### Plan

#### The Secretary of the Interior should lift the drilling moratorium for the Outer Continental Shelf for natural gas production.

### 1AC Prices

#### Natural gas prices are low now but spikes in demand are inevitable

Larry Spears (writer for Resource Investor) July 20, 2012 “These Natural Gas Stocks Will Bounce Back” http://www.resourceinvestor.com/2012/07/20/these-natural-gas-stocks-will-bounce-back?t=commodities

But prices for this plentiful alternative fuel are just beginning to turn higher after a four-year slide that saw values slashed by more than 80%. That price decline – from a high of $10.38 per million British thermal units (BTUs) in July 2008 to just $1.83 in April of this year – was primarily the result of a decade-long increase in US gas production, which climbed by 21.6% from 2002 to 2011. That trend finally has begun to reverse, as the rate of inventory build-up has fallen steadily for almost three months. What's more, the size of the current natural gas surplus relative to year-ago levels has fallen by 23% since late March. Three big reasons explain this shift: Although the primary use of natural gas is still as fuel for winter heating, more and more electric utilities are switching from coal to the much cleaner gas as fuel for their power plants – and the recent heat wave has spiked that rising summertime demand. We've had an early start to the hurricane season – think late June's Tropical Storm Debby – which has disrupted some offshore production. Some gas producers have finally slowed their output, a reflection of the fact that it makes little sense to keep selling gas at the current price of around $2.87 per million BTUs while the production cost is upward of $4.00 per million BTUs. Another bullish factor for natural gas stocks in the longer term is the growing drive to find new uses for it. In particular, the US government is aggressively looking for ways to substitute natural gas for dirtier fuels – i.e., coal in power plants and gasoline in cars. Just last week, the US Department of Energy (DOE) announced $30 million in new funding for 13 research projects dedicated to finding "new ways of harnessing America's abundant natural gas supplies for cars and trucks." Texas A&M University received a $3 million grant to develop absorbent materials for smaller, low-pressure natural gas tanks (essential if they're to fit in today's passenger cars). And the University of Texas received a $4.3 million grant to design a single-piston natural gas compressor that would make at-home auto-refueling stations more practical. As reported earlier in Money Morning, rising demand from China and southern Asia – expected to increase by 17% over the next five years – would also bolster natural gas prices and prospects for natural gas companies.

#### Demand outweighs now – plan is key to balance supply increases

**Kane, 8/6** senior reporter for Hartford Business Journal (Brad Kane, Hartford Business Journal, 6 August 2012, “Booming demand for natural gas pushes up prices,” http://www.hartfordbusiness.com/apps/pbcs.dll/article?AID=/20120806/PRINTEDITION/308039977)//CC

The demand for natural gas nationwide and in Connecticut increased drastically over the last couple of years as new technology has enabled tapping of gas trapped in shale rock formations in the Midwest and South. The large supply caused prices to drop 66 percent in the past four years, and suddenly the rush was on to increase natural gas usage, particularly because it emits 45 percent fewer greenhouse gases than coal and 30 percent fewer than petroleum. "We are at historic lows for natural gas prices. Those historic lows cannot be maintained," said Lee Hoffman, attorney at Hartford law firm Pullman & Comley and one of Connecticut Gov. Dannel Malloy's advisors on energy policy. Commodity prices will increase as production levels off in the coming years, Teller said. In 2011, the supply and production of natural gas increased 8 percent. This year, it is expected to increase 5 percent. Next year, production will remain flat or increase 1 percent, according to EIA. As production is leveling off, demand is increasing thanks to all the new electric generation and home heating usage, Teller said. "This year, we saw increases in both supply and demand," Teller said. "In 2013, we forecast increases in total consumption while production remains flat."

#### Otherwise, the price spike will be quick and massive

Finger, 7/27 Forbes contributor (Richard Finger, Forbes, 27 July 2012, “Natural Gas Is Heading Higher: More Data,” http://www.forbes.com/sites/richardfinger/2012/07/27/more-data-natural-gas-is-heading-higher/)//CC

So when, not if, gas reaches $5.00 undoubtedly many drilled wells will be completed. COP and others will resume production on many of its shut in gas wells. Additionally, there will be some switching out of gas back into coal by power providers. Is all this enough to increase the supply to offset the super rapidly declining existing shale wells? Initially, I don’t think so. The market is getting stretched beyond a point of no return. An aircraft carrier cannot turn on a dime. It’s not even August and we have just seen the first mini supply panic. Gas prices are still perched only around the $3 mcf level. Rig counts for now remain low. So while the market is trying to get to the magic profitable $5 mcf gas, daily production will continue to decline and inevitably as below normal weekly storage injections mount up, the rubber band will get stretched to breaking point. Then one calm morning a catalyst will come. A hurricane, planned turnaround maintenance shutting down nuclear power plants, or in a few weeks when the report comes that gas storage has crossed below 1 and 5 year averages…. and what a about possible a cold winter. The slingshot effect will be sudden and powerful. It always is. Markets don’t adjust peacefully. Lock in your gas contracts now. I recently extended my home electricity contract by two years. Prices inexorably go lower than they should and higher than they should. This phase of the cycle is upon us. $8.00 gas is coming, so prepare.

#### Crushes manufacturing

Baker Institute, ‘8 (Baker Institute for Public Policy, Rice University, Baker Institute Policy Report, January 2008, “Natural Gas in North America: Markets and Security,” <http://connection.ebscohost.com/c/articles/30064519/study-lift-u-s-drilling-restrictions-avoid-international-lng-cartel>)//CC

Already, the United States has seen some industry sectors move offshore in response to high natural gas costs. Chemicals and energy are important inputs into industrial manufacturing (more than one-third of total costs in some industries). High and volatile energy prices, therefore, impact the industrial sector, driving down demand for chemicals. Rising natural gas prices have adversely affected the U.S. olefins industry, for example. About 65 percent of U.S. ethylene production is based on natural gas. The consulting firm Accenture estimates that investment in new ethylene production capacity by U.S. companies during the next 10 years will shift to the Middle East and Asia-Pacific, with only 2 percent of new capacity built in the United States. In 2004, the United States saw the closing of several chemicals plants, including one Terra Industries Inc. fertilizer facility and one Mississippi Chemical Corporation ammonia plant. Both companies cited high natural gas prices as a primary reason for their decision to shut down. Similarly, The Dow Chemical Company has shut down more than 20 plants across the country, while PotashCorp recently built a facility in Trinidad, a low-cost source of natural gas supply. As a result of such shutdowns, there has been a 36 percent drop in fertilizer production in the United States since 2002. Such examples raise questions about the future of the U.S. petrochemical industry as feedstock costs become prohibitive.

#### Low prices lock in a manufacturing renaissance – draws companies back to the US

Jim Motavalli (Staff Writer for the New York Times specializing in Environmental journalism) April 2012 “Natural Gas Signals a ‘Manufacturing Renaissance’” <http://www.nytimes.com/2012/04/11/business/energy-environment/wider-availability-expands-uses-for-natural-gas.html?_r=1&pagewanted=all>

The rapid development of shale gas technology has helped reduce energy imports and, in some cases, encouraged companies producing petrochemicals, steel, fertilizers and other products to return to the United States after relocating overseas. Natural gas exports are growing and terminals built to hold imported supplies are being repurposed for international sales. The American petrochemical industry, for example, uses natural gas as both its primary raw material, in the form of liquid ethane, and as an energy fuel. And cheaper prices have led to a major expansion of capacity in the United States. The hydrocarbon molecules in natural gas are split apart and then recombined as building blocks for many products, including bulk chemicals and fertilizers. The chemical ethylene, which is largely derived from natural gas, is used to make things like pool liners, building insulation and food packaging. According to Kevin Swift, chief economist at the American Chemistry Council, European producers mostly use oil-derived raw materials for making these same products. “The U.S. has a competitive advantage when oil is seven times as expensive as natural gas, but now we have more like a 50-to-1 advantage,” he said. “The ‘shale gale’ is really driving this. A million B.T.U.’s of natural gas that might cost $11 in Europe and $14 in South Korea is $2.25 in the U.S. Partly because of that, chemical producers have plans to expand ethylene capacity in the U.S. by more than 25 percent between now and 2017.” A 2011 PricewaterhouseCoopers study estimates that high rates of shale gas recovery could result in a million new manufacturing jobs by 2025. Robert McCutcheon, United States industrial products leader at PricewaterhouseCoopers, said in a statement that the revived natural gas industry “has the potential to spark a manufacturing renaissance in the U.S., including billions in cost savings, a significant number of new jobs and a greater investment in U.S. plants.”

#### Otherwise a complete collapse in domestic R&D is inevitable

Michael Lind (policy director of New America’s Economic Growth Program and a co-founder of the New America Foundation) and Joshua Freedman (program associate in New America’s Economic Growth Program) April 2012 “Value Added: America’s Manufacturing Future” <http://growth.newamerica.net/sites/newamerica.net/files/policydocs/Lind,%20Michael%20and%20Freedman,%20Joshua%20-%20NAF%20-%20Value%20Added%20America%27s%20Manufacturing%20Future.pdf>

Manufacturing, R&D and the U.S. Innovation Ecosystem Perhaps the greatest contribution of manufacturing to the U.S. economy as a whole involves the disproportionate role of the manufacturing sector in R&D. The expansion in the global market for high-value-added services has allowed the U.S. to play to its strengths by expanding its trade surplus in services, many of them linked to manufacturing, including R&D, engineering, software production and finance. Of these services, by far the most important is R&D. The United States has long led the world in R&D. In 1981, U.S. gross domestic expenditure on R&D was more than three times as large as that of any other country in the world. And the U.S. still leads: in 2009, the most recent year for which there is available data, the United States spent more than 400 billion dollars. European countries spent just under 300 billion dollars combined, while China spent about 150 billion dollars.14 In the United States, private sector manufacturing is the largest source of R&D. The private sector itself accounts for 71 percent of total R&D in the United States, and although U.S. manufacturing accounts for only 11.7 percent of GDP in 2012, the manufacturing sector accounts for 70 percent of all R&D spending by the private sector in the U.S.15 And R&D and innovation are inextricably connected: a National Science Foundation survey found that 22 percent of manufacturers had introduced product innovations and the same percentage introduced process innovations in the period 2006-2008, while only 8 percent of nonmanufacturers reported innovations of either kind.16 Even as the manufacturing industry in the United States underwent major changes and suffered severe job losses during the last decade, R&D spending continued to follow a general upward growth path. A disproportionate share of workers involved in R&D are employed directly or indirectly by manufacturing companies; for example, the US manufacturing sector employs more than a third of U.S. engineers.17 This means that manufacturing provides much of the demand for the U.S. innovation ecosystem, supporting large numbers of scientists and engineers who might not find employment if R&D were offshored along with production.

#### Manufacturing key to overall military superiority and deterrence

Mackenzie Eaglen et al (American Enterprise Institute, Rebecca Grant, IRIS Research, Robert P. Haffa, Haffa Defense Consulting, Michael O'Hanlon, The Brookings Institution, Peter W. Singer, The Brookings Institution, Martin Sullivan, Commonwealth Consulting, Barry Watts, Center for Strategic and Budgetary Assessments) January 2012 “The Arsenal of Democracy and How to Preserve It: Key Issues in Defense Industrial Policy

Yet there are severe challenges that could result to the nation’s security interests even with 10 percent cutbacks. Despite the likely potential of lesser resources, the demand side of the equation does not seem likely to grow easier. The international security environment is challenging and complex. China’s economic, political and now military rise continues. Its direction is uncertain, but it has already raised tension, especially in the South China Sea. Iran’s ambitions and machinations remain foreboding, with its nuclear plans entering a new phase of both capability but also crisis. North Korea is all the more uncertain with a leadership transition, but has a history of brinkmanship and indeed even the occasional use of force against the South, not to mention nuclear weapons-related activities that raise deep concern. And the hopeful series of revolutions in the broader Arab world in 2011, while inspiring at many levels, also seem likely to raise uncertainty in the broader Middle East. Revolutions are inherently unpredictable and often messy geostrategic events. On top of these remain commitments in Afghanistan and beyond and the frequent U.S. military role in humanitarian disaster relief. Thus, there are broad challenges for American defense planners as they try to address this challenging world with fewer available resources. The current wave of defense cuts is also different than past defense budget reductions in their likely industrial impact, as the U.S. defense industrial base is in a much different place than it was in the past. Defense industrial issues are too often viewed through the lens of jobs and pet projects to protect in congressional districts. But the overall health of the firms that supply the technologies our armed forces utilize does have national security resonance. Qualitative superiority in weaponry and other key military technology has become an essential element of American military power in the modern era—not only for winning wars but for deterring them. That requires world-class scientific and manufacturing capabilities—which in turn can also generate civilian and military export opportunities for the United States in a globalized marketplace. While procurement budgets have finally, in recent years, reached their historic norms as a percent of the overall defense budget, the legacy of the 1990s procurement “holiday” remains real. In that period, the United States as a matter of policy bought much less equipment than it would normally, enjoying the fruits of the 1980s buildup as it sought to reduce defense spending. But Reagan-era weaponry is wearing out, and the recent increase in procurement spending has not lasted long enough to replenish the nation’s key weapons arsenals with new weaponry. The last decade of procurement policy focused more on filling certain gaps in counterinsurgency capabilities than replacing the mainline weapons programs that make up the bulk of conventional capabilities. Meanwhile, the main elements of DoD’s weapons inventories—fighter jets, armored vehicles, surface vessels and submarines—continue to age. We often say that, in today’s American armed forces, people are our most cherished commodity and greatest asset. That is certainly true at one level, through the dedication and excellence shown by our brave men and women in uniform. But it is also true that adjusting the personnel size of the military up or down has been done with success multiple times, and seems likely to happen again. By contrast, scientific and manufacturing excellence in the defense space is not something easily moved up and down. Today’s industrial capabilities took decades to build and would be hard to restore if lost (Great Britain’s difficulty restoring its ability to build nuclear submarines is a frequently cited example.). Unlike the period just after the Cold War, there are no obvious surpluses of defense firms, such that a natural paring process will find the fittest firms and ensure their survival. While there are roughly five major firms, there are often just one or two suppliers in any given major area of defense technology. Similar challenges exist within the subcontractor community, which has become highly specialized, with certain key components or capabilities similarly reflecting monopolies or oligopolies, or being acquired by the primes in a way that risks future competition. The defense economy is also experiencing meta-changes in everything from shifts in traditional sectors, such as the move from manned to unmanned planes, to new sectors arising like cybersesecurity, to a broader move from the exclusive production of goods to the growing provision of defense services. Such issues in the defense economy also touch on broader areas of national economic and geopolitical competitiveness. Top class American firms rely on top class scientists and engineers. At present, the United States ranks in the lower half of industrial countries for the average math and science scores of its public school students and graduates just a fraction as many scientists and engineers a year from university-level studies as does either China or India. These trends should not be overstated; the quality of American scientists and engineers remains world class. But the trends still pose deep worries in the American defense industrial field as its looks towards the future of its work force, which is aging rapidly in numerous sectors. Not only then are the U.S. military services, but also American defense industry at a crossroads. Normally, defense policy decisions in times of retrenchment begin with strategy, threats, missions, and force structure and only address defense industrial issues as an afterthought. In past days of flush budgets and numerous duplicative suppliers, this approach may have made sense. It makes sense no longer. Careless defense reductions or poor planning won’t just cost jobs or competitiveness, but could actually result in lost American military industrial capability in core areas. The Department of Defense has recently made some encouraging moves towards emphasizing the role of the industrial base in its strategic and budgetary planning. The 2010 Quadrennial Defense Review examined the subject, for example, and Secretary Panetta and his deputies have convened several meetings in recent months with industry leaders to discuss their concerns. But industrial base considerations remain little discussed outside the specialist community and too frequently take a short term or single interest approach, such as asking a candidate to weigh in on an individual product or firm. Rather, it is the overall state of the field and its future that should be of concern to all, regardless of where they stand on the political spectrum. Thus, as presidential candidates and other national leaders develop their platforms for the 2012 elections and beyond, any serious discussion of national security and the current state and future of the military must also give direct attention to matters of the American national security scientific and industrial base. This discussion should be direct and forthright, recognizing the context of severe budgetary dilemmas for the nation, the success and challenges of the defense economy, changing military demands, and the gradual erosion of American manufacturing in many sectors over the last several decades. Among the core questions for candidates to develop their policy answers around are: 4 1. Are there any sectors within American defense industry or types of technologies for the Department of Defense that should be prioritized? If this is the case, what should be prioritized and what are the areas that are not quite as important as others—or even over resourced at present? 2. The Department of Defense is likely to reduce the size of the nation’s ground forces considerably in the years ahead, as the war in Afghanistan gradually winds down. Does this imply prioritizing investment in Air-Sea battle capabilities at the expense of ground force capability, or should the United States try to do all with less? 3. Do the Pentagon and Congress have enough tools for evaluating the strength of the nation’s industrial base and its access to key raw materials and technologies? If not, what should be done to give this subject greater scrutiny and sustained attention? 4. Should the Department of Defense move to more fixed-price contracts in its procurement policies? Should private companies be allowed to compete for a higher share of maintenance contracts, even if that means downsizing government depots? 5. Is the Pentagon’s increased focus on enlarging its acquisition oversight workforce making the acquisition process more innovative, economical, and efficient or more burdensome and bureaucratic? 6. Are there tools of export and trade policy that need to be adjusted to strengthen the U.S. defense industrial base? If so, what? Is the FMS program basically sound? Does the consolidation of export control lists within Commerce bode well or are other steps needed? 7. Are there certain allies from which the United States should be willing to import more defense technology, especially if the improved trade opportunities are reciprocated? Should we explore pooling and joint production options with our close allies, along the lines of what Britain and France have recently launched? 8. How should the nation strengthen STEM education in the United States, in high schools and colleges, to encourage more Americans to pursue careers in science, technology, engineering, and math? Does the nation need to revise any of its immigration and green-card policies to increase the ability of foreign scientists to remain in this country after studying here and contribute to its scientific and industrial strength? 9. Do government regulations and requirements deter new and innovative firms from entering the defense market to the detriment of the nation’s military? If so, what should be done to induce their entry? 10. Are there any other policy interventions that might be needed to ensure American military technological preeminence in the years ahead? A certain floor under R&D budgets? Targeted sustainment funding for specific capabilities such as independent weapons design teams at numerous firms? Greater DoD contributions to research and prototyping by defense firms? The United States, and its civilian leaders, cannot afford to avoid the hard questions that now come with maintaining a strong successful military, a top flight defense industrial base, and a fiscally sound national economy. Our defense industrial base is certainly not broken, but there are clear, unavoidable challenges that loom, which might undercut broader national security, and the looming big budget cutbacks raise the stakes and heighten the sense of urgency in addressing the issue. In sum, the arsenal of democracy that arms the best military in the world, took decades to build. If allowed to atrophy, it would take decades to rebuild. Those who would seek to lead the U.S. armed forces must answer the key questions to ensure these capabilities are not lost in a matter of years.

#### U.S. hegemonic decline causes global great-power war, collapses trade and spreads economic nationalism and protectionism

**Zhang & Shi 11** – Yuhan Zhang, researcher at the Carnegie Endowment for International Peace; Lin Shi, Columbia University, independent consultant for the Eurasia Group and consultant for the World Bank, January 22, 2011, “America’s decline: A harbinger of conflict and rivalry,” East Asia Forum, online: http://www.eastasiaforum.org/2011/01/22/americas-decline-a-harbinger-of-conflict-and-rivalry/

This does not necessarily mean that the US is in systemic decline, but it encompasses a trend that appears to be negative and perhaps alarming. Although the US still possesses incomparable military prowess and its economy remains the world’s largest, the once seemingly indomitable chasm that separated America from anyone else is narrowing. Thus, the global distribution of power is shifting, and the inevitable result will be a world that is less peaceful, liberal and prosperous, burdened by a dearth of effective conflict regulation. Over the past two decades, no other state has had the ability to seriously challenge the US military. Under these circumstances, motivated by both opportunity and fear, many actors have bandwagoned with US hegemony and accepted a subordinate role. Canada, most of Western Europe, India, Japan, South Korea, Australia, Singapore and the Philippines have all joined the US, creating a status quo that has tended to mute great power conflicts. However, as the hegemony that drew these powers together withers, so will the pulling power behind the US alliance. The result will be an international order where power is more diffuse, American interests and influence can be more readily challenged, and conflicts or wars may be harder to avoid. As history attests, power decline and redistribution result in military confrontation. For example, in the late 19th century America’s emergence as a regional power saw it launch its first overseas war of conquest towards Spain. By the turn of the 20th century, accompanying the increase in US power and waning of British power, the American Navy had begun to challenge the notion that Britain ‘rules the waves.’ Such a notion would eventually see the US attain the status of sole guardians of the Western Hemisphere’s security to become the order-creating Leviathan shaping the international system with democracy and rule of law. Defining this US-centred system are three key characteristics: enforcement of property rights, constraints on the actions of powerful individuals and groups and some degree of equal opportunities for broad segments of society. As a result of such political stability, free markets, liberal trade and flexible financial mechanisms have appeared. And, with this, many countries have sought opportunities to enter this system, proliferating stable and cooperative relations. However, what will happen to these advances as America’s influence declines? Given that America’s authority, although sullied at times, has benefited people across much of Latin America, Central and Eastern Europe, the Balkans, as well as parts of Africa and, quite extensively, Asia, the answer to this question could affect global society in a profoundly detrimental way. Public imagination and academia have anticipated that a post-hegemonic world would return to the problems of the 1930s: regional blocs, trade conflicts and strategic rivalry. Furthermore, multilateral institutions such as the IMF, the World Bank or the WTO might give way to regional organisations. For example, Europe and East Asia would each step forward to fill the vacuum left by Washington’s withering leadership to pursue their own visions of regional political and economic orders. Free markets would become more politicised — and, well, less free — and major powers would compete for supremacy. Additionally, such power plays have historically possessed a zero-sum element. In the late 1960s and 1970s, US economic power declined relative to the rise of the Japanese and Western European economies, with the US dollar also becoming less attractive. And, as American power eroded, so did international regimes (such as the Bretton Woods System in 1973). A world without American hegemony is one where great power wars re-emerge, the liberal international system is supplanted by an authoritarian one, and trade protectionism devolves into restrictive, anti-globalisation barriers. This, at least, is one possibility we can forecast in a future that will inevitably be devoid of unrivalled US primacy.

#### Empirical studies demonstrate that expanding trade solidifies global peace - overall rates of conflict have decreased as trade advanced

**Gartzke, 5** - associate professor of political science at Columbia University and author of a study on economic freedom and peace contained in the 2005 Economic Freedom of the World Report (Erik, “Future Depends on Capitalizing on Capitalist Peace,” 10/18, Windsor Star, http://www.cato.org/pub\_display.php?pub\_id=5133)

With terrorism achieving "global reach" and conflict raging in Africa and the Middle East, you may have missed a startling fact - we are living in remarkably peaceable times. For six decades, developed nations have not fought each other. France and the United States may chafe, but the resulting conflict pitted french fries against "freedom fries," rather than French soldiers against U.S. "freedom fighters." Tony Blair and Jacques Chirac had a nasty spat over the EU, but the English aren't going to storm Calais any time soon. The present peace is unusual. Historically, powerful nations are the most war prone. The conventional wisdom is that democracy fosters peace but this claim fails scrutiny. It is based on statistical studies that show democracies typically don't fight other democracies. Yet, the same studies show that democratic nations go to war about as much as other nations overall. And more recent research makes clear that only the affluent democracies are less likely to fight each other. Poor democracies behave much like non-democracies when it comes to war and lesser forms of conflict. A more powerful explanation is emerging from newer, and older, empirical research - the "capitalist peace." As predicted by Montesquieu, Adam Smith, Norman Angell and others, nations with high levels of economic freedom not only fight each other less, they go to war less often, period. Economic freedom is a measure of the depth of free market institutions or, put another way, of capitalism. The "democratic peace" is a mirage created by the overlap between economic and political freedom. Democracy and economic freedom typically co-exist. Thus, if economic freedom causes peace, then statistically democracy will also appear to cause peace. When democracy and economic freedom are both included in a statistical model, the results reveal that economic freedom is considerably more potent in encouraging peace than democracy, 50 times more potent, in fact, according to my own research. Economic freedom is highly statistically significant (at the one-per-cent level). Democracy does not have a measurable impact, while nations with very low levels of economic freedom are 14 times more prone to conflict than those with very high levels. But, why would free markets cause peace? Capitalism is not only an immense generator of prosperity; it is also a revolutionary source of economic, social and political change. Wealth no longer arises primarily through land or control of natural resources. New Kind of Wealth Prosperity in modern societies is created by market competition and the efficient production that arises from it. This new kind of wealth is hard for nations to "steal" through conquest. In days of old, when the English did occasionally storm Calais, nobles dreamed of wealth and power in conquered lands, while visions of booty danced in the heads of peasant soldiers. Victory in war meant new property. In a free market economy, war destroys immense wealth for victor and loser alike. Even if capital stock is restored, efficient production requires property rights and free decisions by market participants that are difficult or impossible to co-ordinate to the victor's advantage. The Iraqi war, despite Iraq's immense oil wealth, will not be a money-maker for the United States. Economic freedom is not a guarantee of peace. Other factors, like ideology or the perceived need for self-defence, can still result in violence. But, where economic freedom has taken hold, it has made war less likely. Research on the capitalist peace has profound implications in today's world. Emerging democracies, which have not stabilized the institutions of economic freedom, appear to be at least as warlike - perhaps more so - than emerging dictatorships. Yet, the United States and other western nations are putting immense resources into democratization even in nations that lack functioning free markets. This is in part based on the faulty premise of a "democratic peace." It may also in part be due to public perception. Everyone approves of democracy, but "capitalism" is often a dirty word. However, in recent decades, an increasing number of people have rediscovered the economic virtues of the "invisible hand" of free markets. We now have an additional benefit of economic freedom - international peace. The actual presence of peace in much of the world sets this era apart from others. The empirical basis for optimistic claims - about either democracy or capitalism - can be tested and refined. The way forward is to capitalize on the capitalist peace, to deepen its roots and extend it to more countries through expanding markets, development, and a common sense of international purpose. The risk today is that faulty analysis and anti-market activists may distract the developed nations from this historic opportunity.

#### Every credible measure of study shows violence is down because of everything consistent with the aff---heg, democracy, liberal trade---it’s only a question of sustaining current dynamics and preventing shocks to the system

**Pinker 9-24** (Steven, Professor of Psychology at Harvard University, “Violence Vanquished: We believe our world is riddled with terror and war, but we may be living in the most peaceable era in human existence. Why brutality is declining and empathy is on the rise,” 9-24-2011, http://online.ws j.com/article/SB10001424053111904106704576583203589408180.html?mod=googlenews\_wsj)

On the day this article appears, you will read about a shocking act of violence. Somewhere in the world there will be a terrorist bombing, a senseless murder, a bloody insurrection. It's impossible to learn about these catastrophes without thinking, "What is the world coming to?" With all its wars, murder and genocide, history might suggest that the taste for blood is human nature. Not so, argues Harvard Prof. Steven Pinker. He talks to WSJ's Gary Rosen about the decline in violence in recent decades and his new book, "The Better Angels of Our Nature." But a better question may be, "How bad was the world in the past?" Believe it or not, the world of the past was much worse. **Violence has been in decline for thousands of years**, and today we may be living in **the most peaceable era in the existence of our species**. The decline, to be sure, has not been smooth. It has not brought violence down to zero, and it is not guaranteed to continue. But it is a persistent historical development, visible on scales from millennia to years, from the waging of wars to the spanking of children. This claim, I know, invites skepticism, incredulity, and sometimes anger. **We tend to estimate the probability of an event from the ease with which we can recall examples**, and scenes of carnage are more likely to be beamed into our homes and burned into our memories than footage of people dying of old age. There will always be enough violent deaths to fill the evening news, so **people's** **impressions of violence will be disconnected from its actual likelihood**. Evidence of our bloody history is not hard to find. Consider the genocides in the Old Testament and the crucifixions in the New, the gory mutilations in Shakespeare's tragedies and Grimm's fairy tales, the British monarchs who beheaded their relatives and the American founders who dueled with their rivals. Today the decline in these brutal practices can be quantified. A look at the numbers shows that over the course of our history, humankind has been blessed with six major declines of violence. The first was a process of pacification: the transition from the anarchy of the hunting, gathering and horticultural societies in which our species spent most of its evolutionary history to the first agricultural civilizations, with cities and governments, starting about 5,000 years ago. For centuries, social theorists like Hobbes and Rousseau speculated from their armchairs about what life was like in a "state of nature." Nowadays we can do better. Forensic archeology—a kind of "CSI: Paleolithic"—can estimate rates of violence from the proportion of skeletons in ancient sites with bashed-in skulls, decapitations or arrowheads embedded in bones. And ethnographers can tally the causes of death in tribal peoples that have recently lived outside of state control. These investigations show that, on average, about 15% of people in prestate eras died violently, compared to about 3% of the citizens of the earliest states. Tribal violence commonly subsides when a state or empire imposes control over a territory, leading to the various "paxes" (Romana, Islamica, Brittanica and so on) that are familiar to readers of history. It's not that the first kings had a benevolent interest in the welfare of their citizens. Just as a farmer tries to prevent his livestock from killing one another, so a ruler will try to keep his subjects from cycles of raiding and feuding. From his point of view, such squabbling is a dead loss—forgone opportunities to extract taxes, tributes, soldiers and slaves. The second decline of violence was a civilizing process that is best documented in Europe. Historical records show that between the late Middle Ages and the 20th century, European countries saw a 10- to 50-fold decline in their rates of homicide. The numbers are consistent with narrative histories of the brutality of life in the Middle Ages, when highwaymen made travel a risk to life and limb and dinners were commonly enlivened by dagger attacks. So many people had their noses cut off that medieval medical textbooks speculated about techniques for growing them back. Historians attribute this decline to the consolidation of a patchwork of feudal territories into large kingdoms with centralized authority and an infrastructure of commerce. Criminal justice was nationalized, and zero-sum plunder gave way to positive-sum trade. People increasingly controlled their impulses and sought to cooperate with their neighbors. The third transition, sometimes called the Humanitarian Revolution, took off with the Enlightenment. Governments and churches had long maintained order by punishing nonconformists with mutilation, torture and gruesome forms of execution, such as burning, breaking, disembowelment, impalement and sawing in half. The 18th century saw the widespread abolition of judicial torture, including the famous prohibition of "cruel and unusual punishment" in the eighth amendment of the U.S. Constitution. At the same time, many nations began to whittle down their list of capital crimes from the hundreds (including poaching, sodomy, witchcraft and counterfeiting) to just murder and treason. And a growing wave of countries abolished blood sports, dueling, witchhunts, religious persecution, absolute despotism and slavery. The fourth major transition is the respite from major interstate war that we have seen since the end of World War II. Historians sometimes refer to it as the Long Peace. Today we take it for granted that Italy and Austria will not come to blows, nor will Britain and Russia. But centuries ago, the great powers were almost always at war, and until quite recently, Western European countries tended to initiate two or three new wars every year. The cliché that the 20th century was "the most violent in history" ignores the second half of the century (and may not even be true of the first half, if one calculates violent deaths as a proportion of the world's population). Though it's tempting to attribute the Long Peace to nuclear deterrence, non-nuclear developed states have stopped fighting each other as well. Political scientists point instead to the **growth of democracy, trade and international organizations**—all of which, the **statistical evidence shows**, **reduce the likelihood of conflict**. They also credit the **rising valuation of human life** over national grandeur—a hard-won lesson of two world wars. The fifth trend, which I call the New Peace, involves war in the world as a whole, including developing nations. Since 1946, several organizations have tracked the number of armed conflicts and their human toll world-wide. The bad news is that for several decades, the decline of interstate wars was accompanied by a bulge of civil wars, as newly independent countries were led by inept governments, challenged by insurgencies and armed by the cold war superpowers. The less bad news is that civil wars tend to kill far fewer people than wars between states. And the best news is that, since the peak of the cold war in the 1970s and '80s, organized conflicts of all kinds—**civil wars, genocides, repression** by autocratic governments, terrorist attacks—**have declined throughout the world**, and their **death tolls have declined even more precipitously**. The rate of documented direct **deaths from political violence** (war, terrorism, genocide and warlord militias) **in the past decade is an unprecedented few hundredths of a percentage point**. Even if we multiplied that rate to account for unrecorded deaths and the victims of war-caused disease and famine, it would not exceed 1%. The most immediate cause of this New Peace was the demise of communism, which ended the proxy wars in the developing world stoked by the superpowers and also discredited genocidal ideologies that had justified the sacrifice of vast numbers of eggs to make a utopian omelet. Another contributor was the expansion of international peacekeeping forces, which really do keep the peace—not always, but far more often than when adversaries are left to fight to the bitter end. Finally, the postwar era has seen a cascade of "rights revolutions"—a growing revulsion against aggression on smaller scales. In the developed world, the civil rights movement obliterated lynchings and lethal pogroms, and the women's-rights movement has helped to shrink the incidence of rape and the beating and killing of wives and girlfriends. In recent decades, the movement for children's rights has significantly reduced rates of spanking, bullying, paddling in schools, and physical and sexual abuse. And the campaign for gay rights has forced governments in the developed world to repeal laws criminalizing homosexuality and has had some success in reducing hate crimes against gay people. \* \* \* \* Why has violence declined so dramatically for so long? Is it because violence has literally been bred out of us, leaving us more peaceful by nature? This seems unlikely. Evolution has a speed limit measured in generations, and many of these declines have unfolded over decades or even years. Toddlers continue to kick, bite and hit; little boys continue to play-fight; people of all ages continue to snipe and bicker, and most of them continue to harbor violent fantasies and to enjoy violent entertainment. It's more likely that human nature has always comprised inclinations toward violence and inclinations that counteract them—such as self-control, empathy, fairness and reason—what Abraham Lincoln called "the better angels of our nature." Violence has declined because historical circumstances have increasingly favored our better angels. **The most obvious of these pacifying forces has been the state, with its monopoly on the legitimate use of force**. A disinterested judiciary and police can defuse the temptation of exploitative attack, inhibit the impulse for revenge and circumvent the self-serving biases that make all parties to a dispute believe that they are on the side of the angels. We see evidence of the pacifying effects of government in the way that rates of killing declined following the expansion and consolidation of states in tribal societies and in medieval Europe. And we can watch the movie in reverse when violence erupts in zones of anarchy, such as the Wild West, failed states and neighborhoods controlled by mafias and street gangs, who can't call 911 or file a lawsuit to resolve their disputes but have to administer their own rough justice. **Another pacifying force has been commerce**, a game in which everybody can win. As technological progress allows the exchange of goods and ideas over longer distances and among larger groups of trading partners, **other people become more valuable alive than dead**. They switch from being targets of demonization and dehumanization to potential partners **in reciprocal altruism**. For example, though the relationship today between America and China is far from warm, we are unlikely to declare war on them or vice versa. Morality aside, they make too much of our stuff, and we owe them too much money. A third peacemaker has been cosmopolitanism—the expansion of people's parochial little worlds through literacy, mobility, education, science, history, journalism and mass media. These forms of virtual reality can prompt people to take the perspective of people unlike themselves and to expand their circle of sympathy to embrace them. These technologies have also powered an expansion of rationality and objectivity in human affairs. People are now less likely to privilege their own interests over those of others. They reflect more on the way they live and consider how they could be better off. Violence is often reframed as a problem to be solved rather than as a contest to be won. We devote ever more of our brainpower to guiding our better angels. It is probably no coincidence that the Humanitarian Revolution came on the heels of the Age of Reason and the Enlightenment, that the Long Peace and rights revolutions coincided with the electronic global village. Whatever its causes, the implications of the historical decline of violence are profound. So **much depends on** **whether we see our era as a nightmare of** crime, terrorism, **genocide and war or as a period that, in** **the light of the historical and statistical facts, is blessed by unprecedented levels of peaceful coexistence**. Bearers of good news are often advised to keep their mouths shut, lest they lull people into complacency. But this prescription may be backward. **The discovery that fewer people are victims of violence** **can thwart cynicism among compassion-fatigued news readers who might otherwise think that the dangerous parts of the world are irredeemable hell holes**. And **a better understanding of what drove the numbers down can steer us toward doing things that make people better off** rather than congratulating ourselves on how moral we are. As one becomes aware of the historical decline of violence, the world begins to look different. The past seems less innocent, the present less sinister. One starts to appreciate the small gifts of coexistence that would have seemed utopian to our ancestors: the interracial family playing in the park, the comedian who lands a zinger on the commander in chief, the countries that quietly back away from a crisis instead of escalating to war. For all the tribulations in our lives, for all the troubles that remain in the world, the decline of violence is an accomplishment that we can savor—and an impetus to cherish the forces of civilization and enlightenment that made it possible.

#### The rise of the rest is inevitable, but absolute US power makes the transition safe – the alternative is transition wars

**Walton 7** - Lecturer in International Relations and Strategic Studies at the University of Reading in Reading, England, 07 [Dale C, “geopolitics and the great powers in the twenty-first century”, <http://books.google.com/books?id=AQLTD1R-47AC&printsec=frontcover&source=gbs_navlinks_s#v=onepage&q=&f=false>)

Although international political conditions surely will differ enormously in the coming decades from those of the middle 1940s,it would be grossly irresponsible for the United States to shrug off the burdens of great power status and return to the slumber that it once enjoyed.Almost certainly,if the United States had refused to take an active role in European politics in the middle of the twentieth century a world would have emerged in which American values would not have flourished – and even their survival on the North American continent would have been profoundly threatened. America's refusal to play a substantial role in the great power struggles of this century likely would have similarly deleterious effects**.** Importantly,if the United States withdraws to its hemisphere a third world war is far more likely. In a meta-region full of young, rising powers, the presence of a strategically mature superpower can be expected to have a stabilizing effect; the enormous military resources possessed by America compels would-be aggressors to consider carefully before launching a strategic adventure.Even more chillingly, as noted above,it is possible that the multipolar system could become sufficiently unbalanced that it would collapse, with a power such as China building a coalition that would allow it ultimately to emerge as the master of Eastern Eurasia and the greatest power in the world**.** The United States is the "court of last resort" protecting against such an eventuality. The latter possibility does not contradict the above argument that U.S. unipolarity is unsustainable – as an extra-Eurasian power lacking the ruthlessness to destroy potential great power competitors preventively, Washington simplycannot sustain unipolarity indefinitely.Nonetheless,while the emerging multi-polar system appears robust, it still should receive "care and feeding" other-wise, it is vulnerable to grossly unbalancing events, such as the creation of a very aggressive coalition dedicated to achieving Eurasian hegemony and willing, if necessary, to fight a third world war to achieve it. Most likely, such a coalition would not be able to simply bully it way to hegemony; it probably would have to fight, the result being a war enormously costly in blood, perhaps even one that would dwarf World War II in its price. If the oppressive coalition won, in turn, The multipolar system would be destroyed and the United States would face a competitor far more powerful than itself, and, in all likelihood, a world in which democracy and personal liberty would be in eclipse. In any case, it is a geopolitical imperative for the United States that no power or coalition attains hegemony in Eastern Eurasia, much less that an explicitly hostile state or coalition succeeds in doing so. If the United States is to guard its national interests successfully in this century, it is vital that it ensures that the transition from unipolarity to multipolarity occurs in as gentle a manner as possible**.** In this capacity,it is important to understand that the United States is in long-term relative decline, but, at the same time, to acknowledge that it has very great military, financial, and diplomatic resources at its disposal. If Washington deploys these resources wisely, it can maximize its security over the long term and minimize the probability of a great power war**.**

### 1AC Warming

#### Natural gas overwhelmingly reduces emissions – leads to clean tech development and sequestration

Schrag 12—Sturgis Hooper Professor of Geology at Harvard University, Professor of Environmental Science and Engineering, and Director of the Harvard University Center for the Environment, Ph.D. in geology from UC Berkeley (Daniel P., *Daedalus*, 141.2, Spring 2012, Is Shale Gas Good for Climate Change?, Academic OneFile, RBatra)

Is the natural gas boom good for climate change mitigation, independent of other environmental concerns? A common view, including that of a recent commission convened by U.S. Secretary of Energy Steven Chu, is that expanded natural gas activities are inherently good for climate change mitigation because natural gas has lower greenhouse gas emissions than coal, which gas will displace for use in electricity generation. (2) A dissenting view is that methane leakage from shale gas extraction leads to greenhouse gas emissions as bad or worse than those produced from coal, (3) although this view is fiercely debated. Considering the timescale of the carbon cycle and the climate system, both of these perspectives are wrong, but for similar reasons. Leakage of methane is not as important as some have argued because its short lifetime limits its impact on anthropogenic climate change, which has a characteristic timescale of roughly one hundred years. But because of this long timescale of climate change, short-term reductions in greenhouse gas emissions--gained from natural gas displacing coal in the U.S. electricity sector--have a relatively small effect on the progression of anthropogenic climate change relative to other impacts of the shale gas boom. The most important of these is how the availability of low-price natural gas affects investment in the research, development, and deployment of truly low-carbon technologies, including renewable energy and carbon sequestration. The real benefit of shale gas to a responsible climate change policy is a political one, if the economic power of the new industry can break the stranglehold that the coal industry has had on the national discussion around climate policy. The answer to whether shale gas is good or bad for climate change mitigation depends on what policies are used to regulate it; some policy options that encourage natural gas production in the United States are part of a responsible climate policy, but only if they simultaneously encourage other low-carbon technologies as well as disrupt the political power of the coal industry. Are greenhouse gas emissions from natural gas better than those from coal? The answer would seem obvious. Natural gas has roughly half the carbon content of the average coal per unit energy, thus producing half as much carbon dioxide when combusted for heat or electricity. Moreover, a combined-cycle natural gas plant that generates base-load electricity has a thermal efficiency of roughly So percent, which is higher than the newest ultra-super critical coal plants (40 to 45 percent) and much higher than the average coal plant (33 percent) in the United States. Thus, burning natural gas for electricity, when displacing an average U.S. coal plant, results in a reduction in carbon dioxide emissions of nearly a factor of three.

#### Natural gas’s net GHG emissions are negative – this assumes methane release

Abby W. Schachter (Writer for the Weekly Standard and the New York Post) June 2012 “We've got to become energy independent to slow terrorism-fracking is the key” <http://www.zimbio.com/Fracking+Lawsuits/articles/2ymubk5GzT3/ve+got+become+energy+independent+slow+terrorism>

As for Howarth’s research on fracking’s carbon footprint, his conclusions were quickly debunked by fellow researchers at Cornell as well as by other scientists. As Lawrence M. Cathles of Cornell’s Department of Earth and Atmospheric Sciences concluded in his rebuttal, “The data clearly shows that substituting natural gas for coal will have a substantial greenhouse benefit under almost any set of reasonable assumptions. Methane emissions must be five times larger than they currently appear to be before gas substitution for coal becomes detrimental from a global warming perspective on any time scale.” The debate over fracking has gotten so extreme, in fact, that reasonable environmentalists are beginning to complain. As Andrew Revkin, one of the deans of environmental reporting in the United States, recently noted, fracking opponents sound so intransigent that he questions whether there is any resource to which the anti-gas advocates would say yes. The great irony is that only a few short years ago, many environmentalists were promoting natural gas as the cleaner alternative to oil and coal. The theory was that natural gas would provide a temporary bridge from pollutants such as oil and coal to so-called clean tech (wind and solar electricity generation, some nuclear power, and electric cars). Now that natural gas is cheap and plentiful, however, many openly worry that there may never be a full-scale transition to wind and solar because there won’t be a need. Gas is cleaner than coal and oil, it is equally or more efficient, it has the same applications as coal and oil, and it can be exported. Wind and solar haven’t proven to be cost-effective, nor are they easy to transport or possible to export. This realization has led to near hysterical opposition to fracking. As Howarth himself argued recently, “It is pure folly to view shale gas [as] a bridge fuel to a green future.” These are the arguments, moreover, that help explain the otherwise inexplicable rejection of natural gas extraction in New York, a state that could desperately use new industry and new revenues. There is gas from the Marcellus Shale under the state’s southern tier, and there are gas companies that came into the state nearly five years ago to lease land for potential drilling. But in 2007, the state decided that, absent new regulations for hydraulic fracturing, no new permits for natural gas wells would be issued. The moratorium continues to this day, even as Andrew Cuomo, the state’s governor, keeps promising that his Department of Environmental Conservation will produce new drilling rules—once its experts have had sufficient time to study the issue.

#### Independently, lifting the moratorium is key to developing the tech to extract methane hydrates – independently solves dependence

US Chamber of Commerce, no date (Institute for 21st Century Energy, Chamber of Commerce, no date given (website registered 2011), “Immediately Expand Domestic Oil and Gas Exploration and Production,” <http://www.energyxxi.org/immediately-expand-domestic-oil-and-gas-exploration-and-production)//CC>

Another potential source of significant amounts of domestic natural gas is methane hydrates, an icelike substance containing natural gas, found beneath the ocean floor and in the Arctic permafrost. The United States Geological Survey estimates there are some 317 quadrillion cubic feet of methane gas stored in hydrates in the United States. This represents more than 1,600 times the amount of conventional natural gas reserves estimated in the United States. More R&D is necessary to more accurately locate this resource and economically produce it with minimal geologic impact or release of GHG emissions. However, the moratorium preventing exploration and production of traditional natural gas on the OCS also acts to thwart work to develop methane hydrates.

#### Methane hydrates will inevitably be released – tech developments key to solve runaway warming

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A chunk of methane ice exposed to the air and ignited will burn until all of the methane in that ice has been consumed. Methane hydrates, however, require specific conditions of temperature and pressure to keep them contained within their ice cage. Reduce the pressure - for example, by reducing the sea level and the pressure of water above the deposit - or increased the temperature and the methane hydrate deposit becomes unstable and begins to release the trapped methane into the atmosphere. That is a problem. Methane is a greenhouse gas. In fact, it is 21-23 times more powerful as a greenhouse gas than carbon dioxide. When the methane trapped in the hydrate is released it expands by about 170 times.[1] Methane is lighter than CO2, lighter than air. As a result it rises rapidly through the atmosphere up to the lower-density stratosphere. On the positive side methane remains in the atmosphere for only about 10-20 years. CO2 remains in the atmosphere for over 100 years. Scientists studying global warming have long been seriously concerned about the possibility of large scale methane hydrate destabilization and methane release into the atmosphere. The greatest concern is about the large volumes of methane hydrates under the Arctic sea floor and that trapped in the vast permafrost zone surrounding the Arctic Ocean. That concern has now been heightened by recent discoveries of hundreds of methane plumes on the floor of the Arctic Ocean north of Norway and Siberia. [2] There is also evidence in pock-marked sea floors of large releases of methane plumes in the geological past. [3] Paleoclimatologists now believe that large scale, natural methane hydrate releases have been partly but significantly responsible for short-cycle global warming and global cooling cycles in the past. The recent discoveries in the Arctic, in fact, are thought to suggest that methane releases have contributed to the global warming that has occurred since the last ice age 15,000 years ago. [2] The problem is that these methane releases have a strong positive feedback loop. As they increase the warming of the atmosphere that warming in turn increases methane release which in turn increases warming which in turn releases more...... You get the picture. Acceleration of global warming through this positive feedback loop, by increased methane concentration in the atmosphere, far more than CO2 concentrations, represents, to paleoclimatologists, a far greater risk of pushing us into the Venus effect, runaway global warming. When it comes to satisfying the world's energy lust, however, caution may be thrown to the wind. Powering down human society is never an option put on the table when politicians and other leaders discuss energy policies and strategies. We have proven over and over again that business as usual is the only model that will be considered. How else can we explain the tar sands, oil shale development, deepwater oil extraction, coal mines extending out under the sea floor, and more? There are various technologies under consideration for extracting methane from hydrate deposits. Most involve some form of heating the hydrate deposits - one, probably the dumbest and most dangerous, even goes so far as to suggest using nuclear explosions beneath the deposit to heat it, also suggested by some as a means of releasing oil from tar sands and oil shale - causing them to release the methane which is then collected and piped to a processing facility of holding tank. Proponents of methane hydrate exploitation, conscious of environmental concerns, are quick to offer reassurances like ".....tapping into the gas hydrates assessed in the study is not expected to affect global warming, said Brenda Pierce, coordinator for the USGS Energy Resources Program." [4] The louder and more frequent such reassurances are, of course, the more it suggests they are trying to cover up the probability that the result will be the opposite. There are many projects underway, funded by governments throughout the world (Japan, India, China, South Korea, Russia, Norway, Canada, the U.S.), aimed at developing commercially viable technologies for exploiting the planet's vast methane hydrate deposits. The selection of sites for these projects are, themselves, a clear indication of one of the primary roadblocks to using methane hydrates as a societal-supporting energy source. They have sought out test sites with high methane hydrate concentrations. Most hydrate deposits are too small or too dispersed to be commercially exploited. Also, unlike oil and natural gas, those deposits are generally not capped in such a way that the geology can be used to contain releases. Most of those deposits on the sea floor, in fact, exist in unconsolidated, sandy or silt sediment. The geology surrounding them is inherently unstable, difficult to contain. Once the deposit, or any large portion of it, is destabilized it is very difficult to prevent unintended, uncontrolled methane releases into the atmosphere. Okay. I very begrudgingly accept that our leaders are not going to consider powering down as a potential tactic in the face of our impending energy crisis. Sooner or later the human race is going to have to accept that reality but clearly society is not prepared to accept it now. But methane hydrates are not like the other fossil fuels. And our approach to exploiting them is going to have to be very different. The risk to the climate and the environment is so much greater than has ever been the case with other fossil fuels. Most importantly, methane hydrates are globally affected by exactly the same constrains; temperature and pressure. Global warming itself - it doesn't matter whether it is naturally occurring or caused by human combustion of fossil fuels - is the greatest threat of tipping methane releases into a runaway warming mechanism. Scientists do not know with any certainty yet how much of a global temperature rise is necessary to reach the tipping point where methane hydrate release into the atmosphere accelerates out of control. They do know that once that happens the acceleration will be self-sustaining and self-accelerating. If our leaders take the same cavalier approach with scientific warnings about runaway methane release that they have taken with warnings about CO2 buildup in the atmosphere, and the long-term, safe storage of spent nuclear fuel, we are headed toward a much more serious atmospheric and climatic disaster than global warming experts have thus far suggested. Methane releases from the ocean floors and from Arctic permafrost have not been built into any of the current global warming models as a factor, including those models supporting the IPCC reports. Considering that methane hydrate deposits exceed the total of all other fossil fuels by magnitudes and that methane is more than 20 times more powerful as a greenhouse gas than CO2, that should be extremely worrying to anyone who accepts the validity of the global warming theory.

#### And, methane hydrates make the difference between solving and runaway warming

RC, ‘5 (RealClimate, Realclimate.org, 12 December 2005, “Methane hydrates and global warming,” http://www.realclimate.org/index.php/archives/2005/12/methane-hydrates-and-global-warming/)//CC

The other possibility for our future is an increase in the year-in, year-out chronic rate of methane emission to the atmosphere. The ongoing release of methane is what supplies, and determines the concentration of, the ongoing concentration of methane in the atmosphere. Double the source, and you’d double the concentration, more or less. (A little more, actually, because the methane lifetime increases.) The methane is oxidized to CO2, another greenhouse gas that accumulates for hundreds of thousands of years, same as fossil fuel CO2 does. Models of chronic methane release often show that the accumulating CO2 contributes as much to warming as does the transient methane concentration. Anthropogenic methane sources, such as rice paddies, the fossil fuel industry, and livestock, have already more than doubled the methane concentration in the atmosphere from pre-industrial levels. Currently methane levels appear stable, but the reasons for this relatively recent phenomena are not yet clear. The amount of permafrost hydrate methane is not known very well, but it would not take too much methane, say 60 Gton C released over 100 years, to double atmospheric methane yet again. Peat deposits may be a comparable methane source to melting permafrost hydrate. When peat that has been frozen for thousands of years thaws, it still contains viable populations of methanotrophic bacteria [Rivkina et al., 2004] that begin to convert the peat into CO2 and CH4. It’s not too difficult to imagine 60 Gton C over 100 years from peat, either. Changes in methane production in existing wetlands and swamps due to changes in rainfall and temperature could also be important. Ocean hydrates have also been forecast to melt, but only slowly [Harvey and Huang, 1995]. Places to watch would seem to be the Arctic and the Gulf of Mexico. So, in the end, not an obvious disaster-movie plot, but a potential positive feedback that could turn out to be the difference between success and failure in avoiding ‘dangerous’ anthropogenic climate change. That’s scary enough.

#### Warming is real and causes extinction

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As horrifying as the scenario of human extinction by sudden, fast-burning nuclear fire may seem, the one consolation is that this future can be avoided within a relatively short period of time if responsible world leaders change Cold War thinking to move away from aggressive wars over natural resources and towards the eventual dismantlement of most if not all nuclear weapons. On the other hand, another scenario of human extinction by fire is one that may not so easily be reversed within a short period of time because it is not a fast-burning fire; rather, a slow burning fire is gradually heating up the planet as industrial civilization progresses and develops globally. This gradual process and course is long-lasting; thus it cannot easily be changed, even if responsible world leaders change their thinking about ‘‘progress’’ and industrial development based on the burning of fossil fuels. The way that global warming will impact humanity in the future has often been depicted through the analogy of the proverbial frog in a pot of water who does not realize that the temperature of the water is gradually rising. Instead of trying to escape, the frog tries to adjust to the gradual temperature change; finally, the heat of the water sneaks up on it until it is debilitated. Though it finally realizes its predicament and attempts to escape, it is too late; its feeble attempt is to no avail— and the frog dies. Whether this fable can actually be applied to frogs in heated water or not is irrelevant; it still serves as a comparable scenario of how the slow burning fire of global warming may eventually lead to a runaway condition and take humanity by surprise. Unfortunately, by the time the politicians finally all agree with the scientific consensus that global warming is indeed human caused, its development could be too advanced to arrest; the poor frog has become too weak and enfeebled to get himself out of hot water. The Intergovernmental Panel of Climate Change (IPCC) was established in 1988 by the WorldMeteorological Organization (WMO) and the United Nations Environmental Programme to ‘‘assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of humaninduced climate change, its potential impacts and options for adaptation and mitigation.’’[16]. Since then, it has given assessments and reports every six or seven years. Thus far, it has given four assessments.13 With all prior assessments came attacks fromsome parts of the scientific community, especially by industry scientists, to attempt to prove that the theory had no basis in planetary history and present-day reality; nevertheless, as more andmore research continually provided concrete and empirical evidence to confirm the global warming hypothesis, that it is indeed human-caused, mostly due to the burning of fossil fuels, the scientific consensus grew stronger that human induced global warming is verifiable. As a matter of fact, according to Bill McKibben [17], 12 years of ‘‘impressive scientific research’’ strongly confirms the 1995 report ‘‘that humans had grown so large in numbers and especially in appetite for energy that they were now damaging the most basic of the earth’s systems—the balance between incoming and outgoing solar energy’’; ‘‘. . . their findings have essentially been complementary to the 1995 report – a constant strengthening of the simple basic truth that humans were burning too much fossil fuel.’’ [17]. Indeed, 12 years later, the 2007 report not only confirms global warming, with a stronger scientific consensus that the slow burn is ‘‘very likely’’ human caused, but it also finds that the ‘‘amount of carbon in the atmosphere is now increasing at a faster rate even than before’’ and the temperature increases would be ‘‘considerably higher than they have been so far were it not for the blanket of soot and other pollution that is temporarily helping to cool the planet.’’ [17]. Furthermore, almost ‘‘everything frozen on earth is melting. Heavy rainfalls are becoming more common since the air is warmer and therefore holds more water than cold air, and ‘cold days, cold nights and frost have become less frequent, while hot days, hot nights, and heat waves have become more frequent.’’ [17]. Unless drastic action is taken soon, the average global temperature is predicted to rise about 5 degrees this century, but it could rise as much as 8 degrees. As has already been evidenced in recent years, the rise in global temperature is melting the Arctic sheets. This runaway polar melting will inflict great damage upon coastal areas, which could be much greater than what has been previously forecasted. However, what is missing in the IPCC report, as dire as it may seem, is sufficient emphasis on the less likely but still plausible worst case scenarios, which could prove to have the most devastating, catastrophic consequences for the long-term future of human civilization. In other words, the IPCC report places too much emphasis on a linear progression that does not take sufficient account of the dynamics of systems theory, which leads to a fundamentally different premise regarding the relationship between industrial civilization and nature. As a matter of fact, as early as the 1950s, Hannah Arendt [18] observed this radical shift of emphasis in the human-nature relationship, which starkly contrasts with previous times because the very distinction between nature and man as ‘‘Homo faber’’ has become blurred, as man no longer merely takes from nature what is needed for fabrication; instead, he now acts into nature to augment and transform natural processes, which are then directed into the evolution of human civilization itself such that we become a part of the very processes that we make. The more human civilization becomes an integral part of this dynamic system, the more difficult it becomes to extricate ourselves from it. As Arendt pointed out, this dynamism is dangerous because of its unpredictability. Acting into nature to transform natural processes brings about an . . . endless new change of happenings whose eventual outcome the actor is entirely incapable of knowing or controlling beforehand. The moment we started natural processes of our own - and the splitting of the atom is precisely such a man-made natural process -we not only increased our power over nature, or became more aggressive in our dealings with the given forces of the earth, but for the first time have taken nature into the human world as such and obliterated the defensive boundaries between natural elements and the human artifice by which all previous civilizations were hedged in’’ [18]. So, in as much as we act into nature, we carry our own unpredictability into our world; thus, Nature can no longer be thought of as having absolute or iron-clad laws. We no longer know what the laws of nature are because the unpredictability of Nature increases in proportion to the degree by which industrial civilization injects its own processes into it; through selfcreated, dynamic, transformative processes, we carry human unpredictability into the future with a precarious recklessness that may indeed end in human catastrophe or extinction, for elemental forces that we have yet to understand may be unleashed upon us by the very environment that we experiment with. Nature may yet have her revenge and the last word, as the Earth and its delicate ecosystems, environment, and atmosphere reach a tipping point, which could turn out to be a point of no return. This is exactly the conclusion reached by the scientist, inventor, and author, James Lovelock. The creator of the wellknown yet controversial Gaia Theory, Lovelock has recently written that it may be already too late for humanity to change course since climate centers around the world, . . . which are the equivalent of the pathology lab of a hospital, have reported the Earth’s physical condition, and the climate specialists see it as seriously ill, and soon to pass into a morbid fever that may last as long as 100,000 years. I have to tell you, as members of the Earth’s family and an intimate part of it, that you and especially civilisation are in grave danger. It was ill luck that we started polluting at a time when the sun is too hot for comfort. We have given Gaia a fever and soon her condition will worsen to a state like a coma. She has been there before and recovered, but it took more than 100,000 years. We are responsible and will suffer the consequences: as the century progresses, the temperature will rise 8 degrees centigrade in temperate regions and 5 degrees in the tropics. Much of the tropical land mass will become scrub and desert, and will no longer serve for regulation; this adds to the 40 per cent of the Earth’s surface we have depleted to feed ourselves. . . . Curiously, aerosol pollution of the northern hemisphere reduces global warming by reflecting sunlight back to space. This ‘global dimming’ is transient and could disappear in a few days like the smoke that it is, leaving us fully exposed to the heat of the global greenhouse. We are in a fool’s climate, accidentally kept cool by smoke, and before this century is over billions of us will die and the few breeding pairs of people that survive will be in the Arctic where the climate remains tolerable. [19] Moreover, Lovelock states that the task of trying to correct our course is hopelessly impossible, for we are not in charge. It is foolish and arrogant to think that we can regulate the atmosphere, oceans and land surface in order to maintain the conditions right for life. It is as impossible as trying to regulate your own temperature and the composition of your blood, for those with ‘‘failing kidneys know the never-ending daily difficulty of adjusting water, salt and protein intake. The technological fix of dialysis helps, but is no replacement for living healthy kidneys’’ [19]. Lovelock concludes his analysis on the fate of human civilization and Gaia by saying that we will do ‘‘our best to survive, but sadly I cannot see the United States or the emerging economies of China and India cutting back in time, and they are the main source of emissions. The worst will happen and survivors will have to adapt to a hell of a climate’’ [19]. Lovelock’s forecast for climate change is based on a systems dynamics analysis of the interaction between humancreated processes and natural processes. It is a multidimensional model that appropriately reflects the dynamism of industrial civilization responsible for climate change. For one thing, it takes into account positive feedback loops that lead to ‘‘runaway’’ conditions. This mode of analysis is consistent  with recent research on how ecosystems suddenly disappear. A 2001 article in Nature, based on a scientific study by an international consortium, reported that changes in ecosystems are not just gradual but are often sudden and catastrophic [20]. Thus, a scientific consensus is emerging (after repeated studies of ecological change) that ‘‘stressed ecosystems, given the right nudge, are capable of slipping rapidly from a seemingly steady state to something entirely different,’’ according to Stephen Carpenter, a limnologist at the University of Wisconsin-Madison (who is also a co-author of the report). Carpenter continues, ‘‘We realize that there is a common pattern we’re seeing in ecosystems around the world, . . . Gradual changes in vulnerability accumulate and eventually you get a shock to the system - a flood or a drought - and, boom, you’re over into another regime. It becomes a self-sustaining collapse.’’ [20]. If ecosystems are in fact mini-models of the system of the Earth, as Lovelock maintains, then we can expect the same kind of behavior. As Jonathon Foley, a UW-Madison climatologist and another co-author of the Nature report, puts it, ‘‘Nature isn’t linear. Sometimes you can push on a system and push on a system and, finally, you have the straw that breaks the camel’s back.’’ Also, once the ‘‘flip’’ occurs, as Foley maintains, then the catastrophic change is ‘‘irreversible.’’ [20]. When we expand this analysis of ecosystems to the Earth itself, it’s frightening. What could be the final push on a stressed system that could ‘‘break the camel’s back?’’ Recently, another factor has been discovered in some areas of the arctic regions, which will surely compound the problem of global ‘‘heating’’ (as Lovelock calls it) in unpredictable and perhaps catastrophic ways. This disturbing development, also reported in Nature, concerns the permafrost that has locked up who knows how many tons of the greenhouse gasses, methane and carbon dioxide. Scientists are particularly worried about permafrost because, as it thaws, it releases these gases into the atmosphere, thus, contributing and accelerating global heating. It is a vicious positive feedback loop that compounds the prognosis of global warming in ways that could very well prove to be the tipping point of no return. Seth Borenstein of the Associated Press describes this disturbing positive feedback loop of permafrost greenhouse gasses, as when warming ‘‘. already under way thaws permafrost, soil that has been continuously frozen for thousands of years. Thawed permafrost releases methane and carbon dioxide. Those gases reach the atmosphere and help trap heat on Earth in the greenhouse effect. The trapped heat thaws more permafrost and so on.’’ [21]. The significance and severity of this problem cannot be understated since scientists have discovered that ‘‘the amount of carbon trapped in this type of permafrost called ‘‘yedoma’’ is much more prevalent than originally thought and may be 100 times [my emphasis] the amount of carbon released into the air each year by the burning of fossil fuels’’ [21]. Of course, it won’t come out all at once, at least by time as we commonly reckon it, but in terms of geological time, the ‘‘several decades’’ that scientists say it will probably take to come out can just as well be considered ‘‘all at once.’’ Surely, within the next 100 years, much of the world we live in will be quite hot and may be unlivable, as Lovelock has predicted. Professor Ted Schuur, a professor of ecosystem ecology at the University of Florida and co-author of the study that appeared in Science, describes it as a ‘‘slow motion time bomb.’’ [21]. Permafrost under lakes will be released as methane while that which is under dry ground will be released as carbon dioxide. Scientists aren’t sure which is worse. Whereas methane is a much more powerful agent to trap heat, it only lasts for about 10 years before it dissipates into carbon dioxide or other chemicals. The less powerful heat-trapping agent, carbon dioxide, lasts for 100 years [21]. Both of the greenhouse gasses present in permafrost represent a global dilemma and challenge that compounds the effects of global warming and runaway climate change. The scary thing about it, as one researcher put it, is that there are ‘‘lots of mechanisms that tend to be self-perpetuating and relatively few that tend to shut it off’’ [21].14 In an accompanying AP article, Katey Walters of the University of Alaska at Fairbanks describes the effects as ‘‘huge’’ and, unless we have a ‘‘major cooling,’’ - unstoppable [22]. Also, there’s so much more that has not even been discovered yet, she writes: ‘‘It’s coming out a lot and there’s a lot more to come out.’’ [22]. 4. Is it the end of human civilization and possible extinction of humankind? What Jonathon Schell wrote concerning death by the fire of nuclear holocaust also applies to the slow burning death of global warming: Once we learn that a holocaust might lead to extinction**, we have no right to gamble**, because if we lose, the game will be over, and neither we nor anyone else will ever get another chance. Therefore, although, scientifically speaking, there is all the difference in the world between the mere possibility that a holocaust will bring about extinction and the certainty of it, morally they are the same, and we have no choice but to address the issue of nuclear weapons as though we knew for a certainty that their use would put an end to our species [23].15 When we consider that beyond the horror of nuclear war, another horror is set into motion to interact with the subsequent nuclear winter to produce a poisonous and super heated planet, the chances of human survival seem even smaller. Who knows, even if some small remnant does manage to survive, what the poisonous environmental conditions would have on human evolution in the future. A remnant of mutated, sub-human creatures might survive such harsh conditions, but for all purposes, human civilization has been destroyed, and the question concerning human extinction becomes moot. Thus, **we have no other choice but to consider the finality of it all**, as Schell does: ‘‘Death lies at the core of each person’s private existence, but part of death’s meaning is to be found in the fact that it occurs in a biological and social world that survives.’’ [23].16 But what if the world itself were to perish, Schell asks. Would not it bring about a sort of ‘‘second death’’ – the death of the species – a possibility that the vast majority of the human race is in denial about? Talbot writes in the review of Schell’s book that it is not only the ‘‘death of the species, not just of the earth’s population on doomsday, but of countless unborn generations. They would be spared literal death but would nonetheless be victims . . .’’ [23]. That is the ‘‘second death’’ of humanity – the horrifying, unthinkable prospect that there are no prospects – that there will be no future. In the second chapter of Schell’s book, he writes that since we have not made a positive decision to exterminate ourselves but instead have ‘‘chosen to live on the edge of extinction, periodically lunging toward the abyss only to draw back at the last second, our situation is one of uncertainty and nervous insecurity rather than of absolute hopelessness.’’ [23].17 In other words, the fate of the Earth and its inhabitants has not yet been determined. Yet time is not on our side. Will we relinquish the fire and our use of it to dominate the Earth and each other, or will we continue to gamble with our future at this game of Russian roulette while **time** increasingly **stacks the cards against** our chances of **survival**?

### 1AC Solvency

#### The Outer Continental Shelf Lands Act empowers the Secretary of the Interior to control oil and gas leasing allowing the interior department to control the moratorium.

Pyle 12 (Thomas J Pyle - President of the Institute for Energy Research, “Energy Department sneaks offshore moratorium past public”, <http://www.washingtontimes.com/news/2012/jul/9/energy-department-sneaks-offshore-moratorium-past-/>, 7/9/12) AC

While the Obama administration was taking a victory lap last week after the 5-4 Supreme Court decision to uphold the president’s signature legislative accomplishment, Obamacare, the Interior Department 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 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 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.

#### Status quo locks 98% of offshore natural gas production

Pyle 7/10 (Thomas J., July 10, 2012, “Energy Department sneaks offshore moratorium past public; Jobs and oil-supply potential are shut down,” The Washington Times, lexis)

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#### It is directly responsible for all-time production lows

Hastings, 7/23 (Rep. Doc Hastings, The Hill, 23 July 2012, “President Obama’s offshore drilling plan must be replaced,” http://thehill.com/blogs/congress-blog/energy-a-environment/239529-president-obamas-offshore-drilling-plan-must-be-replaced)//CC

The president’s plan only offers 15 lease sales limited to the Gulf of Mexico and, very late in the plan, small parts of Alaska. It doesn’t open one new area for leasing and energy production. According to the non-partisan Congressional Research Service, President Obama’s 15 lease sales represent the lowest number ever included in an offshore leasing plan. President Obama rates worse than even Jimmy Carter. Thanks to President Obama, it’s as if the bipartisan steps to lift the drilling moratoria in 2008 never happened. Crippling $4 gasoline prices sparked Americans’ outrage and pressured the Democrat-controlled Congress to allow legislation to pass opening up new offshore areas to drilling. Unfortunately, four years later, American families and small businesses are experiencing the pain of higher gasoline prices and yet no progress has been made to expand production of our offshore resources. The Congressional moratorium on drilling has simply been replaced by the “Obama moratorium” on drilling. Gasoline prices were $1.89 when President Obama took office, and prices today are nearly double. Americans will continue to face volatile price spikes as long as we continue to keep the United States’ energy resources under lock-and-key.

#### That doubles production

Baker Institute, ‘8 (Baker Institute for Public Policy, Rice University, Baker Institute Policy Report, January 2008, “Natural Gas in North America: Markets and Security,” <http://connection.ebscohost.com/c/articles/30064519/study-lift-u-s-drilling-restrictions-avoid-international-lng-cartel>)//CC

As might be expected, the lower requirements for LNG under this scenario stem from larger, lowcost U.S. Lower 48 natural gas production. Modeling predicts that lifting access restrictions would lead to an increase overall in Lower 48 production of about 1.5 tcf in 2015 (or a 7.5 percent increase), increasing to 3.1 tcf greater production (or a 10.1 percent increase) in every year from 2015 through 2030. More specifically, OCS production would total 5.0 tcf in 2015 and 6.1 tcf in 2025 as compared to only 3.5 tcf in 2015 and 3.9 tcf in 2025 if the restrictions remain in place. Lifting restrictions in the Rocky Mountains adds another 0.10 tcf by 2015 and 0.93 tcf by 2025.

#### Plan expands production – kick starts nearly 100 new projects

Paul Hillegeist et al (President and COO at Quest Offshore Resources, Inc, Sean Shafer, Project Director, Andrew Jackson, Project Manager, Leslie Cook , Senior Research Consultant) December 2011 “The State of the Offshore U.S. Oil and Gas Industry” http://energytomorrow.org/images/uploads/Quest\_2011\_December\_29\_Final.pdf

If drilling permits going forward were to be issued at pre‐moratorium rates, the number of shallow water projects delayed could be significantly reduced from 85 under the current path to 37 over the 2012 to 2015 period, and from 48 to 9 for the deepwater. The increased number of projects would increase investment in the Gulf of Mexico offshore oil and gas industry by over $15.6 billion dollars from 2012‐2015. This additional investment would increase average annual U.S. employment between 17,000 and 49,000 thousand jobs per year over that time period. Offshore oil production would be higher over the next decade, for example, by 2017 offshore oil production would rise by approximately 13 percent relative to its current projected path. A regulatory environment that eliminates unnecessary permitting delays and maintains competitiveness with development opportunities in other regions of the world would provide a first step to revitalizing the offshore oil and gas industry. Additional access to offshore areas currently off‐limits remains a key missing component of U.S. energy policy, and would provide substantial additional gains to the nation in terms of energy security, employment and government revenue.

#### Otherwise, unpredictable regulatory shifts will crush predictability and timing of projects

Curry L. Hagerty (Specialist in Energy and Natural Resources Policy at the Congressional Research Service) June 15, 2010 “Outer Continental Shelf Moratoria on Oil and Gas Development” http://crs.ncseonline.org/nle/crsreports/10Jul/R41132.pdf

One legacy of congressional moratoria is their impact on the timing of possible OCS development. From a developer’s point of view, predictability in the pace, timing, and sequence of OCS development projects is key to strategic business decisions. From a regulator’s standpoint, agency discretion for OCS development is tied to program planning horizons set by statutory or regulatory timetables. Features of the annual congressional moratoria varied from year to year, and from region to region, as reflected in Table 1, and the resultant uncertainty had a disruptive effect on the pace of OCS activity, which was viewed negatively by those in favor of OCS drilling. Among those opposed to OCS drilling, the disruptive effect was considered a positive outcome.23 Changes to the specific provisions of annual moratoria measures created tensions due to the unpredictability of the bans on leasing activities, timeframes, and locations.24 It was not uncommon for developers to engage in litigation against the federal government and to claim damages related to reliance on leases and federal OCS policies that were disrupted by the annual congressional moratoria.25 Although observers agreed that appropriations measures were out of sync with the timetable used to coordinate federal OCS planning functions, proponents of annual congressional moratoria provisions countered that restrictions were defensible in the absence of more permanent alternatives for similar leasing prohibitions