published in February. “In the longer term, reduced production will preclude the development of greenfield fertiliser production, as it is not economical to develop facilities purely based on LNG imports. In addition, LNG demand growth in other industrial sectors is further limited by reduced economic growth expectations,” Browne added.

### They want US gas- exports change the game for Indian energy

**Mahajan, India Today Special Correspondent, 13**

(Anilesh S., January 20, 2013, “Story The Pipe Runneth Over”, http://businesstoday.intoday.in/story/energy-security-india/1/191045.html, 3/15/13, atl)

Sarraf is no avid America watcher - his interest in the three debates was the United States’ energy policy and the two contenders' stance on it. The interest arises largely from recent developments in the global energy market where the US is expected to supplant Saudi Arabia as the world's largest oil producer in another decade. It's not just that which is churning the global energy market. It's also the shale gas and oil sands finds in the US and Canada in recent years that are leading to ferment in energy circles. In addition, in August, the US adopted stringent vehicular mileage norms. The Obama administration set goals to double average mileage norms by 2025, a decision that the US auto industry has agreed with. The implication: the US will reduce oil consumption by about 10 per cent and potentially halve imports from OPEC nations before a newborn today turns 12. [OPEC](http://businesstoday.intoday.in/story/opec-secretary-general-abdalla-salem-el-badri-shale-gas/1/191155.html) is short for Organization of the Petroleum Exporting Countries, a 12-country body mostly dominated by West Asian members which call the shots on how much crude oil to produce every day. The implications of the world's largest energy consumer becoming self-reliant in gas and less dependent on oil imports are enormous - it is being bandied the biggest event in the global energy market after the oil shocks of the 1970s. Estimates made by the US Energy Information Administration (EIA) and BP (formerly British Petroleum) predict the US will be self-reliant in gas before 2020, and will import almost no crude oil from West Asia and other OPEC countries. The US Energy Department predicts the country will need to import only a little more than one-third of its oil needs by 2020 (down from 45 per cent now), and most, if not all, of it could be catered from countries such as Canada, Mexico and Brazil. But, more than the energy independence of the world's largest economy, what excites Sarraf and his peers in other Indian energy companies is that the US is looking to export gas and its shrinking oil imports will mean more oil available in the global market for buyers such as India. Potentially, at lower prices than the average $100-andchange a barrel that India has paid in the last three years. According to the BP Statistical Review of World Energy 2012, a respected and frequently-quoted annual report, India and China, which will account for nearly half the world's incremental energy requirements, will need to import oil, gas and [coal](http://businesstoday.intoday.in/story/coal-india-restructuring-consultants/1/191162.html) even after 2030. Liquid Energy In such a situation, shipping liquefied natural gas ([LNG](http://businesstoday.intoday.in/story/shell-india-new-chairman-yasmine-ghandhi-hilton/1/190363.html)) even from halfway across the world begins to makes sense. "The price of gas at Henry Hub is constantly hovering in a band of $3.5 to $5 per unit. The question is whether this gas can be brought to India," says Sarraf, himself answering the question in the affirmative. Prices at Henry Hub, an import terminal in Southeast US that is connected to a nationwide grid of pipelines, are the benchmark for global gas prices. Even after the cost of liquefaction, transportation and then regasification after landing in India, "it is a viable business," says Sarraf. In Asian markets, LNG is traded at $9 to $13 per unit or mmbtu (short for million metric British thermal unit) depending upon the source of the gas and purchase negotiations. In comparison, says an investment banker working for an Indian company with gas interests, in the future even with all costs factored it, LNG can be supplied at around $10 per mmbtu landed on the Indian west coast. The banker requested anonymity. India has two LNG terminals in Gujarat, one is being commissioned, and the fourth will open next year. Thirteen more terminals and floating gasification units are planned on both India's eastern and western shores in the next five years. 50% drop in US's oil imports from OPEC by 2025 with new vehicular mileage norms The estimates for shale gas reserves in the US vary widely. The US Energy Department's 2012 Annual Energy Outlook projects it at 482 trillion cubic feet (tcf) across the US. BP reckons it is around 300 tcf, while some analysts' estimates are as high as three times that amount. For perspective, one tcf of gas can fire a power plant with nearly 1,000 megawatt capacity for 20 years. India's shale gas reserves are estimated at 63 tcf but little work has been done on the feasibility of extracting it, though Obama on his India visit in November 2010 had promised US cooperation. India is expected to announce its shale gas policy in the first quarter of 2013. Indian firms, meanwhile, are looking at North America as a new source for imports. "The US may become a gas exporter as LNG tankers and port infrastructure are built," says Ajit Ranade, Chief Economist, Aditya Birla Group. Proposals to set up eight LNG export terminals, with a total capacity of 12.33 billion cubic feet a day, or bcfd, on both the east and west coasts are pending before the US government, with another seven (capacity: 9.72 bcfd) potential sites identified by project sponsors. "Some LNG projects are definitely going to get off the ground and already seeking the growing markets in Asia," says Vandana Hari, Editorial Director at Platts Asia, an energy information provider. Indian gas pipeline utility GAIL, through unit GAIL Global (USA), has bought a 20 per cent stake in Carrizo Oil & Gas's Eagle Ford shale acreage in Texas for $95 million in September 2011. Reliance Industries has invested in three US shale joint ventures since April 2010 - one of them in the promising Marcellus Shale of Pennsylvania, eastern US, partnering Atlas Energy. GAIL also has a 20-year contract with Cheniere Energy Partners to buy and ship 3.5 million tonnes per annum of LNG from the US company's underconstruction terminal in the Gulf of Mexico in Louisiana. The first despatch of LNG is expected in 2016. An OVL-led consortium is in talks with Houston-based ConocoPhillips to buy stake in six oil sands in the Alberta province of Canada. OVL, together with Indian Oil Corporation (IOC) and Oil India Ltd (OIL) has readied $5 billion for buying the stake, the talks for which are on. OIL and IOC have separately teamed up to acquire a 30 per cent stake in Carrizo Oil & Gas's Niobrara shale-oil acreage in Colorado, the US. OVL and GAIL are also looking to take up some equity in the LNG terminals once they get export approval. Canada to Australia Companies are also scouting north of the US. "What applies to the US also applies to Canada," OVL's Sarraf says. Canada expects to export 66 million tonne per annum (mtpa) of LNG by 2019. Canadian Energy Minister Joe Oliver on his India visit in September told Business Today that his country is looking at India along with Japan and Korea as probable markets. "We are a net exporter of oil and gas, but largely it is the US [that is the buyer]. We are looking at newer avenues, India figures at the top of the list," he said. Helping India's case is the fact that selling most of its gas to the US means Canada has to offer hefty discounts. "Hence we are looking at the global players as new consumers." Canada is as enthusiastic about the synthetic crude finds in its oil sand fields. Also known as shale oil, synthetic crude is the output of upgrading heavy oils such as bitumen. It can then be fed into most modern refineries to produce petroleum products, or at least blended with normal crude before refining. Given Canada's abundance of synthetic crude, the difference with comparable varieties in West Asia is as much as 50 per cent. Between January and June 2012, Canadian synthetic crude was priced on average of $62 to $83 a barrel. Similar crude in the Asian market traded at $90 to $95 against the average price for Brent at $113. IOC, India's biggest domestic refiner, has already told the Petroleum Ministry it can process synthetic crude. "We use various variety blends of crude in our refineries. The tough crude from Canada could also be treated there after blending," says Chairman R.S. Butola. Given the relatively young life of refineries in India, they can process synthetic crude oil, says Deepak Mahurkar, who leads the oil and gas consulting practice at audit and consultancy firm PricewaterhouseCoopers India. Indians are doing their recces Down Under, too. Australia is estimated to have 400 tcf of recoverable shale gas - about four-fifths the estimated reserves in the US. It has four large LNG terminals and is building four more to meet the massive demand for gas from countries such as Japan, Korea, Taiwan, India and China. Indian companies have been slow to report progress in buying equity in projects or securing longterm supplies there, though. The last and only oil and gas deal an Indian company has signed to source gas from Australia is the Petronet LNGExxonMobil agreement to source 1.5 million tonnes of LNG annually from the Gorgon project in western Australia for 20 years. The gas will reach the Kochi terminal in 2017. There is another compelling reason for India to buy LNG and crude oil from the US, Canada and Australia: derisking its sourcing from West Asia. India imported 142 million tonnes of crude oil in 2011, nearly nine-tenths of which came from OPEC countries, mainly from West Asian and North African countries. While it may seem an expensive strategy to source crude and gas from 7,500 nautical miles away, analysts such as Aashish Mehra, Managing Partner at consultancy Strategic Decisions Group (SDG)'s India chapter defend New Delhi's strategy. "This should be seen as an effort to diversify the energy sources and reduce its heavy crude oil and gas dependence on Middle East and OPEC nations," he says. Dark Lining to a Silver Cloud For all this, it is not a clear road ahead for India in its sprint to securing its energy future. Coal, currently accounting for about 50 per cent of India's energy mix, will remain the main pillar of India's energy economy with some predictions that the share will rise to 55 per cent. Problems on that front are unlikely to disappear any time soon partly because of global prices remaining high and policy changes in different nations against mineral stripping. 63% share of Japan, South Korea, India, China and Taiwan, who are forming a buyers' club, in global gas trade India can do little to change that tide but what about its speed of decision-making, especially when faced with much nimbler rivals? "Indian companies are very late, we are getting proposals from several companies from across the globe," Canadian minister Oliver told BT. For instance, Shell Canada, Korea Gas Corporation, Mitsubishi Corporation and PetroChina Company came together to form LNG Canada in May 2012 to operate a two bcfd LNG export terminal in British Columbia, Canada. In Australia, while rivals such as Korea Gas and Japan's Tokyo Gas and Kansai Electric are active and have bought equities in proposed LNG terminals, Indians have little results to show. The Koreans and the Japanese also dominate other parts of the Oceania region. Separately, there is a growing worry in oil markets of the US playing a smaller role in West Asian geopolitics as its interest in the region as an energy source wanes. Though most global experts BT interviewed discounted such a possibility, the crude price trend showcases the concern. "The supplies in the global market are more than the demand today. But the prices of oil are not coming down. It is largely because we are paying the premium of fear... the threat of disruption of supplies," says IOC's Butola. One fix to that fear premium, suggests Matthew Hulbert, Lead Analyst at European Energy Review, a London firm of energy publications and analysts, could be a bigger Asian role in the region. "The flag always tends to follow the trade, which means that China and India need to make sure they gain a greater security stake across the region and indeed, Indian Ocean," he says. There is little evidence of any such efforts on the Indian diplomatic front yet. Then there is the big mismatch between reality and Indian ambitions of importing oil and gas from the US: there is no free trade pact between the two nations. This means that oil or gas exports will be restricted to India. The prospect in North America, however, is forcing Indian establishment to push for these talks. GAIL Chairman B.C. Tripathi has led peers in seeking diplomatic intervention to persuade Washington. Even if that were to bear fruit, Indians - and indeed buyers from Japan, Korea and China - would run into local industrial lobbies in the US, which would like to keep the cost of gas low by limiting exports. Energy High Overall, though, there is no denying that India is faced with a life-altering phase in its energy history. In 2008, the global LNG prices shot up to $22 per mmbtu - while crude oil topped $140 a barrel - and it was projected that it would stay above $15 a unit after an earthquake swerved Japan away from nuclear energy to LNG.

### Solves supply imbalances

**Sharma, WSJ, 12**

(Rakesh, June 4, 2012, “Why India Wants U.S. Gas”, http://blogs.wsj.com/indiarealtime/2012/06/04/why-india-wants-u-s-gas/, 3/15/13, atl)

Energy-starved India recently asked the U.S. if it was willing to export more liquefied natural gas, a move aimed at bridging its yawning gap between supply and demand. India’s oil ministry extended its proposal to U.S. special energy envoy Carlos Pascual last month during his visit to New Delhi. India hasn’t publicly shared any other details on the proposal, which comes as the country is grappling with declining production at its biggest gas fields and faces mounting U.S. pressure to stop buying crude oil from Iran. But it will be a while before gas from the U.S. could start flowing India’s way. The U.S. energy department is currently assessing how exports could affect job creation, trade and the domestic price of natural gas and is expected to release a report on this later this year. The U.S. currently allows exports of small amounts of natural gas. It has so far allowed only Cheniere Energy to export liquefied natural gas from Sabine Pass LNG Terminal to countries that lack free-trade agreements with the U.S. such as India. Under a deal Cheniere Energy signed last year with India’s state-run pipeline utility GAIL (India) Ltd., India is set to import 3.5 million tons of liquid gas per year starting in 2017. Other players, including the San Diego-based utility Sempra Energy and Dominion Resources Inc. are also pressing for permits to ship gas across the Pacific. India’s demand for natural gas far overshoots supply. In the current year, the demand is estimated at 254.2 million standard cubic meters a day. But the supplies, including imports, are estimated at 166 million standard cubic meters a day. The demand-supply gap is likely to widen further, potentially hurting output at power, petrochemical plants and refineries. Government estimates show the country’s gas demand is set to rise 40% by March 2015 to 356.16 million standard cubic meters a day, while output will rise only 8.7% to 113 million standard cubic meters a day.

### Exports solidify strategic engagement with India- key to Indian energy security and effective Asian pivot

**First Post Economics, 13**

(March 15, 2013, “US shale gas export to India to could be game changer, say experts”, http://www.firstpost.com/economy/us-shale-gas-export-to-india-to-could-be-game-changer-say-experts-662528.html, 3/15/13, atl)

If America allows shale gas exports to India, it will not only help address the country’s energy needs and strengthen bilateral relationship, but also end up being a game changer for the US interests in the Asia-Pacific region, say experts. “The US has this great leverage, in terms of energy exports. So, I think, that reinforces my view that we need to get this big thing going where there are much more 2-way trade -offs possible,” former IMF economist, Arvind Subramanian, Senior Fellow at the Peterson Institute for International Economics, told a Congressional hearing on Wednesday. Dan Twining, a Senior Fellow for Asia at the German Marshall Fund of the United States, also supported the move at the hearing and argued that this would help the US build its security architecture in the Asia Pacific region. He said: “We should also particularly build in that dimension to our key security partnerships in Asia. In Asia our top most important, most capable security partnerships are with Japan and India in different ways… “…say to them, look, part of this package could be preferential access or some facilitated agreement to US energy exports, because in fact, we have a national security interest in helping you develop your economy and helping you develop your military capacity, help us police this tough region in the world, create some ballast in Asia other than around China.” Twining added: “This is something our allies desperately need. And so, you know, I think this could be a game changer if we play it right.” Both Subramanian and Twining were responding to questions from Congressman Charles Boustany from Louisiana, during a hearing on India US trade by the Trade Subcommittee of the House ways and Means Committee. “I know Cheniere Energy is a company in my district, which has been granted the first LNG export licence. And we in Louisiana are very, very excited about this because it does mean jobs. They’ve completed a 20-year contract with the Indian energy company, GAIL.I think the contract entails 3.5 million tonnes of natural gas, liquefied natural gas, exported from the US annually,” he said, asking the experts how the US can use this as leverage against India. “India is heavily dependent on coal. So from a climate change point of view as well, getting cleaner gas from the United States I think will help enormously. I think there’s a huge opportunity there, both the energy side, on the climate change side. “I think the United States should use that as leverage in pursuing, not just the energy agenda,” Subramanian said. At a separate Congressional hearing on South Asia, experts supported the idea of exporting shale gas to India. Assisting India’s energy security by allowing it to import shale gas from the US, needs to be one of the policy options for the US, said Vikram Nehru, from the Carnegie Endowment for International Peace.Sanjay Puri, founder and CEO, Alliance for US India Business also pushed for the same. “Currently, India competes with China and Japan for buying LNG from Qatar and Australia. India is talking to Iran for a gas pipeline,” he said. “If we were able to export gas to India, if we can find an economically viable and environmentally clear mechanism, it would do three things. “It would create economic opportunity in the US through exports, it would reduce India’s dependence on the Middle East for gas, and also build a more strategic relationship based on their desire for energy independence,” Puri added.

### Effective Asia pivot is key to solve multiple scenario for nuclear war

**Colby, Center for Naval Analyses research analyst, 11**

(Elbridge, served as policy advisor to the Secretary of Defense’s Representative to the New START talks, expert advisor to the Congressional Strategic Posture Commission, August 10, 2011, “Why the U.S. Needs its Liberal Empire,” http://the-diplomat.com/2011/08/10/why-us-needs-its-liberal-empire/2/?print=yes, 3/16/13, atl)

But the pendulum shouldn’t be allowed to swing too far toward an incautious retrenchment. For our problem hasn’t been overseas commitments and interventions as such, but the kinds of interventions. The US alliance and partnership structure, what the late William Odom called the United States’ ‘liberal empire’ that includes a substantial military presence and a willingness to use it in the defence of US and allied interests, remains a vital component of US security and global stability and prosperity. This system of voluntary and consensual cooperation under US leadership, particularly in the security realm, constitutes a formidable bloc defending the liberal international order. But, in part due to poor decision-making in Washington, this system is under strain, particularly in East Asia, where the security situation has become tenser even as the region continues to become the centre of the global economy. A nuclear North Korea’s violent behaviour threatens South Korea and Japan, as well as US forces on the peninsula; Pyongyang’s development of a road mobile Intercontinental Ballistic Missile, moreover, brings into sight the day when North Korea could threaten the United States itself with nuclear attack, a prospect that will further imperil stability in the region. More broadly, the rise of China – and especially its rapid and opaque military build-up – combined with its increasing assertiveness in regional disputes is troubling to the United States and its allies and partners across the region. Particularly relevant to the US military presence in the western Pacific is the development of Beijing’s anti-access and area denial capabilities, including the DF-21D anti-ship ballistic missile, more capable anti-ship cruise missiles, attack submarines, attack aircraft, smart mines, torpedoes, and other assets. While Beijing remains a constructive contributor on a range of matters, these capabilities will give China the growing power to deny the United States the ability to operate effectively in the western Pacific, and thus the potential to undermine the US-guaranteed security substructure that has defined littoral East Asia since World War II. Even if China says today it won’t exploit this growing capability, who can tell what tomorrow or the next day will bring? Naturally, US efforts to build up forces in the western Pacific in response to future Chinese force improvements must be coupled with efforts to engage Beijing as a responsible stakeholder; indeed, a strengthened but appropriately restrained military posture will enable rather than detract from such engagement. In short, the United States must increase its involvement in East Asia rather than decrease it. Simply maintaining the military balance in the western Pacific will, however, involve substantial investments to improve US capabilities. It will also require augmented contributions to the common defence by US allies that have long enjoyed low defence budgets under the US security umbrella. **This won’t be cheap**, for these requirements can’t be met simply by incremental additions to the existing posture, but will have to include advances in air, naval, space, cyber, and other expensive high-tech capabilities. Yet such efforts are vital, for East Asia represents the economic future, and its strategic developments will determine which country or countries set the international rules that shape that economic future. Conversely, US interventions in the Middle East and, to a lesser degree, in south-eastern Europe have been driven by far more ambitious and aspirational conceptions of the national interest, encompassing the proposition that failing or **illiberally governed peripheral states** can contribute to an instability that nurtures terrorism and impedes economic growth. Regardless of whether this proposition is true, the effort is rightly seen by the new political tide **not** to be **worth the benefits gained**. Moreover, the United States can scale (and has scaled) back nation-building plans in Iraq, Afghanistan, and the Balkans without undermining its vital interests in ensuring the free flow of oil and in preventing terrorism. The lesson to be drawn from recent years is not, then, that the United States should scale back or shun overseas commitments as such, but rather that we must be more discriminating in making and acting upon them. A total US unwillingness to intervene would pull the rug out from under the US-led structure, leaving the international system prey to disorder at the least, and at worst to chaos or dominance by others who could not be counted on to look out for US interests. We need to focus on making the right interventions, not forswearing them completely. In practice, this means a more substantial focus on East Asia and the serious security challenges there, and less emphasis on the Middle East. ¶ This isn’t to say that the United States should be unwilling to intervene in the Middle East. Rather, it is to say that our interventions there should be more tightly connected to concrete objectives such as protecting the free flow of oil from the region, preventing terrorist attacks against the United States and its allies, and forestalling or, if necessary, containing nuclear proliferation as opposed to the more idealistic aspirations to transform the region’s societies.These more concrete objectives can be **better** met by the more judicious and economical use of our military power. More broadly, however, it means a shift in US emphasis away from the greater Middle East toward the Asia-Pacific region, which dwarfs the former in economic and military potential and in the dynamism of its societies. The Asia-Pacific region, with its hard-charging economies and growing presence on the global stage, is where the future of the international security and economic system will be set, and it is there that Washington needs to focus its attention, especially in light of rising regional security challenges. **In light of US budgetary pressures**, including the hundreds of billions in ‘security’ related money to be cut as part of the debt ceiling deal, it’s doubly important that US security dollars be allocated to the most pressing tasks – shoring up the US position in the most important region of the world, the **Asia**-Pacific. It will also **require restraint** in expenditure on those challenges and regions that don’t touch so directly on the future of US security and prosperity. As Americans debate the proper US global role in the wake of the 2008 financial crisis and Iraq and Afghanistan, they would do well to direct their ire not at overseas commitments and intervention as such, but rather at those not tied to core US interests and the sustainment and adaptation of the ‘liberal empire’ that we have constructed and maintained since World War II. Defenders of our important overseas links and activities should clearly distinguish their cause from the hyperactive and barely restrained approach represented by those who, unsatisfied with seeing the United States tied down in three Middle Eastern countries, seek intervention in yet more, such as Syria. Indeed, those who refuse to scale back US interventions in the Middle East or call for still more are directly contributing to the weakening of US commitments in East Asia, given strategic developments in the region and a sharply constrained budgetary environment in Washington. We can no longer afford, either strategically or financially, to squander our power in unnecessary and ill-advised interventions and nation-building efforts. The ability and will to intervene is too important to be so wasted.

### No offense- perceptive US withdrawal invites multiple nuclear threats

**Berteau, CSIS International Security Program senior vice president and director, 12**

(David J., August 2012, “U.S. Force Posture Strategy in the Asia Pacific Region: An Independent Assessment”, http://csis.org/files/publication/120814\_FINAL\_PACOM\_optimized.pdf, 3/15/13, atl)

U.S. engagement with the Asia Pacific region began with the first passage of the Empress of China from New York harbor in 1784 to export ginseng from western Pennsylvania and bring home tea and china wares from Canton.7 Today six of the ten fastest growing major export markets for the United States are in Asia, and 60 percent of U.S. goods exported abroad go to the region.8 Meanwhile, the region is home to five of the eight states recognized as being in possession of nuclear weapons,9 three of the world’s top six defense budgets, 10 six of the world’s largest militaries (i.e., United States, China, Vietnam, North Korea, South Korea, India), two conflict areas from the Cold War era (i.e., Taiwan Strait, Korea), continuing tensions between India and Pakistan, and territorial disputes stretching from the Northern Territories of Japan through the East and South China Seas and into South Asia. For four centuries, Asia has been the object of Western influence; now events in Asia are defining the security and prosperity of the world as a whole. The American public understands these trends. Americans defined Europe as the most important region to the United States in public opinion polls taken on foreign policy until 2011. Since then, polls show that the American public has identified Asia as the most important region to U.S. interests.11 Historically, U.S. interests in Asia have been defined around three inter-related themes: protection of the American people, expansion of trade and economic opportunity, and support for universal democratic norms. Since the decline of British maritime power in the Pacific at the end of the 19th Century, the underlying geostrategic objective for the United States in Asia and the Pacific has been to maintain a balance of power that prevents the rise of any hegemonic state from within the region that could threaten U.S. interests by seeking to obstruct American access or dominate the maritime domain. From that perspective, the most significant problem for the United States in Asia today is China’s rising power, influence, and expectations of regional pre-eminence. This is not a problem that lends itself either to containment strategies such as the ones used in the Cold War or to the use of a condominium comparable to Britain’s response to the rise of American power at the end of the 19th Century. China’s defense spending is projected to be on par with the United States at some point over the next 15-20 years.12 Depending on the focus of these budgets, and coupled with its aggressive pursuit of territorial claims and anti-access/area denial (A2AD) capabilities in areas such as the East, Philippines, and South China seas, China will be in a position to pose a significant potential military threat to the United States and allies and partners. Yet at the same time, the United States and China have established broad economic interdependence, and Chinese leaders—preoccupied with domestic problems—have consistently rejected internal pressures to challenge U.S. interests in the region overtly. Indeed, the United States has economic and strategic stakes in China’s continued development, particularly since a major reversal of Chinese economic growth would present far more significant risks to U.S. economic and security interests. 14 This complex mix of interdependence and competition has led the United States and other likeminded states to adopt a strategy towards Beijing that combines assurance and dissuasion: expanding cooperation and encouraging China to become a more global player where possible, while hedging against uncertainties regarding longer-term Chinese intentions. The tipping point between assurance and dissuasion is not precise. Chinese perceptions of U.S. or allied weakness would invite greater Chinese assertiveness, while perceptions that the United States seeks to contain or weaken China risk undermining Beijing’s fundamental assessment that it faces a generally benign external security environment. The central problem of encouraging a more positive role from China is further complicated by an array of additional security challenges in the region. North Korea remains the most immediate military threat to U.S. interests. The North’s ability to sustain an invasion of the South may have deteriorated, but Pyongyang’s ballistic missile and nuclear weapons programs and uncertainty 15 about stability under Kim Jong-un are forcing the United States and the Republic of Korea to contemplate additional contingencies, including potential North Korean use of weapons of mass destruction (WMD) in war-fighting scenarios, horizontal proliferation, provocations comparable to the attacks on the ROK’s Cheonan naval vessel and the island of Yeongpeong,13 and regime collapse or instability. Divergences of Washington and Beijing over the handling of these scenarios would introduce a major element of strategic competition in the U.S.-China relationship. In addition, the Asia Pacific region is prone to major natural disasters comparable to the December 2004 Asian tsunami and the March 2011 Great East Japan Earthquake and tsunami. These types of mega-disasters create not only a humanitarian imperative for action but also have the potential to heighten competition for strategic influence among major powers to the extent that the event impacts internal political legitimacy or stability of smaller states.14 Terrorism also continues to pose a threat to the stability of states within South and Southeast Asia and to the U.S. homeland, despite considerable progress against such threats as Jemaah Islamiya and the Abu Sayyaf Group over the past decade in Southeast Asia. Finally, Asia’s leading economies remain highly dependent on maritime, cyberspace, and space commons, but they are also becoming technologically equipped—if they were to become adversaries—to threaten or interrupt those domains. All of these challenges, including those emanating from North Korea, have the potential either to increase cooperative security in the region or to intensify rivalry and conflict.

### And, exports solidify overall security relations and prevents regional instability

**Zee News, 13**

(March 14, 2013, “US foreign policy experts want greater engagement with India”, http://zeenews.india.com/news/nation/us-foreign-policy-experts-want-greater-engagement-with-india\_835224.html, 3/15/13, atl)

Washington: Emphasising the potential of the India-US relationship in the overall security perspective of Asia in particular, top American experts on South Asian issues today urged lawmakers for greater engagement with New Delhi, to take growing bilateral ties to the next level. Testifying before Subcommittee on Asia and Pacific of the House Foreign Affairs Committee of the US Congress, these experts recommended a series of measures that they say the Obama Administration needs to take on India including greater co-operation in the defence and space sector, export of shale gas, and more collaborations on handling regional and global issues. "Engaging India with the same intensity as China is an equally important priority for America's rebalancing. India's pre-eminent position in South Asia makes the US-India relationship central to maintaining a counterpoint to China's emergence as Asia's predominant economic and military power," said Vikram Nehru, of the Carnegie Endowment for International Peace, a Washington-based eminent American think tank. Sadanand Dhume, from the American Enterprise Institute, emphasised that the US needs to continue to encourage India's integration into Asian political and economic institutions, urge India to remain on the path of economic reform to fulfill its own potential, and maintain influence in Pakistan and Afghanistan in order to prevent violence there from destabilising the region. Walter Lohman, director, Asian Studies Center, at the Heritage Foundation, another Washington-based think-tank, said that the US should facilitate India's active involvement in the regional diplomatic architecture. "Formal dialogues - bilateral and multilateral - and day-to-day coordination among officials should also be welcomed. Joint military exercises should be, too. As India refines its strategic interests, it is good for the US to have all its options for cooperation with regional powers fully developed," he said. Lohman warned lawmakers that failing to recognise India's limitations as a partner, risks forging a relationship where the US trades tangible benefits for theoretical geopolitical discussion. "More importantly, it risks obscuring the relationships and other factors that provide the real basis of American power in the Western Pacific: our alliances, a robust forward deployed military, and commitment to free commerce," he said. Sanjay Puri from the Alliance for US India Business emphasised on greater co-operation in the education sector and pushed for developing more relationships with Indian states. Urging lawmakers to allow exports of shale gas to an energy-starved India, Puri said the US should find a way to have an economically viable and environmentally clear mechanism to export gas to India. He said, this would increase economic opportunity in the US through exports, reduce India's energy dependence on the Middle East and thirdly build a more strategic relationship with India given the country's tremendous need for energy independence.

### Causes extinction- nuclear jockeying means they’ll find a way to make it escalate

**Jones, President of Policy Architects International, 04**

(Rodney, expert on strategic arms control and nuclear security policy, the spread of nuclear weapons, and regional security in the Middle East, September 2004, “Nuclear Stability and Escalation Control in South Asia: Structural Factors”, http://www.stimson.org/images/uploads/research-pdfs/ESCCONTROLCHAPTER2.pdf, 3/16/13, atl)

Nuclear stability challenges in South Asia are exceptionally formidable due not only to the intractability of the longstanding Indo-Pakistan rivalry but also because both countries are contiguous and nuclear reaction times are very short. This essay focuses on the structural factors in the Indo-Pakistan security relationship that make it very different from what experts became accustomed to in the global stand-off between the superpowers, especially towards the end of the Cold War. The structural factors in South Asia appear to be especially conducive to military instability, accentuation of crises, and potential nuclear escalation. At bottom, the structural factors add up to an acute imbalance of military power to Pakistan’s disadvantage, a condition more likely to worsen than improve. The structural factors as measures of capability, size, or vulnerability are relational between adversaries. They include for either side its defense resources and capabilities, geography and strategic depth, characteristics of military systems and organization, and availability of external allies, as these relate to those of the opponent.7 The risks inherent in how these structural factors tend to operate in a competitive relationship need to be understood in order to have the best chance of promoting stable conditions that reduce the chances of nuclear escalation from lesser levels of conflict in the subcontinent. This means showing how structural factors tend to influence the evolution of warfare in plausible Indo Pakistan conflict scenarios at different levels of conflict, measured in scale and intensity. The analysis here discounts “bolt out of the blue” nuclear attack scenarios as implausible in the foreseeable future in South Asia -- for political as well as technical reasons. But there are three levels of conventional conflict that recent events make entirely plausible between India and Pakistan (whatever the relative probabilities for the outbreak of conflict in each category) that could sow the seeds of nuclear escalation: (1) all-out conventional war; (2) limited conventional war for circumscribed purposes; and (3) unconventional or low intensity war, employing guerilla warfare and clandestine methods. Intensity and scale of operations can vary within each category, to be sure, but the point to return to is that the disadvantaged side at any level of conflict will be under pressure to submit, stand its ground, or find a way to escalate.

### Insecurity collapses the Indian economy and causes Chinese energy proxy conflicts

**Bajpaee, Kings College of London PhD candidate researching Asian regional security architecture, 05**

(Chietigj, Master’s degree in International Relations at the London School of Economics, was a senior analyst in the Global Risk Analysis department at Control Risks, worked as a research analyst in the Country Intelligence Group at IHS Global Insight, a macroeconomic research and forecasting company, March 17, 2005, “India, China locked in energy game”, http://www.atimes.com/atimes/Asian\_Economy/GC17Dk01.html, 3/20/13, atl)

HONG KONG - In the words of Indian Prime Minister Manmohan Singh, "China is ahead of us in planning for its energy security - India can no longer be complacent." These words conveyed the sense of urgency that India holds over meeting its energy needs. India is playing catch-up with other major players in the global energy game. This realization has not come a moment too soon, given the advent of rising oil prices, India's unprecedented growth levels, lack of energy-efficient technologies and reliance on energy-heavy industries for its development. Power shortages and blackouts continue to plague India's major cities and undermine the confidence of investors and foreign companies operating in India. These power shortages have been fueled by a combination of burgeoning growth rates, inefficiencies by the state-run power sector and power being stolen or siphoned for votes. The growing popularity of gas-guzzling sports utility vehicles and multi-purpose vehicles in India is also placing strains on its energy needs. India, as the world's number six energy consumer, is also in a more desperate situation compared to its peers. For example, oil imports account for two-thirds of India's oil consumption, while China imports a third of its crude oil consumption. Furthermore, China's proven oil reserves stand at 18 billion barrels, compared to 5 billion barrels in India. Indian-owned Oil and Natural Gas Company (ONGC) has invested US$3.5 billion in overseas exploration since 2000, while Chinese-owned China National Petroleum Corporation (CNPC) has made overseas investments of an estimated $40 billion. Indian policymakers have initiated numerous policies to address the country's growing energy needs. For example, India is pushing for the creation of 15-45 days of emergency reserves in Rajkot, Mangalore and Vishakapatnam. India is also diversifying beyond oil to access other energy resources, such as nuclear power, coal, natural gas and renewable energy resources, as well as stepping up exploration activities within its borders. Nevertheless, for the short to medium term India will have to rely on an increasing amount of imported oil and gas to meet its energy needs. As a result, India is stepping up energy diplomacy with states in the South Asia region, as well as states further afield in Central Asia, Russia and the Middle East and as far away as Latin America and Africa. ONGC, for example, has invested in offshore gas fields in Vietnam, as well as energy projects in Algeria, Kazakhstan, Indonesia, Venezuela, Libya and Syria, while Indian Oil Corporation is looking to invest in deepwater exploration in Sri Lanka. Reliance Industries, India's largest private sector oil firm, also has stakes in an offshore field in Yemen and a liquefied natural gas project in Iran, and is in talks to acquire energy assets in Nigeria, Chad, Angola, Cameroon, Congo and Gabon in Africa, as well as in South America and the Middle East. However, this quest for energy security is being impeded by India's sometimes tense relations with energy suppliers, energy transit countries and energy competitors. For example, just as India and China have for centuries engaged in competition for leadership in Asia, the developing world and status on the world stage, so the need for energy security has now raised the possibility of further competition and confrontation in the energy sphere. India's tense relations with Pakistan also have an added dimension with the question of a gas pipeline from Turkmenistan or Iran to India, which will have to traverse Pakistani territory. Nationalism and oil are proving to be a volatile mix. Resolving territorial disputes and improving relations with traditional adversaries will become increasingly important for India if it is to meet its energy import needs by peaceful means. Festering disputes While China has either resolved or shelved its border disputes, India has active conflicts on almost all of its borders with neighboring states. Apart from India's poor relations with Pakistan on its western borders, the ongoing violence in India's northeast with sporadic attacks on pipelines and India's poor relations with natural gas-rich Bangladesh and China-friendly Myanmar have prevented it from fully exploiting its proximity to a region rich in energy resources on its eastern borders. Frosty relations between Bangladesh and India are rooted in accusations by India that Bangladesh is fueling terrorist movements in India's northeast in the presence of rising Islamic fundamentalism and anti-India sentiment in Bangladesh under the Bangladesh National Party (BNP)-led coalition government, illegal migration between both states, and Bangladesh accusing India of rerouting the Ganges and Brahmaputra river systems that traverse both states. These disagreements have slowed the progress for discussions on a natural gas pipeline from Myanmar to India, which will have to pass through Bangladeshi territory, forcing India to look into the expensive option of creating a deep-sea pipeline through the Bay of Bengal that would bypass Bangladesh. Disagreements have recently given way to progress as a joint statement was issued at a meeting of the energy ministers from India, Bangladesh and Myanmar in Yangon, which agreed to the construction of a 900 kilometer gas pipeline from Myanmar's offshore Shwe field to Kolkata, passing through Myanmar's Arakan state, the Indian states of Mizoram and Tripura, and Bangladesh. As part of the deal, Bangladesh will also get access to the gas as well as $125 million in transit fees. In exchange for agreeing to the project, Bangladesh is also pushing for a trade and transport corridor linking Nepal and Bangladesh through Indian territory, as well as access to hydroelectric power generated in Bhutan and Bangladesh using India's power grid. Nevertheless, several potential glitches remain. Given that the pipeline will be traversing insurgency-infested areas across the three states adds an element of instability to the project. Furthermore, relations between Bangladesh and India remain strained, as seen most recently with Bangladesh's disappointment to India unilaterally withdrawing from the 13th South Asian Association for Regional Cooperation (SAARC) summit, which was due to be held in Dhaka. India cited the suspension of democracy in Nepal and the deteriorating security situation in Bangladesh as its reasons for withdrawing, which ultimately resulted in the postponement of the summit. While India's relations with Myanmar have seen considerable improvement in recent years, Myanmar clearly remains within the Chinese sphere of influence. India has moved from voicing its opposition to the military junta's crackdown on pro-democracy activists and the arrest of Aung San Suu Kyi, the leader of the National League for Democracy to a more pragmatic, non-interventionist policy. This change in policy by India has been prompted by its desire to access the region's energy resources, gain access to the vast markets of Southeast Asia, balance the influence of China and counter Indian insurgent groups operating from Myanmar. Notably, Myanmar has helped Indian security forces to crack down on northeast Indian insurgent groups on at least three occasions over the past 10 years. India's more conciliatory approach with Myanmar's military regime was demonstrated most recently when India became the first country to host General Than Shwe, the hardline chairman of Myanmar's ruling State Peace and Development Council, since the ousting of moderate premier Khin Nyunt at the end of October. However, India's warming relationship with Myanmar is making Myanmar a potential stage for Sino-Indian energy competition. For example, China is also in discussions with Myanmar for a 1,250 kilometer pipeline from the deepwater port of Sittwe in Myanmar on the Bay of Bengal coast to Kunming in Yunnan province. China is also looking at the possibility of pipelines traversing Pakistani and Bangladeshi territory, as part of its "string of pearls" strategy to bypass the narrow Strait of Malacca, which experiences 40% of the world's piracy and through which 80% of China's oil imports flow. Construction has recently been completed on a deep-sea port in Gwadar in the Pakistani province of Balochistan, in which China has provided technical expertise and financing. China's involvement has been fueled by the proximity of the port city to the Straits of Hormuz, through which 40% of the world's oil passes. The port would compete with a port facility at Chabahar in Iran, which is being jointly developed by India and Iran to access the landlocked states of Central Asia and Afghanistan. China's "string of pearls" strategy also forms part of a wider Chinese policy to encircle India. India's plans to generate hydroelectric power through damming and rerouting several river systems have also been delayed by changes in state and central governments and disputes with upstream and downstream states such as Nepal, Bangladesh and Pakistan. Most recently, Pakistan has been pushing for international arbitration to resolve a dispute over the Baglihar dam, which India is constructing to generate power across the Chenab river running through Kashmir. Pakistan claims this project is a violation of the 1960 Indus Water Treaty. The dispute now threatens to derail the peace initiatives between India and Pakistan. Nevertheless, India has made significant progress in tapping into energy resources within its borders, including oil discoveries in Rajasthan by UK-based Cairn Energy and gas discoveries by India's Reliance Industries off the coast of Andhra Pradesh in the Bay of Bengal. In August 2003, ONGC also announced a deep-sea project, "Sagar Samriddhi", to look for oil and gas reserves in the Arabian Sea and the Bay of Bengal. In the past two years, India has reported 21 oil and gas discoveries amounting to 800 million tons of oil and gas, although domestic oil production has still been stagnant at about 32 million tons annually for the past few years. Indo-Iranian energy cooperation The inability to resolve the Kashmir dispute between Pakistan and India has undermined the viability of an Iran-Pakistan-India natural gas pipeline. A memorandum of understanding was signed between Iran and India in 1993 for a $4 billion 1,700 kilometer pipeline from Iran's South Pars field with 700 kilometers passing through Pakistani territory. Pakistan stands to benefit with gas to meet its own energy needs and $500 million in transit fees. The international community has also shown growing interest in the Iran-Pakistan-India pipeline, with the World Bank and Japan's Sumitomo Mitsui Banking Corporation willing to finance the project. Russia also supports the project, although the US opposes it, instead pushing for the competing trans-Afghan pipeline project. However, in the presence of sporadic tensions between India and Pakistan, both states have often proposed separate pipeline projects with Iran, with India sometimes pushing for the expensive option of a deep-sea pipeline that bypasses Pakistan altogether. Rising oil prices and a recent improvement in Indo-Pakistani relations following a commitment to resume a "composite dialogue" in January 2004 has revived hopes for the "peace pipeline", which has now become one of the confidence-building measures being pursued by both states. Notably, Pakistan has offered security guarantees for the pipeline, vowing that gas flow will not be "switched off", even during periods of Indo-Pak tensions or hostilities. However, the future of the pipeline project is once again in doubt due to periodic violence across the Line of Control in Kashmir and rising tensions in Pakistan's Balochistan province, with attacks by the Baloch Liberation Front on energy infrastructure. At the beginning of 2005, India also completed a $40 billion deal with Iran to import 7.5 million tons of liquefied natural gas annually over a 25-year period, as well as obtaining stakes in the development of Iran's largest onshore oilfield, Yadavaran, as well the Jufeir oilfield. The Yahavaran oilfield is a Sino-Indian-Iranian collaboration with India holding a 20% stake, China 50% and 30% with Iran. In exchange for Iranian gas, India is investing in Iran's ports and energy infrastructure. Iran and India have agreed to jointly develop the Iranian port at Chabahar as well as the road linking the port to Afghanistan and Central Asia, and grant India exclusive rights to the port. Cooperation in the energy arena is mirroring relations in other arenas, including trade and military cooperation. Bilateral exchanges of defense and intelligence officials are routine and in 2003 both states conducted joint naval exercises. These developments have not only concerned India's traditional adversaries, China and Pakistan, but also its newly found allies, Israel and the United States, who fear that military technology supplied to India could be diverted to Iran. Central Asia India is at a geographic disadvantage in Central Asia when compared to China. While China shares borders with Kazakhstan, Kyrgyzstan and Tajikistan, as well as Russia, India does not share a land border with any of the Central Asian states. That being said, however, India's warm relations with the Soviet Union during the Cold War have provided it with influence in Central Asia. Further, India also has its soft power to exercise, with historical links that go beyond the Indo-Soviet Treaty of Friendship to the Mughal period and Silk Road, as well as the popularity of Indian mass culture in the region, such as Bollywood films and music. However, the presence of two unfriendly regimes standing between India and Central Asia has slowed the progress of Indo-Central Asian cooperation in the economic, transportation and energy spheres. For example, progress on the $3.3 billion US-backed Turkmenistan-Afghanistan-Pakistan (TAP) or Trans-Afghan pipeline that is to supply gas from the Daulatabad fields in southeast Turkmenistan has been delayed by instabilities in Afghanistan and poor Indo-Pak relations. With the ousting of the Taliban regime in Afghanistan, the installment of a pro-US regime and improving Indo-Pak relations, the TAP project is back on the table.

### No defense- new military postures make escalation and miscalculation likely

**Goswami, United States Institute of Peace senior fellow, 13**

(Namrata, January 16, 2013, “Ending Sino-Indian border dispute essential to continued prosperity”, http://www.globaltimes.cn/content/756338.shtml, 3/21/13, atl)

China-India border tensions have been an increasing cause of concern between two of the most vibrant economies of Asia. While the border conflict in 1962 had occurred in the context of two countries whose economies were weak, today the situation is quite different. At present, both China and India are major global economies. Trade between them was negligible in 1962. Today, it stands at $75 billion and will soon pass the $100-billion mark. However, despite growing bilateral economic relations, the border dispute appears intractable. Why so? One need not look far for the answer. Sino-Indian relations are still affected by some thorny divergences over issues like the McMahon line and the presence of the "Tibetan government-in-exile." These contradictions are further complicated by border negotiations held in a climate of Indian apprehensions that the 1962 border war between China and India could be repeated. The apprehensions are not without merit. The militarization of the border from both the Chinese and the Indian side is a growing reality. China has vastly improved its border roads in the eastern sector bordering India, which will considerably enhance movement by the PLA. On the border with India, China has deployed 13 Border Defense Regiments totaling around 300,000 troops. Six divisions of China's Rapid Reaction Forces are stationed at Chengdu, a southwestern Chinese city, with 24-hour operational readiness and supported by an airlift capability to transport the troops to the China-India border within 48 hours. India too has upgraded its military presence near the eastern border. A five-year expansion plan to induct 90,000 more troops and deploy four more divisions in the eastern sector is underway. There are 120,000 Indian troops stationed in the eastern sector, supported by two Sukhoi-30 MKI squadrons from Tezpur in Assam. Two more Sukhoi-30 MKI squadrons are in the process of being inducted into the air force structure in the eastern sector. Given this overt militarization of the China-India border conflict, any escalation in the conflict dynamics there will have a direct bearing on the regional strategic stability of Asia. This is even more plausible in the present context as China and India emerge as two of the largest military hardware-importing countries in the world. Through the China-India conflict, one envisages a scenario where a nuclear-armed China and India with more than 300 nuclear weapons, 3 million standing troops, and a population of 2.3 billion people between them, will fight a future war. This is dangerous for Asia and the world and will severely undermine global peace and prosperity. The physical proximity of both countries forewarns a great tragedy for their populations if war occurs. Security analysts have argued that internal problems within India and China would create large disincentives for conflict. However, despite such constraints, wars have broken out between states based on misunderstandings about each other's intentions. Therefore, the border conflict between both countries is becoming a high price to pay especially in the context of the rise of Asia.

### Plan

#### The United States Federal Government should substantially reduce restrictions on offshore natural gas production in the United States.

### Solvency

#### Functional moratorium now—means we can’t access 98% of OCS reserves. Plan removes those restrictions

**Pyle, President of the Institute for Energy Research, 12**

(Thomas, “Energy Department sneaks offshore moratorium past public; Jobs and oil-supply potential are shut down,” 7-10-12, 2/13/13, atl)

While the [Obama administration](http://www.washingtontimes.com/topics/barack-obama/) was taking a victory lap last week after the 5-4 [Supreme Court](http://www.washingtontimes.com/topics/supreme-court/) decision to uphold the president’s signature legislative accomplishment, Obamacare, the [Interior Department](http://www.washingtontimes.com/topics/department-of-the-interior/) was using the media black hole to release a much-awaited five-year plan for offshore drilling. That plan reinstitutes a 30-year moratorium on offshore energy exploration that will keep our most promising resources locked away until long after President Obama begins plans for his presidential library. Given the timing, it is clear that the self-described “all of the above” energy president didn’t want the American people to discover that he was denying access to nearly 98 percent of America’s vast energy potential on the Outer Continental Shelf (OCS). The Outer Continental Shelf Lands Act (OCSLA) of 1953 provided the interior secretary with the authority to administer mineral exploration and development off our nation’s coastlines. At its most basic level, the act empowers the interior secretary - in this case, former U.S. [Sen. Kenneth L. Salazar](http://www.washingtontimes.com/topics/kenneth-l-salazar/) of Colorado - to provide oil and gas leases to the highest-qualified bidder while establishing guidelines for implementing an oil and gas exploration-and-development program for the Outer Continental Shelf. In 1978, in the wake of the oil crisis and spiking gasoline prices, [Congress](http://www.washingtontimes.com/topics/congress/) amended the act to require a series of five-year plans that provide a schedule for the sale of oil and gas leases to meet America’s national energy needs. But since taking office, Mr. Obama and [Mr. Salazar](http://www.washingtontimes.com/topics/kenneth-l-salazar/) have worked to restrict access to our offshore oil and gas resources by canceling lease sales, delaying others and creating an atmosphere of uncertainty about America’s future offshore development that has left job creators looking for other countries’ waters to host their offshore rigs. More than 3 1/2 years into the Obama regime, nearly 86 billion barrels of undiscovered oil on the Outer Continental Shelf remain off-limits to Americans. Alaska alone has about 24 billion barrels of oil in unleased federal waters. The Commonwealth of Virginia - where Mr. Obama has reversed policies that would have allowed offshore development - is home to 130 million barrels of offshore oil and 1.14 trillion cubic feet of natural gas. But thanks to the president, Virginians will have to wait at least another five years before they can begin creating the jobs that will unlock their offshore resources. Once you add those restrictions to the vast amount of shale oil that is being blocked, the [administration](http://www.washingtontimes.com/topics/barack-obama/) has embargoed nearly 200 years of domestic oil supply. No wonder the [administration](http://www.washingtontimes.com/topics/barack-obama/) wanted to slip its plan for the OCS under the radar when the whole country was focused on the health care decision. But facts are stubborn things, and the [Obama administration](http://www.washingtontimes.com/topics/barack-obama/) cannot run forever from its abysmal energy record. In the past three years, the government has collected more than 250 times less revenue from offshore lease sales than it did during the last year of the George W. Bush administration - down from $9.48 billion in 2008 to a paltry $36 million last year. Meanwhile, oil production on federal lands dropped 13 percent last year, and the number of annual leases is down more than 50 percent from the Clinton era. Under the new Obama plan, those numbers will only get worse. The 2012-17 plan leaves out the entire Atlantic and Pacific coasts and the vast majority of OCS areas off Alaska. It cuts in half the average number of lease sales per year, requires higher minimum bids and shorter lease periods and dramatically reduces lease terms. Yet, somehow, we’re supposed to believe that our “all of the above” president is responsible for increased production and reduced oil import.

#### Plan is key to development- empirical studies prove high demand and sustainable supply

**Green, George Mason Adjunct Professor of Communication, 3/1**

(Mark, API Energy Tomorrow, been a reporter and editor for more than 30 years, including six years as sports editor at The Washington Times, 16 years as national editorial writer in the Washington Bureau of The Oklahoman newspaper March 1, 2013, “Limiting Access Limits Opportunity”, http://energytomorrow.org/blog/limiting-access-limits-opportunity1/#/type/all, 3/7/13, atl)

We say opportunities for oil and natural gas development in federally controlled areas – onshore and offshore – have been limited. Some are saying that’s false. Let’s look at the facts. Claim: 70 percent of undiscovered oil and natural gas on federal lands is available for leasing and development. Fact: 83 percent of areas controlled by the federal government are closed to oil and natural gas development. What we have here is some sleight of hand with terminology. We’ll use the offshore situation to illustrate. During last year’s State of the Union address the president said he was directing the administration to open up more than 75 percent of America’s offshore resources for development. The percentage figure referred to undiscovered, technically recoverable oil and natural gas resources – resources that haven’t been found but are believed to exist because of past exploration upon which data extrapolations are made. So, in the offshore areas the federal government has made available for development, the administration could assert that more than 70 percent of undiscovered resources are available. But, [as we discussed then](http://energytomorrow.org/blog/why-75-is-an-f/#/type/all), the real number to pay attention to is the percentage of all our offshore acreage that’s open to development – only about 13 percent – and it looks like this: The significance is that industry critics are talking about resources in just the blue areas above. But industry is talking about resources in off-limits areas, indicated in red. There’s oil and natural gas there as well – undiscovered, unexplored, un-extrapolated. We know this because of what happens when oil and natural gas companies are allowed to look for oil and natural gas: They find it, and the statistics become more than just guesses or estimates. That’s why the more important number is that in the president’s proposed five-year plan for offshore oil and natural gas development only 13 percent of the outer continental shelf (OCS) is open to actual drilling operations. And if you can’t drill for oil and natural gas, you can’t know how much you have. To illustrate let’s look at this chart showing government assessments in[1996](http://www.boemre.gov/itd/pubs/1996/96-0034.pdf), [2006](http://www.boem.gov/uploadedFiles/2006_National_Assessment_Factsheet.pdf), and [2011](http://www.boem.gov/uploadedFiles/2011_National_Assessment_Factsheet.pdf) of undiscovered technically recoverable oil resources in the OCS: Graphs for Alaska, the Atlantic and Pacific are flat, but the one for the Gulf of Mexico shows dramatic increases from 1996 to 2006. Why? Because that’s where production has been. To produce oil you need to find it, to find it you need to explore and when you explore you create data upon which solid estimates are based. Let’s move on. Claim: The oil and natural gas industry has expressed declining interest in leasing federal onshore lands that already are eligible for drilling. Fact: Administration leasing and permitting policies have saddled development on federal lands with uncertainty and delay, diminishing opportunities there. In addition, the better onshore opportunities are found on state and private lands because the process to gain access there is more stable and predictable. According to the [House Natural Resources Committee](http://naturalresources.house.gov/news/documentsingle.aspx?DocumentID=319980) (using Bureau of Land Management[data](http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/statistics/apd_chart.-WidePar-75121-Image.WideParimage.0.1.gif)), on average it has taken 30 percent longer for the federal government to approve new drilling permits under the current administration than in four years previous. One study found that the average wait for a federal permit in 2011 was measured in months, compared to a matter of days for a state permit in three energy-producing states. A 2012 study by [EIS Solutions](http://www.api.org/Newsroom/upload/API_Booklet_Jan_2012_v2-1.pdf) found permitting and drilling on federal lands in western states in decline between 2009 and 2011. BLM data supports this. Choose a category to see the downward trends wrought by current policies: total number of well bores started1988-2012 on federal lands, number of producing acres on federal lands, number of [new leases](http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/statistics/Table04.html), total number of acres leased, total number of drilling permits approved. Here’s the graph for the last one: That’s a pretty stark picture. Meanwhile, with everybody in Washington focused on revenue for the government, here’s what the proceeds from oil and natural gas sales (royalties, rents, bonuses and other revenues), onshore and offshore, have looked like: Bottom line: With the [right policies](http://www.api.org/policy-and-issues/policy-items/american-energy/~/media/Files/Policy/American-Energy/American-Made-Energy_HiRes.ashx) in place, with the [right leadership and management](http://energytomorrow.org/blog/needed-political-wisdom-to-manage-americas-energy-wealth/#/type/all), these trends could change. With increased access to the oil and natural gas abundance in public areas, onshore and off, America’s oil and natural gas companies could develop more energy, [create jobs, spur broader economic growth](http://energytomorrow.org/blog/oil-and-natural-gas-impact-96-million-jobs-11-added-to-gdp/) and [generate additional revenues for government](http://energytomorrow.org/blog/the-1-trillion-choice-continued/). The chart below illustrates the choice – between polices that help increase access to resources and those that hinder development. As choices go, it’s pretty clear.

#### And it comes online quickly

**IER, 09**

(Institute for Energy Research, February 11, 2009, “Offshore Energy Exploration: Myth vs. Fact”, http://www.instituteforenergyresearch.org/2009/02/11/offshore-energy-exploration-myth-vs-fact-2/, 3/8/13, atl)

Further, while there may be areas along the Atlantic coast without the significant build-out of infrastructure needed to facilitate quick energy production, other currently unexplored areas do have that infrastructure in place, such as the eastern Gulf of Mexico. No serious observer has ever suggested that it would take anywhere close to ten years to access those energy resources and deliver them to American consumers.  Furthermore, in places like California, where an infrastructure is already in place and [the local community supports](http://www.instituteforenergyresearch.org/2008/08/27/iconic-california-county-backs-offshore-drilling/) offshore exploration, those resources could be available in a significantly shorter period of time.

#### Currently, perception of inadequate supply blocks LNG exports- new, sustainable supply is key

**Ebinger, Senior fellow and Director of the Energy Security Initiative at Brookings, 12**

(Charles, “Liquid Markets: Assessing the Case for US Exports of Liquefied Natural Gas,” 5-2-12, http://www.brookings.edu/~/media/events/2012/5/02%20lng%20exports/20120502\_lng\_exports, 2/13/13, atl)

For an increase in U.S. exports of LNG to be considered feasible, there has to be an adequate and sustainable domestic resource base to support it. Natural gas currently accounts for approximately 25 percent of the U.S. primary energy mix. 3 While it currently provides only a minority of U.S. gas supply, shale gas production is increasing at a rapid rate: from 2000 to 2006, shale gas production increased by an average annual rate of 17 percent; from 2006 to 2010, production increased by an annual average rate of 48 percent (see Figure 2). 4 According to the Energy Information Administration (EIA), shale gas production in the United States reached 4.87 trillion cubic feet (tcf) in 2010, or 23 percent of U.S. dry gas production. By 2035, it is estimated that shale gas production will account for 46 percent of total domestic natural gas production. 5 Given the centrality of shale gas to the future of the U.S. gas sector, much of the discussion over potential exports hinges on the prospects for its sustained availability and development. For exports to be feasible, gas from shale and other unconventional sources needs to both offset declines in conventional production and compete with new and incumbent domestic end uses. There have been a number of reports and studies that attempt to identify the total amount of technically recoverable shale gas resources—the volumes of gas retrievable using current technology irrespective of cost—available in the United States. These estimates vary from just under 700 trillion cubic feet (tcf) of shale gas to over 1,800 tcf (see table 1). To put these numbers in context, the United States consumed just over 24 tcf of gas in 2010, suggesting that the estimates for the shale gas resource alone would be enough to satisfy between 25 and 80 years of U.S. domestic demand. 6 The estimates for recoverable shale gas resources also compare with an estimate for total U.S. gas resources (onshore and offshore, including Alaska) of 2,543 tcf. 7 Based on the range of estimates below, shale gas could therefore account for between 29 percent and 52 percent of the total technically recoverable natural gas resource in the United States. In addition to the size of the economically recoverable resources, two other major factors will have an impact on the sustainability of shale gas production: the productivity of shale gas wells; and the demand for the equipment used for shale gas production. The productivity of shale gas wells has been a subject of much recent debate, with some industry observers suggesting that undeveloped wells may prove to be less productive than those developed to date. However, a prominent view among independent experts is that sustainability of shale gas production is not a cause for serious concern, owing to the continued rapid improvement in technologies and production processes.

#### US exports are feasible and will be competitive

**Zeits, Energy industry consultant and investment analyst, 2/19**

(Richard, background includes fourteen years as investment banker, portfolio manager and senior investment analyst with bulge bracket firms in New York. Zeits Energy Analytics provide custom industry research, market intelligence, investment analyses and transaction advisory services to investment professionals and industry practitioners, February 19, 2013, “U.S. LNG Exports: Increasingly A Reality”, http://seekingalpha.com/article/1202741-u-s-lng-exports-increasingly-a-reality?source=google\_news, 2/19/13, atl)

The past two months have been marked by a whole series of significant announcements in the U.S. LNG sector indicating that large-scale natural gas [exports from](http://seekingalpha.com/article/1202741-u-s-lng-exports-increasingly-a-reality?source=google_news) the U.S. and Canada are firmly on track to become a reality. The headlines included three major long-term LNG supply agreements and the decisions by Chevron and Royal Dutch Shell to take equity stakes in LNG export projects. The announcements have several important implications and suggest that the LNG exports will not only have material consequences for the North American natural gas market but are already impacting pricing mechanisms of the entire international LNG trade. The recent news adds up to a critical mass of evidence suggesting that several large proposed facilities now have strong chances of moving forward. Moreover, the very competitive Henry Hub linked pricing formula - that seems to have emerged as almost a standard for U.S. based projects - should continue to attract strong demand from LNG buyers, particularly in Asia, and additional off-take contract announcements are likely to follow. As two large projects - Sabine Pass Liquefaction and Freeport LNG Expansion - are getting close to being fully subscribed, other projects will likely gain leverage in securing long-term agreements that are pivotal to obtaining project [financing](http://seekingalpha.com/article/1202741-u-s-lng-exports-increasingly-a-reality?source=google_news). In terms of timing, it appears now that several significant North American projects may almost simultaneously pass or closely approach the finish line, with combined in-service capacity likely exceeding (possibly, significantly) 6 Bcf/d by the end of 2018. The ramp up in demand for feed gas from LNG export facilities will coincide with the expansion of gas-fired[power generation](http://seekingalpha.com/article/1202741-u-s-lng-exports-increasingly-a-reality?source=google_news) (material capacity additions are expected already in 2014-2015) and growth in demand from the petrochemical industry. These three demand factors, which will be coming together in a relatively tight timeframe, should provide the much needed relief to the oversupplied natural gas markets in the U.S. and Canada and may result in the switch in the natural gas pricing regime from growth containment to expansion. However, such demand-driven inflection point in the North American natural gas fundamentals is probably still few years away. The aggressive marketing of LNG liquefaction capacity by the U.S. projects spells bad news (and shrinking operating margins) for global LNG trade in general. With the availability of Henry Hub linked LNG imports on the horizon, oil-based LNG pricing in Asia - the major pivot of profitability for merchant cargoes and proposed LNG developments around the world - may no longer be feasible within a few years. Henry Hub may in fact become a new price-setting reference point for the global natural gas trade, impacting exporters from Australia to Russia. The North American LNG has several distinct advantages relative to competing with potential supply from many locations around the world: Massive, reasonably priced natural gas resource in the ground and highly sophisticated and efficient E&P industry capable of quickly ramping up supply; A wide selection of severely underutilized regasification facilities, with existing pipeline access, that can be used for brownfield liquefaction expansions (reduces the cost of construction as much as two-fold relative to greenfield projects); Stable and secure political and legal environment; Importantly, a unique high-capacity pipeline network that allows the sourcing of feed gas from almost any location across the continent and eliminates the need for a captive upstream component of the project. As a result, the U.S. LNG exports have cost advantage in three of the four major components of the LNG value chain: the upstream (shale/tight gas and highly productive extraction industry), midstream (pipeline grid and liquids processing in place), and downstream (low-cost brownfield expansions already connected to the pipeline network). The disadvantage is the expensive transportation to key consumer markets in Asia (even with the Panama Canal expansion, which should cut voyages to the Asian markets by as much as 7,500 nautical miles).

#### Offshore terminals are key

**Kilisek, Foreign Policy, 12**

(Roman, “The Bright Future of Floating LNG Liquefaction, Regasification and Storage Units”, 7/19, http://foreignpolicyblogs.com/2012/07/19/the-bright-future-of-floating-lng-liquefaction-regasification-and-storage-units/, 2/20/13, atl)

This is a newsworthy event in the LNG (Liquefied Natural Gas) industry because it is the first time that a floating liquefaction unit is moving **from concept****to commercial reality**. What are the advantages of those floating LNG facilities over conventional liquefaction plants? First off, there **is an obvious advantage in tapping offshore resources**. In addition to the ability to station the floating vessel directly over distant offshore fields **and thereby saving on a costly subsea pipeline to shore,** it allows the operator of the facility to move the production facility to a new location once a field is depleted. This would also allow energy companies to exploit smaller fields and now **earn a realistic return on investment**. **Other cost savings are to be expected during the construction phase** for the required marine and loading facilities which often end up costing billions of dollars. Finally**, in a world full of risk it can significantly reduce the security and political risk** (inter alia, environmental regulation and permits) involved in choosing a land-based site for LNG export facilities in African countries (Nigeria, Angola and Mozambique) and countries in the Middle East as well as South America. The US should contemplate something like this along the East Coast for export to Europe, and along the West Coast for export to South America (Chile) and Asia.

#### No skills shortage—companies adapt and even if they don’t there’s no impact

**Leon, OE Digital, 12**

(Audrey, December 1, 2012, “Solving the skills shortage”, http://oedigital.com/technology/item/801-solving-the-skills-shortage, 3/7/13, atl)

Charlie Williams, executive director of the Center for Offshore Safety (COS), acknowledges that the skills gap is an industry-wide problem; however, he doesn't believe the situation is dire. 'We've been talking about an age gap for 10 years,' Williams says. 'The fact is, a lot of people have stayed a long time in the industry and people are staying longer and longer.' Williams spent 40 years at Shell, most recently as chief scientist for the company's well engineering and production technology division, before moving into his new role with COS in March. The organization, created in the aftermath of the Macondo disaster and supported by API, has focused on a number of safety-based initiatives regarding well control and completions as well as third party auditing. Williams sees COS as an industry resource that can help bridge the skills gap through programs such as its contractor competency assurance plan, which measures and monitors contractors' training and mentoring systems. Learnings from this program will serve as a template that can be applied to other parts of the industry, not just contractors, Williams says. He sees the transition from an older to younger workforce as a gradual shift with older workers opting to stay on as consultants. The industry is 'not going to fall off a cliff like people thought,' he says. 'We've been good at recruiting people.' However, Williams notes that some workers right out of college lack the necessary math and science skills and technical degrees to do the work. Companies are finding they must go to high school age and even younger to draw young people into those fields. ExxonMobil, for instance, sponsors a series of programs aimed at middle-school aged children, such as 'Introduce a Girl to Engineering Day' where company employees can serve as on-site mentors. A renewed focus on mentoring and training will help solve this problem, Williams says. Some companies are hiring professional mentors or competency coaches who can observe workers and decide whether a trainee would benefit from running the module again, Williams notes. More could do this internally, he says, but there is a difficulty in finding coaches and mentors. Williams believes the competency assurance program that COS is running can have a positive impact.

#### High offshore demand means tech will adapt to make drilling easy

**Pickerell, Fuel Fix Energy Reporter, 2/4**

(Emily, February 4, 2013, “Offshore boom will boost equipment suppliers”, http://fuelfix.com/blog/2013/02/04/offshore-boom-will-spread-to-equipment-suppliers-analyst-said/, 2/22/13, atl)

Recent deep-water discoveries combined with a shortage of drilling vessels should make for a booming year for offshore equipment supplies, a Barclay’s report said Monday. Platform and rig builders are struggling to keep up with the demand for offshore drilling rigs, as exploration throughout the Gulf of Mexico, Brazil and Africa continues to grow. Many offshore projects are moving from exploration to production, further increasing the demand for offshore equipment. “We anticipate roughly 80 jackups and 50 floaters (drillships) will be delivered into the offshore market over the next two years and expect that relatively few of these units will displace rigs currently working,” Barclays wrote. About 40 percent of the 50 drillships have been contracted out through 2014, a further indication of a growing demand for the equipment that will be needed for drilling. The increase in activity should shake loose additional [financing](http://fuelfix.com/blog/2013/02/04/offshore-boom-will-spread-to-equipment-suppliers-analyst-said/), Barclay’s said, enabling service companies to make needed investments in additional drilling rigs.

#### Quality of life is skyrocketing worldwide by all measures

**Ridley, Cold Spring Harbor Laboratory visiting professor, 2010**

(Matt, the Rational Optimist, pg 13-5, ldg)

If my fictional family is not to your taste, perhaps you prefer statistics. Since 1800, the population of the world has multiplied six times, yet **average life expectancy has more than doubled and real income has risen more than nine times**. Taking a shorter perspective, in 2005, compared with 1955, the average human being on Planet Earth earned nearly three times as much money (corrected for inflation), ate one-third more calories of food, buried one-third as many of her children and could expect to live one-third longer. She was less likely to die as a result of war, murder, childbirth, accidents, tornadoes, flooding, famine, whooping cough, tuberculosis, malaria, diphtheria, typhus, typhoid, measles, smallpox, scurvy or polio. She was less likely, at any given age, to get cancer, heart disease or stroke. She was more likely to be literate and to have finished school. She was more likely to own a telephone, a flush toilet, a refrigerator and a bicycle. All this during a half-century when the world population has more than doubled, so that far from being rationed by population pressure, the goods and services available to the people of the world have expanded. It is, by any standard, an astonishing human achievement. Averages conceal a lot. **But even if you break down the world into bits**, **it is hard to find any region that was worse off in 2005 than it was in 1955**. Over that half-century, real income per head ended a little lower in only six countries (Afghanistan, Haiti, Congo, Liberia, Sierra Leone and Somalia), life expectancy in three (Russia, Swaziland and Zimbabwe), and infant survival in none. In the rest they have rocketed upward. Africa’s rate of improvement has been distressingly slow and patchy compared with the rest of the world, and many southern African countries saw life expectancy plunge in the 1990s as the AIDS epidemic took hold (before recovering in recent years). There were also moments in the half-century when you could have caught countries in episodes of dreadful deterioration of living standards or life chances – China in the 1960s, Cambodia in the 1970s, Ethiopia in the 1980s, Rwanda in the 1990s, Congo in the 2000s, North Korea throughout. Argentina had a disappointingly stagnant twentieth century. But overall, after fifty years, the outcome for the world is remarkably, astonishingly, dramatically positive. The average South Korean lives twenty-six more years and earns fifteen times as much income each year as he did in 1955 (and earns fifteen times as much as his North Korean counter part). The average Mexican lives longer now than the average Briton did in 1955. The average Botswanan earns more than the average Finn did in 1955. **Infant mortality is lower today in Nepal than it was in Italy in 1951**. The proportion of Vietnamese living on less than $2 a day has dropped from 90 per cent to 30 per cent in twenty years. The rich have got richer, but the poor have done even better. **The poor in the developing world grew their consumption twice as fast as the world as a whole between 1980 and 2000**. The Chinese are ten times as rich, one-third as fecund and twenty-eight years longer-lived than they were fifty years ago. Even Nigerians are twice as rich, 25 per cent less fecund and nine years longer-lived than they were in 1955. **Despite a doubling of the world population**, even **the raw number of people living in absolute poverty** (defined as less than a 1985 dollar a day) **has fallen since the 1950s**. The percentage living in such absolute poverty has dropped by more than half – to less than 18 per cent. That number is, of course, still all too horribly high, but the trend is hardly a cause for despair: at the current rate of decline, it would hit zero around 2035 – though it probably won’t. The United Nations estimates that poverty was reduced more in the last fifty years than in the previous 500.

#### Role of the ballot’s to simulate enactment of the plan – key to decision making and fairness

**Hager, Bryn Mawr College political science professor, 1992**

(Carol J., “Democratizing Technology: Citizen & State in West German Energy Politics, 1974-1990” Polity, 25.1, project muse, ldg)

During this phase, the citizen initiative attempted to overcome its defensive posture and implement an alternative politics. The strategy of legal and technical challenge might delay or even prevent plant construction, but it would not by itself accomplish the broader goal on the legitimation dimension, i.e., democratization. Indeed, it worked against broad participation. The activists had to find a viable means of achieving change. Citizens had proved they could contribute to a substantive policy discussion. Now, some activists turned to the parliamentary arena as a possible forum for an energy dialogue. Until now, parliament had been conspicuously absent as a relevant policy maker, but if parliament could be reshaped and activated, citizens would have a forum in which to address the broad questions of policy-making goals and forms. They would also have an institutional lever with which to pry apart the bureaucracy and utility. None of the established political parties could offer an alternative program. Thus, local activists met to discuss forming their own voting list. These discussions provoked internal dissent. Many citizen initiative members objected to the idea of forming a political party. If the problem lay in the role of parliament itself, another political party would not solve it. On the contrary, parliamentary participation was likely to destroy what political innovations the extraparliamentary movement had made. Others argued that a political party would give the movement an institutional platform from which to introduce some of the grassroots democratic political forms the groups had developed. Founding a party as the parliamentary arm of the citizen movement would allow these groups to play an active, critical role in institutionalized politics, participating in the policy debates while retaining their outside perspective. Despite the disagreements, the Alternative List for Democracy and Environmental Protection Berlin (AL) was formed in 1978 and first won seats in the Land parliament with 7.2 percent of the vote in 1981.43 The founders of the AL were encouraged by the success of newly formed local green parties in Lower Saxony and Hamburg,44 whose evolution had been very similar to that of the West Berlin citizen move-ment. Throughout the FRG, unpopular administrative decisions affect-ing local environments, generally in the form of state-sponsored indus-trial projects, prompted the development of the citizen initiative and ecology movements. The groups in turn focused constant attention on state planning "errors," calling into question not only the decisions themselves, but also the conventional forms of political decision making that produced them.45 Disgruntled citizens increasingly aimed their critique at the established political parties, in particular the federal SPD/ FDP coalition, which seemed unable to cope with the economic, social, and political problems of the 1970s. Fanned by publications such as the Club of Rome's report, "The Limits to Growth," the view spread among activists that the crisis phenomena were not merely a passing phase, but indicated instead "a long-term structural crisis, whose cause lies in the industrial-technocratic growth society itself."46 As they broadened their critique to include the political system as a whole, many grassroots groups found the extraparliamentary arena too restrictive. Like many in the West Berlin group, they reasoned that the necessary change would require a degree of political restructuring that could only be accomplished through their direct participation in parliamentary politics. Green/alternative parties and voting lists sprang up nationwide and began to win seats in local assemblies. The West Berlin Alternative List saw itself not as a party, but as the parliamentary arm of the citizen initiative movement. One member explains: "the starting point for alternative electoral participation was simply the notion of achieving a greater audience for [our] own ideas and thus to work in support of the extraparliamentary movements and initia-tives,"47 including non-environmentally oriented groups. The AL wanted to avoid developing structures and functions autonomous from the citizen initiative movement. Members adhered to a list of principles, such as rotation and the imperative mandate, designed to keep parliamentarians attached to the grassroots. Although their insistence on grassroots democracy often resulted in interminable heated discussions, the participants recognized the importance of experimenting with new forms of decision making, of not succumbing to the same hierarchical forms they were challenging. Some argued that the proper role of citizen initiative groups was not to represent the public in government, but to mobilize other citizens to participate directly in politics themselves; self-determination was the aim of their activity.48 Once in parliament, the AL proposed establishmento f a temporary parliamentaryco mmissiont o studye nergyp olicy,w hichf or the first time would draw all concernedp articipantst ogetheri n a discussiono f both short-termc hoicesa nd long-termg oals of energyp olicy. With help from the SPD faction, which had been forced into the opposition by its defeat in the 1981 elections, two such commissions were created, one in 1982-83 and the other in 1984-85.49T hese commissionsg ave the citizen activists the forum they sought to push for modernizationa nd technicali nnovation in energy policy. Although it had scaled down the proposed new plant, the utility had produced no plan to upgrade its older, more polluting facilities or to install desulfurizationd evices. With proddingf rom the energyc ommission, Land and utility experts began to formulate such a plan, as did the citizen initiative. By exposing administrative failings in a public setting, and by producing a modernization plan itself, the combined citizen initiative and AL forced bureaucratic authorities to push the utility for improvements. They also forced the authorities to consider different technological solutions to West Berlin's energy and environmental problems. In this way, the activists served as technological innovators. In 1983, the first energy commission submitted a list of recommendations to the Land parliament which reflected the influence of the citizen protest movement. It emphasized goals of demand reduction and efficiency, noted the value of expanded citizen participation and urged authorities to "investigate more closely the positive role citizen participation can play in achieving policy goals."50 The second energy commission was created in 1984 to discuss the possibilities for modernization and shutdown of old plants and use of new, environmentally friendlier and cheaper technologies for electricity and heat generation. Its recommendations strengthened those of the first commission.51 Despite the non-binding nature of the commissions' recommendations, the public discussion of energy policy motivated policy makers to take stronger positions in favor of environmental protection. III. Conclusion The West Berlin energy project eventually cleared all planning hurdles, and construction began in the early 1980s. The new plant now conforms to the increasingly stringent environmental protection requirements of the law. The project was delayed, scaled down from 1200 to 600 MW, moved to a neutral location and, unlike other BEWAG plants, equipped with modern desulfurization devices. That the new plant, which opened in winter 1988-89, is the technologically most advanced and environmen-tally sound of BEWAG's plants is due entirely to the long legal battle with the citizen initiative group, during which nearly every aspect of the original plans was changed. In addition, through the efforts of the Alter-native List (AL) in parliament, the Land government and BEWAG formulated a long sought modernization and environmental protection plan for all of the city's plants. The AL prompted the other parliamentary parties to take pollution control seriously. Throughout the FRG, energy politics evolved in a similar fashion. As Habermas claimed, underlying the objections against particular projects was a reaction against the administrative-economic system in general. One author, for example, describes the emergence of two-dimensional protest against nuclear energy: The resistance against a concrete project became understood simul-taneously as resistance against the entire atomic program. Questions of energy planning, of economic growth, of understanding of democracy entered the picture. . . . Besides concern for human health, for security of conditions for human existence and protec-tion of nature arose critique of what was perceived as undemocratic planning, the "shock" of the delayed public announcement of pro-ject plans and the fear of political decision errors that would aggra-vate the problem.52 This passage supports a West Berliner's statement that the citizen initiative began with a project critique and arrived at Systemkritik.53 I have labeled these two aspects of the problem the public policy and legitima-tion dimensions. In the course of these conflicts, the legitimation dimen-sion emergd as the more important and in many ways the more prob-lematic. Parliamentary Politics In the 1970s, energy politics began to develop in the direction Offe de-scribed, with bureaucrats and protesters avoiding the parliamentary channels through which they should interact. The citizen groups them-selves, however, have to a degree reversed the slide into irrelevance of parliamentary politics. Grassroots groups overcame their defensive posture enough to begin to formulate an alternative politics, based upon concepts such as decision making through mutual understanding rather than technical criteria or bargaining. This new politics required new modes of interaction which the old corporatist or pluralist forms could not provide. Through the formation of green/alternative parties and voting lists and through new parliamentary commissions such as the two described in the case study, some members of grassroots groups attempted to both operate within the political system and fundamentally change it, to restore the link between bureaucracy and citizenry. Parliamentary politics was partially revived in the eyes of West German grassroots groups as a legitimate realm of citizen participation, an outcome the theory would not predict. It is not clear, however, that strengthening the parliamentary system would be a desirable outcome for everyone. Many remain skeptical that institutions that operate as part of the "system" can offer the kind of substantive participation that grass-roots groups want. The constant tension between institutionalized politics and grassroots action emerged clearly in the recent internal debate between "fundamentalist" and "realist" wings of the Greens. Fundis wanted to keep a firm footing outside the realm of institutionalized politics. They refused to bargain with the more established parties or to join coalition governments. Realos favored participating in institutionalized politics while pressing their grassroots agenda. Only this way, they claimed, would they have a chance to implement at least some parts of their program. This internal debate, which has never been resolved, can be interpreted in different ways. On one hand, the tension limits the appeal of green and alternative parties to the broader public, as the Greens' poor showing in the December 1990 all-German elections attests. The failure to come to agreement on basic issues can be viewed as a hazard of grass-roots democracy. The Greens, like the West Berlin citizen initiative, are opposed in principle to forcing one faction to give way to another. Disunity thus persists within the group. On the other hand, the tension can be understood not as a failure, but as a kind of success: grassroots politics has not been absorbed into the bureaucratized system; it retains its critical dimension, both in relation to the political system and within the groups themselves. The lively debate stimulated by grassroots groups and parties keeps questions of democracy on the public agenda. Technical Debate In West Berlin, the two-dimensionality of the energy issue forced citizen activists to become both participants in and critics of the policy process. In order to defeat the plant, activists engaged in technical debate. They won several decisions in favor of environmental protection, often proving to be more informed than bureaucratic experts themselves. The case study demonstrates that grassroots groups, far from impeding techno-logical advancement, can actually serve as technological innovators. The activists' role as technical experts, while it helped them achieve some success on the policy dimension, had mixed results on the legitimation dimension. On one hand, it helped them to challenge the legitimacy of technocratic policy making. They turned back the Land government's attempts to displace political problems by formulating them in technical terms.54 By demonstrating the fallibility of the technical arguments, activists forced authorities to acknowledge that energy demand was a political variable, whose value at any one point was as much influenced by the choices of policy makers as by independent technical criteria. Submission to the form and language of technical debate, however, weakened activists' attempts to introduce an alternative, goal-oriented form of decision making into the political system. Those wishing to par-ticipate in energy politics on a long-term basis have had to accede to the language of bureaucratic discussion, if not the legitimacy of bureaucratic authorities. They have helped break down bureaucratic authority but have not yet offered a viable long-term alternative to bureaucracy. In the tension between form and language, goals and procedure, the legitima-tion issue persists. At the very least, however, grassroots action challenges critical theory's notion that technical discussion is inimical to democratic politics.55 Citizen groups have raised the possibility of a dialogue that is both technically sophisticated and democratic. In sum, although the legitimation problems which gave rise to grass-roots protest have not been resolved, citizen action has worked to counter the marginalization of parliamentary politics and the technocratic character of policy debate that Offe and Habermas identify. The West Berlin case suggests that the solutions to current legitimation problems may not require total repudiation of those things previously associated with technocracy.56 In Berlin, the citizen initiative and AL continue to search for new, more legitimate forms of organization consistent with their principles. No permanent Land parliamentary body exists to coordinate and con-solidate energy policy making.57 In the 1989 Land elections, the CDU/ FDP coalition was defeated, and the AL formed a governing coalition with the SPD. In late 1990, however, the AL withdrew from the coali-tion. It remains to be seen whether the AL will remain an effective vehi-cle for grassroots concerns, and whether the citizenry itself, now includ-ing the former East Berliners, will remain active enough to give the AL direction as united Berlin faces the formidable challenges of the 1990s. On the policy dimension, grassroots groups achieved some success. On the legitimation dimension, it is difficult to judge the results of grass-roots activism by normal standards of efficacy or success. Activists have certainly not radically restructured politics. They agree that democracy is desirable, but troublesome questions persist about the degree to which those processes that are now bureaucratically organized can and should be restructured, where grassroots democracy is possible and where bureaucracy is necessary in order to get things done. In other words, grassroots groups have tried to remedy the Weberian problem of the marginalization of politics, but it is not yet clear what the boundaries of the political realm should be. It is, however, the act of calling existing boundaries into question that keeps democracy vital. In raising alternative possibilities and encouraging citizens to take an active, critical role in their own governance, the contribution of grassroots environmental groups has been significant. As Melucci states for new social movements in general, these groups mount a "symbolic" challenge by proposing "a different way of perceiving and naming the world."58 Rochon concurs for the case of the West German peace movement, noting that its effect on the public discussion of secur-ity issues has been tremendous.59 The effects of the legitimation issue in the FRG are evident in increased citizen interest in areas formerly left to technical experts. Citizens have formed nationwide associations of environmental and other grassroots groups as well as alternative and green parties at all levels of government. The level of information within the groups is generally quite high, and their participation, especially in local politics, has raised the awareness and engagement of the general populace noticeably.60 Policy concessions and new legal provisions for citizen participation have not quelled grassroots action. The attempts of the established political parties to coopt "green" issues have also met with limited success. Even green parties themselves have not tapped the full potential of public support for these issues. The persistence of legitima-tion concerns, along with the growth of a culture of informed political activism, will ensure that the search continues for a space for a delibera-tive politics in modern technological society.61

#### Method focus prevents policy change

#### Jackson, American University School of International Service IR associate professor, 11

(Patrick Thadeus, “The Conduct of Inquiry in International Relations”, p. 57-59, 10/10/12, atl)

Perhaps the greatest irony of this instrumental, decontextualized importation of “falsification” and its critics into IR is the way that an entire line of thought that privileged disconfirmation and refutation—no matter how complicated that disconfirmation and refutation was in practice—has been transformed into a license to **worry endlessly about foundational assumptions.** At the very beginning of the effort to bring terms such as “paradigm” to bear on the study of politics, Albert O. **Hirschman** (1970b, 338) **noted this very danger**, suggesting that without “a little more ‘reverence for life’ and a little less straightjacketing of the future,” the **focus on** producing internally **consistent** packages of **assumptions instead of** actually examining **complex empirical situations would result in scholarly paralysis.** Here as elsewhere, Hirschman appears to have been quite prescient, inasmuch as the major effect of paradigm and research programme language in IR seems to have been a series of debates and discussions about whether the fundamentals of a given school of thought were sufficiently “scientific” in their construction. Thus **we have debates about how to evaluate scientific progress**, and attempts to propose one or another set of research design principles **as uniquely scientific**, and inventive, “reconstructions” of IR schools, such as Patrick James’ “elaborated structural realism,” supposedly for the purpose of placing them on a **firmer scientific** footing by making sure that they have all of the required elements of a basically Lakatosian19 model of science (James 2002, 67, 98–103). The bet with all of this scholarly activity seems to be that if we can just get the fundamentals right, then scientific progress will inevitably ensue . . . even though this is the precise opposite of what Popper and Kuhn and Lakatos argued! In fact, all of this obsessive interest in foundations and starting-points is, in form if not in content, a lot closer to logical positivism than it is to the concerns of the falsificationist philosophers, despite the prominence of language about “hypothesis testing” and the concern to formulate testable hypotheses among IR scholars engaged in these endeavors. That, above all, is why I have labeled this methodology of scholarship neopositivist. While it takes much of its self justification as a science from criticisms of logical positivism, in overall sensibility it still operates in a visibly positivist way, attempting to construct knowledge from the ground up by getting its foundations in logical order before concentrating on how claims encounter the world in terms of their theoretical implications. This is by no means to say that neopositivism is not interested in hypothesis testing; on the contrary, neopositivists are extremely concerned with testing hypotheses, but **only after the fundamentals have been** soundly **established.** Certainty, not conjectural provisionality, seems to be the goal—a goal that, ironically, Popper and Kuhn and Lakatos would all reject.

#### Violence is caused by human nature-we need a system to manage it.

**Gat, Former Tel Aviv University political science chair, 2009**

(Azar, “So Why Do People Fight? Evolutionary Theory and the Causes of War”, European Journal of International Realtions, volume 15, issue 4, December, SAGE, DOA: 8-11-11, ldg)

This article’s contribution is two-pronged: it argues that IR theory regarding the causes of conflict and war is deeply flawed, locked for decades in ultimately futile debates over narrow, misconstrued concepts; this conceptual confusion is untangled and the debate is transcended once a broader, comprehensive, and evolutionarily informed perspective is adopted. Thus attempts to find the root cause of war in the nature of either the individual, the state, or the international system are fundamentally misplaced. In all these ‘levels’ there are necessary but not sufficient causes for war, and the whole cannot be broken into pieces.13 People’s needs and desires — which may be pursued violently — as well as the resulting quest for power and the state of mutual apprehension which fuel the security dilemma are all molded in human nature (some of them existing only as options, potentials, and skills in a behavioral ‘tool kit’); they are so molded because of strong evolutionary pressures that have shaped humans in their struggle for survival over geological times, when all the above literally constituted matters of life and death. The violent option of human competition has been largely curbed within states, yet is occasionally taken up on a large scale between states because of the anarchic nature of the inter-state system. However, returning to step one, international anarchy in and of itself would not be an explanation for war were it not for the potential for violence in a fundamental state of competition over scarce resources that is imbedded in reality and, consequently, in human nature. The necessary and sufficient causes of war — that obviously have to be filled with the particulars of the case in any specific war — are thus as follows: politically organized actors that operate in an environment where no superior authority effectively monopolizes power resort to violence when they assess it to be their most cost-effective option for winning and/or defending evolution-shaped objects of desire, and/or their power in the system that can help them win and/or defend those desired goods. Wars have been fought for the attainment of the same objects of human desire that underlie the human motivational system in general — only by violent means, through the use of force. Politics — internal and external — of which war is, famously, a continuation, is the activity intended to achieve at the intra- and inter-state ‘levels’ the very same evolution-shaped human aims we have already seen. Some writers have felt that ‘politics’ does not fully encompass the causes of war. Even Thayer (2004: 178–9), who correctly argues that evolutionary theory explains ultimate human aims, nonetheless goes on to say, inconsistently, that Clausewitz needs extension because war is caused not only by political reasons but also by the evolutionarily rooted search for resources, as if the two were separate, with politics being somehow different and apart, falling outside of the evolutionary logic. What is defined as ‘politics’ is of course a matter of semantics, and like all definitions is largely arbitrary. Yet, as has been claimed here, if not attributed to divine design, organisms’ immensely complex mechanisms and the behavioral propensities that emanate from them — including those of human beings — ultimately could only have been ‘engineered’ through evolution. The challenge is to lay out how evolution-shaped human desires relate to one another in motivating war. The desire and struggle for scarce resources — wealth of all sorts — have always been regarded as a prime aim of ‘politics’ and an obvious motive for war. They seem to require little further elaboration. By contrast, reproduction does not appear to figure as a direct motive for war in large-scale societies. However, as we saw, appearance is often deceptive, for somatic and reproductive motives are the two inseparable sides of the same coin. In modern societies, too, sexual adventure remained central to individual motivation in going to war, even if it usually failed to be registered at the level of ‘state politics.’ This may be demonstrated by the effects of the sexual revolution since the 1960s, which, by lessening the attraction of foreign adventure for recruits and far increasing the attraction of staying at home, may have contributed to advanced societies’ growing aversion to war. Honor, status, glory, and dominance — both individual and collective — enhanced access to somatic and reproductive success and were thus hotly pursued and defended, even by force. The security dilemma sprang from this state of actual and potential competition, in turn pouring more oil onto its fire. Power has been the universal currency through which all of the above could be obtained and/or defended, and has been sought after as such, in an often escalating spiral. Kinship — expanding from family and tribe to peoples — has always exerted overwhelming influence in determining one’s loyalty and willingness to sacrifice in the defense and promotion of a common good. Shared culture is a major attribute of ethnic communities, in the defense of which people can be invested as heavily as in the community’s political independence and overall prosperity. Finally, religious and secular ideologies have been capable of stirring enormous zeal and violence; for grand questions of cosmic and socio-political order have been perceived as possessing paramount practical significance for securing and promoting life on earth and/or in the afterlife. In the human problem-solving menus, ideologies function as the most general blueprints. Rather than comprising a ‘laundry list’ of causes for war, all of the above partake in the interconnected human motivational system, originally shaped by the calculus of survival and reproduction. This calculus continues to guide human behavior, mostly through its legacy of innate proximate mechanisms — human desires — even where the original link between these proximate mechanisms and the original somatic and reproductive aims may have been loosened or even severed under altered conditions, especially during modernity: more wealth is desired even though above a certain level it has ceased to translate into greater reproduction; with effective contraception much the same applies to sexual success; power, status, honor, and fame — connected to the above — are still hotly pursued even though their reproductive significance has become ambivalent. To the extent that the industrial-technological revolution, most notably its liberal path, has sharply reduced the prevalence of war, the reason for this change is that the violent option for fulfilling human desires has become much less promising than the peaceful option of competitive cooperation. Furthermore, the more affluent and satiated the society and the more lavishly are people’s most pressing needs met, the less their incentives to take risks that might involve the loss of life and limb. This does not mean a millenarian era of selfless altruism. People continue to compete vigorously over scarce objects of desire, partly because much of the competition among them concerns relative rather than absolute allocation of gains. On this realists are on firmer ground than radical liberals. However, liberals have been right in stressing that human reality is not static and, indeed, has been changing dramatically over the past generations, with the growth of affluent-liberal society going hand in hand with deepening global economic interdependence and mutual prosperity.14 As conditions have changed — indeed, only for those for whom they have changed, most notably within the world’s affluent and democratic ‘zone of peace’ — the violent option, the ‘hammer,’ in the human behavioral tool kit seems to have declined in utility for attaining desired aims.

# 2AC

## Navy

### Shipbuilding down now- independently ensures naval collapse and great power rivalries

**Jacobs, National Review, 3/1**

(Joshua, March 1, 2013, “Sink into the Jones Act”, http://www.nationalreview.com/articles/341845/sink-jones-act-eftychis-john-gregos-mourginakis, 3/7/13, atl)

In fact, the Achilles heel of the Navy is the shipbuilding industry — specifically, the industry’s dysfunction resulting from the perpetuation of the Jones Act. Our heavily unionized shipyards are increasingly uncompetitive. Their work force is short on experience because their contracts are few. They have lost engineering talent to foreign competition, and the unsustainable economic model they have been saddled with has led to yard consolidations and closings. Why would any talented naval architect or engineer work in a U.S. shipyard when he can be more profitably employed working for oil-service firms or in Norwegian, Korean, Japanese, or Chinese shipyards? Nor does the failure of the U.S. shipbuilding industry exist in a vacuum. Since the 2008 recession, Chinese shipbuilders, who control 31 percent of the global shipbuilding market, have received prioritized subsidies and support from Beijing. The Chinese realize that across all shipping sectors — from crude to container to dry-bulk — there is tremendous overcapacity in the global shipping fleet. Appreciating this, policymakers in Beijing continue to support their shipbuilding industry for critical strategic reasons. They recognize that maintaining the quality of human capital in their shipbuilding sector is not just good for employment and their economy. It improves their technical capacity and is instrumental to Chinese ambitions for a substantial blue-water navy.

## T – Restrict

### 1. We meet---OCS moratorium are restrictions

**Hagerty, Specialist in Energy and Natural Resources Policy, 10**

(Curry, “Outer Continental Shelf Moratoria on Oil and Gas Development” CRS 2010, 2/16/13, atl)

Outer Continental Shelf (OCS) moratoria provisions, enacted as part of the Department of the Interior appropriations over the last 26 years, prohibited federal spending on oil and gas development in certain locations and for certain activities. Annual **congressional moratoria restrictions** expired on September 30, 2008. While the expiration of this restriction does not make leasing and drilling permissible in all offshore areas, it is a significant development in conjunction with other changes in offshore leasing activity. Change in moratoria policy signals a shift in policy that may affect other OCS policies as well.

### 2. C/I – Restrictions make production more difficult or expensive

**LVMI 96**

(Ludwig Von Mises Institute Original Book by Ludwig Von Mises, Austrian Economist in 1940, “Human Action” http://mises.org/pdf/humanaction/pdf/ha\_29.pdf, 2/16/13, atl)

**Restriction of production means that the government either forbids or makes more difficult or more expensive the production, transportation, or distribution** of definite articles, **or the application of definite modes of production, transportation, or distribution**. The authority thus eliminates some of the means available for the satisfaction of human wants. The effect of its interference is that people are prevented from using their knowledge and abilities, their labor and their material means of production in the way in which they would earn the highest returns and satisfy their needs as much as possible. Such interference makes people poorer and less satisfied.

### The Department of Interior’s leasing plan effectively restricts offshore natural gas drilling on federal lands

**New, New Industries President, 12**

(Bill, \*Offers Steel Fabrication Services to Offshore Drilling Projects, “Letters: New Leasing Plan a Step Backward,” The Advocate, 2012, http://theadvocate.com/news/opinion/3484480-123/letters-new-leasing-plan-a, 2/20/13, atl)

In late June, the U.S. Department of the Interior released its long-awaited outer continental shelf leasing plan, which **effectively blocks offshore oil and natural gas exploration** in any new areas for the next five years. Unfortunately, the proposal is a step backward in our effort to achieve energy independence. Under the plan, 85 percent of America’s OCS would be off-limits at a time when exploring every possible energy source is critical to boosting our nation’s economy and creating jobs. Instead of finding out what might be available to us in expansive unexplored areas off our coasts, we will be left to search for oil and natural gas in the same, relatively small portion of the OCS we’ve been exploring for four decades. Not only does this plan run counter to President Barack Obama’s “all of the above” strategy for energy independence, but it shows an outright disregard for the requests of the Gulf Coast states –— including Louisiana — to increase domestic oil production when the Interior Department released a draft of the plan late last year. Interestingly, the Interior Department chose to release this latest version of the OCS plan on the day the Supreme Court announced its health care decision — a thinly veiled attempt to bury it in news coverage of the ruling. But that didn’t keep right-thinking lawmakers from taking notice and working on ways to get America’s economy going using sound energy policies. U.S. Rep. Doc Hastings, R-Wash., chairman of the House Natural Resource Committee, has written legislation that sensibly revises the plan. While the Interior Department’s plan is to hold just 12 oil and gas lease sales in the Gulf of Mexico, and three in offshore Alaska from 2012 to 2017, the Hastings plan would schedule 28 lease sales total, dramatically increasing drilling opportunities off the Alaskan coast and including a sale of offshore leases in a potentially rich area off the coast of Virginia. The United States is producing more oil and natural gas than ever thanks to increased production on state-owned or private land. However, production on federal onshore land is down 14 percent in the last two years, and down 17 percent on federal offshore areas. Imagine what could happen if we enact legislation that allows us to open new offshore areas.

### 8. Plan is a financial incentive

**Mayes et al., EIA senior technical advisor, 2001**

(Fred, “Incentives, Mandates, and Government Programs for Promoting Renewable Energy”, February, <http://www.eia.gov/ftproot/renewables/06282000.pdf>, DOA: 12-17-12, ldg)

Over the years, incentives and mandates for renewable energy have been used to advance different energy policies, such as ensuring energy security or promoting environmentally benign energy sources. Renewable energy has beneficial attributes, such as low emissions and replenishable energy supply, that are not fully reflected in the market price. Accordingly, governments have used a variety of programs to promote renewable energy resources, technologies, and renewable-based transportation fuels.1 This paper discusses: (1) financial incentives and regulatory mandates used by Federal and State governments and Federal research and development (R&D),2, 3 and (2) their effectiveness in promoting renewables. A financial incentive is defined in this report as providing one or more of the following benefits: A transfer of economic resources by the Government to the buyer or seller of a good or service that has the effect of reducing the price paid, or, increasing the price received, respectively; Reducing the cost of production of the good or service; or, Creating or expanding a market for producers.

## Scenario Planning

#### Rejection insufficient-feasibility is key to challenging hegemonic discourses.

**Huysmans, Open University Politics Lecturer, March 1999**

(Jef, “Language And The Mobilisation Of Security Expectations. The Normative Dilemma Of Speaking And Writing Security,” www.essex.ac.uk/ecpr/events/jointsessions/paperarchive/mannheim/w18/huysmans.pdf, DOA: 8-15-11, ldg)

Thus, the critical quality rests on the assumption that representations of the world make a difference (performative force of language) and that there is no natural or neutral arbiter of a true representation. Consequently, any representation to become true has to establish itself as a hegemonic (often by claiming it is a true representation while the others are false) at the cost of silencing alternative representations. This is done by showing how alternative options ‘circulated’ - and still are around - in the political struggle for founding a hegemonic discourse and how they were silenced by the now dominant discourse. Although the critical edge of this literature cannot be ignored, denaturalising security fields is not necessarily successful in moderating the normative dilemma. The research still maps the security discourses, therefore repeating in an often highly systematic way a security approach to migration or drugs, for example. Putting down the contingent character of the politicisation questions the foundational character but does not necessarily undermine the real effects of this contingent construction. It only does this when these discourses rely for their effects heavily on keeping the natural character of its foundations unquestioned. Moreover, this points to a more general issue concerning this kind of analysis. Although it stresses that language makes a difference and that social relations are constructed it leaves underdeveloped the concept of security formation which heavily pre-structures the possibilities to successfully ‘speak’ differently. In other words, the governing structure which regulates the representations of threats and political units is not an explicit object of research. In that sense, we can repeat Wæver’s comment on Ashley’s post-structural project as a post-structuralism which forgot its structuralism - hence, the possibility to label them non-structuralist constructivists.28 Another related problem is that the approach assumes that indicating the mere existence of alternative practices challenges the dominance of the dominant discourse. This is problematic since the alternative constructions do not exist in a vacuum or in a sheltered space. ‘To be part of the game’ they must ‘participate’ in contesting political constructions of migration, for example. Alternative practices are thus not isolated but engage with other, possibly dominant constructions. This raises the question of how the ‘engagement’ actually works. It involves relations of power, structuring and restructuring the social exchanges. Staging alternative practices does not necessarily challenge a dominant construction. The political game is more complex as Foucault’s interpretation of the ‘sexual revolution’ - the liberation from sexual repression - of the second half of this century showed.29 In a comment on human rights approaches of migration, also Didier Bigo raises the point that opposing strategies do not necessarily radically challenge established politicisations: ... il est délicat d’opposer idéologie sécuritaire et droits de l’homme car parfois ces énoncés ont plus en commun que leurs auteurs voudraient l’admettre. Ils partagent souvent la même vision de ce qui est ‘insécure’ et ne divergent que sur les ‘solutions’.30 The main point is that alternative discourses should not be left in a vacuum. The way they function in the political struggle should be looked at. How are the alternative discourses entrenched in a specific political game? Are they possibly a constitutive part of the mastery of the dominant construction?

#### Perm do both- pragmatic embrace of natural gas key to sustainable energy paradigm shift

**Huber, Vrije Universiteit Amsterdam Energy Studies, 11**

(Jacob, MSc, Energy Analyst for EDI and Editor of EDI Quarterly, June 2011, “A Role for Natural Gas in the Pragmatic Transition to a Sustainable Energy System,” Energy Delta Institute Quarterly, http://www.energydelta.org/uploads/bestanden/c21f508d-b71c-40f3-a403-d082ec51ce93, 2/16/13, atl)

At any point in history, the constraints of most thinking are defined by a ruling paradigm, according to Thomas Kuhn. When its effectiveness begins to diminish, its foundation come into question and thus begins the breakdown process; a paradigm shift yields the establishment of a new paradigm. Such shifts are, however, sufficiently open-ended “to¶ leave all sorts of problems for the redefined group of practitioners¶ to resolve.” This very sort of shift is taking place, changing the way energy issues are viewed and our very assumptions regarding energy generation and consumption and their associated impacts on the environment and society. A focus on the supply side without attention to the end use of energy is being replaced with a greater concentration on the demand side, emphasizing the end uses of energy and services that this use provides. Thus, energy efficiency is seen as playing a¶ large role in the transition to a sustainable energy system based on renewables. Such transitions do not however happen overnight and conventional energy resources and technologies will continue to play a large role in the short- and medium-term.¶ The newest project of EDI, EDIaal, aims to contribute to the dialogue surrounding the transition to a sustainable, low carbon energy system. Integral to this objective is the development of competencies in all transition issues including legal and regulatory aspects, renewables, energy efficiency, CCS, smart grids, and the appropriate context of fossil fuel technologies. This knowledge will then be provided through the development of training programs, seminars, and other events as well as tools for sharing knowledge of the role of natural gas in this transition. Natural gas is the contemporary source of energy most suited to playing a facilitating role in an efficient transition.¶ It is well known that the contemporary energy system is dominated by fossil fuels, the negative aspects of which are motivating the push for a more efficient and sustainable system. These drivers include concerns ranging from climate change and pollution to resource depletion and security of supply. It is clear that the current system, which has been such a force for the development and advancement of humanity, cannot be suddenly abandoned and that a gradual transition toward the ultimate goal of a clean and sustainable energy system must be pursued. A future sustainable energy system is seen as being based on three pillars: energy efficiency, renewables, and clean fossil fuel technology (via carbon capture and storage, or CCS). It is expected that energy efficiency in various forms will account for 58% of carbon reductions in the IEA’s BLUE Map Scenario (Fig. 1). Renewables and CCS will account for 17% and 19% respectively, with the remaining 6% being due to nuclear. Natural gas in its various forms will play an essential role in this transition due to its cleanliness, flexibility, and other favorable characteristics.¶ Current renewable or “sustainable” energy generation technologies, such wind and solar, are inherently intermittent and their product energy carrier (electricity) is essentially impossible to store on a large scale for significant lengths of time with current technology. While the resource represented by renewable technologies is large, these shortcomings present a technical barrier to their significant penetration in the short and medium term. Natural gas will play an important¶ role in that its storability allows it to be dispatched upon command to account for a sudden shortfall of wind-based generation, for example. Development of gas-fired combined cycle power plants that are able¶ to enter the grid in as little as 30 minutes (compared with a number¶ of hours for coal and days for nuclear plants) provide a perfect fit with the variable nature of wind and allow integration of a much larger percentage of intermittent renewable sources. In addition, a large existing infrastructure of pipelines, storage, and power plants (as well as associated knowledge) minimize the capital expenditure required for capacity expansion. Energy efficiency is seen as playing a role in dampening growth in worldwide energy demand in the face of strongly increasing demand¶ in developing economies, and here natural gas has a part to play. Natural gas has a role in the efficiency component of a sustainable energy system, both on the supply-side and in end-use efficiency. Carrier switching, distributed generation, and combined heat and power (CHP) together represent an enormous opportunity to increase system-level efficiency and thus minimize the extent to which capital- intensive renewable generation technologies must be implemented. The flexibility of natural gas allows it to fit into these niches and optimize system-wide performance.¶ Carrier switching involves the choice of the most appropriate energy carrier to supply a given end use, with the objective of minimizing primary energy consumption and greenhouse gas emissions. In¶ most contexts, it is more efficient to provide space heating, domestic hot water, and heat for cooking from natural gas than via electrical resistance from a grid-mix of electricity. For every 10 units of primary energy (PE) used to supply domestic hot water (DHW) via electrical resistance 3.8 units of final energy (FE) would ultimately be available to provide hot water after accounting for losses in power plants and transmission and distribution. 1 If provided by a natural gas boiler with an efficiency of 90% ten units of PE would yield nine of FE for water heating. This simple example illustrates the powerful role of carrier switching in energy efficiency. Although the penetration of natural gas in DHW, space heating, and cooking for the Netherlands is already extremely high, considerable potential for this sort of carrier switching exists in Southern Europe, the United States and other parts of the world. In the USA 10 units of PE yield 3.4 of FE delivered through the electricity grid on average, while in the IEA-EU 3.6 units are produced.2 In the IEA BLUE scenario, this sort of “end-use fuel switching” alone is expected to account for 15% of CO2 reductions.¶ Distributed generation represents another domain of natural gas in the scheme of energy efficiency. The flexibility of gas allows it to be used on any scale from large centralized power plants to medium and small plants that can be strategically placed to reinforce the electricity grid. This can have the effect of lowering losses due to shorter transmission distances and less congestion, but also minimizes the requirement of electricity grid expansion and associated capital expenditures. Perhaps more significantly such a system allows for the greater usage of waste heat for industrial processes or district heating/cooling via systems¶ of combined heat and power (CHP). These factors combined further demonstrate the ability of natural gas to contribute to efficiency efforts. The largest opportunity for natural gas in the scheme of energy efficiency is likely represented by CHP. Such systems make use of the waste heat from electrical power generation for industrial process heat or district heating and cooling. Through the advent of adsorption chillers, waste heat can also be used to generate cold water for district or process cooling. According to the IEA around 2/3 of fuel used to produce power on a global scale is wasted and CHP, through better utilization of waste heat and the lowering of transmission losses, has the potential to more than double this efficiency. In general, CHP plants convert 75-80% of the fuel source into useful energy, and those with the most modern technology have achieved efficiencies in excess of 90%. This figure stands in contrast to the ~60% efficiencies achieved by only the most advanced combined-cycle gas turbine (CCGT) power plants, representing the cutting edge in thermal power plant efficiency. CHP plants also deliver on an additional selection of policy objectives including reduced emissions of CO2 and other pollutants, cost savings for energy consumers, and a reduced need for transmission and distribution networks.¶ It must be noted that appropriate system design maximizing utilization of waste heat is necessary both in order to maximize the economic viability of CHP systems and achieve the efficiencies stated. If the system is driven by heat demand with electricity as a “byproduct”¶ to be utilized on-site or injected into the grid system efficiencies can easily reach the previously mentioned levels. If the system is driven by electricity demand complete utilization of waste heat is not assured and thus system efficiencies are lower. An illustrative example can be found in the case of a steam turbine CHP system with a power efficiency¶ of 38%, and “heat” efficiency of up to 42%. 3 Assuming maximal utilization of heat, an overall efficiency of 80% can be achieved. In a system driven by the price of electricity at times of high demand it is conceivable that only a portion (or even none) of the waste heat can be utilized, driving overall efficiencies as low as the 38% electrical efficiency. Thus, such a system could be economically viable but inefficient when compared with contemporary CCGT power plants. This example underscores the importance of proper system design in order to achieve theoretical efficiencies in the real world. Natural gas has its final role to play in a sustainable energy system as a large-scale source of clean and climate-neutral energy in combination with CCS. CCS is currently being developed and scaled and will likely be ready in the medium term to make a significant contribution. In fact, the IEA expects CCS technology to deliver around a fifth of the 50% reduction of CO2 by 2050 in their Energy Technology Perspectives “BLUE Map Scenario.” Fossil fuels have their role to play in the energy system of the future and it likely that natural gas, being the cleanest among them, will only expand its role in power generation for the foreseeable future.¶ Favorable characteristics are also displayed by natural gas in the context of the traditional energy paradigm include its large existing reserves, especially with their recent expansion due to the contribution of unconventional resources. Its scalability is also an advantage in that¶ it can fit into the energy system on any scale from a small boiler for domestic hot water to a 1000MW power station. It is also traded on a large scale in liquid markets facilitated by its readily available delivery by pipeline or, increasingly, liquefied natural gas (LNG) carrier and the associated network of terminals. Production of renewable or “green” gas from such sources as biomass (via gasification), or agricultural waste (via biogas digesters) is also being pursued. Such gases can be injected into the natural gas network (after being upgraded to an equivalent composition) and take advantage of its existing infrastructure.¶ One significant hurdle to the faster growth of renewable generation capacity is represented by their large, up-front costs. Although technologies such as wind and solar do not have fuel costs their¶ capital requirements present an obstacle, particularly with the current economic climate characterized by limits in the availability of credit and liquidity. Investments in conventional generation technologies with a lower capital intensity thus often appear more attractive. Continuing with such investments in the cleanest forms of contemporary generation technologies thus make sense in allowing alternative technologies to become more commercially viable, counter intuitively allowing investments to leverage larger capacities of alternative generation in the long term. The shorter lead-time for construction of natural gas power plants (in comparison to coal and nuclear) represents another favorable characteristic in this context. It is clear that conventional generation technologies and sources of energy will continue to expand and play a large role in the medium term. The question must therefore be asked: Which of the current energy sources are most feasible from an environmental, economic, and technical perspective? From a technical perspective, all of the current major technologies (natural gas, oil, nuclear, and hydropower) are well developed. Large reserves of coal and natural gas exist but those of oil are rapidly being depleted and the majority of suitable hydropower locations have been exploited. The EIA’s 2010 International Energy Outlook estimates a current reserves-to-production ratio (R/P) of 60 years for natural gas (excluding unconventional sources excepting those in the USA) and 129 years for coal. Uranium ore is widely available (R/P of ~60 years) but the future of nuclear power is uncertain, particularly considering that the recent Fukushima disaster in Japan¶ is likely to have a long-lasting adverse impact on the acceptance of nuclear generation. Coal and natural gas are the most widely available and scalable in addition to being relatively cheap and requiring of low capital investment.¶ Coal, in comparison to natural gas, exhibits significantly higher CO2 emissions and negative externalities including pollution (particulate matter, NOx, SOx,, mercury, etc). The EU project “ExternE” estimates externalities resulting from coal electricity generation in the EU (including global warming, public and occupational health as well as material damage, Table 1) at 2 - 15 Euro-cent/kWh, while those for natural gas are 1 - 4 cents/kWh. The IEA estimates that deaths per 10 billion kWh of electricity produced by coal range from 2.8 - 32.7, with those from natural gas falling between the range of 0.3 - 1.6. These include deaths resulting from mining accidents, explosions, pollution, and similar causes. Finally, a simple switch from coal to natural gas represents a reduction in CO2 emissions on the order of 50%.¶ Renewables, despite recent rapid growth and development, still require time to scale from their current levels to a leading role in the provision of energy for humanity. They currently lack the flexibility necessary to optimize energy system efficiency in the near-term and scale to account for significant portion of primary energy in the medium-term. Natural gas is already well developed and integrated into the contemporary energy system but will additionally support the transition to a more efficient system in its new role. This role comes in the form of a flexible, clean, and reliable energy carrier in the supporting a sustainable energy transition based on renewables, energy efficiency, and clean fossil generation technology. Thus, although its function will evolve, natural gas has an increasing role to play in the provision of a sustainable energy supply for the continued advancement of humanity.

#### Drilling is safe and solves seepage

**Thornley, Concordia business law professor, 2009**

(Drew, “Energy & Environmental Myths”, April, <http://www.manhattan-institute.org/energymyths/myth8.htm>, DOA: 1-17-13, ldg)

Since 1975, offshore drilling in the Exclusive Economic Zone (within 200 miles of U.S. coasts) has a safety record of 99.999 percent, meaning that only 0.0001 percent of the oil produced has been spilled.[103] With regard to the Outer Continental Shelf (U.S. waters under federal, rather than state, jurisdiction),[104] between 1993 and 2007 there were 651 oil spills, releasing 47,800 barrels of oil. Given 7.5 billion barrels of oil produced during that period, one barrel of oil has been spilled in the OCS per 156,900 barrels produced.[105] Research published in 2000 by the U.S. Minerals Management Service (MMS)[106] documents the decreasing occurrence of crude-oil spills in the OCS. Revising previous estimates first published in 1994, the authors analyzed data through 1999 and concluded that oil-spill rates for OCS platforms, tankers, and barges continued to decline.[107] Additionally, the number of oil spills from platforms, tankers, and pipelines is small, relative to the amount of oil extracted and transported. Even so, oil spills remain an unpleasant reality of offshore oil drilling. Certainly, any amount of oil spilled into the ocean is undesirable, but offshore oil operations contribute relatively little of the oil that enters ocean waters each year. For example, ocean floors naturally seep more oil into the ocean than do oil-drilling accidents and oil-tanker spills combined. (However, such seepage generally does not rise to the surface or reach the coastlines and, thus, is not as apparent as oil-drilling spills.) According to the National Academies’ National Research Council, natural processes are responsible for over 60 percent of the petroleum that enters North American ocean waters and over 45 percent of the petroleum that enters ocean waters worldwide.[108] Thus, in percentage terms, North America’s oil-drilling activities spill less oil into the ocean than the global average, suggesting that our drilling is comparatively safe for the environment. Ironically, research shows that drilling can actually reduce natural seepage, as it relieves the pressure that drives oil and gas up from ocean floors and into ocean waters. In 1999, two peer-reviewed studies found that natural seepage in the northern Santa Barbara Channel was significantly reduced by oil production. The researchers documented that natural seepage declined 50 percent around Platform Holly over a twenty-two-year period, concluding that, as oil was pumped from the reservoir, the pressure that drives natural seepage dropped.[109] Offshore oil drilling is carefully monitored for environmental safety. Using state-of-the-art technology and employing a range of procedural safeguards, U.S. offshore drilling has a track record of minimal environmental impact. Modern oil drilling is even designed to withstand hurricanes and tropical storms. According to the MMS, 3,050 of the Gulf of Mexico’s 4,000 platforms and 22,000 of the 33,000 miles of the Gulf’s pipelines were in the direct path of either Hurricane Katrina or Hurricane Rita. The hurricanes destroyed 115 drilling platforms, damaged 52 others, and damaged 535 pipeline segments, yet “there was no loss of life and no major oil spills attributed to either storm.”[110] All forms of energy production come with risks, both to humans and to the environment. Offshore oil drilling is no exception. Spills from offshore drilling and tankers undoubtedly will continue to occur, but they are rare and are decreasing in frequency; and the amount of oil spilled from rigs and tankers is small, compared with the amount of oil extracted and with the amount of oil that enters ocean waters naturally from ocean floors. As technology continues to advance, and as companies find themselves accountable to a public increasingly concerned about environmental stewardship, drilling for oil in our coastal waters will continue to be conducted in a safe and environmentally conscious manner.

#### Drilling inevitable- US lead ensures best practices

**Schneider, Clean Air Task Force Advocacy Director, 12**

(Michael, “Curb Methane Emissions,” National Journal, 7-25, <http://energy.nationaljournal.com/2012/07/is-arctic-oil-drilling-ready-f.php?comments=expandall#comments>, 2/16/13, atl)

What we do know is that the black carbon that flaring will release in the Arctic is particularly harmful, since it is so likely to settle out on snow or ice, where the dark pollutant rapidly warms the white frozen surface. Many technologies and best practices exist to reduce the impact of oil and gas production both to the Arctic and the global climate. If we are going to extract the oil from the Arctic, we need to do it in a way that does not exacerbate the very real problem that climate change is already posing there. In order to do so, the US must take the lead in ensuring that only the best practices are acceptable when it comes to Arctic exploration and drilling. The technologies and practices below can dramatically reduce the emissions associated with oil and natural gas, in some cases by almost 100%.

#### No impact – eco-system adapts to accidents

**Easterbrook, fellow at the Brookings Institution, 1995**

(Gregg, A moment on the Earth, pg 57, ldg)

Why did so many commentators presume Prince William Sound the victim of an instant doom? Petroleum is a naturally occurring product. It "spills" from the Earth's crust continuously via seepage, though more slowly than happened at the sound. Because petroleum regularly enters the biosphere on a natural basis, some organisms long ago adapted to metabolizing it. Conceptually what Exxon did was reposition a naturally occurring pollutant from below Earth's surface to an ocean inlet, a place where wave action, sunlight, biology, and other factors immediately began operating in opposition to the intruder

#### Extinction outweighs even if they are right-key to true ethical relations

**Gelven, Northern Illinois philosophy professor, 1994**

(Michael, War and Existence: A Philosophical Inquiry, p. 136-137, ldg)

The personal pronouns, like “I” and "We," become governed existentially by the possessive like, "ours," "mine," "theirs"; and this in turn becomes governed by the adjective "own." What is authentic I what is our own as a way of existing. The meaning of this term is less the sense of possession than the sense of belonging to. It is a translation of the German eigen, from which the term eigentlich (authentic) is derived. To lose this sense of one's own is to abandon any meaningfulness, and hence to embrace nihilism. To be a nihilist is to deny that there is any way of being that is our own; for the nihilist, what is one`s own has no meaning. The threat here is not that what is our own may yield to what is not, but rather that the distinction itself will simply collapse. Unless l can distinguish between what is our own and what is not, no meaningfulness is possible at all. 'This is the foundation of the we-they principle. The I in the title do not refer to anything; they merely reveal how we think. Q all principles, this existential principle does not determine sped/it judgments, any more than the principle of cause and effect determines what the cause of any given thing is. The we~they principle is simply a rule that governs the standards by which certain judgments are made. Since it is possible to isolate the existential meanings of an idea from the thing like referent, the notions of we~ness and they~ness can be articulated philosophically. On the basis of this primary understanding, it is possible to talk about an "existential value." that is, the weight or rank given to ways of existing in opposition to other kinds of value, such as moral or psychological values. But the principle itself is not, strictly speaking. a principle of value; it is an ontological principle, for its foundation is in the very basic way in which l think about what it means to be. The ground of the we-they principle is. quite simply, the way in which we think about being. Thus, it is more fundamental than any kind of evaluating or judging. One of the things that the authentic I can do, of course, is to concern itself with moral questions. Whether from a deontological sense of obligation or from a utilitarian projection of possible happiness, an I that considers these matters nevertheless is presupposed by them. Although authenticity and morality are distinct. a sense of who one is must precede a decision about how to act. Thus, the question of authenticity comes before the question of obligations. And since the worth of the I is generated from the prior worth of the we, it follows there can be no moral judgment that cancels out the worth of the I or the We. This k not to say that anything that benefits the we is therefore more important than what ought to be done. It is merely to say that any proper moral judgment will in fact be consistent with the integrity of the we. Thus, I would be morally prohibited from offending someone else merely for my own advantage, but no moral law would ever require me to forgo my existential integrity. This is true not only for moral questions but for any question of value whatsoever: all legitimate value claims must be consistent with the worth of the I and the We. It is only because my existence matters that I can care about such things as morality. aesthetics, or even happiness. Pleasure, of course, would still be preferable to pain, but to argue that one ought to have pleasure or even that it is good to have pleasure would simply reduce itself to a tautology: if I define pleasure as the satisfaction of my wants, then to say I want pleasure is tautological, for I am merely saying that I want what I want, which may be true but is not very illuminating. The existential worth of existing is therefore fundamental and cannot be outranked by any other consideration. Unless l am first meaningful. I cannot be good; unless l first care about who l am, I cannot genuinely care about anything else, even my conduct. To threaten this ground of all values, the worth of my own being, then becomes the supreme assault against me. To defend it and protect it is simply without peer, lt is beyond human appeal or persuasion,

#### Discourse is worthless—other structures trump

**Tuathail, geography professor Virginia Polytechnic Institute, 1996**

(Gearoid, “The critical geopolitics constellation: problematizing fusions of geographical knowledge and power”, Political Geography, 15(6-7), p. 664, science direct, ldg)

While theoretical debates at academic conferences are important to academics, the discourse and concerns of foreign-policy decision- makers are quite different, so different that they constitute a distinctive problem- solving, theory-averse, policy-making subculture. There is a danger that academics assume that the discourses they engage are more significant in the practice of foreign policy and the exercise of power than they really are. This is not, however, to minimize the obvious importance of academia as a general institutional structure among many that sustain certain epistemic communities in particular states. In general, I do not disagree with Dalby’s fourth point about politics and discourse except to note that his statement-‘Precisely because reality could be represented in particular ways political decisions could be taken, troops and material moved and war fought’-evades the important question of agency that I noted in my review essay. The assumption that it is representations that make action possible is inadequate by itself. Political, military and economic structures, institutions, discursive networks and leadership are all crucial in explaining social action and should be theorized together with representational practices. Both here and earlier, Dalby’s reasoning inclines towards a form of idealism. In response to Dalby’s fifth point (with its three subpoints), it is worth noting, first, that his book is about the CPD, not the Reagan administration. He analyzes certain CPD discourses, root the geographical reasoning practices of the Reagan administration nor its public-policy reasoning on national security. Dalby’s book is narrowly textual; the general contextuality of the Reagan administration is not dealt with. Second, let me simply note that I find that the distinction between critical theorists and post- structuralists is a little too rigidly and heroically drawn by Dalby and others. Third, Dalby’s interpretation of the reconceptualization of national security in Moscow as heavily influenced by dissident peace researchers in Europe is highly idealist, an interpretation that ignores the structural and ideological crises facing the Soviet elite at that time. Gorbachev’s reforms and his new security discourse were also strongly self- interested, an ultimately futile attempt to save the Communist Party and a discredited regime of power from disintegration. The issues raised by Simon Dalby in his comment are important ones for all those interested in the practice of critical geopolitics. While I agree with Dalby that questions of discourse are extremely important ones for political geographers to engage, there is a danger of fetishizing this concern with discourse so that we neglect the institutional and the sociological, the materialist and the cultural, the political and the geographical contexts within which particular discursive strategies become significant. Critical geopolitics, in other words, should not be a prisoner of the sweeping ahistorical cant that sometimes accompanies ‘poststructuralism nor convenient reading strategies like the identity politics narrative; it needs to always be open to the patterned mess that is human history.

#### Scarcity and environmental degradation are self-correcting-but maintaining the profit motive is key

**Desrochers, Toronto geography professor, 2010**

(Pierre, “The environmental responsibility of business is to increase its profits (by creating value within the bounds of private property rights)”, Industrial & Corporate Change. Feb2010, Vol. 19 Issue 1, ebsco, ldg)

Resources are limited, while human needs and desires are not. In a free market, the interaction of supply and demand results in prices that reflect the relative scarcity of physical and intellectual resources. Profits and losses are then generated by individuals’ relative ability to combine scarce inputs in order to provide products and services that consumers value more than available alternatives. Over time, goods that are more valuable than the sums of the inputs taken separately get produced, while goods worth less than the sum of their inputs are not. In this context, the appropriate measure of a firm’s success in creating value is long-term profitability. Some theorists and many environmental activists, however, argue that market incentives foster a short-term perspective in which production costs can be reduced and/or profitability increased through overexploitation of natural resources and polluting emissions that are not properly factored into the costs of production activities. The theologian John B. Cobb Jr (undated), for example, argues: “Keeping costs low often requires actions that are environmentally destructive,” while failure “to take such actions when similar ones are taken by competitors can have severely detrimental effects on a corporation.” Physiologist and geographer Jared Diamond (2005: 483) suggests that, “depending on the circumstances,” a firm “really may maximize its profits, at least in the short term, by damaging the environment and hurting people.” 7 This perspective is also shared by leading environmental economist Robert Stavins (2004: 12) who argues that “[i]f the market is left to itself, too many pollution-generating products get produced,” a point summed up in the following way by economists Marie-Franc¸ois Calmette and Isabelle Pe´choux (2006: 184): “It is well known that polluting agents need to be induced to internalize the social cost of pollution damage, otherwise they will engage in excessive levels of emission of pollutants.” Management professors Roland Geyer and Tim Jackson (2004: 56) further argue that traditional supply chains are based “on a linear production paradigm which relies on constant input of virgin natural resources and unlimited environmental capacity for assimilation of wastes and emissions.” In their opinion, “there is general agreement that this is causing environmental costs on a large scale and of a systematic nature, which cannot be fully addressed by traditional supply chain management.” This alleged market failure is nonetheless hard to reconcile with the fact that a firm’s survival is directly dependent upon the capacity of its owners and employees to create as much value as possible from costly inputs. In the words of businessman Charles G. Koch (2007: 104): “It is easy to fall into the trap of a single-minded emphasis on cost reduction. Cost is only one component (although a critically important one) of value creation. If your goal is to lose weight, you could accomplish this by cutting off your leg, but that is hardly beneficial. Cost-cutting for its own sake can be just as shortsighted and can seriously damage future profitability. It is more appropriate to focus on eliminating waste.” As scientist Jesse Ausubel (1998: 39) puts it: “Pollution and waste usually indicate inefficiency. In an economy of competing companies, inefficiency is for losers. So, over the long run, successful companies are going to be green and clean.” Building on this commonsensical insight and on his comparative work on the diverging environmental performance of market economies and centrally planned economies (with the former becoming wealthier and cleaner over time, while the latter stagnated or regressed while becoming increasingly polluted), Bernstam (1990: 348) suggests that the elimination of waste, rather than increased production or consumption, ultimately determines the impact of economic growth on the environment. In this perspective, “waste” includes not only “economically useless production” such as slag, refuse, scrap, spills, discards, and other processing losses, but also “destroyed primary resources” and “losses of intermediary and final output in transportation and storage.” 8 Thus when the growth in output exceeds the growth in resource input required, increased material wealth will be created while pollution levels decline. On the other hand, a poorer economy that uses a smaller amount of resources less efficiently will experience greater environmental damage. In 1987, for example, industrial and domestic air pollutant concentrations were five times higher in the USSR than in the United States, despite the fact that the former’s GDP was only half that of the latter. 9 Similarly, more tropical rainforests will be felled when livestock production, processing, and distribution is less efficient than it could be. Greater livestock production can thus be perfectly compatible with more benign environmental repercussions when more efficient methods are used. In other words, the impact of human activity on the biosphere is not a function of the amount of resources produced from it in the first place, but of the amount released from the economic sphere back into the biosphere. As will now be argued, the concomitant fear of resource exhaustion is similarly debatable. According to what is sometimes referred to as the “resourceship” paradigm (McDonald, 1995; Bradley, 2007), “resources are not, they become” in that they are neither fixed nor finite, but are created by renewable human intellect in an economic context where businesses transform and manipulate a variety of otherwise valueless inputs to generate saleable outputs (Zimmermann, 1951/1933; De Gregori, 1987; Simon, 1995, 1996; Bradley, 2007; Bra¨tland, 2008). 10 Historical evidence suggests that the profit motive has long acted as a powerful incentive to progressively increase the efficiency of material use. This is accomplished in two ways: first, by changing the material resources used by developing valuable inputs out of previously worthless raw materials, and, secondly, by transforming industrial wastes into sought-after intermediate products. Each of these processes resulted in significant environmental improvements, even when no priority was given to the issue. In turn, the same practices incidentally promote sustainable development, which is here defined as wealth creation through innovative activities with net economic, social, and environmental benefits. 11 I now turn to a more detailed examination of these fundamental processes. One of the most forceful statements on the social benefits of more efficient material use belongs to Jonathan Swift (1920 [1727]: 138–139) who, through his fictional King of Brobdingnag in his classic Gulliver’s Travels, argued that whoever “could make two Ears of Corn, or two blades of Grass to grow upon a Spot of Ground where only one grew before, would deserve better of Mankind, and do more essential Service to his Country than the whole Race of Politicians put together.” The French economist Nicolas Baudeau (1910 [1767]: 46, author’s translation) reported efforts in this direction a few decades later by observing that the goal of large agricultural operations was “firstly to double, triple, quadruple, or increase tenfold if possible the harvest on a particular piece of land; secondly to reduce the amount of labor employed to one half, one third, one fourth, or one tenth, whatever possible.” Despite his belief in decreasing returns to additional agricultural investments, the economist John Stuart Mill (1909: 183–184) also described advances that enabled “the land to yield a greater absolute produce, without an equivalent increase of labour,” but also others that “have not the power of increasing the produce, but have that of diminishing the labour and expense by which it is obtained,” in the process liberating them for other valuable uses. Examples of the first included the abandonment of fallows, their replacement by crop rotations, and the introduction of new elements into the rotation, such as turnips and fertilizers. Examples of laborsaving technologies included better tools, instruments, and “a more skilful and economical application of muscular exertion,” such as the introduction of a new plowing technique requiring two horses and one man to achieve results that had previously required three or four horses and two men. A few years earlier, the polymath Charles Babbage (1846 [1832]: 62–63) had observed how advances in mechanical precision and mass production resulted in “a degree of economy in the consumption of the raw material which is, in some cases, of great importance.” For example, in the printing industry “large hemispherical balls stuffed and covered with leather” had been replaced by “cylindrical rollers of an elastic substance” which, with the later addition of steam engines to printing presses, had reduced the volume of ink needed to complete a given task by almost 65% without any visible change in the quality of the final product. Crory (1876) similarly describes numerous efficiency-improving technologies in his journalistic survey of a wide range of manufacturing activities in East London. For example, a building firm manager had supervised the construction of a timber drying-house following the best Norwegian practices to which he had added new ideas of his own. Among other improvements, the heat used to dry the timber was delivered through underground pipes in such a way as “to render safety, economy, and efficiency at once practicable and certain.” The driving machinery was similarly built underground, which again minimized the risk of accidents and economized space that, “even in such a wide area as that occupied by these Works,” was valuable (p. 87). The sharpening of saws by the use of emery instead of files was also “a great improvement” that resulted, “in a place where so much sawing is done,” into a considerable saving of money (p. 88). A contemporary of Crory similarly observed in an essay on progress that improvements depend on inventions that help humans “obtain greater effects with less expenditure of space, of time, of materials and forces” (Gore, 1882: 151). While the evidence provided by past writers might have been mostly anecdotal, numerous studies on the increased efficiency of material use over time have demonstrated the validity of their analysis (Sanbach, 1978; Bernstam, 1990; Rosenberg, 1994a; Simpson, 1999). As Ausubel (1998: 39) writes, “the wheels of history [have long been] rolling in the direction of prudent, clean use of resources,” whether one looks at energy, land (for agricultural and timber production), water, and materials. For example: The US economy has averaged about 1% less energy to produce a good or service each year since about 1800; In the last 300 years, the efficiency of generators has gone up from 1% of their apparent limit to about 50%; In the last two centuries, the ratio of weight to power in industrial boilers has decreased almost 100 times; In 1860, globally, about 1.1 tons of carbon went into the primary energy produced by the energy equivalent of 1 ton of oil then in the fuel mix; this amount had decreased to about 0.7 tons in 1990; Since the late 1960s, per capita water use in the United States has fallen at an annual rate of 1.4%, while absolute water withdrawals peaked around 1980 (Ausubel, 1998). Scarcity-induced price increases effectively dissuade any inefficient use of resources and encourage reductions in the quantity of inputs needed to maintain the same amount of output. The concept of dematerialization is now often used to characterize the decline over time of the weight of materials used in industrial end products (Chadwick, 1997; Wernick et al., 1996; Cleveland and Ruth, 1998; Scarlett, 1999; De Bruyn, 2002; Labys, 2002). While it has also long been observed that increased efficiency in the use of a resource often results in a greater aggregate use or consumption of that resource (Jevons, 1865; Rosenberg, 1994a; Alcott, 2005), 12 a case will now be made that this “rebound effect,” even if coupled with a growing population, is rarely problematic because higher quality resources are continually being created from both natural substances and production residuals. In a market economy, a sustained price increase for any resource not only encourages individuals to use it more efficiently, but also to look for more of it and to develop substitutes. As a result, despite the physical finiteness of the Earth, most resources for which there is a sustained demand over time have become more plentiful and affordable (Barnett and Morse, 1963; Simon, 1995; Lomborg, 2001; Goklany, 2007). The scarcity/price stimulus also provides the incentive for human ingenuity to substitute smaller volumes of higher quality or technologically more sophisticated materials for the larger volumes of lower quality materials utilized by mature industries, a process sometimes referred to as transmaterialization (Labys, 2002). In the former case, economic incentives reward the development of innovative resource extraction processes that open up newly profitable deposits (e.g. offshore drilling, less concentrated ores). In the latter case, similar economic incentives stimulate the development of new inputs with some combination of advantages over earlier alternatives, such as being more powerful and/or abundant; stronger and/or lighter; and/or easier to produce, handle, transport, and/or store. 13 For example, whale oil was supplanted by coal gas and kerosene, which were themselves eventually displaced by electricity and the incandescent light bulb. Most energy needs in Western societies were originally supplied by wood and hay, which were eventually supplanted by coal, hydroelectric and nuclear power, oil, and natural gas (Ausubel, 1991; Smil, 1994). Nitrogen for agricultural production was originally provided by the recycling of organic waste (such as straw and manure), the rotation of nitrogen-fixing leguminous grains (including peas, beans, lentils, and soybeans), and the plowing under of leguminous cover crops (such as clover and vetches). In time, however, better (i.e., more cost-effective) substitutes were developed, including guano (desiccated sea bird excrement), superphosphates (prepared mostly by digesting powdered bones with dilute sulfuric acid), Chilean sodium nitrate, ammonia recovery (mostly ammonium sulfate) from the coking of coal, and ammonia synthesis from the atmosphere (Smil, 2001). One aspect of transmaterialization that so far seems to have escaped the attention of most analysts, however, is that it often involved the development of new by-products out of formerly wasted industrial residuals. 14 This process will now be examined in more detail.

#### Predictions and scenario building are valuable for decision-making, even if they’re not perfect

**Garrett, Atlantic Council Strategic Foresight Initiative director, 2012**

(Banning, “In Search of Sand Piles and Butterflies”, <http://www.acus.org/disruptive_change/search-sand-piles-and-butterflies>, DOA: 3-21-13, ldg)

“Disruptive change” that produces “strategic shocks” has become an increasing concern for policymakers, shaken by momentous events of the last couple of decades that were not on their radar screens – from the fall of the Berlin Wall and the 9/11 terrorist attacks to the 2008 financial crisis and the “Arab Spring.” These were all shocks to the international system, predictable perhaps in retrospect but predicted by very few experts or officials on the eve of their occurrence. This “failure” to predict specific strategic shocks does not mean we should abandon efforts to foresee disruptive change or look at all possible shocks as equally plausible. Most strategic shocks do not “come out of the blue.” We can understand and project long-term global trends and foresee at least some of their potential effects, including potential shocks and disruptive change. We can construct alternative futures scenarios to envision potential change, including strategic shocks. Based on trends and scenarios, we can take actions to avert possible undesirable outcomes or limit the damage should they occur. We can also identify potential opportunities or at least more desirable futures that we seek to seize through policy course corrections. We should distinguish “strategic shocks” that are developments that could happen at any time and yet may never occur. This would include such plausible possibilities as use of a nuclear device by terrorists or the emergence of an airborne human-to-human virus that could kill millions. Such possible but not inevitable developments would not necessarily be the result of worsening long-term trends. Like possible terrorist attacks, governments need to try to prepare for such possible catastrophes though they may never happen. But there are other potential disruptive changes, including those that create strategic shocks to the international system, that can result from identifiable trends that make them more likely in the future—for example, growing demand for food, water, energy and other resources with supplies failing to keep pace. We need to look for the “sand piles” that the trends are building and are subject to collapse at some point with an additional but indeterminable additional “grain of sand” and identify the potential for the sudden appearance of “butterflies” that might flap their wings and set off hurricanes. Mohamed Bouazizi, who immolated himself December 17, 2010 in Sidi Bouzid, Tunisia, was the butterfly who flapped his wings and (with the “force multiplier” of social media) set off a hurricane that is still blowing throughout the Middle East. Perhaps the metaphors are mixed, but the butterfly’s delicate flapping destabilized the sand piles (of rising food prices, unemployed students, corrupt government, etc.) that had been building in Tunisia, Egypt, and much of the region. The result was a sudden collapse and disruptive change that has created a strategic shock that is still producing tremors throughout the region. But the collapse was due to cumulative effects of identifiable and converging trends. When and what form change will take may be difficult if not impossible to foresee, but the likelihood of a tipping point being reached—that linear continuation of the present into the future is increasingly unlikely—can be foreseen. Foreseeing the direction of change and the likelihood of discontinuities, both sudden and protracted, is thus not beyond our capabilities. While efforts to understand and project long-term global trends cannot provide accurate predictions, for example, of the GDPs of China, India, and the United States in 2030, looking at economic and GDP growth trends, can provide insights into a wide range of possible outcomes. For example, it is a useful to assess the implications if the GDPs of these three countries each grew at currently projected average rates – even if one understands that there are many factors that can and likely will alter their trajectories. The projected growth trends of the three countries suggest that at some point in the next few decades, perhaps between 2015 and 2030, China’s GDP will surpass that of the United States. And by adding consideration of the economic impact of demographic trends (China’s aging and India’s youth bulge), there is a possibility that India will surpass both China and the US, perhaps by 2040 or 2050, to become the world’s largest economy. These potential shifts of economic power from the United States to China then to India would likely prove strategically disruptive on a global scale. Although slowly developing, such disruptive change would likely have an even greater strategic impact than the Arab Spring. The “rise” of China has already proved strategically disruptive, creating a potential China-United States regional rivalry in Asia two decades after Americans fretted about an emerging US conflict with a then-rising Japan challenging American economic supremacy. Despite uncertainty surrounding projections, foreseeing the possibility (some would say high likelihood) that China and then India will replace the United States as the largest global economy has near-term policy implications for the US and Europe. The potential long-term shift in economic clout and concomitant shift in political power and strategic position away from the US and the West and toward the East has implications for near-term policy choices. Policymakers could conclude, for example, that the West should make greater efforts to bring the emerging (or re-emerging) great powers into close consultation on the “rules of the game” and global governance as the West’s influence in shaping institutions and behavior is likely to significantly diminish over the next few decades. The alternative to finding such a near-term accommodation could be increasing mutual suspicions and hostility rather than trust and growing cooperation between rising and established powers—especially between China and the United States—leading to a fragmented, zero-sum world in which major global challenges like climate change and resource scarcities are not addressed and conflict over dwindling resources and markets intensifies and even bleeds into the military realm among the major actors. Neither of these scenarios may play out, of course. Other global trends suggest that sometime in the next several decades, the world could encounter a “hard ceiling” on resources availability and that climate change could throw the global economy into a tailspin, harming China and India even more than the United States. In this case, perhaps India and China would falter economically leading to internal instability and crises of governance, significantly reducing their rates of economic growth and their ability to project power and play a significant international role than might otherwise have been expected. But this scenario has other implications for policymakers, including dangers posed to Western interests from “failure” of China and/or India, which could produce huge strategic shocks to the global system, including a prolonged economic downturn in the West as well as the East. Thus, looking at relatively slowly developing trends can provide foresight for necessary course corrections now to avert catastrophic disruptive change or prepare to be more resilient if foreseeable but unavoidable shocks occur. Policymakers and the public will press for predictions and criticize government officials and intelligence agencies when momentous events “catch us by surprise.” But unfortunately, as both Yogi Berra and Neils Bohr are credited with saying, “prediction is very hard, especially about the future.” One can predict with great accuracy many natural events such as sunrise and the boiling point of water at sea level. We can rely on the infallible predictability of the laws of physics to build airplanes and automobiles and iPhones. And we can calculate with great precision the destruction footprint of a given nuclear weapon. Yet even physical systems like the weather as they become more complex, become increasingly difficult and even inherently impossible to predict with precision. With human behavior, specific predictions are not just hard, but impossible as uncertainty is inherent in the human universe. As futurist Paul Saffo wrote in the Harvard Business Review in 2007, “prediction is possible only in a world in which events are preordained and no amount of actions in the present can influence the future outcome.” One cannot know for certain what actions he or she will take in the future much less the actions of another person, a group of people or a nation state. This obvious point is made to dismiss any idea of trying to “predict” what will occur in the future with accuracy, especially the outcomes of the interplay of many complex factors, including the interaction of human and natural systems. More broadly, the human future is not predetermined but rather depends on human choices at every turning point, cumulatively leading to different alternative outcomes. This uncertainty about the future also means the future is amenable to human choice and leadership. Trends analyses—including foreseeing trends leading to disruptive change—are thus essential to provide individuals, organizations and political leaders with the strategic foresight to take steps mitigate the dangers ahead and seize the opportunities for shaping the human destiny. Peter Schwartz nearly a decade ago characterized the convergence of trends and disruptive change as “inevitable surprises.” He wrote in Inevitable Surprises that “in the coming decades we face many more inevitable surprises: major discontinuities in the economic, political and social spheres of our world, each one changing the ‘rules of the game’ as its played today. If anything, there will be more, no fewer, surprises in the future, and they will all be interconnected. Together, they will lead us into a world, ten to fifteen years hence, that is fundamentally different from the one we know today. Understanding these inevitable surprises in our future is critical for the decisions we have to make today …. We may not be able to prevent catastrophe (although sometimes we can), but we can certainly increase our ability to respond, and our ability to see opportunities that we would otherwise miss.

#### Threat construction does not cause war.

**Sullivan, PhD in political science Harvard University, 2003**

(Andrew, “Idiocy of the week Sheryl Crow, brain-dead peacenik in sequins.”, 1-15-2003, Salon.com, http://dir.salon.com/story/opinion/sullivan/2003/01/15/crow/index.html, ldg)

One is also required to ask: If war is "not the answer," what exactly is the question? I wonder if, in her long interludes of geopolitical analysis, Ms. Crow even asks herself that. Perhaps if she did -- let's say the question is about the threat of weapons of mass destruction in the hands of terrorists -- we might have an inkling about what her "answer" might actually be. Mercifully, Ms. Crow provides us with what she believes is an argument. Are you sitting down? Here it comes: "I think war is based in greed and there are huge karmic retributions that will follow. I think war is never the answer to solving any problems. The best way to solve problems is to not have enemies." Let's take this bit by bit. "War is based in greed." Some wars, surely. The pirate wars of the 17th century. Saddam's incursion into Kuwait. Early British forays in the Far East and India. But all wars? The United States' intervention in the Second World War? The Wars of Religion in the 17th century? Many wars are fueled by nationalism, or by ideology, or by expansionism. And many wars have seen their protagonists not enriched but impoverished. Take Britain's entry into the war against Nazi Germany. It would have been far more lucrative for the Brits to have made a deal with Hitler, to preserve their wealth and empire. Instead, they waged war, lost their entire imperial project and ransacked their own domestic wealth. Where would that fit into Ms. Crow's worldview? And then there's the concept of a just war -- wars that have to be fought to defeat a greater evil. Wars of self-defense. Wars of prevention. Wars against tyrants. Ms. Crow's remarks seem to acknowledge no such distinction. Does she believe that removing Hitler from power solved nothing? That preventing further genocide in the Balkans solved nothing? That ending 50 years of Soviet tyranny meant nothing? Apparently so. There's only one word for this kind of argument: Asinine. Then we have this wonderful insight: "The best way to solve problems is to not have enemies." Wow. Like, wow. Like, war. It's bad. Bad karma. **But**, ahem, **what if you have no choice in the matter**? What if an enemy decides, out of hatred or fanaticism or ideology, simply to attack you? I'm not sure where Ms. Crow was on Sept. 11, 2001. But the enemy made its point palpably clear. Does wishing that these crazed religious nuts were not our enemies solve any problems? I'm taking her too seriously, of course. I should ignore her. But the "antiwar" movement (I put it in quotation marks because any kind of appeasement this time will only make a bloodier future war inevitable) is happy to use celebrities for its own purposes. And so their presence in the debate has to be acknowledged, if only to be decried. So let's decry this moronic celebrity convergence. The weak arguments of the appease-Saddam left just got a little weaker. And the karmic retributions are gonna be harsh, man. Way harsh.

#### Fear tied to specific action creates hope not apathy.

**Sandman et al., Stanford University Communications PhD, 1986**

(Peter, “Scared stiff – or scared into action”, Bulletin of the Atomic Scientists, January, <http://www.psandman.com/articles/scarstif.htm>, ldg)

“The main obstacle to action,” writes Frank, “is neither apathy nor terror but simply a feeling of helplessness. To combat it, I have perhaps overemphasized the small signs that antinuclear activities are at last beginning to influence the political process.”(19) Helplessness, hopelessness, futility, and despair are words one hears even more often than fear from the barely active and the formerly active. And like fear, these emotions can easily lead to psychic numbing. Those who feel powerless to prevent nuclear war try not to think about it; and it serves the needs of those who do not wish to think about nuclear war to feel powerless to prevent it. Messages of hope and empowerment, however, break this vicious circle. The label “hope,” as we use it, subsumes a wide range of overlapping concepts: for example, optimism, a sense of personal control and efficacy, confidence in methods and solutions, a sense of moral responsibility, and a vision of the world one is aiming for. It is well established (and hardly surprising) that hope is closely associated with willingness to act. Activism appeals most to people who feel positive about both the proposed solution and their personal contribution to its achievement. Over the long term, this means that antinuclear organizers must communicate a credible vision of a nuclear-free world. Meanwhile, they must offer people things to do that seem achievable and worthwhile. The nuclear-weapons-freeze campaign attracted millions of new activists in 1982 because it offered credible hope. By 1985 many of those millions could no longer ground their hope in the freeze; some found other approaches and some returned to inactivity. Most social psychologists today see the relationship between hope and action as independent of fear or other feelings. For example, Kenneth H. Beck and Arthur Frankel conclude that three cognitions (not emotions) determine whether people will do something about a health risk: recognizing the danger as real, believing the recommended plan of action will reduce the danger, and having confidence in their ability to carry out the plan.(20) Similarly, Sutton’s review of the fear-appeal literature finds inconsistent support for the notion that people can accept higher levels of fear if they feel the proposed solution will remedy the problem, but strong evidence that, regardless of fear, people are more inclined to act on solutions they see as more effective.(21)

#### Energy should be evaluated through a realist lens

**Cesnakas, Vytautas Magnus University political science doctoral candidate, 2010**

(Giedrius, “Energy Resources In Foreign Policy: A Theoretical Approach”, Baltic Journal Of Law & Politics, 3.1, online pdf, ldg)

Because energy resources are material objects and demand a materialistic ontology and positivistic epistemology, the realism paradigm is best suited for analysis. Energy resources in foreign policy should be analysed in a realistic paradigm, as material power or hard power is in the centre of this paradigm. Also states not only maintain their dominance over energy resources, but try to increase it, as energy resources are elements of strategic importance, and there exists no universal energy market that suggests that the liberal paradigm should be waived. The realism paradigm for a long time took into account only military power, but other material aspects of power as well are highlighted in the realism paradigm as suggested by H. J. Morgenthau. The changing environment of the international system suggests that non-military aspects of power are becoming more important. Energy resources in the contemporary world become very important elements of power, where military power is used in order to expand control over energy resources. There are no acting global supranational organizations that could deal with issues of energy resources in foreign policy, so states are the main actors that use energy resources in their foreign policy. States are rational actors, but rationality in energy resources does not necessary mean economic rationality, as it can be sacrificed in order to increase state power and influence abroad. States struggle for survival or compete for domination, and in order to reach goals states compete for power, namely, in the form of material elements. Classical realism has a state-centric view, a concept of motivation and political action that is power, for which states compete with each other. Material resources are elements that allow for expanding states greater influence abroad, which leads to increased power in the control of material resources. This is applied to energy resources as well. Energy resources create possibilities to increase a state‟s relative power. Classical realism cannot explain a situation in which the state does not expand influence abroad even when its power increases. Classical realism lacks independent domestic variables that allow for the explanation of differences between states belonging to the same group. The neorealism theory is state-centric, and concentrates on systemic level analysis. Neorealism accentuates international system‟s constraints on states. Waltz suggests that states compete for power, because power brings security. Neoclassical realism does not include domestic variables of states, and domestic elements do not influence unit behaviour. It is essential to include domestic variables, in order to explain a state‟s foreign policy. Defensive realism is a structural theory that assuming that states expand their influence abroad when they seek security. Defensive realism includes domestic variables in its analysis. Suggesting that states expand only in search for security, defensive realism loses parsimony, as states also strive for power. The theory includes non-military power aspects and it allows for the inclusion of energy resources in the analysis. When facing anomalies defensive realism creates auxiliary theories, and suggests that wide domestic policy analysis should be done. However, in doing so it loses it focus on the energy resources. Offensive realism, another structural theory, suggests that states seek to acquire as much power as possible. Energy resources in the theory are important as long as they increase military might, because military might is the most important element of power of state. Offensive realism lacks parsimony when power extracted from the energy resources is used for the increase of economic, political or diplomatic power abroad, but not for the increase of military power. Offensive realism cannot explain role of energy resources in foreign policy of energy importing and transit states. Neoclassical realism is a synthesis of classical realism, neorealism with the inclusion of domestic variables, and some aspects of constructivist theory. Foreign policy is a dependent variable while independent variables are the international system, statesmen‟s perception of system, statesmen‟s perception of state‟s power capabilities. Foreign policy depends on states‟ capabilities to use power elements in that matter and energy resources. Different state power and different perception of international system allows for explaining different roles of energy resources in 51 state‟s foreign policy, of states belonging to the same group. States seeking to expand influence abroad use energy resources in foreign policy more commonly and states having greater state power – power to extract resources from national power – can use energy resources in foreign policy more actively and efficiently.

#### Threats are real and we should act on them – they exist independent of fear

**Knudsen, Sodertom political science professor, 2001**

(Olav, “Post-Copenhagen Security Studies: Desecuritizing Securitization”, Security Dialogue 2001 32: 355, SAGE, ldg)

Moreover, I have a problem with the underlying implication that it is unimportant whether states 'really' face dangers from other states or groups. In the Copenhagen school, threats are seen as coming mainly from the actors' own fears, or from what happens when the fears of individuals turn into paranoid political action. In my view, this emphasis on the subjective is a misleading conception of threat, in that it discounts an independent existence for what- ever is perceived as a threat. Granted, political life is often marked by misperceptions, mistakes, pure imaginations, ghosts, or mirages, but such phenomena do not occur simultaneously to large numbers of politicians, and hardly most of the time. During the Cold War, threats - in the sense of plausible possibilities of danger - referred to 'real' phenomena, and they refer to 'real' phenomena now. The objects referred to are often not the same, but that is a different matter. Threats have to be dealt with both in terms of perceptions and in terms of the phenomena which are perceived to be threatening. The point of Waver's concept of security is not the potential existence of danger somewhere but the use of the word itself by political elites. In his 1997 PhD dissertation, he writes, 'One can view "security" as that which is in language theory called a speech act: it is not interesting as a sign referring to something more real - it is the utterance itself that is the act/2' The deliberate disregard of objective factors is even more explicitly stated in Buzan 8: Waever's joint article of the same year." As a consequence, the phenomenon of threat is reduced to a matter of pure domestic politics."It seems to me that the security dilemma, as a central notion in security studies, then loses its foundation. Yet I see that Waever himself has no compunction about referring to the security dilemma in a recent article." This discounting of the objective aspect of threats shifts security studies to insignificant concerns. What has long made 'threats' and "˜threat perceptions' important phenomena in the study of IR is the implication that urgent action may be required. Urgency, of course, is where Waever first began his argument in favor of an alternative security conception, because a convincing sense of urgency has been the chief culprit behind the abuse of 'security' and the consequent 'politics of panic', as Waver aptly calls it." Now, here -in the case of urgency - another baby is thrown out with the Waeverian bathwater. When real situations of urgency arise, those situations are challenges to democracy; they are actually at the core of the problematic arising with the process of making security policy in parliamentary democracy. But in Waever's world, threats are merely more or less persuasive, and the claim of urgency is just another argurnent. I hold that instead of 'abolishing' threatening phenomena 'out there' by reconceptualizing them, as Waever does, we should continue paying attention to them, because situations with a credible claim to urgency will keep coming back and then we need to know more about how they work in the interrelations of groups and states (such as civil wars, for instance), not least to find adequate democratic procedures for dealing with them.

#### Policymakers have an obligation to err in favor of prediction—it’s inevitable and using explicit predictions enhances decision-making

**Fitzsimmons, defense analyst in Washington DC, 07**

(Michael, “The Problem of Uncertainty in Strategic Planning”, Survival (00396338), December 1, 2006, 10/24/12, atl)

In defence of prediction Uncertainty is not a new phenomenon for strategists. Clausewitz knew that ‘many intelligence reports in war are contradictory; even more are false, and most are uncertain’. In coping with uncertainty, he believed that ‘what one can reasonably ask of an officer is that he should possess a standard of judgment, which he can gain only from knowledge of men and affairs and from common sense. He should be guided by the laws of probability.’34 Granted, one can certainly allow for epistemological debates about the best ways of gaining ‘a standard of judgment’ from ‘knowledge of men and affairs and from common sense’. Scientific inquiry into the ‘laws of probability’ for any given strategic question may not always be possible or appropriate. Certainly, analysis cannot and should not be presumed to trump the intuition of decision-makers. Nevertheless, Clausewitz’s implication seems to be that the burden of proof in any debates about planning should belong to the decision-maker who rejects formal analysis, standards of evidence and probabilistic reasoning. Ultimately, though, the value of prediction in strategic planning does not rest primarily in getting the correct answer, or even in the more feasible objective of bounding the range of correct answers. Rather, prediction requires decisionmakers to expose, not only to others but to themselves, the beliefs they hold regarding why a given event is likely or unlikely and why it would be important or unimportant. Richard Neustadt and Ernest May highlight this useful property of probabilistic reasoning in their renowned study of the use of history in decision-making, Thinking in Time. In discussing the importance of probing presumptions, they contend: The need is for tests prompting questions, for sharp, straightforward mechanisms the decision makers and their aides might readily recall and use to dig into their own and each others’ presumptions. And they need tests that get at basics somewhat by indirection, not by frontal inquiry: not ‘what is your inferred causation, General?’ Above all, not, ‘what are your values, Mr. Secretary?’ ... If someone says ‘a fair chance’ ... ask, ‘if you were a betting man or woman, what odds would you put on that?’ If others are present, ask the same of each, and of yourself, too. Then probe the differences: why? This is tantamount to seeking and then arguing assumptions underlying different numbers placed on a subjective probability assessment. We know of no better way to force clarification of meanings while exposing hidden differences ... Once differing odds have been quoted, the question ‘why?’ can follow any number of tracks. Argument may pit common sense against common sense or analogy against analogy. What is important is that the expert’s basis for linking ‘if’ with ‘then’ gets exposed to the hearing of other experts before the lay official has to say yes or no.’35 There are at least three critical and related benefits of prediction in strategic planning. The first reflects Neustadt and May’s point – prediction enforces a certain level of discipline in making explicit the assumptions, key variables and implied causal relationships that constitute decision-makers’ beliefs and that might otherwise remain implicit. Imagine, for example, if Shinseki and Wolfowitz had been made to assign probabilities to their opposing expectations regarding post-war Iraq. Not only would they have had to work harder to justify their views, they might have seen more clearly the substantial chance that they were wrong and had to make greater efforts in their planning to prepare for that contingency. Secondly, the very process of making the relevant factors of a decision explicit provides a firm, or at least transparent, basis for making choices. Alternative courses of action can be compared and assessed in like terms. Third, the transparency and discipline of the process of arriving at the initial strategy should heighten the decision-maker’s sensitivity toward changes in the environment that would suggest the need for adjustments to that strategy. In this way, prediction enhances rather than undermines strategic flexibility. This defence of prediction does not imply that great stakes should be gambled on narrow, singular predictions of the future. On the contrary, the central problem of uncertainty in planning remains that any given prediction may simply be wrong. Preparations for those eventualities must be made. Indeed, in many cases, relatively unlikely outcomes could be enormously consequential, and therefore merit extensive preparation and investment. In order to navigate this complexity, strategists must return to the distinction between uncertainty and risk. While the complexity of the international security environment may make it somewhat resistant to the type of probabilistic thinking associated with risk, a risk-oriented approach seems to be the only viable model for national-security strategic planning. The alternative approach, which categorically denies prediction, precludes strategy. As Betts argues, Any assumption that some knowledge, whether intuitive or explicitly formalized, provides guidance about what should be done is a presumption that there is reason to believe the choice will produce a satisfactory outcome – that is, it is a prediction, however rough it may be. If there is no hope of discerning and manipulating causes to produce intended effects, analysts as well as politicians and generals should all quit and go fishing.36 Unless they are willing to quit and go fishing, then, strategists must sharpen their tools of risk assessment. Risk assessment comes in many varieties, but identification of two key parameters is common to all of them: the consequences of a harmful event or condition; and the likelihood of that harmful event or condition occurring. With no perspective on likelihood, a strategist can have no firm perspective on risk. With no firm perspective on risk, strategists cannot purposefully discriminate among alternative choices. Without purposeful choice, there is no strategy. One of the most widely read books in recent years on the complicated relationship between strategy and uncertainty is Peter Schwartz’s work on scenario-based planning, The Art of the Long View. Schwartz warns against the hazards faced by leaders who have deterministic habits of mind, or who deny the difficult implications of uncertainty for strategic planning. To overcome such tendencies, he advocates the use of alternative future scenarios for the purposes of examining alternative strategies. His view of scenarios is that their goal is not to predict the future, but to sensitise leaders to the highly contingent nature of their decision-making.37 This philosophy has taken root in the strategic-planning processes in the Pentagon and other parts of the US government, and properly so. Examination of alternative futures and the potential effects of surprise on current plans is essential. Appreciation of uncertainty also has a number of organisational implications, many of which the national-security establishment is trying to take to heart, such as encouraging multidisciplinary study and training, enhancing information sharing, rewarding innovation, and placing a premium on speed and versatility. The arguments advanced here seek to take nothing away from these imperatives of planning and operating in an uncertain environment. But appreciation of uncertainty carries hazards of its own. Questioning assumptions is critical, but assumptions must be made in the end. Clausewitz’s ‘standard of judgment’ for discriminating among alternatives must be applied. Creative, unbounded speculation must resolve to choice or else there will be no strategy. Recent history suggests that unchecked scepticism regarding the validity of prediction can marginalise analysis, trade significant cost for ambiguous benefit, empower parochial interests in decision-making, and undermine flexibility. Accordingly, having fully recognised the need to broaden their strategic-planning aperture, national-security policymakers would do well now to reinvigorate their efforts in the messy but indispensable business of predicting the future.

#### IR nuclear war gaming key to good predictions and effective policy-making

**Han, Nebraska political science PhD candidate, 2010**

(Dong-ho, “Scenario Construction and Implications for IR Research: Connecting Theory to a Real World of Policy Making”, 1-26, <http://citation.allacademic.com/meta/p_mla_apa_research_citation/4/1/5/6/2/pages415621/p415621-1.php>, DOA: 3-21-13, ldg)

Another example of the use of scenario analysis by defense planners can be found in a series of papers by the Rand Corporation that deal with ongoing national security issues and develop national security policies for the United States government. A recent article by Brian Jackson and David Frelinger entitled “Emerging Threats and Security Planning,” one of a series, deals with issues such as the security threats the U.S. government faces now and suggests how to discern “true” threats from “false” threats.57 Coping with a variety of emerging threats means not just focusing on traditional and conventional ways of thinking but also concentrating on unconventional and unusual modes of reasoning, often based on fanciful thinking that scenario planning most seeks to inspire. Again, a series of papers at the Rand Corporation have dealt with diverse national security issues and tried to devise various national security policies for the U.S. government on the basis of scenario thinking and analysis. One of the early efforts in this domain could be found in a work on how nuclear war might start from the perspective of the early twenty-first century.58 In these papers various scenarios have been unfolded ranging from the possibility of nuclear warfare to emerging threats and new technological innovations in the military and industrial domains. The diverse usages of scenarios in government think tanks like Rand suggest that scenarios could have potential to be used for not only articulating alternative possibilities in a certain issue area but also applying various thoughts of different outcomes into a real world of policy making. In a word, scenario-based planning could make a difference in such diverse areas as business, military, economics, and politics. Common and effective usage of scenario planning in other fields such as business, military, and even education strategic planning, strengthened by scenario-oriented methodological approaches, has considerable implications for the development of the field of IR in terms of the possible connection of theory and policy. If IR scholars could derive more practical insights from these fields of studies, their research could be more fruitful in the arena of real world policy making. This is why we need a discussion of the necessity of introducing scenario analysis in our field, the topic of the following section. 4. Why the Study of International Politics Needs Scenario Analysis Is the rationale for using scenarios in other disciplines still relevant for the study of international politics? Or do we have to find some other reasons for using the scenario methodology in our field?59 The potential relevance of the scenario method to the field of IR can be found in various efforts of IR scholars to use a variety of theoretical insights in order to think about an unknown future. As the previous section suggested, the scenario methodology has been primarily developed in the areas of military planning and strategic management. In the field of IR a few scholars have reevaluated the importance of scenario analysis as a social science methodology.60 These scholars contend that the scenario-building method could make a unique contribution to IR research because of the alternatives to a “scientific” approach it offers to mainstream IR theorizing.

#### Institutional logics exist independently of individuals-alt can’t solve.

**Wight, Sydney IR professor, 2006**

(Colin, Agents, Structures and International Relations: Politics as Ontology, pg 48-50, ldg)

One important aspect of this relational ontology is that these relations constitute our identity as social actors. According to this relational model of societies, one is what one is, by virtue of the relations within which one is embedded. A worker is only a worker by virtue of his/her relationship to his/her employer and vice versa. ‘Our social being is constituted by relations and our social acts presuppose them.’ At any particular moment in time an individual may be implicated in all manner of relations, each exerting its own peculiar causal effects. This ‘lattice-work’ of relations constitutes the structure of particular societies and endures despite changes in the individuals occupying them. Thus, the relations, the structures, are ontologically distinct from the individuals who enter into them. At a minimum, the social sciences are concerned with two distinct, although mutually interdependent, strata. There is an ontological difference between people and structures: ‘people are not relations, societies are not conscious agents’. Any attempt to explain one in terms of the other should be rejected. If there is an ontological difference between society and people, however, we need to elaborate on the relationship between them. Bhaskar argues that we need a system of mediating concepts, encompassing both aspects of the duality of praxis into which active subjects must fit in order to reproduce it: that is, a system of concepts designating the ‘point of contact’ between human agency and social structures. This is known as a ‘positioned practice’ system. In many respects, the idea of ‘positioned practice’ is very similar to Pierre Bourdieu’s notion of *habitus*. Bourdieu is primarily concerned with what individuals do in their daily lives. He is keen to refute the idea that social activity can be understood solely in terms of individual decision-making, or as determined by surpa-individual objective structures. Bourdieu’s notion of the *habitus* can be viewed as a bridge-building exercise across the explanatory gap between two extremes. Importantly, the notion of a habitus can only be understood in relation to the concept of a ‘social field’. According to Bourdieu, a social field is ‘a network, or a configuration, of objective relations between positions objectively defined’. A social field, then, refers to a structured system of social positions occupied by individuals and/or institutions – the nature of which defines the situation for their occupants. This is a social field whose form is constituted in terms of the relations which define it as a field of a certain type. A habitus (positioned practices) is a mediating link between individuals’ subjective worlds and the socio-cultural world into which they are born and which they share with others. The power of the habitus derives from the thoughtlessness of habit and habituation, rather than consciously learned rules. The habitus is imprinted and encoded in a socializing process that commences during early childhood. It is inculcated more by experience than by explicit teaching. Socially competent performances are produced as a matter of routine, without explicit reference to a body of codified knowledge, and without the actors necessarily knowing what they are doing (in the sense of being able adequately to explain what they are doing). As such, the *habitus* can be seen as the site of ‘internalization of reality and the externalization of internality.’ Thus social practices are produced in, and by, the encounter between: (1) the habitusand its dispositions; (2) the constraints and demands of the socio-cultural field to which the habitus is appropriate or within; and (3) the dispositions of the individual agents located within both the socio-cultural field and the habitus. When placed within Bhaskar’s stratified complex social ontology the model we have is as depicted in Figure 1. The explanation of practices will require all three levels. Society, as field of relations, exists prior to, and is independent of, individual and collective understandings at any particular moment in time; that is, social action requires the conditions for action. Likewise, given that behavior is seemingly recurrent, patterned, ordered, institutionalised, and displays a degree of stability over time, there must be sets of relations and rules that govern it. Contrary to individualist theory, these relations, rules and roles are not dependent upon either knowledge of them by particular individuals, or the existence of actions by particular individuals; that is, their explanation cannot be reduced to consciousness or to the attributes of individuals. These emergent social forms must possess emergent powers. This leads on to arguments for the reality of society based on a causal criterion. Society, as opposed to the individuals that constitute it, is, as Foucault has put it, ‘a complex and independent reality that has its own laws and mechanisms of reaction, its regulations as well as its possibility of disturbance. This new reality is society…It becomes necessary to reflect upon it, upon its specific characteristics, its constants and its variables’.

## Death Reps

#### Death reps cause an empathic shift---this is especially crucial in the context of policy debates and advocacy simulations

**Recuber, CUNY sociology doctoral candidate, 2011**

(Timothy, “Consuming Catastrophe: Authenticity And Emotion In Mass-Mediated Disaster”, gradworks.umi.com/3477831.pdf, DOA: 11-3-12, ldg)

Perhaps, then, what distant consumers express when they sit glued to the television watching a disaster replayed over and over, when they buy t-shirts or snow globes, when they mail teddy bears to a memorial, or when they tour a disaster site, is a deep, maybe subconscious, longing for those age-old forms of community and real human compassion that emerge in a place when disaster has struck. It is a longing in some ways so alien to the world we currently live in that it requires catastrophe to call it forth, even in our imaginations. Nevertheless, the actions of unadulterated goodwill that become commonplace in harrowing conditions represent the truly authentic form of humanity that all of us, to one degree or another, chase after in contemporary consumer culture every day. And while it is certainly a bit foolhardy to seek authentic humanity through disaster-related media and culture, the sheer strength of that desire has been evident in the public’s response to all the disasters, crises and catastrophes to hit the United States in the past decade. The millions of television viewers who cried on September 11, or during Hurricane Katrina and the Virginia Tech shootings, and the thousands upon thousands who volunteered their time, labor, money, and even their blood, as well as the countless others who created art, contributed to memorials, or adorned their cars or bodies with disaster-related paraphernalia— despite the fact that many knew no one who had been personally affected by any of these disasters—all attest to a desire for real human community and compassion that is woefully unfulfilled by American life under normal conditions today. In the end, the consumption of disaster doesn’t make us unable or unwilling to engage with disasters on a communal level, or towards progressive political ends—it makes us feel as if we already have, simply by consuming. It is ultimately less a form of political anesthesia than a simulation of politics, a Potemkin village of communal sentiment, that fills our longing for a more just and humane world with disparate acts of cathartic consumption. Still, the positive political potential underlying such consumption—the desire for real forms of connection and community—remains the most redeeming feature of disaster consumerism. Though that desire is frequently warped when various media lenses refract it, diffuse it, or reframe it to fit a political agenda, its overwhelming strength should nonetheless serve notice that people want a different world than the one in which we currently live, with a different way of understanding and responding to disasters. They want a world where risk is not leveraged for profit or political gain, but sensibly planned for with the needs of all socio-economic groups in mind. They want a world where preemptive strategies are used to anticipate the real threats posed by global climate change and global inequality, rather than to invent fears of ethnic others and justify unnecessary wars. They want a world where people can come together not simply as a market, but as a public, to exert real agency over the policies made in the name of their safety and security. And, when disaster does strike, they want a world where the goodwill and compassion shown by their neighbors, by strangers in their communities, and even by distant spectators and consumers, will be matched by their own government. Though this vision of the world is utopian, it is not unreasonable, and if contemporary American culture is ever to give us more than just an illusion of safety, or empathy, or authenticity, then it is this vision that we must advocate on a daily basis, not only when disaster strikes.

#### The K causes genocide

**Dollimore, Sussex sociologist, 1998**

(Jonathan, Death, Desire and Loss in Western Culture, pg 221, ldg)

The ideology of death is the corollary of the ideology of God, in that it is invoked to justify not only unfreedom, (renunciation, quietism, defeatism), but also, and inseparably, domination: the ‘masochistic’ exaltation of one’s own death, says Marcuse, entails also the death of others. Moreover, the ideology of death implies acceptance of an existing repressive political order, and marks the birth of a philosophical morality which rationalizes it. In this respect, although Marcuse implausibly imagines that the ontological affirmation of death comes to a close in the philosophy of Heidegger, he anticipates a prolonged later debate when he discerns in Heidegger’s work an ‘ideological exhortation to death’ appearing ‘at the very time when the political ground was prepared for the corresponding reality of death – the gas chambers and concentration camps of Auschwitz, Buchenwald, Dachau, and Bergen-Belsen’ (p.69)

#### Their K assumes obsession with personal death; Turn -- stopping meaningless human created extinction is key to affirm life

Barash, University of Washington Professor of Psychology, 85

(David P, “The Caveman and the Bomb” p.261-267, 3/28/13, atl)

Fortunately, whatever genetic imperatives operate in Homo sapiens, they are unlikely to extend directly to nuclear weapons, any more than a tendency for body adornment necessarily leads to a Christian Dior necktie or a New Guinea penis sheath. The general patterns that char­acterize today's nuclear Neanderthal are, in fact, general, nonspecific. They may incline us to a degree of saber rattling that seems likely to trouble the world in one way or another as long as we and the world persist, but these patterns don't require that the saber be nuclear. On this level the nuclear Neanderthal doesn't even have to play "as if": We are called on to behave not as if we had free will regarding the renun­ciation of nuclear weapons and nuclear war, but to act in accord with that free will, which we assuredly have. That is honest empowerment indeed. Teilhard de Chardin wrote about the "Omega point" at which human beings become conscious of their own evolution and, hence, of them­selves. He called for a recognition of unity and connectedness, with our species born on this planet and spread over its entire surface, coming gradually to form around its earthly matrix a single, major organic unity, enclosed upon itself; a single, hypercomplex, hyperconcentrated, hyperconscious arch-molecule, coextensive with the heavenly body on which it is born.9 In overcoming the Neanderthal mentality we could finally become hu­man, or perhaps even more than this, at last able to answer affirmatively the question: Is there intelligent life on earth? As poet and novelist Nikos Kazantzakis pleaded, "Let us unite, let us hold each other tightly, let us merge our hearts, let us create for Earth a brain and a heart, let us give a human meaning to the superhuman struggle."'° Something has spoken to me in the night, burning the tapers of the waning year; something has spoken in the night, and told me I shall die, I know not where. Saying: "To lose the earth you know, for greater knowing; to lose the life you have, for greater life; to leave the friends you loved, for greater loving; to find a land more kind than home, more large than earth—Whereupon the pillars of this earth are founded, toward which the conscience of the world is tending—a wind is rising and the rivers flow." THOMAS WOLFE 11 For the existentialists the essence of humanity is in saying no—no to injustice, to murder, to the absurd and dehumanizing universe itself. But the ultimate existential tragedy is that in the long run, saying no cannot succeed. Each of us will eventually die, and this looming inevitability makes our lives absurd**.** By our very aliveness we are therefore embarked on a hopeless campaign, which may yield some victories, but only tem­porary ones. Like a cosmic poker game, we are playing against the house, but in this game the house never loses; even if we are briefly ahead, we cannot cash in our chips and go home winners. There is no other place to go. At the close of The Plague, Albert Camus lets us inside the thoughts of Dr. Rieux, who had courageously battled a typhoid epidemic in a North African city. Just as the plague has finally been overcome, and the survivors were celebrating in the streets, Dr. Rieux understood that the tale he had to tell could not be one of a final victory. It could be only the record of what had had to be done, and what assuredly would have to be done again in the never-ending fight against terror and its relentless onslaughts, despite their personal afflictions, by all who, while unable to be saints but refusing to bow down to pestilences, strive their utmost to be healers. And, indeed, as he listened to the cries of joy rising from the town, Rieux remembered that such joy is always imperiled. He knew what those jubilant crowds did not know but could have learned from books: that the plague bacillus never dies or disappears for good; that it can lie dormant for years and years in furniture and linen-chests; that it bides its time in bedrooms, cellars, trunks, and bookshelves; and that perhaps the day would come when, for the bane and the enlightening of men, it would rouse up its rats again and send them forth to die in a happy city.12 But effectiveness per se is not the issue. The rats may come again, and with them the plague, just as every person now alive must some day die. The real question—for would-be post-Neanderthals no less than for existential thinkers—concerns the obligation of human beings in the face of such a world**. "**In everlasting terms—those of eternity," wrote Thomas Wolfe, "there is no greater wisdom than the wisdom of Ecclesiastes, no acceptance finally so true as the stern fatalism of the rock. Man was born to live, to suffer, and to die, and what befalls him is a tragic lot. There is no denying this in the final end." Nonetheless, he concludes, we must "deny it all along the way." Although admitting the "stern lesson of acceptance," which calls for acknowledging the "tragic under-weft of life into which man is born, through which he must live, out of which he must die," Wolfe described his intention, "having accepted it, to try to do what was before me, what I could do, with all my might."13 Camus went farther. According to Greek mythology, Sisyphus had been condemned to spend eternity rolling an enormous rock up a steep hill;when the rock neared the top, it would roll back down, and Sisyphus would have to start again. In "The Myth of Sisyphus," Sisyphus serves not only as a metaphor for humanity but, as Camus sees it, as a model as well. His struggle is not only self-defining, but also ennobling. More­over, Camus concludes that Sisyphus is happy. There are some important differences between Sisyphus and Dr. Rieux, and the post-Neanderthal. For one thing, Dr. Rieux could afford to lose many battles and even many patients, just as Sisyphus can tolerate the constant victory of gravity**.** Sisyphus, after all, is crushed neither mentally nor literally by his stone; no matter how many people die from a plague, some survive. Dr. Rieux will never eradicate the plague; his glory comes from his fighting on in the face of that knowledge. Sisyphus will never succeed in his labor; his happiness comes from his self-defi­nition, knowing his futility. Unlike them, however, we are not doomed to failure. Before beginning their combat the Roman gladiators used to face the spectators in the Coliseum and announce, "We who are about to die salute you." Two thousand years later the poet W. H. Auden updated their credo: "We who are about to die demand a miracle." Like the gladiators, Auden was concerned about the end of his life, what Kurt Vonnegut calls "plain old death." And to overcome plain old personal death, nothing less than a bona fide miracle in the theological sense will do. We can say no to personal death and an absurd universe all we like, but in the end, like Rieux and Sisyphus, we are bound to lose. The good news, however, is that the other kind of death—the mass, meaningless annihilation that would come with nuclear war—is not inevitable. Unlike the overturning of personal death, no divine intervention is required. Unlike the eruption of a volcano or the brewing of a hurricane, nuclear war is a man-made problem, with man- and woman-made solutions. Unlike Auden and the gladiators, we have a precious and unique op­portunity: We can say no to our Neanderthal mentality, to our genes. We are the only creatures on earth who can do this. We have this op­portunity because our genes whisper to us, they do not shout. They can be stubborn, but they can be persuaded, cajoled, bribed, or, if necessary, simply overruled and strong-armed into submission. Dr. Rieux learned in a time of pestilence that "there are more things to admire in men than to despise." Similarly, the whole can be greater than the sum of its parts, if we choose to be. We can be greater than the sum of our genes. If that is our decision, evolution can't do a thing about it. Making that decision is the supreme test of our humanity, our greatest challenge and our most sublime opportunity. Nonetheless, war touches a deep chord in most human beings, and the decision to say no will not be an easy one. Sigmund Freud com­mented that prohibitions and taboos by their very existence strongly suggest a preexisting desire to perform the prohibited act, otherwise there would be no need for the prohibition: "What no human soul desires, there is no need to prohibit; it is automatically excluded. The very em­phasis of the commandment Thou Shalt Not Kill makes it certain that we spring from an endless ancestry of murderers, with whom the lust for killing was in the blood, as possibly it is to this day with ourselves." He also emphasized that wars occur because nations, like individuals, "still obey their immediate passions far more readily than their inter­ests,"14 a succinct summary of the plight of today's Neanderthal. Prior to World War I especially, the making of war was generally considered a laudable activity. Admiration and often adulation flowed to such men as Alexander, Achilles, Caesar, Charlemagne, Frederick the Great, Napoleon, and Robert E. Lee. The first masterpiece of Western literature (Homer's Iliad) and the first histories (Herodotus' account of the Persian Wars, and Thucydides' study of the Peloponnesian War) focused on war. Western culture is by no means unique in its glorification of war, as witness the cultures of ancient Africa, Mexico, and Fiji. Ac­cordingly, "the war against war," as William James pointed out, "is going to be no holiday excursion or camping party."15 The fact is that war and sanctified violence have had a powerful and persistent appeal cross‑culturally, although not in all cultures, and throughout human history. Thus, as James said, war has come to be seen as "preserving our ideals of hardihood," a supreme test of human effectiveness, the most de­manding and, hence, for many people, the most rewarding activity of which they are capable. It is revealing that whereas "war" exists in the plural, "peace" is conceived only in the singular. (A similar pattern obtains in other lan­guages as well.) We have the War of the Roses, the Napoleonic wars, the Maori wars, World Wars I and II, and so on, but only one peace, despite the fact that there must have been as many different kinds of peace as different kinds of wars. As with the Eskimos, who are said to have eleven words for what in English we simply call "snow," or the Bedouin, who have more than one hundred words for "camel," human beings distin­guish carefully among whatever is important to them. For countless generations the human Neanderthal has been obsessed with war, and indifferent to peace, even slightly bored with it. When and if peace becomes as appealing as war, perhaps then we shall focus on it, identi­fying its varieties and nuances. Words signifying normalcy, like "peace," "health," and "sanity," have lagged behind their pathological counter­parts; thus, we know more about diseases than about wellness. Yet, as the holistic health movements are demonstrating, in order to practice preventive medicine, it is necessary to define, describe, and validate the state of wellness before one can act effectively to preserve it. Much of war's appeal, according to William James, comes from its aura of extremis, embodying the most dangerous and strenuous of human struggles, and hence becoming strangely ennobling despite (or in part, because of) its extraordinary horror. The contemplation of war, the prep­aration for war, and in many cases even the fighting of war is something that most Neanderthals find compelling, exciting, and even fun. Accord­ing to James, this gut-level attraction "cannot be met effectively by mere counter-insistency on war's expensiveness and horror. The horror makes the thrill; and when the question is of getting the extremist and supremist out of human nature, talk of expense sounds ignominious." He therefore proposed a "substitute for war's disciplinary function"—his now-famous Moral Equivalent of War, suggesting a peacetime conscription which would not so much overcome the Neanderthal mentality as bypass it with a bit of social ju jitsu, sublimating dangerous human urges into constructive activity.16 In a sense, the Peace Corps was a practical example of James's con­ception; but a real peace corps can be fashioned only when peacemaking becomes recognized as an acceptable and active verb, and when peace takes its rightful place at our own core. Ironically, in a world society that is increasingly intolerant of personal violence, that forbids murder, assault, even the threat of physical abuse, and in which fistfights and even bullying are grossly out of place, in diplomatic parlors, war and the threat of war remain acceptable. Rather than finding a moral equivalent of war, we have collectively made war itself into a morally acceptable form of violence such that societies can contemplate and plan actions that would be unacceptable if undertaken by its individual members. Those old Neanderthal cravings are still alive and well, running just beneath the surface, needing only the slightest provocation to erupt, even in the most sophisticated and presumably civilized societies. Just let some Americans be taken hostage in Iran, or a Korean airliner violate Soviet airspace, and suddenly the cavemen are at it again and the old predictable tribal bellowing resumes. Homo, called sapiens, is all but drowned in an atavistic avalanche of anger, distrust, and intolerance. The structures of peace, built up with such care and needing such nurturance, seem woefully delicate and fragile before the crude, easily evoked Neanderthal onslaught. But here we note Theodore Roethke's observation, "In a dark time, the eye begins to see." Perhaps by thinking, feeling, and believing, we can see through our Neanderthal mentality, and forge a new awareness where we confront our limitations and our strengths, able to bend, but nonetheless to resist and not to break. A major impediment to this awareness has been our ignorance that the Neanderthal mentality even exists. There is also the double irony of pessimism—the assumption that the Neanderthal mentality, under the alias of "human nature," is un­changeable. Insofar as it succeeds, this assumption is a triumph for the Neanderthal mentality and, moreover, a self-fulfilling prophecy. It is also seductive; it leaves each of us free to go ahead with his or her own little life, all the while treading on unstable slopes, heedless of the danger. "The challenge to humans in our time is whether they can become aroused not just over small but over larger dangers," observed Norman Cousins. "Whether they can perceive universal problems as well as per­sonal ones, whether they can become as concerned over their survival as a species as they are over their jobs."" This arousal is growing, in part because the overriding universal problem is increasingly perceived as an intensely personal one, because it threatens the deepest personal values of every human being, and also because it demands a committed personal response. Perhaps we shall have the final laugh after all, and perhaps the laugh will be on evolution. In giving so much autonomy to the bodies they create, the genes of Homo sapiens have unwittingly sewn the seeds of their own overthrow (not the seeds of their destruction, for that would mean our own demise as well). It is precisely—and only—by overthrowing our genes, by taking the unprecedented step and saying no to their dangerous and insistent whisperings, that we can preserve them, along with everything else. By saying no to that aspect of our genes, we say yes to life, to love, and to hope, and even to the continuation of those troublesome genes themselves. There is no better time. "At this moment," wrote Albert Camus, when each of us must fit an arrow to his bow and enter the lists anew, to reconquer, within history and in spite of it, that which he owns already, the thin yield of his fields, the brief love of this earth, at this moment when at last a man is born, it is time to forsake our age and its adolescent furies. The bow bends; the wood complains. At the moment of supreme tension, there will leap into flight an unswerving arrow, a shaft that is inflexible and free.18 Maybe in the long run we shall all laugh together, as through our negation of the Neanderthal mentality we arrive at a new affirmation, a higher level of life, its most exalted accomplishment. This will be the point at which, while unable to be saints but refusing to bow down to universal murder, we resolve to overcome the Neanderthal mentality and thereby transcend,if not overcome, our biology itself.

# 1AR

## Shale

#### Newest ev proves

Cobb, CS Monitor, 3/26

(Kurt, March 26, 2013, “Do high natural gas prices mean the shale boom is ending?”, http://www.csmonitor.com/Environment/Energy-Voices/2013/0326/Do-high-natural-gas-prices-mean-the-shale-boom-is-ending, 3/29/13, atl)

As U.S. natural gas prices flirt with the $4 mark, some skeptics of the so-called shale gas revolution think prices are headed much higher. Such a move would, not surprisingly, seriously undermine the official story that the United States has a century of cheap natural gas waiting for the drillbit. Several years ago when natural gas began flowing in great quantities from deep shale deposits beneath American soil, it seemed to be the beginning of the end of America’s troubled journey into dependence on energy imports—a journey marked by frequent worry, occasional war and enormous expense. But, to some people this supposed solution to America’s energy needs has begun to seem as costly to the environment and human health as the country’s dependence on imported energy has been in terms of mental distress, money and blood. It turns out that this new kind of natural gas requires the industrialization of the countryside in order to extract it. And that, say those closest to the action, risks tainting air, land, and drinking water and compromising the health of humans and animals alike. Well, at least we can say that shale gas is plentiful, cheap, American, and much easier on the climate than coal or oil. It didn’t take too long before people started looking into whether shale gas really was that much easier on the climate. [A Cornell University researcher came to the conclusion that shale gas was probably worse for climate change than coal](http://www.news.cornell.edu/stories/April11/GasDrillingDirtier.html). His conclusion hinged in part on what are called “fugitive emissions”—unintentional, but unavoidable releases of unburned methane into the atmosphere during the [hydraulic fracturing](http://en.wikipedia.org/wiki/Hydraulic_fracturing)operations performed to extract the gas. Methane is [some 20 times more potent](http://www.climatescience.gov/infosheets/highlight1/default.htm) than carbon dioxide as a greenhouse gas. Naturally, the oil and gas industry [responded vigorously](http://anga.us/links-and-resources/howarth-a-credibility-gap#.UUzVtjf57Cs) to the researcher’s findings with its usual ad hominem attacks. But, it also highlighted uncertainties that are always part of any scientific study. This industry is, of course, the same one that has consistently denied the existence of climate change and continues to spend millions trying to convince the public that climate change either isn’t happening, or if it is, it won’t be that bad or if it is, it may actually be good for us. The industry’s response to the study has, not surprisingly, been met with skepticism. That is befitting an industry that, having spent the last two decades denying climate change, now suddenly embraces it as a reason to produce more natural gas. So, despite the industry’s best efforts, the meme that shale gas is worse than coal is out there and being repeated again and again by opponents of shale gas drilling. Well, at least we can say that shale gas is plentiful, cheap and American. But, then came [the industry campaign to end federal limitations on the export of natural gas.](http://thehill.com/blogs/e2-wire/e2-wire/279609-oil-firms-governors-urge-natural-gas-export-expansion) What had been touted by the industry as a fuel that would help lead America to energy independence would henceforth be treated as just another world commodity seeking the highest bidder—even if that bidder is in China, Japan or Great Britain. The industry’s aim, of course, is to get higher prices for its product than customers in the United States can provide. As noted above, natural gas trades at around $4 per thousand cubic feet (mcf) in the United States. That compares to about $17 per mcf for liquefied natural gas delivered to Japan. The price in Europe is around $12. Well, at least we can say that shale gas is plentiful and cheap. As natural gas prices declined from double digits in 2008 and the shale gas boom proceeded apace, the industry convinced Americans that cheap, plentiful natural gas was the country’s future for a century to come. And, when natural gas prices plunged briefly to $1.82 per mcf last April, even the oil and gas industry began to wonder whether cheap natural gas was really such a great thing. At that price or anything below about $2.50 really, almost no wells were profitable. Last year independent petroleum geologist Art Berman, while reviewing the financial wreckage of the once flourishing, but now fallen shale gas drillers, [noted that the industry was based on](http://www.theoildrum.com/node/8914): an improbable business model that has no barriers to entry except access to capital, that provides a source of cheap and abundant gas, and that somehow also allows for great profit. Despite three decades of experience with tight sandstone and coal-bed methane production that yielded low-margin returns and less supply than originally advertised, we are expected to believe that poorer-quality shale reservoirs will somehow provide superior returns and make the U.S. energy independent. As Berman noted back then: “Improbable stories that great profits can be made at increasingly lower prices have intersected with reality.” The industry proceeded [to abandon shale gas plays in favor of tight oil plays](http://resourceinsights.blogspot.com/2011/02/when-believers-stop-believing.html) which have proven to be profitable with oil prices consistently crisscrossing $100 a barrel in the last two years. Apparently, price does matter when it comes to natural gas. And so, it seems natural gas won’t be endlessly cheap in America after all. As Berman foretold in [an earlier piece](http://www.theoildrum.com/node/8212), prices would have to rise to between $5 and $6 to make currently paid-for leases profitable from this point forward and between $7 to $8 to make new leases worth pursuing. For comparison, back in the heyday of cheap natural gas, the decade of the 1990s, the average annual U.S. price was $1.92 per mcf, [according the U.S. Energy Information Administration](http://www.eia.gov/dnav/ng/hist/n9190us3a.htm). So what exactly has happened to U.S. natural gas production as reality has set in and companies have withdrawn drills to await prices that might actually be profitable? The answer ought to be troubling to those who are counting on endlessly escalating supplies large enough to displace the majority of oil and coal used in our economy. To wit, U.S. marketed natural gas production has been flat for the last two years. The trend is so ominous that two industry insiders I know believe that U.S. natural gas production could actually start declining soon and send prices soaring. They say drillers have fallen so far behind that it will be impossible to make up for production lost from existing shale gas wells. Those wells typically see production decline rates of 85 percent after two years. (Translation: Some 85 percent of existing production from shale gas wells must be replaced every two years BEFORE production can grow.) The future is, of course, unknown to us. But, the present and the past suggest that the so-called shale gas revolution is about to be laid to rest. Yes, shale gas might prevent total American natural gas production from dropping off a cliff even as conventional natural gas production continues to decline. And, at some point shale gas might even allow U.S. production to rise modestly above current levels. But, two things are now abundantly clear: It won’t be easy and it won’t be cheap.

## K

#### Survival key to value to life

**Kacou 2008**

(Amien, “Why Even Mind? -- On The A Priori Value Of “Life”, Cosmos and History: The Journal of Natural and Social Philosophy, Vol 4, No 1-2, <http://cosmosandhistory.org/index.php/journal/article/view/92>, DOA: 3-5-12, ldg)

Furthermore, that manner of finding things good that is in pleasure can certainly not exist in any world without consciousness (i.e., without “life,” as we now understand the word)—slight analogies put aside. In fact, we can begin to develop a more sophisticated definition of the concept of “pleasure,” in the broadest possible sense of the word, as follows: it is the common psychological element in all psychological experience of goodness (be it in joy, admiration, or whatever else). In this sense, pleasure can always be pictured to “mediate” all awareness or perception or judgment of goodness: there is pleasure in all consciousness of things good; pleasure is the common element of all conscious satisfaction. In short, it is simply the very experience of liking things, or the liking of experience, in general. In this sense, pleasure is, not only uniquely characteristic of life but also, the core expression of goodness in life—the most general sign or phenomenon for favorable conscious valuation, in other words. This does not mean that “good” is absolutely synonymous with “pleasant”—what we value may well go beyond pleasure. (The fact that we value things needs not be reduced to the experience of liking things.) However, what we value beyond pleasure remains a matter of speculation or theory. Moreover, we note that a variety of things that may seem otherwise unrelated are correlated with pleasure—some more strongly than others. In other words, there are many things the experience of which we like. For example: the admiration of others; sex; or rock-paper-scissors. But, again, what they are is irrelevant in an inquiry on a priori value**—**what gives us pleasure is a matter for empirical investigation. Thus, we can see now that, in general, something primitively valuable is attainable in living—that is, pleasure itself. And it seems equally clear that we have a priori logical reason to pay attention to the world in any world where pleasure exists. Moreover, we can now also articulate a foundation for a security interest in our life: since the good of pleasure can be found in living (to the extent pleasure remains attainable),[17] and only in living, therefore, a priori, life ought to be continuously (and indefinitely) pursued at least for the sake of preserving the possibility of finding that good. However, this platitude about the value that can be found in life turns out to be, at this point, insufficient for our purposes. It seems to amount to very little more than recognizing that our subjective desire for life in and of itself shows that life has some objective value. For what difference is there between saying, “living is unique in benefiting something I value (namely, my pleasure); therefore, I should desire to go on living,” and saying, “I have a unique desire to go on living; therefore I should have a desire to go on living,” whereas the latter proposition immediately seems senseless? In other words, “life gives me pleasure,” says little more than, “I like life.” Thus, we seem to have arrived at the conclusion that the fact that we already have some (subjective) desire for life shows life to have some (objective) value. But, if that is the most we can say, then it seems our enterprise of justification was quite superficial, and the subjective/objective distinction was useless—for all we have really done is highlight the correspondence between value and desire. Perhaps, our inquiry should be a bit more complex.