### 2NC This Round

#### Sequestration jacks defense

Wright and Allen ‘12 (Austin Wright and Jonathan Allen, “White House: Sequester 'deeply destructive' to defense”, <http://www.politico.com/news/stories/0912/81224.html>, August 14, 2012)

President Barack Obama on Friday detailed how roughly $120 billion in cuts to the Pentagon and domestic programs will be applied if Congress doesn’t shut off a planned “sequester” before the end of the year, renewing an election-year political brawl over who is to blame for the nation’s budget woes. POLITICO obtained an advance copy of the 394-page White House report, which shed little new light on the sword of Damocles hanging over Washington’s head but sharpened its political point. The report confirms in painstaking detail which budget accounts are subject to cuts — down to the congressional visitors center — and which are exempt. And it is likely to add new urgency to efforts to stop the cuts from taking effect. “No amount of planning can mitigate the effect of these cuts. Sequestration is a blunt and indiscriminate instrument. It is not the responsible way for our nation to achieve deficit reduction,” the Office of Management and Budget wrote. “”The report leaves no question that the sequestration would be deeply destructive to national security, domestic investments and core government functions.” The fight over spending cuts will be unavoidable on the campaign trail. Obama faces the specter of deep reductions to Pentagon accounts — and the layoffs that defense firms say will accompany them — and Republican vice presidential candidate Paul Ryan of Wisconsin is the GOP’s top budget negotiator in the House. If things fall apart, both will be blamed by their political opponents. Republicans agreed with the president that the automatic cuts could have a devastating effect on the nation but accused him of failing to put forward a workable plan to avoid them. ”The release today of a report detailing across-the-board budget cuts—including the cuts to national security that the President demanded during last year’s budget negotiations—highlights the crippling effect these reductions will have on our nation’s security and underscores the urgent need for the President to work with congressional Republicans to replace these destructive cuts,” Senate Majority Leader Mitch McConnell (R-Ky.) said. “[W]hile the report claims that the president has offered ‘balanced and comprehensive deficit reduction’ solutions, his plan was so unserious that it was rejected by every single member of Congress.” The overview: There would be a 9.4 percent cut to most defense programs — except those exempted in the sequestration law — and a 10 percent cut to a handful of other Pentagon accounts that are not subject to annual congressional appropriations. Medicare would get hit with a 2 percent cut, while domestic discretionary programs — such as scientific grants and Education Department programs — would be subject to 8.2 percent cuts. Most mandatory domestic programs — those that are funded based on eligibility — would be slashed by 7.6 percent. The president and his Democratic allies say that Republicans have put at risk the nation’s defenses — and important domestic programs — in the name of preserving Bush-era tax cuts for the wealthiest Americans. Republicans counter that Obama and congressional Democrats insisted on including the Pentagon in the automatic cuts as part of a landmark 2011 debt-limit deal. ”While the Department of Defense would be able to shift funds to ensure war fighting and critical military readiness capabilities were not degraded, sequestration would result in a reduction in readiness of many non-deployed units, delays in investments in new equipment and facilities, cutbacks in equipment repairs, declines in military research and development efforts, and reductions in base services for military families,” the president’s aides wrote.

#### It jacks every internal link

Pellerin ‘12 (Cheryl Pellerin, AFPS Journalist, “Comptroller: Sequestration Would Devastate Defense Spending”, <http://www.af.mil/news/story.asp?id=123319134>, September 21, 2012)

9/21/2012 - WASHINGTON (AFPS) -- Sequestration will devastate every aspect of Defense Department spending, from fighting the war in Afghanistan and supporting troop health and morale to training, maintenance and modernization, and carrying out the defense strategic guidance, Pentagon Comptroller Robert F. Hale said here Sept. 20. Sequestration refers to a mechanism in the Budget Control Act that would trigger an additional $500 billion across-the-board defense spending cut over the next decade, in addition to $487 billion in cuts already programmed, unless Congress identifies equivalent savings by January. Testifying before the House Armed Services Committee, Hale said the only way to avoid bad consequences is for Congress to enact a balanced deficit-reduction plan that the president can sign, a move that would halt sequestration. "If that action is not taken," the comptroller said, "we're faced with the dollar consequences that the Sequestration Transparency Act report spells out." The Office of Management and Budget last week released a report required by the 2012 Sequestration Transparency Act. The document details the financial effects of sequestration. At today's hearing, Hale offered the panel a high-level assessment of sequestration's impact on DOD. "Cuts in the national defense function will total $54.7 billion in discretionary and direct spending in fiscal 2013 under the assumptions of (the OMB) report. Of this amount, $52.3 billion would come out of the DOD budget," the comptroller said. President Barack Obama exercised his authority to exempt military personnel spending from sequestration, Hale said, but each nonexempt budget account will take a hit of 9.4 percent. Funding for overseas contingency operations will be subject to sequestration, he said. "We will protect wartime operating budgets to the extent that we can -- support of our warfighters is our highest priority," Hale said. "But that will mean greater cuts in the base budget portions, especially of the operations and maintenance accounts, and particularly in the Army and the Marine Corps." Such cuts would mean reductions in training, which "would affect our ability to respond to a new warfighting contingency should one occur," the comptroller added. Sequestration almost certainly would force DOD to reduce spending for civilian personnel, leading to hiring freezes and probably unpaid furloughs, he said, affecting weapons maintenance, contracting, and financial management and audit efforts. A sequester also would substantially affect DOD investment programs, Hale added. "While there'd be no impact on prior-year funds already obligated on contracts -- and that's an important point -- there would nonetheless be substantial adverse effects," he said, adding that the 9.4 percent cut would affect each of the budget accounts that fund procurement, military construction, and research, development, test and evaluation. Sequestration would adversely affect military retirees and families, he said, and cause cuts in family housing maintenance and base operating support. "We'd try to protect families wherever we can," Hale added, "but we would have to make some of these cuts." Cuts would also be required in the Defense Health Program, including TRICARE, he said. "These are the consequences that would come into play in fiscal 2013," the comptroller said, noting that the sequestration law that would go into effect on Jan. 2 also would reduce DOD budgets by $50 billion to $55 billion in each year from fiscal 2013 to fiscal 2021. This would double reductions already imposed by the Budget Control Act and accounted for by DOD, forcing the department to make substantial reductions in military personnel and units and giving the department fewer options for responding quickly to emerging crises, Hale said. Hale was joined at the hearing by Gen. Lloyd J. Austin III, Army vice chief of staff; Adm. Mark E. Ferguson III, vice chief of naval operations; Gen. Larry O. Spencer, Air Force vice chief of staff; and Gen. Joseph F. Dunford Jr., Marine Corps assistant commandant. Without exception, the military leaders said the results of sequestration would keep their forces from properly executing requirements of the new defense strategy. Representing the Air Force, Spencer said sequestration would "affect our ability to fulfill current wartime deployments, operational requirements and defense of the homeland, but it would also significantly impact our ability to prepare for future operations and ... make investments in modernization." Such cuts would also impact the future of vital aerospace technology, the general said, "one of our key competitive advantages." Austin said the cuts required by sequestration would "adversely affect just about every aspect of our Army," including that service's readiness and its ability to respond to contingencies. For the Navy, Ferguson said sequestration would translate over time to a smaller force with less presence, longer response times and reduced ability to provide surge forces in support of major operational plans and other emerging needs. "This month I visited the Central Command region," the admiral told the panel. He visited both aircraft carriers in the region, the USS Enterprise and the USS Dwight D. Eisenhower, along with the minesweeper force, patrol craft and other ships. In the process he said he spoke with more than 10,000 forward-deployed sailors. "At every forum," Ferguson said, "sailors from the most junior to our operational commanders expressed concern regarding what sequestration will mean to our Navy and their service. The uncertainty of our fiscal future is increasingly on the minds of our force." For the Marine Corps, Dunford said sequestration would have "a chaotic effect on the force during a time of extraordinary challenges to our nation." For the last 10 years, the nation's Marines, Soldiers, Sailors and Airmen have done everything asked of them, he told the panel. "The competence, responsiveness and flexibility of our force was seen again last week when Marines responded within hours to reinforce (U.S.) embassies in the Middle East and North Africa," the general said, adding that such a response has occurred so often over the past few years that it might be taken for granted. Most of the young men and women in uniform, like those who are part of the Fleet Antiterrorism Support Teams that deployed last week, or those in Afghanistan, are too busy doing their jobs to worry about the details of how the nation's leaders and legislators develop and pass budgets, he said. "Frankly, given all they do for us, they have a right to expect that whatever it is we're supposed to be doing to properly support them, that we're actually doing it," Dunford said. "One of my greatest concerns about sequestration ... is that we will lose the trust and confidence of the all-volunteer force that we have worked so hard to build," the general added. Along with impacts on the budget and the defense strategy, sequestration also puts at risk "the intangible qualities that make our military the very best in the world," he said. "That fact needs to be a key part of the debate as we move forward," the general added.

#### Jacks hard power- kills perception of deterrence- jacks credibility

Singer ‘12 (Peter W. Singer, Peter W. Singer is director of the 21st Century Defense Initiative at Brookings, “Sequestration and What It Would Do to U.S. Military Power”, <http://nation.time.com/2012/09/24/sequestration-and-what-it-would-do-to-u-s-military-power/>, September 24, 2012)

In recent months, concerns over sequestration and its impact on the U.S. military have reached a fever pitch in Washington. Sequestration “would destroy the military” and cause an “inability to defend the nation” argued Senator John McCain, ranking member of the Senate Armed Services committee. “Cuts of this magnitude would be catastrophic to the military,” testified General Raymond Odierno, the Chief of Staff of the U.S. Army, to Congress. “From a pure national security perspective, the gap between the U.S. military and our closest rivals will collapse with sequestration,” wrote the Washington Times. And it would create a U.S. military akin to a “paper tiger…unable to keep up with potential adversaries.” said Secretary of Defense Leon Panetta. “In effect, it invites aggression.” There is no doubt that sequestration would be a terrible mistake. If Congress is unable to reach a compromise on how to solve America’s debt dilemma, almost half a trillion dollars in mandatory cuts to the defense budget over the next decade would initiate in January (meaning roughly $55 billion in the first year). It is un-strategic to hack away at the defense budget in a generalized manner, cutting the good and the bad by the same percentage, like a butcher with a piece of meat. (MORE: A Smarter Way to Trim the Pentagon Budget) Unfortunately, in the effort to fight this scenario with hyperbole, we may be doing a different kind of disservice to U.S. security. While the screams of outrage over sequestration are directed at a domestic American audience, they resonate around the world. Words do matter, especially those said in the capital of the free world about how it sees its own ability to maintain that role. We do know that America’s allies are certainly listening to these statements. For example, at an August 2012 engagement with high level South Korean defense leaders and experts, organized by Brookings and KIDA, the Korean Institute for Defense Analysis, a senior Korean leader said “We hear these statements and have deep, deep concern about what it means for us.” In turn, we don’t know how such predictions of doom and gloom by American leaders are received in capitals like Pyongyang. But one can reasonably conclude that if you don’t want to “invite aggression” then the best tactic is not to go about screaming to the world that you expect to be weak and “toothless.”

#### Sequestration jacks navy

Nelson ’12 (Maxford Nelson, Maxford Nelson is a member of the Young Leaders Program at The Heritage Foundation, “Sequestration: White House Sounds the Alarm”, <http://blog.heritage.org/2012/08/09/sequestration-white-house-sounds-the-alarm/>, August 9, 2012)

Administration officials recently spoke publicly for the first time about specifically how sequestration would undermine military readiness. Testifying before the House Armed Services Committee, Deputy Defense Secretary Ashton Carter and acting director of the Office of Management and Budget Jeffrey Zients argued that “sequestration would be devastating” to the Defense Department. However, Congress and the Administration have shown little initiative to fix their mistakes and avoid this self-imposed blow to national security. Passed by Congress last August, sequestration was part of a compromise to secure an increase in the debt ceiling. In practical terms, sequestration requires reductions in defense spending of over $500 billion over the next 10 years. Obama praised the compromise and dismissed concerns about irresponsible spending as simply “a manufactured crisis.” As Zients pointed out, “Sequestration, by design, is bad policy.” The cuts were simply a time-buying measure, intended to be so severe that Congress would be forced to make sound reforms down the road. Nonetheless, Zients refused to stray from the Administration’s talking points, arguing that offsetting sequestration necessitates raising taxes on wealthy Americans, even though such tax increases are unnecessary and would harm the economy. A year after Obama signed the measure into law, no alternative has been implemented, and the January deadline is looming. The Administration recently announced that military personnel accounts are exempt from the cuts, meaning that sequestration will result in 12 percent cuts in all other defense programs. In addition to reducing training for deploying units, halting construction projects, and limiting services to military families, sequestration could slow procurement of critical weapons systems. Carter estimated that, under sequestration, the Pentagon would purchase “four fewer F-35 aircraft, one less P-8 aircraft, 12 fewer Stryker vehicles, and 300 fewer Army medium and heavy tactical vehicles compared with the requests in the President’s Budget for [fiscal year] 2013.” The F-35 Joint Strike Fighter, though critical for maintaining U.S. air superiority, has already suffered significant cuts. The P-8 Poseidon, designed for maritime operations, is desperately needed to replace the Navy’s aging fleet of P-3 Orions, two-thirds of which are grounded. Carter also predicted delays for the already stretched Navy in receiving the new CVN-78 carrier, the Littoral Combat Ship, the DDG-51 destroyer, and the replacement for Ohio-class ballistic missile submarines. Maintaining a top-notch carrier force is a security necessity. U.S. law requires that the Navy maintain a fleet of at least 11 operational carriers. However, even without sequestration the Navy faces operating below strength for nearly three years until the CVN-78 comes online in 2015. Furthermore, delays in the development of a replacement for Ohio-class submarines will only weaken a critical element of America’s nuclear deterrent force. “Taken together,” Carter warned, the cuts from sequestration “would represent a major step toward the creation of an unready, hollow force.” Protecting the nation is one of foremost duties of the federal government. Congress should act quickly and responsibly to reorder its spending priorities to head off this defense disaster.

### 2NC

#### We control uniqueness- A2AD threat exaggerated, US has maritime dominance now

WCT, 12-22 – citing a report from the Swiss think tank, Center for Security Studies and Conflict Research

[Want China Times, staff reporter, "China unable to defeat US at sea: Swiss thinktank," 12-22-12, www.wantchinatimes.com/news-subclass-cnt.aspx?id=20121222000049&cid=1101, accessed 1-27-13, mss]

China unable to defeat US at sea: Swiss thinktank

An article from the Zurich-based Center for Security Studies and Conflict Research on Dec. 18 says the PLA Navy's ability to wage anti-access/area denial warfare against the United States in the Western Pacific has been **highly exaggerated**. Even though China would be able to withstand a US attack during the early stages of a campaign, it would be unable to defeat the US and its allies in a war of attrition, the piece said. Electronic countermeasures would also render China's much-vaunted DF-21 "carrier killer" missile useless, the article said, concluding that China would be unable to prevent an American intervention in East Asia, and furthermore that it would be unable to capture Taiwan without confronting US forces. While analysts around the globe are taking note of the significance of Chinese naval bases in Sri Lanka, Myanmar and Pakistan, the article said it is already hard enough for the PLA Navy to fight a war against the United States near the China coast. China would not be able to take on the US in the Western Pacific even if it builds two of its own aircraft carriers by 2020. Although China is trying to increase its submarine fleet from 60 to 75, the article doubted the ability of the PLA to fight an anti-submarine campaign against the US Pacific Fleet, suggesting that Chinese submarines may not be able to provide sufficient protection for a carrier battle group. Since the targeting computer of the DF-21 can be scrambled by the US electronically, options such as ballistic missiles may not be effective. As China is surrounded by the United States and its regional allies in the Asia-Pacific, the article stated that the country is unable to become a genuine maritime superpower even it has the ability to build warships to a high standard.

#### No china naval challenge now

O'Rourke, 12-10 -- CRS Naval Affairs specialist

[Ronald, "China Naval Modernization," CRS/FAS, 12-10-12, www.fas.org/sgp/crs/row/RL33153.pdf, accessed 1-27-13, mss]

The PLAN is acquiring the hardware it needs to prosecute a major regional naval showdown. Simultaneously, an increasingly-capable, but still limited number, of vessels can fight pirates, rescue Chinese citizens trapped by violence abroad, and make “show-the-flag” visits around the world. But the PLAN is not set up to confront the U.S. at sea more than 1,000 miles from China. Even if the PLAN surged production of key vessels such as replenishment ships, the resources and steps needed to build a globally-operational navy leave Beijing well over a **decade** away from achieving such capability in hardware terms alone. Building the more complex human software and operational experience needed to become capable of conducting large-scale, high-end out-of-area deployments could require at least another decade. **Meanwhile**, however, **China’s challenges at home and on its contested periphery remain so pressing as to preclude such focus for the foreseeable future**.

**Peace is not because of the U.S. – only logical explanation is states want peace – the fact there is peace without hegemony proves other factors outweigh – empirics only prove our claim**

* Theoretically if other people wanted war – us couldn’t stop them, thus people just don’t want war
* There is peace where the u.s. isn’t which means there is obvi something else at play
* Even when hegemony decreased, war still decreased which means that they’re not related

Fettweis 10 – Professor of national security affairs @ U.S. Naval War College (Chris, Georgetown University Press, “Dangerous times?: the international politics of great power peace” Google Books)

Simply stated, the hegemonic stability theory proposes that international peace is only possible when there is one country strong enough to make and enforce a set of rules. At the height of Pax Romana between 27 BC and 180 AD, for example, Rome was able to bring unprecedented peace and security to the Mediterranean. The Pax Britannica of the nineteenth century brought a level of stability to the high seas. Perhaps the current era is peaceful because the United States has established a de facto Pax Americana where no power is strong enough to challenge its dominance, and because it has established a set of rules that a generally in the interests of all countries to follow. Without a benevolent hegemony, some strategists fear, instability may break out around the globe. Unchecked conflicts could cause humanitarian disaster and, in today’s interconnected world economic turmoil that would ripple throughout global financial markets. If the United States were to abandon its commitments abroad, argued Art, the world would “become a more dangerous place” and, sooner or later, that would “rebound to America’s detriment.” If the massive spending that the United States engages in actually produces stability in the international political and economic systems, then perhaps internationalism is worthwhile. There are good theoretical and empirical reasons, however, the belief that U.S. hegemony is not the primary cause of the current era of stability.

First of all, the hegemonic stability argument overstates the role that the United States plays in the system. No country is strong enough to police the world on its own. The only way there can be stability in the community of great powers is if self-policing occurs, ifs **states have decided that their interest are served by peace**. If no pacific normative shift had occurred among the great powers that was filtering down through the system, then no amount of international constabulary work by the United States could maintain stability. Likewise, if it is true that such a shift has occurred, then most of what the hegemon spends to bring stability would be wasted. The 5 percent of the world’s population that live in the United States simple could not force peace upon an unwilling 95. At the risk of beating the metaphor to death, the United States may be patrolling a neighborhood that has already rid itself of crime. Stability and unipolarity may be simply coincidental.

In order for U.S. hegemony to be the reason for global stability, the rest of the world would have to expect reward for good behavior and fear punishment for bad. Since the end of the Cold War, the United States has not always proven to be especially eager to engage in humanitarian interventions abroad. Even rather incontrovertible evidence of genocide has not been sufficient to inspire action. Hegemonic stability can only take credit for influence those decisions that would have ended in war without the presence, whether physical or psychological, of the United States. Ethiopia and Eritrea are hardly the only states that could go to war without the slightest threat of U.S. intervention. Since most of the world today is free to fight without U.S. involvement, something else must be at work. Stability exists in many places where no hegemony is present.

Second, the limited empirical evidence we have suggests that there is little connection between the relative level of U.S. activism and international stability. During the 1990s the United States cut back on its defense spending fairly substantially, By 1998 the United States was spending $100 billion less on defense in real terms than it had in 1990. To internationalists, defense hawks, and other believers in hegemonic stability this irresponsible "peace dividend" endangered both national and global security "No serious analyst of American military capabilities," argued Kristol and Kagan, "doubts that the defense budget has been cut much too far to meet Americas responsibilities to itself and to world peace."" If the pacific trends were due not to U.S. hegemony but a strengthening norm against interstate war, however, one would not have expected an increase in global instability and violence.

The verdict from the past two decades is fairly plain: The world grew more peaceful while the United States cut its forces. No state seemed to believe that its security was endangered by a less-capable Pentagon, or at least none took any action that would suggest such a belief. No militaries were enhanced to address power vacuums; no security dilemmas drove mistrust and arms races; no regional balancing occurred once the stabilizing presence of the U.S. military was diminished. The rest of the world acted as if the threat ofinternational war was not a pressing concern, despite the reduction in U.S. capabilities. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Clinton, and it kept declining as the Bush Administration ramped spending back up. No complex statistical analysis should be necessary to reach the conclusion that the two are unrelated. It is also worth noting for our purposes that the United States was no less safe.

#### History disproves effective deterrence

Kober 10 - a research fellow in foreign policy studies at the Cato Institute (Stanley, June 13, “The Deterrence Illusion” http://www.cato.org/pub\_display.php?pub\_id=11898)

The world at the beginning of the 21st century bears an eerie — and disquieting — resemblance to Europe at the beginning of the last century.

That was also an era of globalisation. New technologies for transportation and communication were transforming the world. Europeans had lived so long in peace that war seemed irrational. And they were right, up to a point.

The first world war was the product of a mode of rational thinking that went badly off course. The peace of Europe was based on security assurances. Germany was the protector of Austria-Hungary, and Russia was the protector of Serbia.

The prospect of escalation was supposed to prevent war, and it did — until, finally, it didn't. The Russians, who should have been deterred — they had suffered a terrible defeat at the hands of Japan just a few years before — decided they had to come to the support of their fellow Slavs.

As countries honoured their commitments, a system that was designed to prevent war instead widened it.

We have also been living in an age of globalisation, especially since the end of the cold war, but it too is increasingly being challenged.

And just like the situation at the beginning of the last century, deterrence is not working. Much is made, for example, of the North Atlantic Treaty Organisation (NATO) invoking Article V — the famous "three musketeers" pledge that an attack on one member is to be considered as an attack on all — following the terrorist attacks of September 11.

But the United States is the most powerful member of NATO by far. Indeed, in 2001, it was widely considered to be a hegemon, a hyperpower. Other countries wanted to be in NATO because they felt an American guarantee would provide security.

And yet it was the US that was attacked.

This failure of deterrence has not received the attention it deserves. It is, after all, not unique. The North Vietnamese were not deterred by the American guarantee to South Vietnam. Similarly, Hezbollah was not deterred in Lebanon in the 1980s, and American forces were assaulted in Somalia. What has been going wrong?

The successful deterrence of the superpowers during the cold war led to the belief that if such powerful countries could be deterred, then lesser powers should fall into line when confronted with an overwhelmingly powerful adversary.

It is plausible, but it may be too rational. For all their ideological differences, the US and the Soviet Union observed red lines during the cold war. There were crises — Berlin, Cuba, to name a couple — but these did not touch on emotional issues or vital interests, so that compromise and retreat were possible.

Indeed, what we may have missed in the west is the importance of retreat in Soviet ideology. "Victory is impossible unless [the revolutionary parties] have learned both how to attack and how to retreat properly," Lenin wrote in Left-Wing Communism: An Infantile Disorder. When the Soviets retreated, the US took the credit. Deterrence worked. But what if retreat was part of the plan all along?

What if, in other words, the Soviet Union was the exception rather than the rule?

That question is more urgent because, in the post-cold war world, the US has expanded its security guarantees, even as its enemies show they are not impressed.

The Iraqi insurgents were not intimidated by President Bush's challenge to "bring 'em on". The Taliban have made an extraordinary comeback from oblivion and show no respect for American power. North Korea is demonstrating increasing belligerence.

And yet the US keeps emphasising security through alliances. "We believe that there are certain commitments, as we saw in a bipartisan basis to NATO, that need to be embedded in the DNA of American foreign policy," secretary of state Hillary Clinton affirmed in introducing the new National Security Strategy.

But that was the reason the US was in Vietnam. It had a bipartisan commitment to South Vietnam under the Southeast Asia Treaty Organisation, reaffirmed through the Tonkin Gulf Resolution, which passed Congress with only two dissenting votes. It didn't work, and found its commitments were not embedded in its DNA. Americans turned against the war, Secretary Clinton among them.

The great powers could not guarantee peace in Europe a century ago, and the US could not guarantee it in Asia a half-century ago.

#### No U.S. lashout---retrenchment causes caution and restraint---reduces the risk of war

Paul K. MacDonald 11, Assistant Professor of Political Science at Williams College, and Joseph M. Parent, Assistant Professor of Political Science at the University of Miami, Spring 2011, “Graceful Decline?: The Surprising Success of Great Power Retrenchment,” International Security, Vol. 35, No. 4, p. 7-44

With regard to militarized disputes, declining great powers demonstrate more caution and restraint in the use of force: they were involved in an average of 1.7 fewer militarized disputes in the five years following ordinal change compared with other great powers over similar periods.67 Declining great powers also initiated fewer militarized disputes, and their disputes tended to escalate to lower levels of hostility than the baseline category (see figure 2).68 These findings suggest the need for a fundamental revision to the pessimist's argument regarding the war proneness of declining powers.69 Far from being more likely to lash out aggressively, declining states refrain from initiating and escalating military disputes. Nor do declining great powers appear more vulnerable to external predation than other great powers. This may be because external predators have great difficulty assessing the vulnerability of potential victims, or because retrenchment allows vulnerable powers to effectively recover from decline and still deter potential challengers.

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**War in africa does not escalate**

**Alexander 95** - (Bevin, Professor and Director of the Inter-University Institution for Terrorism Studies, The Future of Warfare)

The United States also will be reluctant to enter into conflicts in Africa, unless a major outside power tries to gain control of a region, as was the case with Soviet incursions during the Cold War, or unless one power attempts to corral the supply of vital minerals such as cobalt, chromium, or manganese. Without such incursions, African conflicts constitute little international danger because the continent does not possess enough inherent military or economic power to threaten the world. That is why the United States has ignored, militarily at least, the civil wars or ethnic conflicts in Rwanda, Liberia, Chad, Mozambique, Sudan, and elsewhere. It intervened in Somalia primarily to halt starvation.

Empirically denied multiple times over

Docking 1 (Tim, Program Office in the Research and Studies Program and Specialist on African Affairs – USIP and Ph.D. in Political Science – Boston University, “Peacekeeping in Africa”, United States Institute for Peace Special Report, 2-13, http://www.usip.org/pubs/specialreports/sr66.html)

Nowhere was the scope and intensity of violence during the 1990s as great as in Africa. While the general trend of armed conflict in Europe, Asia, the Americas, and the Middle East fell during the 1989-99 period, the 1990s witnessed an increase in the number of conflicts on the African continent. During this period, 16 UN peacekeeping missions were sent to Africa. (Three countries-Somalia, Sierra Leone, and Angola-were visited by multiple missions during this time.) Furthermore, this period saw internal and interstate violence in a total of 30 sub-Saharan states ([see table 1](http://www.usip.org/pubs/specialreports/sr66.html#table1)). In 1999 alone, the continent was plagued by 16 armed conflicts, seven of which were wars with more than 1,000 battle-related deaths (*Journal of Peace Research*, 37:5, 2000, p. 638). In 2000, the situation continued to deteriorate: renewed heavy fighting between Eritrea and Ethiopia claimed tens of thousands of lives in the lead-up to a June ceasefire and ultimately the signing of a peace accord in December; continued violence in the Democratic Republic of Congo (DRC), Sierra Leone, Burundi, Angola, Sudan, Uganda, and Nigeria as well as the outbreak of new violence between Guinea and Liberia, in Zimbabwe, and in the Ivory Coast have brought new hardship and bloodshed to the continent.

Great powers won’t get involved

Barrett 5 (Robert, Ph.D. Student in the Centre for Military and Strategic Studies – University of Calgary, “Understanding the Challenges of African Democratization through Conflict Analysis”, 6-1, http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=726162)

Westerners eager to promote democracy must be wary of African politicians who promise democratic reform without sincere commitment to the process. Offering money to corrupt leaders in exchange for their taking small steps away from autocracy may in fact be a way of pushing countries into anocracy. As such, world financial lenders and interventionists who wield leverage and influence must take responsibility in considering the ramifications of African nations who adopt democracy in order to maintain elite political privileges. The obvious reason for this, aside from the potential costs in human life should conflict arise from hastily constructed democratic reforms, is the fact that Western donors, in the face of intrastate e war would then be faced with channeling funds and resources away from democratization efforts and toward conflict intervention based on issues of human security. This is a problem, as Western nations may be increasingly wary of intervening in Africa hotspots after experiencing firsthand the unpredictable and unforgiving nature of societal warfare in both Somalia and Rwanda. On a costbenefit basis, the West continues to be somewhat reluctant to get to get involved in Africa’s dirty wars, evidenced by its political hesitation when discussing ongoing sanguinary grassroots conflicts in Africa. Even as the world apologizes for bearing witness to the Rwandan genocide without having intervened, the United States, recently using the label ‘genocide’ in the context of the Sudanese conflict (in September of 2004), has only proclaimed sanctions against Sudan, while dismissing any suggestions at actual intervention (Giry, 2005). Part of the problem is that traditional military and diplomatic approaches at separating combatants and enforcing ceasefires have yielded little in Africa. No powerful nations want to get embroiled in conflicts they cannot win – especially those conflicts in which the intervening nation has very little interest.

### 2NC

Your evidence is massively exaggerated

Leitenberg 5 (Milton, Senior Research Scholar @ University of Maryland, “ASSESSING THE BIOLOGICAL WEAPONS AND BIOTERRORISM THREAT,” December, EMM)

Framing “the threat” and setting the agenda of public perceptions and policy prescriptions. For the past decade the risk and immanence of the use of biological agents by nonstate actors/terrorist organizations—“bioterrorism”—has been systematically and deliberately exaggerated. It became more so after the combination of the 9/11 events and the October- November 2001 anthrax distribution in the United States that followed immediately afterwards. U.S. Government officials worked hard to spread their view to other countries. An edifice of institutes, programs, conferences, and publicists has grown up which continue the exaggeration and scare-mongering. In the last year or two, the drumbeat had picked up. It may however become moderated by the more realistic assessment of the likelihood of the onset of a natural flu pandemic, and the accompanying realization that the U.S. Government has been using the overwhelming proportion of its relevant resources to prepare for the wrong contingency.

Weather blocks and solves death toll

Laquer 99 (Walter, Cochair of the International Research Council at The Center for Strategic and International Studies, “The New Terrorism”)

Ironically, the major factor retarding the use of gases and germs by states and terrorists is no the revulsion or moral constraints but technical difficulties. “Ideal” conditions for an attack seldom if ever exist, and the possibility of things going wrong is almost unlimited, aerosols may nor function, the wind may blow in the wrong direction, missiles carrying a deadly load may land in the wrong place or neutralize the germs on impact. In the course of time these technical difficulties may be overcome, but it is still very likely that roughly nine out of ten of the early attempts by terrorists to wage chemical or biological warfare will fail. But they will not pass unnoticed; the authorities and the public will be alerted, and the element of surprise lost. The search for perpetrators may begin even before the first successful attack. And what has just been said with regard to terrorists may also be to state terrorism.

Terrorists won’t use bioweapons

Stern 99 (Jessica, Member of the Council on Foreign Relations, “The Prospect of Domestic Bioterrorism,” http://www.cdc.gov/ncidod/EID/vol5no4/stern.htm CDC Emerging Infectious Diseases--Vol 5 # 4 July)

Would domestic terrorists use biological weapons?1 The conventional wisdom among experts has been that terrorists "want a lot of people watching, not a lot of people dead" and are unlikely to turn to weapons of mass destruction.2 A new school of thought proposes that improved technology has made biological attacks resulting in hundreds of thousands or millions of deaths all but inevitable. While terrorists are increasingly interested in weapons of mass destruction, proponents of the latter view exaggerate the threat. Using biological weapons to create mass casualties would require more than having biological agents in hand. The terrorists would need to disseminate the agent, which presents technical and organizational obstacles that few domestic groups could surmount. In addition, relatively few terrorists would want to kill millions of people, even if they could. For most terrorists, the costs of escalation to biological weapons would seem to outweigh the benefits. Most modern terrorists have had substantively rational goals, such as attaining national autonomy or establishing a government purportedly more representative of the people's will. Escalating to such frightening weapons would result in a massive government crackdown and could alienate the group'ssupporters. Biological weapons are also dangerous to produce. A number of Aum Shinrikyo members reportedly damaged their own health while working on biological agents. Additionally, some terrorists may perceive moral constraints.3

### 2NC

Science diplomacy fails – political motivates corrupt its effectiveness.

David Dickson, SciDev, “The limits of science diplomacy,” 6/4/2009, http://www.scidev.net/en/editorials/the-limits-of-science-diplomacy.html

But — as emerged from a meeting entitled New Frontiers in Science Diplomacy, held in London this week (1–2 June) — using science for diplomatic purposes is not as straightforward as it seems. Some scientific collaboration clearly demonstrates what countries can achieve by working together. For example, a new synchrotron under construction in Jordan is rapidly becoming a symbol of the potential for teamwork in the Middle East. But whether scientific cooperation can become a precursor for political collaboration is less evident. For example, despite hopes that the Middle East synchrotron would help bring peace to the region, several countries have been reluctant to support it until the Palestine problem is resolved. Indeed, one speaker at the London meeting (organised by the UK's Royal Society and the American Association for the Advancement of Science) even suggested that the changes scientific innovations bring inevitably lead to turbulence and upheaval. In such a context, viewing science as a driver for peace may be wishful thinking. Conflicting ethos Perhaps the most contentious area discussed at the meeting was how science diplomacy can frame developed countries' efforts to help build scientific capacity in the developing world. There is little to quarrel with in collaborative efforts that are put forward with a genuine desire for partnership. Indeed, partnership — whether between individuals, institutions or countries — is the new buzzword in the "science for development" community. But **true partnership requires transparent relations between partners who are prepared to meet as equals. And that goes against diplomats' implicit role: to promote and defend their own countries' interests**. John Beddington, the British government's chief scientific adviser, may have been a bit harsh when he told the meeting that a diplomat is someone who is "sent abroad to lie for his country". But he touched a raw nerve. Worlds apart yet co-dependent The truth is that science and politics make an uneasy alliance. Both need the other. Politicians need science to achieve their goals, whether social, economic or — unfortunately — military; scientists need political support to fund their research. But they also occupy different universes. Politics is, at root, about exercising power by one means or another. Science is — or should be — about pursuing robust knowledge that can be put to useful purposes. A strategy for promoting science diplomacy that respects these differences deserves support. Particularly so if it focuses on ways to leverage political and financial backing for science's more humanitarian goals, such as tackling climate change or reducing world poverty. But a commitment to science diplomacy that ignores the differences — acting for example as if science can substitute politics (or perhaps more worryingly, vice versa), is dangerous.

Science diplomacy is strong now – science envoys and centers of excellence.

Koenig 9, Science staff writer, 6/5/2009 [Robert, "Fuzzy Spots in Obama's Science Diplomacy," http://blogs.sciencemag.org/scienceinsider/2009/06/fuzzy-spots-in.html]

Administration officials are scrambling to add substance to President Barack Obama’s new Middle Eastern science diplomacy initiatives, mentioned Thursday in his speech in Cairo. The President promised new “science envoys,” centers of excellence, and a “technological development” fund for the Middle East, North Africa, and Southeast Asia. The State Department and White House Office of Science and Technology Policy (OSTP) were working today to bring those words into focus. “Details of these initiatives will be crafted in discussion with officials in the nations where they will be based,” said OSTP spokesman Rick Weiss. Nina V. Fedoroff, science adviser to the Secretary of State and the Agency for International Development, said that proposals for centers of excellence “have been bubbling up from several different directions” with emphasis on issues such as agriculture and public health. A State Department [fact sheet](http://ottawa.usembassy.gov/content/embconsul/pdfs/obama070_factsheet.pdf) explained that the United States “will work with educational institutions, NGOs and foreign governments” to decide the focus and location of such centers. The new “science envoys” program could follow the lines of a bill sponsored by Sen. Lugar (R–IN) and approved by the Senate Foreign Relations Committee that would deploy prominent scientists on missions of goodwill and collaboration. Fedoroff said such efforts would dovetail with evolving State Department science diplomacy programs. Obama also announced a new regional fund to support technological development in Muslim-majority countries. The fact sheet said the fund would help pay for “S&T collaboration, capacity development” and innovations with commercial potential.

### 2NC- Drilling fails

#### Arctic drilling is too unpredictable for companies- long history of empirics proves the plan fails

**Beinecke 1-23**-13 [Frances, President, Natural Resources Defense Council, “A Pattern of Failure,” http://energy.nationaljournal.com/2013/01/are-arctic-oildrilling-challen.php?comments=expandall#comments]

Shell’s repeated failures in the Arctic Ocean prove that neither the company nor offshore drilling belong in these wild, remote, and rugged waters. The company’s drilling rig, for instance, ran aground when four tug engines failed in a storm. Yet the North is region of mishaps – mechanical, human, and natural. It is home to churning seas, punishing winds, frigid temperatures, unpredictable ice, and months of prolonged darkness. Shell’s inability to prepare for and cope with these punishing conditions makes it vividly clear: we have no business letting the oil industry drill in the Arctic Ocean.¶ The grounding of Shell’s drilling rig is not an isolated incident. It is part of a larger pattern in which Shell has proven no match for the elements.¶ Last July, another of the company’s drill rigs nearly ran aground in the Aleutian Islands. Through August, Shell couldn’t move its spill response barge—a linchpin in its emergency plan—out of Bellingham, WA because the Coast Guard wouldn’t certify it as seaworthy until the company dealt with more than 400 issues, including wiring and other safety shortcomings. Then, when Shell started preliminary drilling without the spill response barge in place, within 24 hours its rig had to turn tail and flee from a 30-mile long iceberg that bore down on the drill site. And in September, Shell’s containment dome—used to capture oil in the event of spill—was “crushed like a beer can” during pre-deployment testing.¶ Shell has poured billions of dollars into offshore Arctic drilling, but no matter how much it spends, it cannot make the effort anything but a terrifying gamble. And if Shell, the most profitable company on Earth, can’t buy its way to safety in Alaska, nobody can.¶ That is why the administration should halt all drilling in the Arctic Ocean. Neither the oil industry nor our government is prepared to respond to a spill in a region where the closest Coast Guard base is 1,000 miles away from the leasing sites, no proven technology exists to collect oil, and winter ice makes spill response impossible. Nor do we even know all the damage a spill and clean-up efforts would do to Arctic ecosystems. Very little research has been done yet in these waters and we have only a narrow body of research focusing on just a few species. Until these gaps in emergency response and research are filled, federal agencies cannot responsibly even weigh whether drilling in the Arctic Ocean could ever be safe.¶

#### Drilling is impossible- no proven tech, resources, or safety measures

**Clark 1-22**-13 [Jamie Rappaport Clark, President and CEO of Defenders of Wildlife, “What Shell Has Proven,” http://energy.nationaljournal.com/2013/01/are-arctic-oildrilling-challen.php?comments=expandall#comments]

The series of failures in both judgment and technology that resulted in Shell’s Kulluk drill rig crashing into Alaska’s Sitkalidak Island on New Years Eve has put wildlife and human life at increasing and unacceptable risk. Alarmingly only the latest in a series of problems with Shell’s drilling season, it should also put an end to drilling in the Arctic.¶ The list of problems that Shell’s drilling program has had is well documented and very disturbing—from losing control of the Noble Discovery drill ship, to the oil containment dome that was “crushed like a can” by arctic ice, to violoations of air safety permits, and now the grounding of the Kulluk. But, in this most recent incident alone, there are three things that stand out as indicative of Shell’s problems and as reasons why the fate of the Arctic drilling program should be sealed once and for all.¶ First, the Kulluk was hauled out to sea in dangerously unpredictable weather putting human lives and wildlife at risk so Shell could avoid paying tax on the vessel to the state of Alaska. Shell’s willingness to put profit above human safety and the environment is consistent with the safety commission’s warnings that the poor safety culture at BP was really an industry–wide problem, and not the outlier that Shell and others tried to suggest.¶ Second, it took 700 people and a fleet of Coast Guard vessels to respond to the grounding of the Kulluk. But if this incident, let alone a major oil spill or other catastrophe, had happened in the deep Arctic there would not be anywhere near 700 people to respond. It is clear that Shell was simply not equipped to respond when the Kulluk ran aground. How can we expect them to be prepared if something happened in an even more remote area?¶ Third, the grounding of the Kulluk demonstrated that despite all the promises to the contrary, the industry just does not have the technology to function safely in the Arctic environment. The Aiviq tug is a multimillion dollar ice crusher designed specifically to handle high seas and bad weather. It’s been presented as a symbol of why we should feel safe about Shell’s drilling in the rugged and remote Arctic. But in its first major storm, the Aiviq not only lost control of the Kulluk, it also lost power in all four of its engines and was itself at the whim of the rough seas. According to reports, after the Aiviq restored its connection to the Kulluk the Coast Guard had it drop its line and cut the Kulluk loose again, in order to protect the lives of Aiviq crew because of the harsh weather conditions.¶ If the Obama administration wants to be credible when it speaks about pursuing safe offshore drilling, then the grounding of the Kulluk must be the last straw. The lack of a demonstrated culture of safety, the obvious lack of response resources, and the lack of proven technology capable of avoiding or addressing a crisis should be a loud and clear signal that the administration needs to end drilling in the Arctic.

#### Insufficient tech for the plan- their evidence is industry lies

**Murray 1-21**-13 [Susan Murray, Deputy Vice President of the Pacific at Oceana and 22-year resident of Alaska, “Shell No!” http://energy.nationaljournal.com/2013/01/are-arctic-oildrilling-challen.php?comments=expandall]

The remote waters off Alaska can be harsh and unforgiving. Natural selection still plays a vivid role in survival in our ocean waters, and there is little to no room for mistakes. There are countless stories of mariners that have run afoul of the forces of nature and did not live to tell the tale. In that regard, Shell got lucky – very lucky – in its latest “mishap” with the grounding of the Kulluk. Had the vessel not been within reach of Kodiak, which is home to Alaska’s largest Coast Guard station, the story could have ended very differently. Instead it ended with no loss of life and, so far, no environmental disaster. But there is still a massive oil rig anchored in a remote and pristine bay off Kodiak Island with relatively little information available to the public about the damage it suffered or plans for its fate. At the same time, the Kulluk’s sister vessel, the drill ship Noble Discoverer is stranded in Seward after, apparently, undergoing criminal investigation due to safety and discharge problems. According to Shell, the engines on that vessel are not functioning properly, and it, too, will need to be towed to Seattle. So, taking stock, both of the vessels on which Shell is depending to drill for oil in the Arctic are disabled in different places in Alaska. That doesn’t exactly inspire confidence in the company’s ability to conduct operations in one of the harshest places on the planet.¶ The current vessel strandings, of course, are not the whole story; they are just the latest chapter in a season of bad judgment and failed equipment. To name just a few examples, in July, the Noble Discoverer dragged anchor in Dutch Harbor, nearly grounding; Shell polluted the clean Arctic air by violating emissions permits that the company had already successfully lobbied to be watered down from standards to which it had agreed earlier; Shell’s oil spill containment dome failed miserably in tests in calm conditions in Puget Sound, “breaching like a whale,” and ending up “crushed like a beer can,” according to correspondence from government officials; and at the end of the drill season in the Beaufort Sea, the company could not remove workers from the Kulluk as scheduled because they had no de-icing equipment for their shore side helicopters. And we are being asked to take Shell’s promises seriously? Who would plan for work in the Arctic in November that depends on air support and not be prepared to de-ice aircraft?¶ The Department of the Interior has begun a 60-day review of the past year’s drilling season in the Arctic Ocean, and we applaud that step in the right direction. Oceana has sought a full, fair, and transparent review of the standards and oversight applied t to Arctic Ocean drilling. Such an investigation should include not only Department of the Interior (DOI) and Coast Guard, but also NOAA and other agencies. Given that DOI granted many of the permits that allowed Shell to operate in the Arctic, has defended those decisions publicly and in court, and has restated its commitment to exploring for oil in Arctic waters in the future, we question the agency’s ability to conduct such a searching investigation. Congress and the president could intercede and require a truly independent review. Also, protecting lives and our ocean resources is more important than completing a review in an expedited manner. The government should do this right, not just quickly.¶ Shell’s miserable 2012 attempts to drill in the Arctic Ocean should serve as a cautionary tale for the US and other Arctic nations—companies clearly are not prepared for the dangers and unpredictability in the Arctic. We simply do not yet have the technology to safely conduct these activities. What we do have is yet another attempt by an oil company to push the envelope in order to cash in on its investment while making hollow promises that this time everything will be OK. We had enough near misses this season to see that isn’t the case at all, and we should immediately cease and desist from offshore Arctic drilling. The oil isn’t going anywhere. In the meantime, technology could advance, and we could pursue options like conservation that might make it unnecessary ever to take the risks posed by drilling in the Arctic Ocean.

#### Harsh Arctic conditions means oil companies can’t drill- most recent empirics prove they’ll shut down

**Unger 1-10**-13 [David J., correspondent for the Christian Science Monitor, “Arctic drilling mishaps challenge promise of Alaskan oil,” http://www.csmonitor.com/Environment/Energy-Voices/2013/0110/Arctic-drilling-mishaps-challenge-promise-of-Alaskan-oil]

Given the Arctic's notoriously harsh environs, however, opponents doubt the project's chances of safely supplying fossil fuel energy.¶ “The implications of this very troubling incident are clear – the oil industry is no match for Alaska’s weather and sea conditions either during drilling operations or during marine transit,” said Lois Epstein, Arctic program director for The Wilderness Society, in a statement. ¶ Last summer, Shell's other drill ship lost its mooring and nearly washed ashore. The company suffered another setback when its oil containment vessel failed to meet required federal standards, thereby limiting the extent of their Arctic operations. In September, equipment failures and and unanticipated ice floes forced the company to halt drilling for oil.

### 2NC- No infrastructure

#### Extend the DOD evidence- there’s no infrastructure for the plan which kills solvency- harsh weather, skilled labor shortage, poor transportation, and high costs mean

**No transportation infrastructure for the plan- too dangerous**

**Kemp et al ’12** [Geoffrey Kemp and Tim Boersma are fellows at Real Clear World and Nicholas Siegel is program officer at the Transatlantic Academy in Washington, DC., 1-5-12, http://www.realclearworld.com/articles/2012/01/05/is\_geopolitical\_competition\_over\_the\_arctic\_exaggerated\_99828.html]

Slowly but surely, climate change is opening up the Arctic. Greenland's glaciers and ice fields are melting, sea ice around the North Pole is decreasing each year, and the huge permafrost areas of Russia and Canada are beginning to thaw. This has led to widespread speculation of a Great Game-style scramble for the region's abundant resources. Many studies, including those by the private sector and the U.S. Geological Survey, confirm that there are vast treasure-troves of oil, gas, and minerals in the Arctic. Yet, with the exception of iron ore in Greenland, these resources have not yet been exploited. In fact, despite rising temperatures, the impediments to extracting and transporting most resources from the Arctic will remain formidable for the foreseeable future. One factor facing developers is that, despite global warming, the Arctic remains largely inhospitable, and there are innumerable obstacles to cashing in on its riches. Oil rigs require airstrips, roads, electricity generation, and pipelines; mining operations require port facilities and technology to withstand the bitterest winters; and all resource extraction requires a specialized labor force. For the private sector to develop any part of the Arctic, enormous investments of capital and labor would be necessary.

While there is a possibility that the Arctic seaways -- running through Canada and along the northern Russian coast -- will become open to transportation for most of the year, large container ships are unlikely to use these routes. The Arctic will remain a dangerous trade route for commercial shipping, and neither Canadian nor Russian authorities can offer much in the way of support and rescue facilities in the event of emergencies along their northern borders. The dangers are further evidenced by recent investments in traditional sea routes and facilities, such as the Panama Canal. By contrast, the port of Reykjavik in Iceland, which would be ideally positioned to serve as a future hub for northern sea routes, has seen no such investment. In the long run, permafrost thawing may prove to be the greatest obstacle to Arctic developers. It has made the construction of roadways and airfields much more difficult, and in some cases has caused extractive projects to be abandoned. This process has already caused enormous problems in Russia, where large cities such as Yakutsk and several large river ports, pipelines, conventional hydro electricity plants, and even a nuclear power station lie in permafrost areas. Yakutsk in particular has seen severe damage to its infrastructure and the closure of a runway of its airport as a result of the land below melting.

#### Lack of porting sites kills solvency- too hard to build there

**Cottrell ’13** [Paula, Alaska Business Monthly, “Arctic Infrastructure Needed for Resource Development and Delivery,” January, http://www.akbizmag.com/Alaska-Business-Monthly/January-2013/Arctic-Infrastructure-Needed-for-Resource-Development-and-Delivery/]

“Arctic development is going to require ports and infrastructure statewide,” says Sen. Mark Begich. “Development on this scale will have substantial impacts on Arctic communities and the whole state.”¶ This infrastructure—airports, roads, ports, pipelines and facilities—presents some unique challenges in the Arctic. “There is a lot of shallow water along the Arctic coastline,” says Henry Huntington, Arctic science director of Pew Environment Group, a nonprofit organization that works to establish science-based policies. “This presents some serious limitations on what kind of vessels can be used.”¶ Deepwater ports, while clearly a necessity, aren’t ideally suited for the soft shorelines in the Arctic, he says. “There are no areas along the Arctic Coast that are suitable for a real harbor or port,” says Huntington. “Everything is exposed and shallow.”

**Arctic drilling is too expensive**

**Klare ‘12** [Michael T. Klare. Author and Professor of Peace and World-Security Studies, Hampshire College. Why Twenty-First Century Oil Will Break the Bank -- and the Planet. 03/13/12. http://www.huffingtonpost.com/michael-t-klare/obama-gas-prices\_b\_1342042.html?ref=green]

Arctic Oil The Arctic is expected to provide a significant share of the world’s future oil supply. Until recently, production in the far north has been very limited. Other than in the Prudhoe Bay area of Alaska and a number of fields in Siberia, the major companies have largely shunned the region. But now, seeing few other options, they are preparing for major forays into a melting Arctic. From any perspective, the Arctic is the last place you want to go to drill for oil. Storms are frequent, and winter temperatures plunge far below freezing. Most ordinary equipment will not operate under these conditions. Specialized (and costly) replacements are necessary. Working crews cannot live in the region for long. Most basic supplies -- food, fuel, construction materials -- must be brought in from thousands of miles away at phenomenal cost. But the Arctic has its attractions: billions of barrels of untapped oil, to be exact. According to the U.S. Geological Survey (USGS), the area north of the Arctic Circle, with just 6 percent of the planet’s surface, contains an estimated 13 percent of its remaining oil (and an even larger share of its undeveloped natural gas) -- numbers no other region can match. With few other places left to go, the major energy firms are now gearing up for an energy rush to exploit the Arctic’s riches. This summer, Royal Dutch Shell is expected to begin test drilling in portions of the Beaufort and Chukchi Seas adjacent to northern Alaska. (The Obama administration must still award final operating permits for these activities, but approval is expected.) At the same time, Statoil and other firms are planning extended drilling in the Barents Sea, north of Norway. As with all such extreme energy scenarios, increased production in the Arctic will significantly boost oil company operating costs. Shell, for example, has already spent $4 billion alone on preparations for test drilling in offshore Alaska, without producing a single barrel of oil. Full-scale development in this ecologically fragile region, fiercely opposed by environmentalists and local Native peoples, will multiply this figure many times over.

#### Arctic oil is too hard to process

**Klare ‘12** [Michael T. Klare. Author and Professor of Peace and World-Security Studies, Hampshire College. Why Twenty-First Century Oil Will Break the Bank -- and the Planet. 03/13/12. http://www.huffingtonpost.com/michael-t-klare/obama-gas-prices\_b\_1342042.html?ref=green]

Oil prices are now higher than they have ever been -- except for a few frenzied moments before the global economic meltdown of 2008. Many immediate factors are contributing to this surge, including Iran’s threats to block oil shipping in the Persian Gulf, fears of a new Middle Eastern war, and turmoil in energy-rich Nigeria. Some of these pressures could ease in the months ahead, providing temporary relief at the gas pump. But the principal cause of higher prices -- a fundamental shift in the structure of the oil industry -- cannot be reversed, and so oil prices are destined to remain high for a long time to come. In energy terms, we are now entering a world whose grim nature has yet to be fully grasped. This pivotal shift has been brought about by the disappearance of relatively accessible and inexpensive petroleum -- “easy oil,” in the parlance of industry analysts; in other words, the kind of oil that powered a staggering expansion of global wealth over the past 65 years and the creation of endless car-oriented suburban communities. This oil is now nearly gone. The world still harbors large reserves of petroleum, but these are of the hard-to-reach, hard-to-refine, “tough oil” variety. From now on, every barrel we consume will be more costly to extract, more costly to refine -- and so more expensive at the gas pump. Those who claim that the world remains “awash” in oil are technically correct: the planet still harbors vast reserves of petroleum. But propagandists for the oil industry usually fail to emphasize that not all oil reservoirs are alike: some are located close to the surface or near to shore, and are contained in soft, porous rock; others are located deep underground, far offshore, or trapped in unyielding rock formations. The former sites are relatively easy to exploit and yield a liquid fuel that can readily be refined into usable liquids; the latter can only be exploited through costly, environmentally hazardous techniques, and often result in a product which must be heavily processed before refining can even begin. The simple truth of the matter is this: most of the world’s easy reserves have already been depleted -- except for those in war-torn countries like Iraq. Virtually all of the oil that’s left is contained in harder-to-reach, tougher reserves. These include deep-offshore oil, Arctic oil, and shale oil, along with Canadian “oil sands” -- which are not composed of oil at all, but of mud, sand, and tar-like bitumen. So-called unconventional reserves of these types can be exploited, but often at a staggering price, not just in dollars but also in damage to the environment. In the oil business, this reality was first acknowledged by the chairman and CEO of Chevron, David O’Reilly, in a 2005 letter published in many American newspapers. “One thing is clear,” he wrote, “the era of easy oil is over.” Not only were many existing oil fields in decline, he noted, but “new energy discoveries are mainly occurring in places where resources are difficult to extract, physically, economically, and even politically.” Further evidence for this shift was provided by the International Energy Agency (IEA) in a 2010 review of world oil prospects. In preparation for its report, the agency examined historic yields at the world’s largest producing fields -- the “easy oil” on which the world still relies for the overwhelming bulk of its energy. The results were astonishing: those fields were expected to lose three-quarters of their productive capacity over the next 25 years, eliminating 52 million barrels per day from the world’s oil supplies, or about 75 percent of current world crude oil output. The implications were staggering: either find new oil to replace those 52 million barrels or the Age of Petroleum will soon draw to a close and the world economy would collapse. Of course, as the IEA made clear back in 2010, there will be new oil, but only of the tough variety that will exact a price from us all -- and from the planet, too. To grasp the implications of our growing reliance on tough oil, it’s worth taking a whirlwind tour of some of the more hair-raising and easily damaged spots on Earth. So fasten your seatbelts: first we’re heading out to sea -- way, way out -- to survey the “promising” new world of twenty-first-century oil.

#### High maintenance costs, erosion, weather, lack of daylight kill the plan

**DoD ‘11** [US Department of Defense, “Report to Congress on Arctic Operations and the Northwest Passage” May 2011; < <http://www.defense.gov/pubs/pdfs/Tab_A_Arctic_Report_Public.pdf>]

Because of the range and severity of Arctic conditions, climatic, hydrologic, topographic, and geographic factors must all be considered in site selection for any infrastructure in this region. The environment desired inside buildings is usually drastically different from ambient conditions, placing additional stresses on building components. Some important considerations for infrastructure in the Arctic include: **condensation control, structural design ventilation, snow load, snow accumulation and drifting potential, and roof drainage,** among others detailed in the Unified Facilities Criteria manuals.17 When infrastructure is sited along the coast, erosion, silting, sea ice variability, and coastal dynamics must also be considered. The ice movement means that conventional pier construction is rarely feasible. An additional consideration is the months of **almost continuous daylight in summer**, **followed by winter** months of almost **complete darkness**, a variation that becomes **more extreme as one goes further north**. **Construction in the Arctic is seasonal and skilled labor is usually in short supply; therefore, costs for both construction and maintenance are high.** The need to provide room and board at remote locations, **decreased efficiency of workers and machinery in extreme environmental conditions, and the difficulties, costs, and risks** **in shipping materials** and equipment add to the challenge. Because of the short construction season, outside work must be accomplished quickly, dictating a high degree of expensive prefabricated construction. During ice-free periods, the most economical means of transportation is by barge. During the winter, transportation over frozen rivers and lakes may be more economical than air transportation. But delays in shipping equipment due to weather can result in prolonged construction times and expensive emergency air freight costs. Construction in the Arctic costs, as a rule of thumb, three to five times more than comparable infrastructure in lower latitudes. Another challenge to bear in mind is the risk to existing infrastructure posed by thawing permafrost. As the permafrost thaws, it loses strength and volume, leading to failure of foundations and piling. The warming climate will also accelerate the erosion of shorelines and riverbanks, threatening infrastructure located on eroding shorelines.

### EXTN: Worker Shortages

#### Worker shortages take out solvency- there’s not enough skilled rig workers to manage even current rigs- that’s Sixel.

#### No workers now- demand alone can’t solve

Block and Brady, 12 -- NPR staff

[Melissa, and Jeff, "Booming Oil Industry Struggles To Fill Jobs," 5-9-12, www.npr.org/2012/05/09/152366886/booming-oil-industry-struggles-to-fill-jobs, accessed 2-6-13, mss]

The oil industry **can't find enough** new **workers** to replace an aging workforce. Recruiters are busy finding a new generation of workers and training programs have sprung up to prepare them. Some young people are signing on for jobs that promise good pay — but there are still a lot of positions to fill. It's ALL THINGS CONSIDERED from NPR News. I'm Audie Cornish. MELISSA BLOCK, HOST: And I'm Melissa Block. The unemployment rate here in the U.S. is high, above eight percent. But at least one industry insists it can't find and hire experienced workers fast enough. Thousands of older employees are beginning to retire from the oil and gas industry. And as NPR's Jeff Brady reports, the shortage comes at the very moment high oil prices have companies hoping to drill more. JEFF BRADY, BYLINE: Look across the oil fields in the U.S. and offshore and you'll see a lot more gray hair than just a few decades back. A hiring lull during the 1980s oil bust has left a **generation gap**. JIM NOE: We've struggled, as an industry, to attract young workers and I think there's a lot of reasons for that. BRADY: Jim Noe is senior vice president at Hercules Offshore in Houston. He suspects one reason is job security. The oil business is cyclical and companies tend to layoff workers when prices decline. But Noe says there are big pluses that come with an oil industry job; there's travel and, given the current worker shortage, good pay. NOE: Straight out of high school, no skills, we pay you $55,000 a year with full benefits, 401k, health care coverage, et cetera. And we're still struggling to attract workers here at Hercules. BRADY: Fifty-five thousand dollars a year would be attractive even to college students facing a difficult job market after they graduate. (SOUNDBITE OF MACHINERY) BRADY: But talk to Temple University students on the street in Philadelphia and you'll learn the oil industry's recruiting problems **run deeper** than just job security and pay. Nick Nothaft is a freshman studying linguistics. She says environmental concerns and high gas prices have given the industry a bad reputation. NICK NOTHAFT: I just don't imagine myself working for that industry. I don't have a good impression of it, I would say. And it just doesn't seem like something that would be attractive to me. BRADY: Down the street, junior Dashiell Sears is studying political science and would like to work for a politician in the future. He thinks having big oil on his resume could jeopardize that. DASHIELL SEARS: If I was going to out for this very, I'll say, liberal office I want to work for them and I have ExxonMobil on there and I worked on their PR and they're taking all these subsidies that they're totally against, it doesn't work toward me.

#### Crushes solvency

IMCA, 7

[International Marine Contractors Association, "Tackling the Skills Shortage," Oil and Gas, Issue 7, www.cisoilgas.com/article/Tackling-the-skills-shortage/, accessed 2-6-13, mss]

Getting to grips with the lack of highly skilled oil and gas workers is a matter of urgency for the industry. Hugh Williams, Chief Executive of the International Marine Contractors Association (IMCA), explains how his organization is taking a proactive approach to the problem. Economic growth is the aim of every country eager to improve its general well being. It ensures the future, is the lifeblood of the market sector, boosts the expansion of companies and thus encourages their employees. Fortunately, the marine contracting industry is currently thriving and can look forward to its workload remaining at a very high level for some time to come. On the face of it, this is good news for our industry but, as everyone is fully aware, success rarely happens without causing some problems. The **major challenge** facing our industry at this time is a serious skills shortage. In other words, we are perilously short of the **most important commodity** of all– **people**. The industry is extremely busy and expects to remain so for a number of years. Many companies are experiencing challenges in recruiting sufficiently trained and skilled personnel for their projects all over the world. **This is placing** **significant pressure on their** growth and **ability to deliver services**. As the international trade association representing over 350 offshore, marine and underwater engineering companies in 45 countries, the IMCA is eager to help its members address this skills shortage. Our members are involved in many aspects of offshore marine contracting, including pipe-laying, heavy lifting, diving, remotely operated vehicles (ROV) operations and offshore surveying – largely carried out from dynamically positioned (DP) vessels, as well as other marine operations, offshore supply and support of many other kinds. At the start of this year, we focused attention on the skills shortage by highlighting the projected numbers of trained personnel required by the expanding marine contracting industry over the next 2-3 years. Our members have provided some practical estimates of the possible growth of their businesses – for example, orders for new build construction vessels, drilling rigs, saturation diving spreads and remotely operated vehicles. From these estimates we are able to extrapolate some of the marine contracting industry’s recruitment needs over the next few years; the new tonnage needs to be manned and supported by highly skilled professionals in order to meet the stringent requirements of the market with regard to both execution and safety. The figures thrown up by the industry certainly make for interesting and compelling reading (see boxout: Big numbers), and these numbers do not include the large numbers of additional air diving personnel and the many other deck, catering and ancillary crew, or onshore and engineering support personnel required to operate the vessels. Just looking ahead a couple of years, the figures pose a serious challenge to an industry already finding it difficult to recruit, train and retain skilled personnel. For example, the worldwide diving schools can perhaps train about 100 new saturation divers a year. That there is a ‘skills shortage’ is widely acknowledged. By providing firm, verifiable estimates of anticipated growth, we are highlighting the seriousness and complexity of the challenge faced, not only by IMCA members worldwide, but also by all stakeholders in the offshore oil industry. Indeed, the future **health and** **growth** of a number of industries, not just the oil and gas industry, may be **directly affected** by a shortage of trained personnel in the coming years.

#### Takes decades to solve

Brady, 12 -- NPR National Desk Correspondent covering energy issues

[Jeff, "As Workers Age, Oil Industry Braces For Skills Gap," NPR, 4-20-12, www.npr.org/2012/04/20/150871935/as-workers-age-oil-industry-braces-for-skills-gap, accessed 2-6-13, mss]

Konrad says such staffing reorganizations are becoming more common. Around the globe, as more huge drill ships like the Deepwater Horizon are built to take advantage of high oil prices, companies have had difficulty finding enough experienced workers. "It only takes a year to build a billion-dollar ship," Konrad says. "But it takes **10**, **20**, **30** **years** to build a billion-dollar captain who's going to navigate and command the ship." And just as demand for more experienced workers is rising, their numbers are declining. A survey by Schlumberger Business Consulting finds that **22,000** experienced geoscientists and engineers will leave the field by 2015.

### 2NC Link Run

#### Prices are rising now- increasing supply would reduce those prices

Moors 12/14 (Dr. Kent, Dr. Kent F. Moors is an internationally recognized expert in global risk management, oil/natural gas policy and finance, cross-border capital flows, emerging market economic and fiscal development, political, financial and market risk assessment. He is the executive managing partner of Risk Management Associates International LLP (RMAI), a full-service, global-management-consulting and executive training firm. Moors has been an advisor to the highest levels of the U.S., Russian, Kazakh, Bahamian, Iraqi and Kurdish governments, to the governors of several U.S. states, and to the premiers of two Canadian provinces. He’s served as a consultant to private companies, financial institutions and law firms in 25 countries and has appeared more than 1,400 times as a featured radio-and-television commentator in North America, Europe and Russia, appearing on ABC, BBC, Bloomberg TV, CBS, CNN, NBC, Russian RTV and regularly on Fox Business Network. A professor in the Graduate Center for Social and Public Policy at Duquesne University, where he also directs the Energy Policy Research Group, Moors has developed international educational programs and he runs training sessions for multiple U.S. government agencies. And until recent revisions in U.S. policy, Dr. Moors was slated to be the deputy director of the Iraq Reconstruction Management Office (IRMO) in Baghdad,

<http://moneymorning.com/2012/12/14/2013-natural-gas-forecast-six-bullish-reasons-why-now-is-the-time-to-buy/\>, December 14, 2012)

A rise on the supply side would generally reduce prices, especially if the number of operators continues to increase. More gas moving on the market from more suppliers results in a downward pressure on prices.¶ The second dynamic, however, is moving in the other direction, enticing the increase in drilling and expansion of infrastructure.¶ This factor considers the demand side, and there are at least six major trends colliding to increase the prospects for gas usage as we move through 2013.¶ As a result, I expect natural gas prices to see a 25% increase from current levels... here's why.¶ 2013 Natural Gas Forecast¶ 1) Winter Chill Increases Natural Gas Demand¶ The first factor driving price increases will come from a colder winter throughout the United States. Traditionally, gas prices have been quite sensitive to seasonal shifts. The overly mild winter in the East last winter was enough to depress gas prices across the board. In 2011, NYMEX futures contracts declined to less than $2 per 1,000 cubic feet (or million BTUs).¶ The price has recovered to as much as $3.90 recently, although it is currently down to about $3.50. Nonetheless, the recovery (largely a result of companies pulling drilling rigs out of service and reducing the number of new wells) combined with a colder winter, will provide a base pushing the price to $4 as we start the new year.¶ The other five elements are more directly affecting demand increases moving forward. These will have primary effects on the gas balance between anticipated needs and drilling volume.¶ 2/3) Industrial and Petrochemical Usage on the Rise¶ The second and third elements are increasing industrial and petrochemical uses for gas. Industrial use has been building for a while, but it is one of the last demand factors to emerge during an economic recovery. That is now beginning to kick in.¶ However, petrochemical usage is resulting in an appreciating demand situation. Gas, natural gas liquids, and byproducts are replacing crude oil and oil products as feeder stock for an entire range of petrochemicals - from solvents and polymers, to plastics and fibers.¶ The intense competition over where the next "crackers" will be located in the U.S. is clear testimony to the added demand coming from petrochemicals. These facilities will break down gas flows, making the feeder stock ingredients more accessible. This development is also putting some additional weight on the processing of "wet" gas, raw material containing value-added byproducts.¶ 4) Natural Gas Fleets Expand Across the U.S.¶ The fourth demand factor is the increasing use of natural gas as a vehicle fuel. We have been witnessing a rise in interest here for several years, but the move to using liquefied natural gas (LNG) and compressed natural gas (CNG) to replace gasoline and diesel has been gaining strength.¶ Entire fleets of heavy-duty trucks have been retrofitted across Canada, while refueling terminals have been popping up near interstates in the U.S. to service company-designated vehicles. The cost savings in fuel is significant, usually representing more than two dollars per gallon.¶ The downside is on the infrastructure side. It will take several years of heavy capital investment to provide the network of transport pipelines, storage and terminal facilities, filling stations, and related requirements.¶ And we must consider the cost of retrofitting engines. At an average of $35,000 per vehicle, it will remain an obstruction for some.¶ I expect to see an increase in natural gas-as-fuel usage continuing, but remaining on the truck side for 2013. Personal autos will stay a niche market in the near-term. Still, this will comprise an improving demand area for natural gas.¶ 5) Electricity Consumption from Gas Set to Spike¶ Fifth is the massive transfer underway from coal to gas as the preferred fuel for generating electricity. Coal will remain a fuel of choice in several sectors of the world and will still be cost effective in certain regions in the U.S. But the days of "King Coal" in the generation of electricity are drawing to a close.¶ The figures here are massive. The American market is replacing more than 90 gigawatts (GW) of generating capacity by 2020, virtually all of this coal-fired. In addition, the phasing in of non-carbon regulations (cutting mercury, sulfurous, and nitrous oxide emissions) will add another 20 GW to the retirement agenda, once again coming almost exclusively from coal.¶ Each 10 GW transferred to natural gas will require an additional 1.2 billion cubic feet of gas per day. If only 50% of the expected transition from coal to gas occurs, the added demand will eliminate three times the current total gas in storage nationwide.¶

#### Organic price correction is key

Hulbert ‘12 (Lead Analyst at European Energy Review, and Goldthau, Head of the Department of Public Policy at the Central European University, an American graduate school based in Budapest, Hungary, 8-5-12

(Matthew, consultant to a number of governments, most recently as Senior Research Fellow, Netherlands Institute for International Relations, and Andreas, prior to joining CEU, he worked for Rand, SWP Germany and the Paul Nitze School of Advanced International Studies, a Fellow with the Global Public Policy Institute’s Global Energy Governance program and an Adjunct Professor with Johns Hopkins University’s MSc in Energy Policy and Climate, “Why America Can Make or Break A New Global Gas World,” http://www.forbes.com/sites/matthewhulbert/2012/08/05/why-america-can-make-or-break-a-new-global-gas-world/print/, accessed 8-7-12)

The same debate is raging in the US. Despite the phenomenal breakthroughs in American shale developments, the front runner of the revolution now risks becoming a victim of its own success in terms of Henry Hub prices dropping so low that full cycle economics for US shale gas plays have become negative. Unless prices organically firm, or US producers learn the dark art of supply restraint, current output levels will be difficult to maintain or enhance for American consumers. Companies will fold; fields will be mothballed, with Chesapeake providing the best ‘poster boy’ example of how precarious shale gas economics have become. The quick fix option to get Henry Hub back at a sustainable $4-7/MMbtu level (and by far the most lucrative for some of the mid-cap players involved), is to sign up international LNG contracts. That’s exactly what’s being done, with some of the larger IOCs (Royal Dutch Shell, BP and ExxonMobil) also aggressively pushing for LNG exports to capitalise on huge spreads, not to mention preventing further write-downs on shale assets. It’s not like Chinese champions working on US plays would have any ideological opposition to such a prospect. In total, FERC has around 125bcm/y of LNG applications currently awaiting approval – even on a ‘bad day’ 40-50bcm exports should be very feasible by 2020. That would make the US the third largest LNG player in the world. It’s also going to be the crucial factor over the next five years to decide where gas markets are heading. America will be decisive for future pricing models, whether they shift to gas (rather than oil) fundamentals. US LNG could be the straw that breaks oil indexation back.

### OCS Drilling/ Moratorium

#### OCS lowers prices

Medlock ‘8 [Medlock is a fellow in Energy Studies at Rice University's James A Baker III Institute for Public Policy and an adjunct assistant professor in the Economics Department at Rice, “Open outer continental shelf”, http://www.chron.com/opinion/outlook/article/Open-outer-continental-shelf-1597898.php]

A confluence of factors is responsible for the recent price run-up at the pump. One important factor behind the strength of oil prices is the expectation of inadequate oil supply in the future. This has led to a debate regarding the removal of drilling access restrictions in the U.S. Outer Continental Shelf (OCS). According to the Department of Interior's Minerals Management Service (MMS), the OCS in the Lower 48 states currently under moratorium holds 19 billion barrels of technically recoverable oil. Some analysts claim that opening the OCS will not matter that much, as the quantity of oil is only about two years of U.S. consumption. But a more appropriate way to look at the issue is this: If the OCS could provide additional production of 1 million barrels per day of oil, our import dependence on Persian Gulf crude oil would be reduced by about 40 percent. Moreover, at 1 million barrels per day, the currently blocked OCS resource would last about 50 years. Of course, opening the OCS will not bring immediate supplies because it would take time to organize the lease sales and then develop the supply delivery infrastructure. However, as development progressed, the expected growth in supply would have an effect on market sentiment and eventually prices. Thus, opening the OCS should be viewed as a relevant part of a larger strategy to help ease prices over time because an increase in activity in the OCS would generally improve expectations about future oil supplies. Lifting the current moratorium in the OCS would also provide almost 80 trillion cubic feet of technically recoverable natural gas that is currently off-limits. A recent study by the Baker Institute indicates that removing current restrictions on resource development in the OCS would reduce future liquefied natural gas import dependence of the United States and lessen the influence of any future gas producers' cartel.

#### Causes a price drop

Hastings ‘12 [House Representative Doc, Republican Washington, 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]

Though President Obama uses lofty rhetoric to claim support for American oil and natural gas production, the administration chose to bury the announcement of this plan under mountains of news coverage. It’s no surprise that during an election year the president doesn’t want to hype a plan that represents a giant step backwards for American energy production and keeps 85 percent of our offshore areas off-limits. Fortunately, Congress now has the responsibility to act and make clear that the president’s plan is inadequate to meet the United States’ energy needs. Under current law, the president must submit the five-year plan to Congress for a mandatory 60-day review before it goes into effect. While in the past, this 60-day review has been treated as just a formality, it is an opportunity to reject the president’s plan and offer a better alternative for job creation and energy production. H.R. 6082, the Congressional Replacement of President Obama’s Energy-Restricting and Job-Limiting Offshore Drilling Plan, would replace President Obama’s plan with an environmentally responsible, robust plan that supports new offshore drilling. This plan passed out of the House Natural Resources Committee with bipartisan support and will be considered by the full House this week. It sets up a clear choice between the president’s drill-nowhere-new plan and the Congressional replacement plan to responsibly expand offshore American energy production. President Obama’s plan **doesn’t open one new area for** leasing and energy production. The Atlantic Coast, the Pacific Coast and most of the water off Alaska are all placed off-limits. This is especially frustrating for Virginians who had a lease sale scheduled for 2011, only to have it canceled by President Obama. The president added further insult to injury by not including the Virginia lease sale in his final plan, meaning the earliest it could happen is late 2017. 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. In stark contrast to the president, the Congressional replacement plan includes 29 lease sales and opens new areas previously under moratoria. It’s a targeted effort towards those areas where we know we have the most oil and natural gas resources – like the mid-Atlantic, the Southern California Coast and Alaska. This is a drill smart plan that would create thousands of new American jobs, help lower prices at the pump and strengthen our national and economic security. Congress has a choice – to either support the president’s plan that re-imposes the drilling moratorium and places the vast majority of offshore areas off-limits, or support using American energy to create American jobs and strengthen America’s economy.

#### The aff lowers prices

Pirog ‘12 [Robert Pirog Specialist in Energy Economics CRS, http://assets.opencrs.com/rpts/R40645\_20120210.pdf]

Natural gas markets differ from the oil market in that they are not global, but regional. As shown¶ in Table 6, above, virtually all U.S. natural gas consumption comes from U.S. or Canadian¶ sources. The only link between regional natural gas markets is through LNG, but the rapidly¶ growing market for LNG predicted earlier in this decade has failed to materialize. LNG is still¶ largely characterized by long-term, two-party supply and purchase agreements. In the North¶ American market, LNG plays the role of making up marginal short-falls in the demand and¶ supply balance. As production from domestic onshore shale gas deposits increases, the role of¶ LNG in the U.S. market will likely be small.¶ In this regional market structure, the development of **new, offshore** U.S. **supplies could have a**¶ **significant impact on the domestic price** of natural gas, as well as contributing to U.S. energy¶ independence of this fuel. Although the price of natural gas has not shown the same degree of¶ volatility as oil, the United States has been **among the highest-priced regions in the world**. High¶ prices have caused residential consumers to allocate a greater portion of their budgets to home¶ heating expenses. Industrial users either lose sales to overseas competitors, or cease U.S.¶ production when domestic natural gas prices rise too much beyond those observed in other¶ regions of the world.¶ The development of offshore natural gas resources is likely to further retard the development of a¶ growing LNG system in the United States. Terminals for the re-gasification of LNG have proven¶ to be difficult to site and permit, and expensive to build. If domestic natural gas resources, close¶ to existing collection and distribution systems, at least in the Gulf of Mexico, could be developed,¶ the LNG terminals might prove to be redundant, depending on the volumes of natural gas that¶ ultimately might be recovered. Offshore natural gas development, though commonly associated with offshore oil production, will likely be less competitive in a market environment dominated¶ by onshore shale gas development.

#### Plan massively expands supply

Hillegeist et al ’11 (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.

#### That could double our capacity

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)//](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.

### UQ

#### Slow price rise of natural gas now- new wells being built now

Schwartzel ’13 (Erich Schwartzel, “U.S. report predicts rising natural gas prices in 2013-14”, <http://pipeline.post-gazette.com/news/archives/24983-u-s-report-predicts-rising-natural-gas-prices-in-2013-14>, January 9, 2013)

Marcellus Shale drillers who have had to cut costs and disassemble rigs because of recent record-low natural gas prices should expect a reprieve over the next two years, according to the latest projections from the U.S. Energy Information Administration. The average price of natural gas is expected to increase by almost a dollar in 2013, hitting $3.74 per million British thermal units. That's a significant jump from the $2.75 average seen last year, when accelerated drilling created a glut in supply that caused prices to drop and made drilling in many places unprofitable. Increases are expected to continue into 2014, when prices are predicted to hit $3.90. The EIA report released Tuesday is the first look into 2014 for the domestic and international energy scene, and it includes projections that could affect gas and coal activity in Pennsylvania and surrounding states. The report is the latest set of tea leaves for an industry that's been in flux: Enthusiasm for drilling was tempered in recent years by economic realities that made it risky for every rig to turn a profit. The low prices made natural gas an easy sell to large, industrial customers who consume a lot of energy, but slowed lease activity as companies waited for prices to rebound. Higher gas prices would send reverberations across multiple sectors, helping coal become competitive with natural gas again as an electricity source and allowing drillers to broaden their focus beyond shale formations that are rich in oil. In addition, the federal energy agency projects increased domestic oil production will break new records over the next couple of years and eventually lead to lower prices at the gasoline station. If natural gas prices continue an upward trend toward $4 per mcf, companies that had drilled wells but weren't bringing the gas to market could decide it is worth hooking those wells up to pipelines and selling the gas, said Adam Sieminski, the EIA administrator. Natural gas consumption, meanwhile, is expected to be relatively flat in 2013, though the EIA forecasts an increase in its use to heat homes and offices over the next two years. Consumption in 2012 was low due to an unnaturally warm winter. Over the next several years, the EIA's projections call for a steady rise in natural gas prices, said Mr. Sieminski, "continuing to go up to $5 or $6 in the longer term." That would be welcome news to drillers who found the bargain-basement prices unsustainable for rapid-fire drilling in the Marcellus region, which includes much of Pennsylvania, and in other shale formations around the country. Companies in recent years have concentrated on shale regions where more lucrative oil and natural gas liquids are housed, and a rise in regular natural gas prices "might turn the drift from natural gas to oil around," said Mr. Sieminski. Pennsylvania gets one shout-out in the administration's Short-Term Energy Outlook, with researchers saying Marcellus production "continues at a strong pace as producers target oil-and-gas wells." Nationwide, the natural gas rig count was at 431 at the end of 2012 -- almost half of the 811 rigs seen in the beginning of the year. But domestic gas production is expected to remain relatively steady despite the drop in rig count, which the EIA said suggests greater rig efficiency in extracting more gas from a single location. Coal producers may welcome an increase in natural gas prices, as well. Low gas prices had helped erode coal's place as the top source in the electricity generation market. Coal consumption in the electric power sector last year was at its lowest level since 1992. With the difference in costs between the two fuels shrinking, coal's share of the electricity generation market should rise from 37.6 percent in 2012 to 39 percent in 2013, and then to 39.6 percent in 2014, the report said. The rise of natural gas as an alternative to coal was starkly seen in April 2012, when coal and natural gas each provided 32 percent of the nation's total generation -- the first time the two power sources were tied since the EIA began collecting data. The rapid changes in gas prices and production are largely a result of hydraulic fracturing technology that has unlocked reserves across the country. That same technology has helped fuel a rise in domestic crude oil production, which is expected to increase from 6.4 million barrels per day in 2012 to 7.3 million barrels in 2013 and then 7.9 million barrels in 2014. The 2014 projection would mark the highest annual production average since 1988. Record-setting production should trickle down into good news for consumers: The drop in crude prices is expected to cause gasoline prices to drop almost 20 cents from last year to an average of $3.44 per gallon in 2013 and then to $3.34 per gallon in 2014.

#### Demand is solving the glut now- prices increasing

ZER 1/15 (Zacks Equity Research, “Natural Gas Supplies Tumble”, <http://www.zacks.com/stock/news/90452/natural-gas-supplies-tumble>, January 15, 2013)

The U.S. Energy Department's weekly inventory release showed a larger-than-expected decrease in natural gas supplies. Despite this drawdown, gas stocks continue to remain bloated, reflecting low demand amid robust onshore output. About the Weekly Natural Gas Storage Report The Weekly Natural Gas Storage Report – brought out by the Energy Information Administration (EIA) every Thursday since 2002 – includes updates on natural gas market prices, the latest storage level estimates, recent weather data and other market activities or events. The report provides an overview of the level of reserves and their movements, thereby helping investors understand the demand/supply dynamics of natural gas. It is an indicator of current gas prices and volatility that affect businesses of natural gas-weighted companies and related support plays like Anadarko Petroleum Corp. (APC - Analyst Report), Chesapeake Energy (CHK - Analyst Report), Encana Corp. (ECA - Analyst Report), Devon Energy Corp. (DVN - Analyst Report), Nabors Industries (NBR - Analyst Report), Patterson-UTI Energy (PTEN - Analyst Report), Helmerich & Payne (HP - Analyst Report) and Halliburton Company (HAL - Analyst Report). Analysis of the Data Stockpiles held in underground storage in the lower 48 states fell by 201 billion cubic feet (Bcf) for the week ended January 4, 2013, higher than the guided range (of 183–187 Bcf drawdown) as per the analysts surveyed by Platts, the energy information arm of McGraw-Hill Companies Inc. (MHP - Analyst Report). The decrease represents the seventh withdrawal of the 2012-2013 winter heating season after stocks hit an all-time high in early November. Moreover, the draw was significantly higher than both the last year’s withdrawal of 90 Bcf and the five-year (2008–2012) average reduction of 132 Bcf for the reported week. As a result of the ‘better-than-expected’ draw during the past week, the current storage level – at 3.316 trillion cubic feet (Tcf) – is down 88 Bcf (2.6%) from the last year though it is still 320 Bcf (10.7%) above the five-year average. In fact, natural gas inventories in underground storage have persistently exceeded the five-year average since late September 2011 and ended the usual summer stock-building season of April through October at a record 3.923 Tcf (as of October 31, 2012). A supply glut kept the natural gas prices under pressure during the couple of years or so, as production from dense rock formations (shale) – through novel techniques of horizontal drilling and hydraulic fracturing – remain robust, thereby overwhelming demand. However, with the U.S. winter set to be colder than the unusually warm last one, we might expect some balancing of the commodity’s supply/demand disparity on the back of its more normalized use for space heating by residential/commercial consumers. This, in turn, could improve the prices and buoy natural gas producers like Ultra Petroleum Corp. (UPL - Analyst Report), Talisman Energy Inc. (TLM - Analyst Report), Encana and Chesapeake.

#### And price equilibrium occurring now- overcoming glut and supply is flatlining- prices increasing slowly

Kelly-Detwiler 12/3 (Peter Kelly-Detwiler, Contributor to Forbes, Driven by Oil Shale Economics, Natural Gas Prices Primed for Slow and Steady Rise, <http://www.forbes.com/sites/peterdetwiler/2012/12/03/driven-by-oil-shale-economics-natural-gas-prices-primed-for-slow-and-steady-rise/>, December 3, 2012)

Much has been written about the Marcellus shales, the largest shale gas field in the US. The rapid drilling program has been responsible for a supply glut, which drove spot prices down this year as low as $2.00 per mmBtu. Since then, prices have recovered somewhat, to the $3.75 range. Until recently, it has been hard to get a good view of the supply side dynamics. This is largely because the shale phenomenon is so new that things have taken a while to sort out and for equilibriums to become established. We are now beginning to get a clearer picture. In the near term, production figures will continue to rise, even as rig counts start to fall. Bentek, an analyst focusing in this area, predicts that Marcellus production will increase by 78% by 2015. The main reason for the increased production is simple: more than 1000 wills drilled over the past year and half have not yet been brought on line. That’s almost a third of the 2,879 wells currently completed in PA. This overproduction is largely caused by a use-it-or-lose-it leasing dynamic which requires drillers to be actively producing hydrocarbons in order to extend leases. As a consequence, drillers continued to punch holes in the ground even as the oversupply situation became clear. But short-term and long-term market dynamics are two very different things. The immediate land leasing rush is over, and producers are already responding to market prices and moving rigs south and west to the more lucrative oil shales in Louisiana, Texas, Ohio, and elsewhere. In fact, the Baker Hughes rig count for PA dropped from 111 last October to just 63 this past month – the lowest number of rigs in three years. To put that in some perspective, though, the rigs can do much more in a shorter time than just a few years ago, as learning curves come down and productivity increases. To get a clear picture as to what exactly drives the shift away from Pennsylvania, it is instructive to read the Q3 transcripts from some of the major drilling companies. Chesapeake’s transcript is perhaps the most interesting. They have been the largest driller for years, and they have a very explicit strategy in terms of rig deployment, production, and prices. They are also very bullish on the forecast for gas. CEO Aubrey McLendon notes “much to the amazement of most observers, the market has overcome an almost 900 bcf storage surplus from just seven months ago to a year-over-year storage surplus today of just about 120 bcf. We believe the small remaining storage overhang should soon go into a year-over-year deficit…Natural gas demand is growing across all sectors of consumption…we now expect to enjoy a multi-year rebound in natural gas prices driven by demand growth that is likely to be equally relentless.” Chesapeake is putting its money where its mouth is, remaining largely unhedged for 2013. That is, they haven’t locked in any futures prices for gas, expecting the decline in gas production to push prices up. They forecast that just the decrease in number of their own rigs – from a high of 81 shale gas rigs to 5 in the Marcellus and 4 in other shale plays – will help move the market. As McLendon observes “today’s (forward price) strip for 2013 and frankly, for years beyond that, does not reflect a full appreciation of what happens when big producers like us reverse course and go in to managed decline…we’ll be down 7% year-over-year…Chesapeake has been responsible for about 30% of all the gas production growth the whole industry has generated in the past five years. And so, when we roll over, we think we will pull the whole market with us and we think that the prices that we see out in 2013 do not reflect that.” Where are these rigs going instead? Into shale oils and gas liquids, where the money is. Chesapeake has already moved 72 rigs to the Eagle Ford, Anadarko, and Utica basins in search of more profitable oil and liquids. A re-direction of rigs back to gas country would come from either a decline in the price of oil, an increase in gas prices, or both. Chesapeake indicates that at $4-5 per MMbtu, they will stick with their current oil shale focus, but at $5-6 “The Marcellus is certainly competitive with oil projects.” That might also be true for the Haynesville and Barnett shales, though Chesapeake noted that the same use it or lose it leasing dynamic that kept rigs stuck in the gas plays would now apply to oil. One must drill the one or two year shale oil options and produce in order to convert them to open-ended arrangements. One of the other larger operators, Cabot Oil and Gas appears to be slightly bucking the trend, ramping up from 4 rigs to 5 and able to generate a slightly positive cash flow at $3.50 (the price is about 10% north of that at present, from a low of around $2.00 in March of this year). However, they appear to be the anomaly. Like Chesapeake, Range Resources is reducing its number of rigs in the northeast gas-rich portion of Marcellus next year, from 4 rigs to 1, with a refocus of capital on liquids-rich (ethane and propane) and oil projects. CEO, Jeffrey Ventura affirms that it’s not just about the economics of gas production. It’s really all about opportunity cost for rigs and development capital. “at $3 flat gas, it’s a 21% rate of return; at a $4 flat price, it’s 56%; at $5, it’s over 100%. So, it’s really price sensitive…we’ve got a really big bucket of dry gas opportunities, wet and super-rich opportunities and oil opportunities, and we have the operational flexibility to sort of throttle back and forth between those various buckets. And we’re looking at maximizing the returns for the dollars we spent, most efficiently drive enough cash flow per share, production per share, reserves per share.” For now, it’s about opportunity cost. And you can make a lot more money with $90 oil than with today’s $3.75 gas. So, for now, drillers are generally going to prove up reserves and sit on them until the price of gas relative to oil makes it profitable to produce. As McLendon states “right now, we have one of the biggest gas storage reservoirs in the world sitting there in the Haynesville and sitting there in the Barnett and sitting there in the Marcellus. And it has incredible option value and I think what you’ll see is the demand for gas increase over the next one to five years to get to a point where the gas curve is going to have to go be competitive with the oil curve for projects for additional drilling in these fields. And when the gas curve pays us to take on those responsibilities of drilling those additional wells, we’ll do so. But not until then.” (emphasis added) On the demand side, LNG exports are set to boom in coming years (requested permits are equivalent to more than 60% of current consumption). The demand for gas in power gen is increasing (coal to gas switching has been significant, and most new fossil power plants will be gas-fired). Transportation (use of LNG for long haul trucking driven by Clean Energy‘s natural gas highway plan) is seen as pushing up future demand for gas as well. And don’t forget the potential for rising industrial use where gas is utilized as a raw material feedstock. As long as oil stays close to $90 per barrel, it appears likely that the gas supply will continue to throttle back, and the supply overhang will continue to dwindle. In the meantime, demand is likely to grow in a variety of sectors, prices will rise, and a longer-term price equilibrium will eventually kick into place. Gas at $5 to $6 per mmBtu may well be in our foreseeable future.

#### Demand increasing and no shocks- steady supply- prices increasing

Cohen 12/31 (Lior Cohen, Seeking Alpha, Online Investor News, “Is Natural Gas Making A Comeback?”, <http://seekingalpha.com/article/1088041-is-natural-gas-making-a-comeback>, December 31, 2012)

The price of natural gas (short term delivery) continued its slow ascent during the previous week. The recent rise may have been driven by the sharp drop in temperatures and snowy weather in parts of the Midwest and Northeast. Despite the plunge in temperatures, the natural gas storage depletion rate was slower than in the five year average. Will natural gas prices continue to rise? Let's examine the recent developments in the natural gas market. During last week, the future price of Henry Hub (short term delivery) edged up by 0.52%. Conversely, United States Natural Gas (UNG) edged down by 0.5%. As of last week, the Henry Hub future prices were nearly $0.23 per mil. BTUs above natural gas price for the same week in 2011. The recent rise in the price of natural gas, may have contributed to the recent rally of major natural gas and oil producers' stocks such Chesapeake Energy Corporation (CHK). During last week, shares of the company declined by 4.4%. If natural gas continues to trade up it could raise the expected revenues of Chesapeake and thus positively affect the stock price. The chart below presents the developments in the price of natural gas during the past couple of months. As seen, the downward trend of natural gas prices halted in recent weeks. Storage According to the recent EIA weekly update, the underground natural gas storage decreased by 72 Bcf and reached 3,652 Bcf. In comparison, the storage declined by 81 Bcf during the same week last year, and by 131 Bcf for the average five years. The current storage for all lower 48 states is 12.8% above the 5-year average and 2.3% above last year's storage. Moreover, the table below shows the changes in storage during November and the first few of weeks of December (for eight weeks) in the past five years. As seen, the average extraction in 2012 is similar to 2011's but well below the extraction in the preceding years. If the storage will continue to fall at a slower rate than in the previous years, this could pull down natural gas prices. So the gap between recent year's storage levels and current storage has expanded. Thus, following the recent extraction the natural gas storage is declining at a slower rate than in previous years. Due to the holidays the EIA published only its storage report sans the changes in the supply and demand. According to a recent report, the natural gas rotary rig count edge up by 2 and reached 431 rigs, according to Baker Hughes. The rig count is still very low and is nearly 47% lower than the same week last year. The recent slow rise in number of rigs could suggest a slowdown in the contraction in natural gas production.

#### Production and supply of natural gas has stopped- glut solved now

Jaffe 1/9 (Mark Jaffe, Writer for Denver Post, “US natural gas glut may be slowly coming to an end says EIA”, <http://blogs.denverpost.com/thebalancesheet/2013/01/09/natural-gas-glut-slowly-eia/7984/>, January 9, 2013)

Is the sun setting on natural gas drilling? US natural gas glut may be slowly coming to an end says EIA The US natural gas industry’s response to a glut for the past several years has been to produce more gas – that may finally be nearing an end. The result of the over-production, no surprise, were prices that in 2012 reached a ten-year-low of $1.95 a million British Thermal Units on the New York Mercantile Exchange spot market. There were a host of reasons for the continued production including the need to drill or lose leases, some companies needing the cash follow, and lower production costs in some of the new shale plays. No more. “It looks like we are finally at the end of that string,” said Adam Sieminski, administrator of the U.S. Energy Information Administration. The EIA analysis is in its current Short-Term Energy Outlook. Before traders start popping champagne corks, the EIA shows production growing a tiny bit, less than 1 percent, in 2013 to 69.5 billion cubic feet a day before trailing down to 69.5 Bcf/d in 2014. Of course, any movement is reason enough for traders to pop corks. Still, Sieminski said a look at the trend in drilling rigs shows there may be further reductions ahead. On December 28th, there were 431 natural gas rigs operating in the U.S. compared with 811 at the start of 2012. In Colorado, the rig count is down 28 percent in the last 12 months to 55 – although that number includes an uptick in rigs drilling for oil in Niobrara formation. EIA projects that in 2013 the spot price of natural gas will rise to an average $3.74 per million BTUs and $3.90 in 2014. Inventories remain high with 3,517 Bcf in storage as of December 28th – 11 percent higher than the five year average.

### Neldor \*Must Read\*

#### Low natural gas turn the aff- letting natural gas prices rise key

Nelder ‘12 [Chris, Smart Planet, February, Everything you know about shale gas is wrong, http://www.smartplanet.com/blog/energy-futurist/everything-you-know-about-shale-gas-is-wrong/341]

Another reason was that the spurt of production created a gas glut and drove prices far below the level of profitability. Data from a January, 2012 presentation by the CEO of gas operator Range Resources showed that gas needs to sell for at least $4 per million BTU in order for operators to turn a profit. Source: Jonathan Callahan, The Oil Drum. Data from Range Resources. Berman is certain that the $4 threshold applies to new drilling on existing plays only; after accounting for land leasing, overhead and debt service, the threshold would be much higher. In any case, we can see that production flattened out when prices fell below $4 at the beginning of 2009. Source: Arthur Berman. Data from Natural Gas Intelligence. A gas price below $3 spells real trouble for operators, and flagging production is but the first effect. The next is debt: According to analysis by ARC Financial Research, the 34 top U.S. publicly traded shale gas producers are currently carrying a combined $10 billion quarterly cash flow deficit. And finally, there will the destruction of forward supply, as new development grinds down. Financing further development with debt in this environment will be extremely difficult, and eventually even the joint-venture sugar daddies that have sustained operators over the past few months will get cold feet. Without a reversal in price, gas production is guaranteed to decline. The gas gold rush is over Indeed, Berman concludes that “the gold rush is over at least for now with the less commercial shale plays.” Within the major producing areas of the U.S., which account for 75 percent of production, all except Louisiana have been either flat or declining in recent years. Overall, he sees evidence that 80 percent of existing U.S. shale gas plays are already approaching peak production. Rig counts have been falling, and major operators such as Chesapeake Energy and ConocoPhilips have announced slowdowns in drilling in the last month. The two major plays that do not show evidence of peaking yet are the newer ones: the Marcellus Shale in Pennsylvania and the Haynesville Shale in Louisiana. To see the influence of these two plays on overall production, compare the first chart below, which shows production from all shale plays, to the second, which removes production from those two plays: Source: Arthur Berman Source: Chart by Chris Nelder, from Arthur Berman’s worksheets The Haynesville surpassed the Barnett Shale in Texas last year as the top-producing shale play in the U.S., but it may be reaching a production plateau now. Worse, Berman’s analysis finds that despite its impressive production, the Haynesville is among the least economic of the shale plays, requiring gas prices above $7.00 per thousand cubic feet to sustain new drilling profitably, and nearly $9.00 per thousand cubic feet after accounting for leasing and other costs. (One thousand cubic feet is roughly equivalent to one million BTU.) A word of caution is in order here: A one-year decline in production in an unprofitable environment is not proof that shale gas has “peaked.” It’s certainly possible that renewed drilling could bring higher production when gas prices rise again. The operative question in that case is when. If gas prices recover within the next year or two, it will be relatively easy to bring new wells online rapidly. But if gas prices languish for longer than that, the most productive “core” areas of the plays could become exhausted because the wells deplete so quickly. Without sustained new drilling to replace their production, by the time producers begin drilling again in the remaining, less productive prospects, an air pocket could form in the supply line.

### Turns Case

#### Depressing prices kills natural gas

Samuelson 12/13 (Washington Post (Op-Ed), 12-23-12 (Robert, “Don’t kill the shale-gas boom,” 12-23-12, <http://www.washingtonpost.com/opinions/robert-samuelson-dont-kill-the-shale-gas-boom/2012/12/23/815ceb4c-4b9c-11e2-b709-667035ff9029_story.html>, accessed 12-31-12)

Let’s not smother the shale-gas boom. It is the crown jewel of the disappointing economic recovery. Why tamper with success? Yet, there are those who argue that benefits of shale gas could be maximized if we restricted gas exports, mainly as liquefied natural gas (LNG). This would, it’s argued, keep prices low for U.S. consumers and manufacturers, contributing powerfully to the revival of American industry. Sounds convincing. It isn’t.¶ Limiting LNG exports might initially cut prices, but the long-run consequences would be perverse. By depressing prices, we might kill the boom. Production would become less profitable or unprofitable, and new drilling would slow or stop. This is not just supply and demand. It’s also history. From 1954 to the early 1990s, the federal government regulated prices for interstate natural gas. Prices were held artificially low. “Shortages” developed in the 1970s; drilling suffered.¶ The shale-gas boom — the most important energy event in decades — is mostly a market phenomenon. The drilling techniques to extract gas from tight formations long considered uneconomic were first demonstrated by a small Texas company, Mitchell Energy. Other firms then perfected these techniques: “fracking” — injecting formations with highly-pressurized liquids — and “horizontal drilling.”¶ Government agencies are studying whether added environmental regulation of fracking and wastewater disposal is needed. So far, hazards seem manageable. Mainly, the boom should be left alone to build on its considerable gains. Since 2000, U.S. natural gas production has risen by a quarter, with the increase coming mostly from shale gas. From 2000 to 2012, its share of production zoomed from less than 2 percent to 34 percent. By 2040, the Energy Information Administration, the source of these figures, expects overall gas production to increase by nearly 40 percent. The share of shale gas would rise to about half.¶ By one study, the gas boom has created nearly 500,000 jobs for producers and their suppliers. Surging output has reduced wellhead prices more than half from stratospheric 2008 levels. In 2012, residential gas bills (which also cover transportation and distribution costs) are down 21 percent from 2008. Manufacturers consume about a third of U.S. natural gas as both a heating fuel and a petrochemical feedstock. Low prices are promoting investment by energy-intensive firms. Companies have announced at least 100 new projects or expansions worth an estimated $90 billion, estimates Dow Chemical.¶ Greenhouse gas emissions have also been curbed because natural gas, when used as an alternative to coal to generate electricity, produces about half as much carbon dioxide. Finally, fracking and horizontal drilling have been applied to oil, spawning a parallel boom. In 2012, U.S. oil production is up 25 percent from 2008. That’s about another 400,000 production and supplier jobs, estimates the consulting firm IHS.¶ The complaint that LNG exports might unwisely drive up natural gas prices comes from politicians and gas consumers. Sen. Ron Wyden (D-Ore.) argues that the Obama administration should ensure that “unfettered natural gas exports don’t harm U.S. consumers and manufacturers.” Dow Chemical says a “rush to export liquefied natural gas” could jeopardize the “tremendous competitive advantage for American industry” from low-price shale gas.¶ In theory, LNG might divert large volumes of natural gas because the wellhead price of U.S. gas is, on an energy-equivalent basis, much cheaper than oil. But in practice, this isn’t likely: LNG isn’t easily substituted for oil and is costly. The expense of liquefying it to minus-260 degrees Fahrenheit and transporting it long distances in refrigerator tankers raises the price sharply. LNG projects are fabulously expensive. Sabine Pass in Louisiana, a project approved by the Energy Department, will cost $11 billion and could provide customers in Britain, South Korea, India and Spain with gas equal to about 3 percent of present U.S. supply.¶ Exporting natural gas simply isn’t as easy as exporting wheat. Unsurprisingly, LNG satisfied less than 10 percent of global gas demand in 2010. Nor are U.S. producers guaranteed contracts. Other large suppliers (Qatar, Australia) might undercut U.S. prices. But the global LNG market could absorb some U.S. shale-gas production. Why discourage this? A study commissioned by the Energy Department suggests that the price impact would be modest.¶ The truth is that the United States needs domestic and foreign buyers for its natural gas. Supply is outpacing demand, leading to a collapse in prices and drilling activity. Gas rigs are down half from a year ago, reports the energy firm Baker Hughes. Prices can’t be held at artificially low levels. Companies won’t drill unless they can profitably sell what they find.

#### No new drilling means *massive price spikes*

Finger ’12 (Forbes, 10-14-12 (Richard, “$8 Natural Gas: We're Right On Schedule,” 10-14-12, <http://www.forbes.com/sites/richardfinger/2012/10/14/8-natural-gas-were-right-on-schedule/?ss=business%3Aenergy>, accessed 10-25-12)

New natural gas rig counts hit the wires Friday morning and on cue the number decreased yet another 15 rigs to 422, another 21st century low and a massive 55% below the 936 peak one year ago. An article was published by me on July 22nd predicting a spike to $8.00 natural gas by this winter. Well, we are right on track. During that July week natural gas storage numbers were 19.2% and 17.5% respectively above the one and five year averages. Back then we had had eleven straight weeks of below normal storage injections. Since that time we have had a look at thirteen more data points twelve of which were below normal so now the “glut” has diminished to only 6.8% and 7.8% more than the one and five year averages. Thursday’s actual storage injection was 72 Bcf against a 108 Bcf increase one year ago this week.¶ I have continued to inspect decline curves for wells in the Eagle Ford shale. After viewing records for over 70 wells with between nine and eighteen months of production data, the declines continue to be precipitous. A one year decline rate of 80% or more was more the norm than the exception for the data I inspected. In other words a well making 800 BOE (barrels of oil equivalent) on day one, more likely than not was generating well under 200 BOE twelve months later. So I wondered whether there was any recent literature to corroborate my own empirical evidence. Gary Swindell a Dallas, Texas petroleum engineer did an Eagle Ford shale study analyzing 1,041 wells in ten Eagle Ford shale counties with current drilling activity. Similar to my own findings he found decline rates on average were 76%. But he explored much deeper to determine if Estimated Ultimate Recovery (EUR) of a well was dependent on such metrics as frac size in thousands of pounds of sand, distance of the perforated length of the horizontal drill pipe, and the well’s Initial Potential or IP. The conclusion was there was some correlation between more oil and gas produced and bigger and longer fracs up to a point at which time there were diminishing returns. For example, Fracs over 5,000 feet horizontally generally showed lesser returns as did Fracs using over 6,000 pounds of sand. The IP represents the initial production of those first few test days when the well produces at its highest outputs. Swindell also did a simple time test. Were wells getting better, meaning more productive as time passed? Was experience and technology increasing drilling efficacy? Back in July there were lots of criticisms on my previous article claiming how much more efficient drilling is today which more than offsets the dwindling rig supply. The evidence concluded than up until 2010, in the Eagle Ford at least, wells indeed improved, but subsequent to that there has been a plateauwith no increaesed productivity gains for over two years. The most stunning and damning discovery by far was that of the 1,041 wells, the average EUR was only 206,779 BOE per well. Not surprisingly most public companies tend to report or advertise only their IP on a well which is all the SEC and the Texas Railroad Commission requires. They may throw investors a bone and report the first 30 days average production. Many public exploration firms active in the Eagle Ford such as Marathon may publicize EUR’s as high as 340,000 to 500,000 BOE. To my knowledge, no public companies are reporting such rapid well decline rates as are shown in both my limited study and the Swindell report. For investors and analysts to make informed decisions companies should make public after three and six months both the well flow rate (how much the well has declined from IP) and more importantly the surface flowing pressure. Rapidly declining pressure is indicative of a shorter well life and is a predictive measure of well decline rates. Therefore if there really are significantly lower EUR’s than the world has come to take for granted, then the whole shale oil and gas economics must be revisited. While we have proven there are gas vast reserves to be mined, at what price levels does it make sense to pursue these opprtunities?¶ The Drilling Economics. These wells are a mixture of both oil and gas. The study goes through February of 2012. Swindell actually does something kind of weird. The energy or British Thermal Unit (Btu) equivalent of 1 barrel of oil is (Bbl) 6,000 cubic feet of natural gas or 6 Mcf. But because of the huge price differential between oil and gas (it was even more pronounced back then) Mr. Swindell chooses to use a ratio of 20 Mcf to equal 1 Bbl of oil. Therefore when I convert his oil and gas computations (using his 20 to 1 ratio) into a straight natural gas well it shows that each well brings in on average 3.4 Bcf of natural gas reserves. Using the true Btu equivalent ratio would yield even lower reserve numbers. Anyway, the typical 8,000 to 12,000 feet below surface well, be it in the South Texas Eagle Ford or the East Texas/North Louisiana Haynesville play costs plus or minus $10 million. At $4.00 gas this is gross revenue of $13.6 million before deducting a ¼ or 25% royalty payment to the landowners, 7.5%Texas severance tax, 2.5% ad valorem taxes, and well operating expenses. I nearly forgot the pipeline prep to clean the gas of deadly H2S (Hydrogen Sulfide) and CO2 (carbon dioxide) and to rid excess water to below 7 ppm (parts per million.) Now it is ready for the KMP or KMR high pressure pipeline. All this costs about $.25. So you are left with about 60% or $2.40 or $8.16 million for your $10 million investment. At $5.00 Mcf gas you break about even and at $6.00 gas the compounded return is under 5%. Don’t forget it takes ten years or more to get most of your money back. There are a lot of pro-forma numbers that have estimated the EUR at Eagle Ford and Hayneville shale plays to be 6 Bcf or almost twice what the studies are showing. In fact 6 Bcf per well was the assumption used in my July article. Also keep in mind gas has only just recently spiked to close to $3.60 and has spent much of the last month or two near $3.00 or below. Drilling for it continues to be a very bad deal.¶ The Future¶ We have six or seven more weeks left in the shoulder season. Our current storage is 236 Bcf higher than last year. With six weeks left, storage injections must average just under 40 Bcf less than last years numbers. I think we will end up below last year’s storage but we can debate, and like Biden and Ryan vociferously disagree. Anyway, let’s compromise and assume storage levels end the shoulder season 120 Bcf above last year. And let’s say we have a normal winter. With what may be less than 400 gas rigs in operation, sooner rather than later supplies will get very strained and a price spike is highly likely. How have we had 23 of the last 24 weeks of below normal storage injections unless gas supplies are slowly and inexorably becoming strained? My thoughts are that the drilling done five and six months ago, that came on line three and four months ago is now going into a very rapid decline period that will soon show up in monthly production numbers. If we have any kind of an early cold snap, 400 rigs will not be able to alleviate tight supplies. We need gas sustainable from $4.50 to $5.00 Mcf to get the gas rig fleet re commissioned.¶ The US Energy Information Association (EIA) household fuel consumption estimates for October 2012 through March 2013 forecasts between 5 and 30% more heating days than the comparable 2011-2012 period. Even the staid EIA predicts 2012 overall demand to increase 4.7% to 69.76 Bcf/day which is in excess of their overall 2012 calculus for gas supply of 68.8 Bcf/day. Time will tell but the tipping point is near.

### AT: Shock

#### Turn- slow rising of natural gas is the only way to prevent shocks

Maize, 12/1/12 [“Is Shale Gas Shallow or the Real Deal?”, Kennedy, Veteran Journalist¶ Kennedy Maize has spent the past 40 years working as a journalist, analyst, and manager in the private sector and federal government, with over 35 years of that focused on energy and environmental topics. Over that time, he has seen myriad examples of how group think, policy fads, and bad judgment can result in colossal failures, particularly in the field of atomic energy. Maize has seen, up close and personal, the demise of the U.S. Atomic Energy Commission, the arrival of the U.S. Nuclear Regulatory Commission, the birth of the U.S. Department of Energy, the failures of nuclear flight, the hubris of atomic earthmoving, the boom and bust uranium market, the birth and death of breeder reactors, and the 60-year wandering in the wilderness of nuclear waste policy. After graduating from Penn State and graduate study at the University of Maryland, Kennedy Maize worked for newspapers in Pennsylvania, New York, and Virginia and the Associated Press in Baltimore. He then spent five years in management at the National Institute of Health and the U.S. Nuclear Regulatory Commission before taking a job covering energy, environment, and business topics for Editorial Research Reports, a division of Congressional Quarterly, where his work appeared in over 1,000 daily newspapers in the U.S. during the mid-to-late 1970s. Maize became a staff writer and editor at The Energy Daily, a preeminent energy trade paper, on March 28, 1979, the day the Three Mile Island accident began outside Harrisburg, Pa. Over more than 10 years at The Energy Daily, he covered the nuclear and coal industries, including stories involving the Clinch River Breeder Reactor, the U.S. Synthetic Fuels Corp., the Powder River Basin coal leasing scandal, and the Chernobyl explosion. In 1993, he founded The Electricity Daily, where he was the editor for 14 years, writing about changes in the electricity business, the rise and fall of Enron, the stagnation of the nuclear power business, and the arrival of market forces in the utility field. Since 2006, he has been an editor at POWER magazine, and the founder of MANAGING POWER magazine, where he has written about the Fukushima catastrophe, the emergence of shale gas and decline of coal, and the often ill-advised push for renewable electricity technologies¶ http://www.powermag.com/gas/Is-Shale-Gas-Shallow-or-the-Real-Deal\_5188.html]

In an interview with POWER, Berman argued that the boom in drilling shale gas wells has obscured a long-term decline in conventional gas supply. But a coming rapid decline in shale production, he said, will soon reveal the overall limits to the gas boom, and volatility and upward pressure could return to natural gas prices. “It’s not a problem for today or tomorrow,” Berman said, “but it is coming. Once we work through the current oversupply, if capital is not forthcoming,” prices will spike. The gas supply bubble will burst.¶ Because of the current gas glut, with long prices in the range of $3 per million cubic feet (mcf), drilling shale gas wells has tanked, noted Berman. Chesapeake Energy, the most bullish of the shale gas players, is selling assets and shifting rigs to drilling for oil because the company just can’t make money on $3 gas. “I can see a time not too many months away when we could see gas supply in rather serious decline,” Berman said, noting that “there is plenty of gas, but it takes a long time to shift momentum back” to gas drilling. At a 2010 meeting in Washington, as low gas prices were resulting in a decline in new drilling, Berman commented, “Shale plays are marginally commercial at best.”¶ Greatly complicating the supply equation, said Berman, is the nature of shale gas wells. “Shale wells decline 30 to 40% per year,” he said. “Conventional wells decline 20 to 25%. What most don’t grasp is how many wells it takes just to keep supply flat.”¶ In the Barnett Shale in Texas, where Berman is most familiar with the geology, he calculates that the annual decline in the gas resource is 1.7 bcf/day. In order to add to the net Barnett production, Berman says, companies would have to drill 3,880 wells, at a cost of $12 billion.¶ “We are setting ourselves up for a potential reduction in supply and price will go up,” said Berman. “I don’t know how much it will go up, and there is a check-and-balance with coal. There will be gas-coal switching if prices do go much higher than now.”

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After viewing records for over 70 wells with between nine and eighteen months of production data, the declines continue to be precipitous. A one year decline rate of 80% or more was more the norm than the exception for the data I inspected. In other words a well making 800 BOE (barrels of oil equivalent) on day one, more likely than not was generating well under 200 BOE twelve months later. So I wondered whether there was any recent literature to corroborate my own empirical evidence. Gary Swindell a Dallas, Texas petroleum engineer did an Eagle Ford shale study analyzing 1,041 wells in ten Eagle Ford shale counties with current drilling activity. Similar to my own findings he found decline rates on average were 76%. But he explored much deeper to determine if Estimated Ultimate Recovery (EUR) of a well was dependent on such metrics as frac size in thousands of pounds of sand, distance of the perforated length of the horizontal drill pipe, and the well’s Initial Potential or IP. The conclusion was there was some correlation between more oil and gas produced and bigger and longer fracs up to a point at which time there were diminishing returns. For example, Fracs over 5,000 feet horizontally generally showed lesser returns as did Fracs using over 6,000 pounds of sand. The IP represents the initial production of those first few test days when the well produces at its highest outputs. Swindell also did a simple time test. Were wells getting better, meaning more productive as time passed? Was experience and technology increasing drilling efficacy? Back in July there were lots of criticisms on my previous article claiming how much more efficient drilling is today which more than offsets the dwindling rig supply. The evidence concluded than up until 2010, in the Eagle Ford at least, wells indeed improved, but subsequent to that there has been a plateauwith no increaesed productivity gains for over two years. The most stunning and damning discovery by far was that of the 1,041 wells, the average EUR was only 206,779 BOE per well. Not surprisingly most public companies tend to report or advertise only their IP on a well which is all the SEC and the Texas Railroad Commission requires. They may throw investors a bone and report the first 30 days average production. Many public exploration firms active in the Eagle Ford such as Marathon may publicize EUR’s as high as 340,000 to 500,000 BOE. To my knowledge, no public companies are reporting such rapid well decline rates as are shown in both my limited study and the Swindell report. For investors and analysts to make informed decisions companies should make public after three and six months both the well flow rate (how much the well has declined from IP) and more importantly the surface flowing pressure. Rapidly declining pressure is indicative of a shorter well life and is a predictive measure of well decline rates. Therefore if there really are significantly lower EUR’s than the world has come to take for granted, then the whole shale oil and gas economics must be revisited. While we have proven there are gas vast reserves to be mined, at what price levels does it make sense to pursue these opprtunities?¶ The Drilling Economics. These wells are a mixture of both oil and gas. The study goes through February of 2012. Swindell actually does something kind of weird. The energy or British Thermal Unit (Btu) equivalent of 1 barrel of oil is (Bbl) 6,000 cubic feet of natural gas or 6 Mcf. But because of the huge price differential between oil and gas (it was even more pronounced back then) Mr. Swindell chooses to use a ratio of 20 Mcf to equal 1 Bbl of oil. Therefore when I convert his oil and gas computations (using his 20 to 1 ratio) into a straight natural gas well it shows that each well brings in on average 3.4 Bcf of natural gas reserves. Using the true Btu equivalent ratio would yield even lower reserve numbers. Anyway, the typical 8,000 to 12,000 feet below surface well, be it in the South Texas Eagle Ford or the East Texas/North Louisiana Haynesville play costs plus or minus $10 million. At $4.00 gas this is gross revenue of $13.6 million before deducting a ¼ or 25% royalty payment to the landowners, 7.5%Texas severance tax, 2.5% ad valorem taxes, and well operating expenses. I nearly forgot the pipeline prep to clean the gas of deadly H2S (Hydrogen Sulfide) and CO2 (carbon dioxide) and to rid excess water to below 7 ppm (parts per million.) Now it is ready for the KMP or KMR high pressure pipeline. All this costs about $.25. So you are left with about 60% or $2.40 or $8.16 million for your $10 million investment. At $5.00 Mcf gas you break about even and at $6.00 gas the compounded return is under 5%. Don’t forget it takes ten years or more to get most of your money back. There are a lot of pro-forma numbers that have estimated the EUR at Eagle Ford and Hayneville shale plays to be 6 Bcf or almost twice what the studies are showing. In fact 6 Bcf per well was the assumption used in my July article. Also keep in mind gas has only just recently spiked to close to $3.60 and has spent much of the last month or two near $3.00 or below. Drilling for it continues to be a very bad deal.¶ The Future¶ We have six or seven more weeks left in the shoulder season. Our current storage is 236 Bcf higher than last year. With six weeks left, storage injections must average just under 40 Bcf less than last years numbers. I think we will end up below last year’s storage but we can debate, and like Biden and Ryan vociferously disagree. Anyway, let’s compromise and assume storage levels end the shoulder season 120 Bcf above last year. And let’s say we have a normal winter. With what may be less than 400 gas rigs in operation, sooner rather than later supplies will get very strained and a price spike is highly likely. How have we had 23 of the last 24 weeks of below normal storage injections unless gas supplies are slowly and inexorably becoming strained? My thoughts are that the drilling done five and six months ago, that came on line three and four months ago is now going into a very rapid decline period that will soon show up in monthly production numbers. If we have any kind of an early cold snap, 400 rigs will not be able to alleviate tight supplies. We need gas sustainable from $4.50 to $5.00 Mcf to get the gas rig fleet re commissioned.¶ The US Energy Information Association (EIA) household fuel consumption estimates for October 2012 through March 2013 forecasts between 5 and 30% more heating days than the comparable 2011-2012 period. Even the staid EIA predicts 2012 overall demand to increase 4.7% to 69.76 Bcf/day which is in excess of their overall 2012 calculus for gas supply of 68.8 Bcf/day. Time will tell but the tipping point is near.