THE MYTH OF U.S. ENERGY INDEPENDENCE: WHY THE RAPIDLY CHANGING GLOBAL ENERGY LANDSCAPE WILL INCREASE U.S. MILITARY ENGAGEMENT AROUND THE WORLD

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Abstract

The phrase "energy independence," from a national security perspective, is optimistic at best and misleading at worst. Under this banner, some voices are calling for a global reorder that includes two major shifts in U.S. policy: disengagement from traditional entanglements and an accelerated global rebalance that includes a traditional post-war drawdown. Will the U.S. have the option to leave the Middle East when its energy output approaches or equals its consumption? Is this disengagement advantageous to U.S. national security? And will the proposed global rebalance combined with an historically significant drawdown allow the U.S. to meet its energy and national security goals?

This article attempts to answer these questions by exploring the intersection of U.S. national security policy and rapidly changing global energy trends. The links between energy security and national security will continue to grow, and the United States will continue to be the leader charged with securing the global energy supply chain. Changes in the global energy landscape will indeed force the United States to rebalance, but my analysis concludes that net engagement across the global commons will increase, not decrease, if the U.S. wishes to maintain its leadership role in the world while ensuring global energy supplies are secure.

INTRODUCTION

T. Boone Pickens, lifelong oilman turned natural gas champion, recently caught the attention of national security and energy experts. Mr. Pickens making a splash in the news is not a surprise, but what is surprising is his statement about the quest for U.S. energy independence. He stated, "It's time to get an energy policy. We get an energy policy, we can get off the Saudi crude. What does it do for us? It can give us…an option to pull out of the Mid East." He goes on to say, "Once we get on our own resources then the option is ours to decide if we want to stay in the Mid East or get out of the Mid East."[1]

Mr. Pickens' heart is in the right place. He cares about the future of the United States and about the men and women who gave and continue to give their last full measure of devotion. His statement represents the sentiment of many Americans, but is it true? The phrase "energy independence," from a national security perspective, is optimistic at best and misleading at worst. Under this banner, some voices are calling for a global reorder that includes two major shifts in U.S. policy: disengagement from traditional entanglements and an accelerated global rebalance that includes a traditional post-war drawdown. Will the U.S. have the option to leave the Middle East when its energy output approaches or equals its consumption? Is this disengagement advantageous to U.S. national security? And will the proposed global rebalance combined with an historically significant drawdown allow the U.S. to meet its energy and national security goals?

This research attempts to answer these questions by exploring the intersection of U.S. national security policy and rapidly changing global energy trends. The links between energy security and national security will continue to grow, and the United States will continue to be the leader charged with securing the global energy supply chain. Changes in the global energy landscape will indeed force the United States to rebalance, but my analysis concludes that net engagement across the global commons will increase, not decrease, if the U.S. wishes to maintain its leadership role in the world while ensuring global energy supplies are secure.

This article begins by giving a broad overview of the energy landscape, both in the U.S. and globally. It then explores prevailing trends in the national security arena while linking them back to the energy debate. The next section explores the definition of energy independence more broadly, with an emphasis placed on understanding its economic underpinning. It then focuses on the challenge of disengaging from historically entangling regions while discussing the true nature of the pending U.S. global rebalance. Finally, it concludes with policy solutions that address gaps in U.S. national security

and energy policy – gaps that must be filled to ensure both global energy security and U.S. leadership in the global commons.

THE CHANGING ENERGY LANDSCAPE

CHANGES IN THE U.S.

The United States is experiencing an unprecedented boom in energy production. In October 2013, it was announced that the U.S. surged past Saudi Arabia to become the world's largest producer of energy liquids (to include crude oil, natural gas liquids, and biofuels).[2] Just over a week earlier, the U.S. Energy Information Administration (EIA) announced that the U.S. passed Russia in 2013 as the largest producer of petroleum and natural gas combined (Figure 1).[3] The numbers themselves are impressive, thanks to the additional tight oil, or shale oil, output of over three million barrels per day (Figure 2).

Figure 1

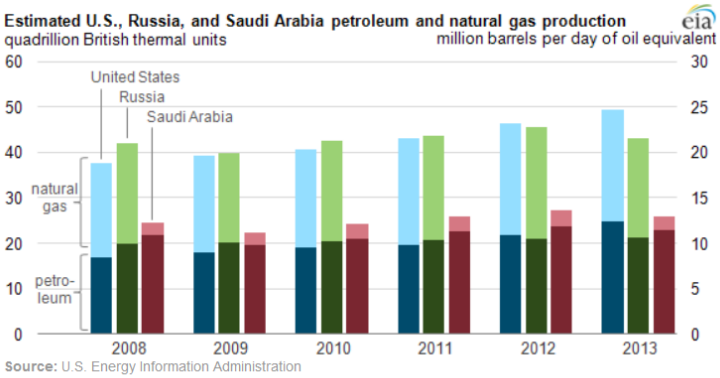
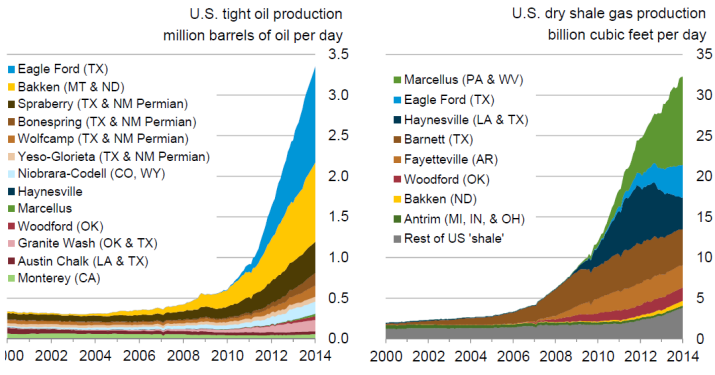
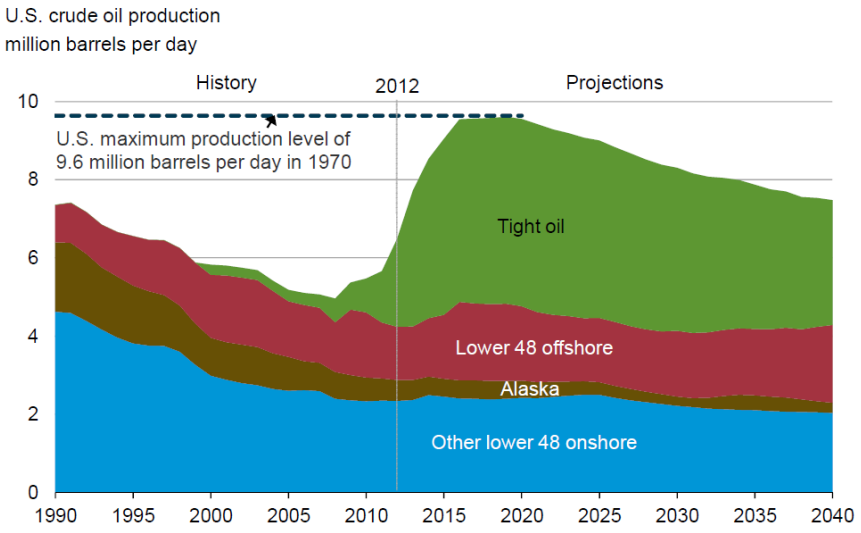


Figure 2



But more impressive are the consistent upward adjustments made to yearly forecasts. In the 2014 Early Release Overview, the EIA says that total crude oil production will now peak at 9.6 million barrels per day within a few years, up 22 percent from the forecast produced in 2013 (Figure 3).[4] In addition, the EIA's 2014 forecast shows a 3 percent spread in U.S. net energy imports over exports in 2035. In 2013, the forecast was 10 percent (Figures 4 and 5). This notable trend is the reason that some leading experts are predicting that the U.S. will be a net exporter of energy by 2020.[5]

Figure 3



Source: EIA, Annual Energy Outlook 2014 Early Release

Figure 4 – 2014 Forecast

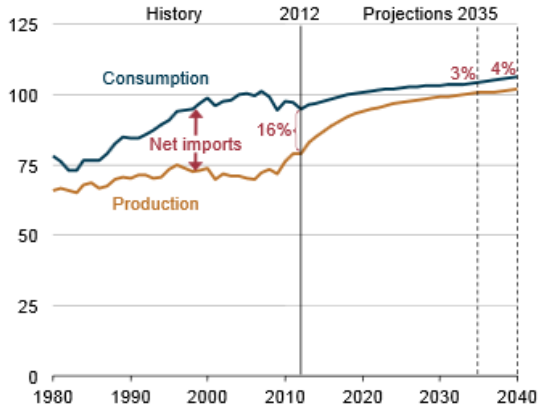
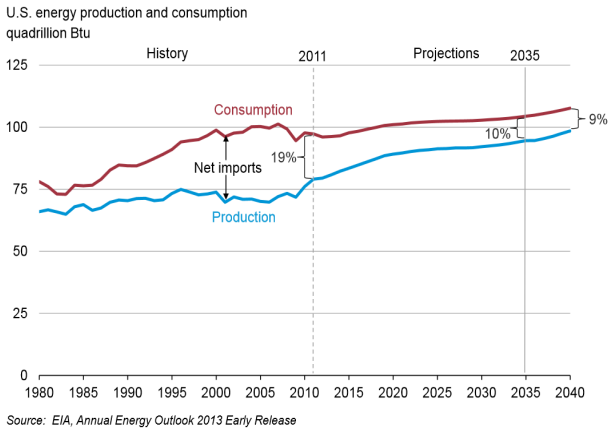


Figure 5 – 2013 Forecast

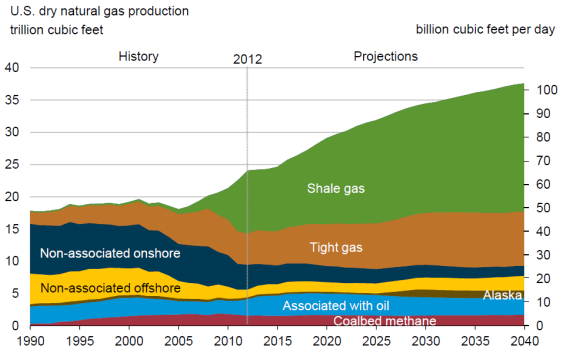


Source: EIA, Annual Energy Outlook 2013 Early Release

Source: U.S. EIA Annual Energy Outlook 2014 Early Release Overview

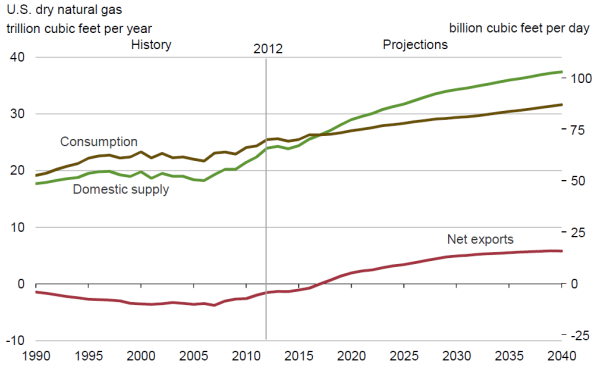
Turning to natural gas, there is almost unanimous agreement that booming shale gas will push liquid natural gas (LNG) over the net-export line by 2016 and will make the U.S. an overall net exporter of natural gas by 2018 (Figures 6 and 7). These figures were accelerated by two years when compared with the EIA's 2013 forecasts.[6] Significant gas supplies coming online from shale deposits have put significant downward pressure on U.S. price levels, causing other countries to take a look at tapping their basins.

Figure 6



Source: EIA, Annual Energy Outlook 2014 Early Release

Figure 7

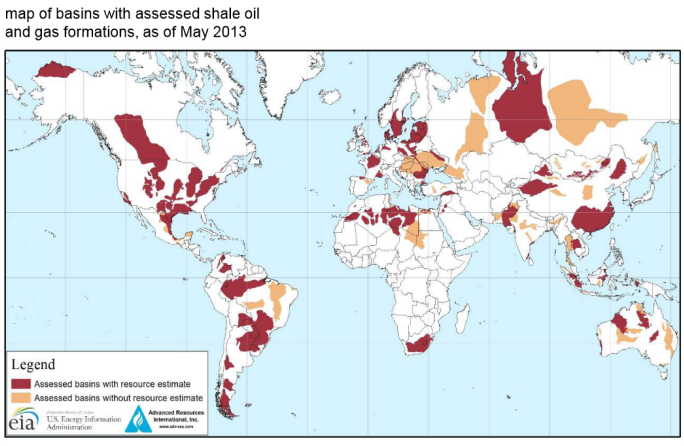


Source: EIA, Annual Energy Outlook 2014 Early Release

GLOBAL CHANGES

Shifting to the global scene, Figures 8 and 9 show the assessed shale oil and gas formations around the world. While a good portion is not currently accessible due to politics, technology, environmental concerns, or market conditions, the potential for massive upheavals in global energy supplies is significant.

Figure 8



Source: United States: EIA and USGS; Other basins: ARI

Figure 9

Shale oil		
Rank	Country	Billion barrels
1	Russia	75
2	United States	58
3	China	32
4	Argentina	27
5	Libya	26
6	Venezuela	13
7	Mexico	13
8	Pakistan	9
9	Canada	9
10	Indonesia	8
	World total	**345**

Shale gas		
Rank	Country	Trillion cubic feet
1	China	1,115
2	Argentina	802
3	Algeria	707
4	United States	665
5	Canada	573
6	Mexico	545
7	Australia	437
8	South Africa	390
9	Russia	285
10	Brazil	245
	World total	**7,299**

Source: United States: EIA and USGS; Other basins: ARI.
Note: ARI estimates U.S. shale oil resources at 48 billion barrels and U.S. shale gas resources at 1,161 trillion cubic feet.

However, in the near-term, the global focus is not just on the supply "revolution." It is also on the impressive demand signals coming from the emerging markets. The International Energy Agency (IEA) World Energy Outlook 2013 summarized these changes by stating, "the centre of gravity of global energy demand moves decisively towards emerging economies…. Global energy trade is re-oriented from the Atlantic basin to the Asia-Pacific region."[7]

Figure 10 shows a relatively stable growth rate across the globe, but it is important to further segment global demand. Figure 11 shows Organization for Economic Cooperation and Development (OECD) consumption stagnating with impressive growth continuing primarily in China, India, and other emerging markets.

Figure 10

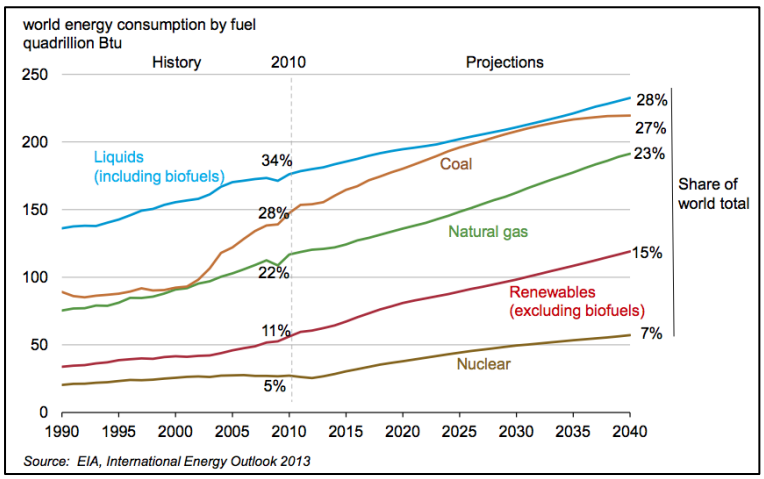
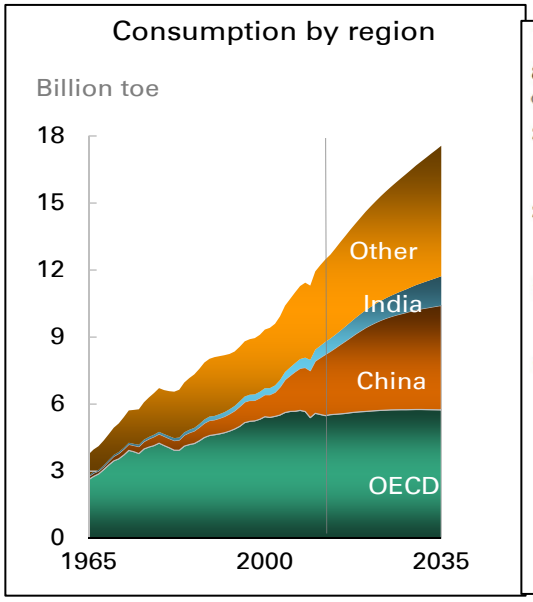
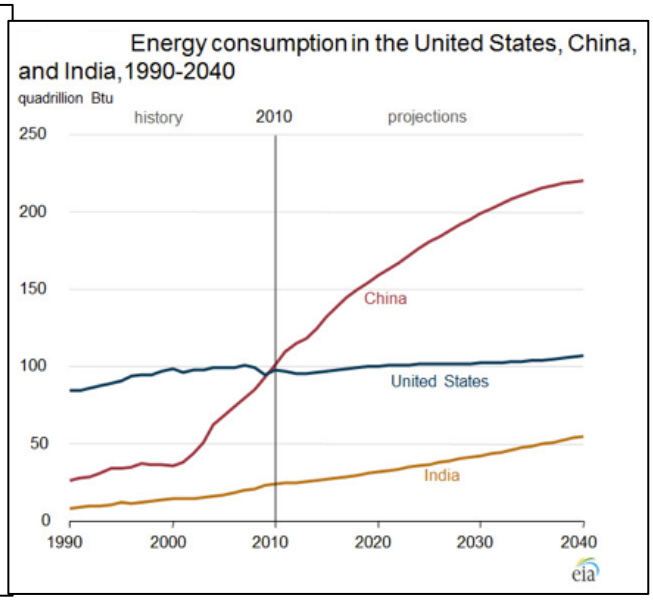


Figure 11



Source: BP 2014 Energy Outlook 2035

Figure 12



Source: EIA, International Energy Outlook 2013

China's demand compared to India and the U.S. is also significant (Figure 12). In fact, China surpassed the U.S. in September of 2013 as the world's largest net importer of oil.[8] While the center of gravity for demand is moving, the critical regions of supply will undoubtedly continue to be North America and the Arabian Gulf, thus forming a relationship of interdependence that will force continued U.S. engagement in the Middle East and increased engagement in Asia.

NATIONAL SECURITY, FORCE STRUCTURE, AND DETERRENCE

The relationship between foreign sources of oil and military dominance was locked in over one hundred years ago when Winston Churchill made the historic decision to transition the Royal Navy from coal to oil.[9] Competing and allied navies alike eventually followed suit due to the marked increase in combat capabilities.

However, the currency used to make this transition was decades of interdependence with energy-producing regions outside of the northern transatlantic sphere, initially the Middle East, and now including West Africa and South America. All three of these regions currently struggle with unrest fostered by despotism, societal pressures, and terrorism. If Churchill could have looked one hundred

years into the future, I suspect he would have deliberated longer before making such a monumental decision.

At the time, Churchill was worried about combat capability and defense budgets. These contentious topics are no less important today. They are an integral part of the national debate as continued downward pressure on budgets forces U.S. and Western leaders to make tough decisions. The debate is often focused on capability versus capacity. Out of necessity due to limited budget resources, our military leaders are being forced to divest force structure beyond the current global requirements in order to invest in future capabilities.[10]

The prevailing wisdom is that the military will have to contract while focusing on modernization, allowing a technological leap forward that will permit it to maintain its competitive advantage over peer nations in any potential high-end conflict. Once this capability edge has been safely locked in, the military can then positively scale in size to regain the capacity needed for the future. The problem in the medium-term is that while the military attempts to get back on the required technology glideslope, the nation is accepting significant risk with its diminished ability to maintain the necessary presence to secure the global commons. Force structure must match strategy and not the other way around. The U.S. needs a strategy that protects global trade and global energy transfers, and then match force structure to support the strategy. Without a proper force-to-strategy match, the risk to U.S. national security includes handicapped military capacity resulting in diminished global effectiveness.

Integral to national security doctrine is the ability to carry out three objectives: assure one's friends, deter one's enemies, and take decisive military action when deterrence fails. What is often forgotten in the modern debate are the lessons learned regarding deterrence. Deterrence was the predominant strategy of choice during the Cold War, even though limited conflicts did occur. However, it appears that the credibility of deterrence was harmed after September 11, 2001, when preemption became popular.

Preemption is now out of vogue, but the shock and awe applied to the national psyche during its preeminence seems to have blinded many from remembering the successful policies of the past. Because deterrence is not discussed much outside of military channels, its requirements have disappeared from the greater national conscience. Simply put, these requirements have not changed since General Curtis LeMay reaffirmed them in 1963: an overwhelming offensive capability (both for high-end and low-end conflicts), the right mix of strategic and tactical forces, a sound array of

defensive forces and technologies capable of stopping any attack, and the global command and control systems needed to implement the strategy.[11]

The linkage is simple. An under-sourced force will increasingly lack the ability to properly deter its potential enemies, both large and small, thus making global energy markets more unstable and at risk of disruption. As John Lehman, former Secretary of the Navy, recently said, "In deterrence, quantity has a quality all its own."[12]

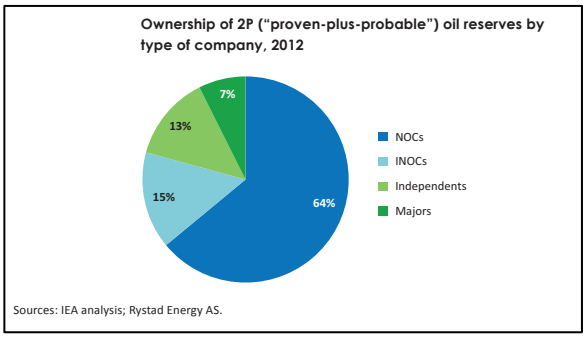
ENERGY INDEPENDENCE

The term "energy independence" burst onto the scene in November of 1973 when Richard Nixon used the term in an ambitious energy policy speech, in which he announced that the United States would be energy self-sufficient by 1980. Interestingly, one of Nixon's speechwriters tried to remove this reference three separate times before the President himself put it back in.[13]

Since 1973, energy independence has been a popular term, but one that has been used in a bumper sticker manner. The reality is that the United States was on track to becoming more dependent on foreign sources of energy until the recent shale revolution. With this new flexibility and reduced risk gained by shrinking imports, now is the time for the U.S. to take comprehensive policy steps that will lock in strategic gains. These recommendations will be discussed later, but for now it is important to understand more about the global marketplace for energy.

It is important to point out that while there is a global market for energy, it is not necessarily a "free" market. Unfortunately, almost 80 percent of energy reserves are controlled by state entities (Figure 13). The reasons for state control vary from surges in nationalism to autocratic control. The result, reinforced by traditional economic theory, is that with state control comes inefficiencies, not to mention the increased potential for political interference.

Figure 13

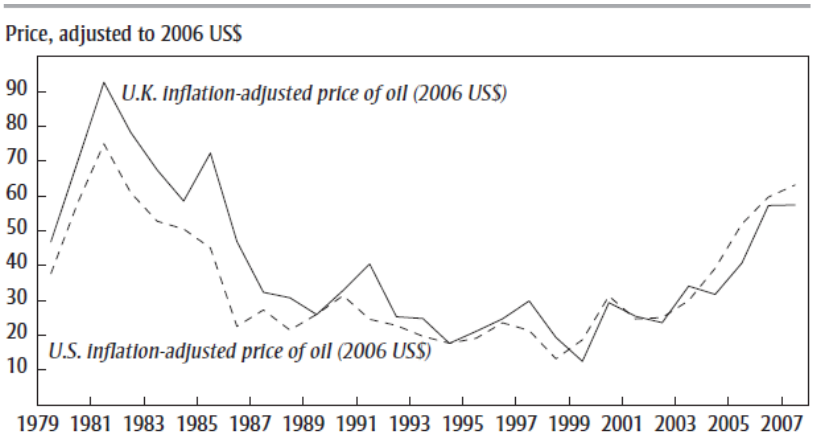


The fact that the majority of oil reserves are owned by state companies does not change the fact that oil is priced on a global market. This reality presents another challenge to the traditional energy independence argument. Production or delivery disruptions in one part of the world raise the price of oil across the globe. This basic concept, while not often articulated, has driven fundamental U.S. military engagement strategy since the end of the Cold War. The objective is to provide global reach and a networked overlay of global presence across the commons so as to reduce the incentives for terrorists and rogue states to disrupt commerce. This, of course, becomes more difficult with shrinking military capacity. And while this concept applies to all branches of the military when dealing with varied threats, this paper primarily focuses on naval capacity due to its overlap with seaborne energy transfers.

Oil flows become vulnerable to attack and price pressures due to the fact that oil markets around the world are interconnected, with oil flowing vast distances to reach the most profitable markets. And while there are different grades of oil in the world, oil is basically fungible, or interchangeable, and thus can be substituted freely on a global scale to set the global price. In an open, global system, price is set as a function of aggregate demand intersecting a finite supply. There are variations within this principle, such as the occasional historic spread between the two most commonly quoted oil prices. The West Texas Intermediate (WTI) price has trended lower over the last few years when compared to the more international Brent Crude price. This is due to an increase of oil inventories at Cushing, Oklahoma, where WTI is priced, caused by the recent increase in tight oil production. As the supply chain to the global market eventually catches up, the price spread will decrease.

This can be demonstrated by comparing U.S. and United Kingdom price patterns for crude oil between 1979 and 2007.[14] During this period, the UK was self-sufficient in oil while the U.S. imported a majority of its oil. However, Figure 14 shows that the price patterns effectively mirrored each other. Global energy security and relative geopolitical stability is thus more important to price than energy independence.

Figure 14



Sources: U.S. price of oil from Department of Energy, table 9.1, Crude Oil Price Summary (http://tonto.eia.doe.gov/merquery/mer_data.asp?table=T09.01); U.K. price of crude oil from Energy Information Administration, table 11.7, "Crude Oil Prices by Selectd Types, 1970–2009" (http://www.eia.doe.gov/emeu/aer/txt/ptb1107.html).

Source: Pietro S. Nivola and Erin E. R. Carter, "Making Sense of 'Energy Independence'" in *Energy Security: Economics, Politics, Strategies, and Implications* (Washington, D.C.: The Brookings Institution, 2010), 106.

As mentioned previously, even with the "energy revolution," the U.S. will still need to import a small percentage of energy resources as far out as 2040. Why not reduce that gap to zero so the United States can claim victory and finally raise the banner of energy independence? Chasing the next domestic unit of energy only makes sense up to a point.

The marginal cost, or cost of the next energy unit, rises as the cheapest domestic units are produced and consumed first, followed by more expensive units. At some point, the cost of foreign energy imports is more cost effective than producing the next domestic unit. Current forecasts show this free market trend narrowing to 3 percent in 2035 and increasing again to 4 percent by 2040. A stable global energy system is ultimately more desirable than complete energy independence. This idea has significant implications for U.S. engagement policy.

DISENGAGEMENT FROM TRADITIONAL ENTANGLEMENTS

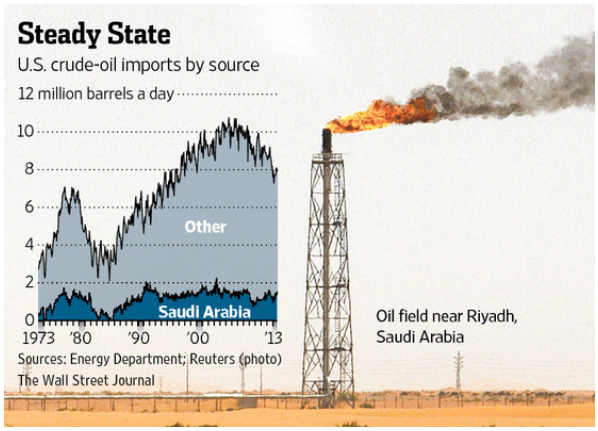
U.S. national security leadership made a significant strategic decision in 2013 by reducing the number of aircraft carriers in the Arabian Gulf Region from two to one. In the six months following this reduction, the remaining carrier spent a majority of its time outside the Arabian Gulf, partly to support Afghanistan operations and partly to take pressure off of Iran during the nuclear negotiations.[15] Friendly Gulf nations became very concerned. And even though the U.S. Navy claims

that its presence has not diminished due to a plethora of smaller ships in the region, the carrier reduction sent a strategic message to the world that the U.S. is either less serious about or, for the first time, unable to secure key sea lanes to the same degree it has over the last two decades. Secretary of Defense Chuck Hagel visited Bahrain in December of 2013 to reassure the region by stating, "I will assure our partners that we're not going anywhere."[16]

The U.S. may not be leaving, but its shadow is slowly shrinking in a region that will maintain its prominence in the energy equation for decades to come. And of course, there are those small disturbances called Iran and Syria that have the potential to cause further destabilization. Other countries in the region are doing their best to keep the U.S. engaged as well.

The old saying goes: "Keep your friends close and your enemies closer." In the case of Saudi Arabia and the U.S., it is tough to know which shoe fits which dance partner, but regardless, Saudi Arabia has taken a hit in the pocketbook in order to continue selling oil to the U.S. They are willing to accept the cheaper WTI price at an opportunity cost of as much as $4.8 billion annualized when compared to selling their crude to Asia.[17] Because of this accepted tradeoff, Figure 15 shows that U.S. imports from Saudi Arabia have remained relatively stable since the late 1980s.

Figure 15



Saudi Arabia's decision is probably not altruistic. Setting aside the fact that Saudi's specific crude variety is a perfect fit for its joint venture Gulf Coast refineries, their decision points to a shrewd geopolitical move that keeps the U.S. and the Kingdom interdependent in a relationship where oil flows one direction and arms and security flow the other direction.[18]

Assuming Saudi Arabia continues to trade profits for geopolitical connectivity, the "entanglement" known as the U.S.-Saudi relationship could last for years, or until oil import levels fall below that provided by our nearest neighbors. In December 2013, the U.S. imported just over 5 million barrels per day, with Canada and Mexico steadily supplying almost 3 million barrels per day.[19] Therefore, we remain engaged in the Middle East for now to ensure that energy flows freely from the region. And even if we no longer need Saudi oil in the future, we will still have a dire need for price stability, which is only possible with regional stability. Such economic and geopolitical requirements will limit the United States' ability to disengage from the region, thus limiting its ability to focus wholeheartedly on other regions that beckon for increased U.S. presence.

GLOBAL REBALANCE – BUT NOT JUST TO ASIA

THE NEW FRONTIER: THE ARCTIC

The new frontier for the U.S. military, from a geopolitical and energy perspective, is the Arctic. Investment in the Arctic region, ranging from tourism to oil and gas production, is estimated to top $100 billion over the coming decade.[20] Recent reports by the U.S. Geological Survey estimate the Arctic holds up to 30 percent of the world's undiscovered gas and 13 percent of its oil.[21]

Russia recently announced the establishment of a new Arctic Strategic Command. This new command will have the same status as its other four military districts and will be responsible for, among other things, securing shipping and hydrocarbon deposits.[22] Such a move will force the U.S. to engage in yet another vast region where new shipping lanes are emerging. Figure 16 shows the two major lanes that are emerging as Arctic ice recedes.

The famed Northwest Passage as well as the Northern Sea Route are now in limited operation and will only intensify as the Arctic Ocean becomes more navigable. By the year 2030, both routes will be passable up to 110 days per year.[23] The Northwest Passage route will cut 4,350 miles from the current route through the Panama Canal and the Northern Sea Route will save $180,000 in fuel costs compared to traveling through the Suez Canal.[24] Diversifying energy and trade routes is an effective way to reduce the threat of piracy that is prevalent along the southern route in the Indian Ocean. But more importantly, diversification further disperses limited forces in an uncertain world.

Figure 16

Source: Adapted from CIA: The World Factbook, https://www.cia.gov/library/publications/the-world-factbook/maps/refmap_arctic.html

As an Arctic nation, the U.S. will naturally want to increase its presence in its exclusive economic zone north of Alaska to protect against resource predators. The 40-year-old Coast Guard icebreaker Polar Star is coming out of semi-retirement to assist, compared to 25 Russian icebreakers, six of which are nuclear powered.[25] The U.S. Navy states in their newly released Arctic Roadmap that the desired end state is an "Arctic Region stable and free of conflict, where nations act responsibly in a spirit of trust and cooperation, and where economic and energy resources are developed in a sustainable manner."[26] However, it goes on to say that the U.S. will provide ready naval forces to respond to crises and contingencies.[27] Planning is well intentioned, but analysts worry that our inability to put enough dollars toward military resources appropriate for the region "is going to come back to haunt us."[28]

The strategic chessboard vis-à-vis Russia in the Arctic is now being set. It may only take a few moves and a handful of years before the U.S. is forced to engage in the Arctic to a level that will stretch already scarce resources. This will entangle the United States in another region of strategic importance as it unsuccessfully tries to reduce its presence in the Middle East, while attempting the promised shift to Asia.

REDUCED CAPACITY AND THE "TYRANNY OF DISTANCE"

In addition to adding Arctic sea routes to the equation, the global rebalance is hampered by the challenge of decreased force structure. Combatant Commanders have a "tyranny of distance" problem that requires an endless list of resources. Having only three operational carriers on deployment with one in reserve limits one's options (Figure 17).[29] At the height of the 1980s, the U.S. Navy had nearly 600 ships. Today it stands at just over 280 combat ships, if you do not include hospital ships and small coastal patrol vessels, with fewer than 100 ships deployed at any one time.[30]

Figure 17

Source: Stratfor.com http://www.stratfor.com/sites/default/files/main/images/Naval_Update_03-19-14.jpg

Of the three deployed carriers, the USS George Washington carrier group (CVN-73) is the only one currently present in the Pacific, at her homeport in Yokosuka, Japan. However, she is currently undergoing several months of scheduled maintenance before returning to Newport News Shipyard for a mid-life refueling overhaul.[31] The nearest operational carrier is the Ronald Reagan (CVN-76), currently ported in San Diego, which is scheduled to replace the Washington when she departs in 2015.

The U.S. Navy will also move the USS Theodore Roosevelt to the West Coast as part of the rebalance strategy. The recent press release announcing the carrier shuffle stated, "The security environment in the Indo-Asia-Pacific requires that the U.S. Navy station the most capable ships forward. This posture allows the most rapid response times possible for maritime and joint forces, and brings our most capable ships with the greatest amount of striking power and operational capability to bear in the timeliest manner."[32] This move makes sense as part of the Asia rebalance that calls for 60 percent of naval forces to move to the Pacific region by 2020.[33] However, such a posture shift is overly ambitious based on current resources, and it accepts strategic risk in the historically volatile Middle East, not to mention the Arctic and other increasingly dangerous regions such as the Gulf of Guinea.

Tough choices are on the horizon for U.S. national security leaders. Policymakers must look for innovative solutions informed by budgetary constraints, adroit strategy, and a practical view of changing geopolitical dynamics driven by rapidly changing energy trends.

POLICY IMPLICATIONS AND RECOMMENDATIONS

IMPLICATION 1: PRESENCE ENABLES ACCESS

More than 50 percent of the world's oil supplies must travel through at least one of six global maritime chokepoints (Figure 18).[34] Of that, 68 percent travels through the Strait of Hormuz.[35] This critical node will require continual vigilance as the U.S. partners and trains with friends and allies in the region. However, this cannot be done without appropriate access to friendly ports and resupply hubs.

Figure 18

Source: U.S. EIA, World Oil Transit Checkpoints, updated August 22, 2012

During the Cold War, the existential threat faced by nations overshadowed by the iron curtain was enough to encourage them to grant U.S. access to bases, airspace, and ports. After the Cold War, the U.S. could no longer wave the Soviet card and learned quickly it had to build relationships through personal contact, military training opportunities, and humanitarian assistance.

Presence and relationships enable access. Geographic Combatant Commanders invest a significant amount of their time traveling around their Areas of Responsibility building relationships with key leaders. However, they normally follow up with training exercises or specific military assistance. The reduction of global capacity will reduce the opportunities for strategic military engagement, thus potentially reducing access when needed the most. This calculus must be at the forefront of any future discussions regarding military budgets, force structure, and regional engagement plans. Failure to do so will result in resource gaps that can overextend a military charged with securing global energy routes.

IMPLICATION 2: PIRACY, SEA SUPERIORITY, AND PRIVATE SECURITY

When capability gaps loom on the modern battlefield, they are often filled by private contractors. This was definitely the case regarding personnel security in Iraq after major combat operations ended in 2003. Many books have been written about private security companies running wild. But less reported is that many of these same companies are now quietly putting armed security personnel on commercial vessels transiting hazardous waters.

Sea Superiority is defined as a level of dominance over an opposing force such that the opposing force cannot interfere with operations. It is too often taken for granted until it is lost. The U.S. Navy works hard to maintain this level of protection around the world. Commercial shipping has historically operated under this long shadow. However, limited capacity is forcing commercial shipping to embrace unregulated private security as their only option.

The result of private security is that overall maritime attacks in the world dropped from 237 in 2011 to 75 in 2012, and according to former U.S. Assistant Secretary of State Andrew Shapiro, "…no ship with an armed security team aboard has been successfully pirated."[36] While this trend is positive, such security arrangements introduce significant risk by outsourcing security that has been historically governed by nation states. At a minimum, the shrinking security shadow is undermining U.S. leadership in the world.

IMPLICATION 3: CHINA TAKES MILITARY ACTION

Nearly 70 percent of Africa's energy production is concentrated in West Africa, and more specifically the Gulf of Guinea.[37] The day is coming when China either chooses or feels compelled to take military action to secure its supply of oil coming from this region as well as the Middle East. This could result from decreased U.S. engagement driven by reduced capacity. It could also result from a decisive move to increase Chinese influence in the region, especially in regards to protecting its supply of natural resources.

A comprehensive framework of cooperation is needed as China begins to extend its reach, witnessed by Chinese interest in establishing a navy base in the Seychelles.[38] For many years, China has conducted its petro-diplomacy on the back of U.S. security around the world, but specifically in Africa. The creation of U.S. Africa Command and the resulting military engagement is a perfect example of China leveraging U.S. security while it slowly and quietly mines the continent for much needed natural resources.

The U.S. historically uses military-to-military engagement as a way to build partnerships in the region. China primarily uses economic incentives to close deals around the continent. Ironically, these two approaches could swap with declining U.S. presence and increasing Chinese presence. However, some worry that a localized arms race could develop as the U.S. and China flood weaponry, both seaborne and otherwise, into the region.[39] Such a scenario, combined with mistrust and miscalculation, could spark a conflict that no one desires.

Another deadly scenario that could increase Chinese presence is the implosion of Saudi Arabia, in the not-so-distant future, due to internal social and political unrest. This scenario is becoming more believable as the House of Saud fails to lower the dependency rate on both the state and the energy sector. Currently, 92 percent of national revenues flow from the oil industry, and oil prices must remain near $80 per barrel for the Saudi government to meet its domestic budget needs.[40]

Saudi's relationship with the major powers is slowly changing. As mentioned earlier, U.S. reliance on Saudi Arabian oil will eventually decline. However, China currently receives 19 percent of its imported oil from Saudi Arabia and 52 percent of its total imports from the greater Middle East.[41] Chinese reliance on Saudi oil will most likely rise in the future, even though China is attempting to reduce its reliance on any one country or region. Under this future scenario, absent U.S. presence, China would have significant impetus to intervene in a crisis to promote security in the region. A future may exist where domestic pressure to steer clear of foreign wars combined with diminished capacity could cause the U.S. to step back as China steps forward into the Middle East caldron.

RECOMMENDATION 1: SYNC U.S. ENERGY, DEFENSE, AND FOREIGN POLICY

The National Security Strategy (NSS) is the document the President of the United States uses to outline how his administration will deal with challenges ranging from the environment to terrorism. A quick scan of the 2010 NSS mentions energy 47 times.[42] The fact that energy and energy security made it onto the national security radar is a positive step.

However, from this starting point the various executive branch departments begin to march in different directions with little coordination at mid-level planning echelons. The Department of Defense, for example, is the best in the world at planning to deal with enemy capabilities, but perhaps not so good at syncing with Energy Department planners to fully appreciate changing global energy routes.

There is no doubt that U.S. defense spending on individual programs is at an historic high due to the astounding rise in technology costs. A perfect example is the $390 billion total acquisition cost of the F-35 program.[43] Even though the Department of Defense plans to buy almost 2,500 aircraft for three services, this is still an enormous cost compared to a future fleet of aircraft carriers, currently priced at the historically high cost of $12 billion per copy.

One could argue that we are putting a lot of golden eggs in a gold-plated basket. Problems will arise if we find, in strategic terms, we are filling the wrong basket. The concern is that the U.S. has been poorly allocating defense dollars since the Cold War ended.[44] Using the Navy as an example, a strategy-driven approach should determine the size of the fleet needed to cover the Middle East, the Arctic, and the Pacific.

Perhaps $12 billion aircraft carriers are not the right answer. Even though they symbolize U.S. resolve, could a larger fleet of smaller ships better match strategic and operational requirements? Perhaps another solution set that is cheaper and allows for greater capacity should be considered. Instead, the strategic budget discussions focus on whether or not to cut another carrier from the starting lineup. The U.S. military has to play with the hand dealt, but now may be the time for U.S. senior leaders to consider switching card games.

The good news is that experienced leaders from both the military and other government agencies are beginning to address these issues. One example is the Commission on Energy and Geopolitics led by former Director of National Intelligence Admiral Dennis Blair and General Michael Hagee, former Marine Corps Commandant. The commission's goal is to deliver innovative policy recommendations. Continued interaction between academia, policymakers, and military practitioners is essential as the U.S. plots its future course into critical regions that are increasingly interconnected.

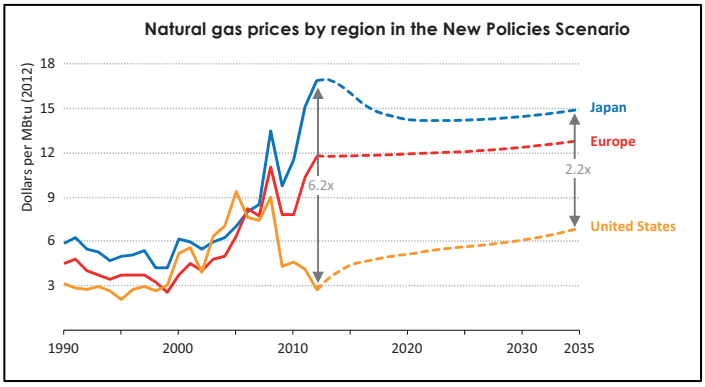
RECOMMENDATION 2: SYNC U.S. AND EU EFFORTS

The U.S. will be forced to work closely with its partners and allies around the world as it rebalances globally. While U.S. net engagement on a global scale will need to increase, more needs to be done between the United States and its European allies to shore up the historically close, multi-lateral strategy that was originally designed to put Western powers on a path to collective energy security. There was a time when energy coordination was more integrated across the Atlantic, but differing political, economic, and environmental viewpoints have driven them apart.[45]

However, recent crises are potentially driving the two regions back together. The Ukrainian conflict has encouraged policy makers to draft courses of action that would flow energy supplies from the U.S. to Europe, thus loosening the Russian grip on our allies. The editorial boards of The New York Times, The Wall Street Journal, and The Washington Post are calling for the use of natural gas as a diplomatic tool by exporting LNG to both Europe and the Ukraine. But current U.S. law only allows such exports to Canada, Mexico, and countries with existing free-trade agreements. In addition, as of this writing, only seven of the 21 export applications have been approved by the U.S.

Energy Department.[46] And unfortunately, Figure 19 shows that U.S. natural gas would currently flow to Japan, having little short-term effect on Europe.

Figure 19



Source: IEA World Energy Outlook 2013

Exporting LNG is costly and will take years to implement. Some are therefore calling for shifting the current short-term focus to lifting the ban on oil exports. In a free and efficient market environment, additional supplies of energy will find their way to the most appropriate buyers based on demand and price. But as one expert points out, lifting the ban on crude exports could have a more significant, yet limited, short-term effect on global oil prices by providing downward pressure across the global marketplace.[47] Downward price pressure would be delayed with LNG due to regionalized marketplaces.

One additional strategy that could help strengthen energy security on both sides of the Atlantic is to reinvigorate the 28-member IEA. The IEA was created in 1974, partially in response to the OPEC crisis, and was seen as an avenue for close collaboration and consultation. Strong consideration should be given to bringing India and China into this organization.[48] The IEA could become a global forum for energy security that helps address the issues raised in this paper. Leveraging the IEA could be an important part of U.S. global engagement strategy.

COUNTERARGUMENTS

COUNTERARGUMENT 1: REDUCE U.S. ENGAGEMENT

There is growing influence in the U.S. calling for reduced global engagement. It is important to understand the implications of this proposed strategy in a dynamic global environment. China is beginning to change its perspective on engagement with the rest of the world. Billionaire Saudi

Prince Alwaleed bin Talal recently claimed, "China is very eager to fill any vacuum that the United States may create."[49] The Chinese defense budget for 2014 is up 12.2 percent over the previous year, continuing a decades-long trend of double-digit growth.[50]

The recent Third Plenum of the 18th Party Congress advocated for a more aggressive foreign policy, setting aside the decades-long policy known as "taoguang yanghui," which called for a low profile as China built up its economy, infrastructure, and power base.[51] This suggests that U.S. retrenchment could lead to the steady rise of Chinese influence in the global commons. But is this a desirable outcome?

The downside to Chinese military domination in the short run is significant inexperience in combat operations and military diplomacy. U.S. Central Command (CENTCOM), for example, has become the global leader in both fields. In addition, recent "irresponsible" actions by the Chinese Navy, as described by Secretary Hagel, brought ships from both countries within 100 yards of each other.[52] China also has a troubling human rights record and its modus operandi as a national government is "regime survival," not rule of law. When translated to the global stage, the People's Republic of China is not the leader the United States and its allies desire to secure the commons.

COUNTERARGUMENT 2: REDUCE MILITARY CAPACITY

The libertarian-influenced approach calling for a reduced U.S. military footprint would attempt to divorce energy security from national security. The argument goes like this: economic interest alone will secure the commons. In fact, chasing increased energy exports with increased military capacity or attempting to secure a diversified global landscape is counter-productive to both national security and economic progress. It is a misappropriation of capital, as national security dollars should be used to secure the homeland. If oil tankers need protection as they transit dangerous waters, commercial dollars should foot the bill.

The flaw in this logic is that a small act of terrorism can have global ramifications. For example, an oil tanker sunk in the Suez Canal could immediately disrupt supplies and raise global prices. The psychological damage to the world economy could reverberate into the future and even trigger an economic downturn, depending on the current position of the global business cycle.

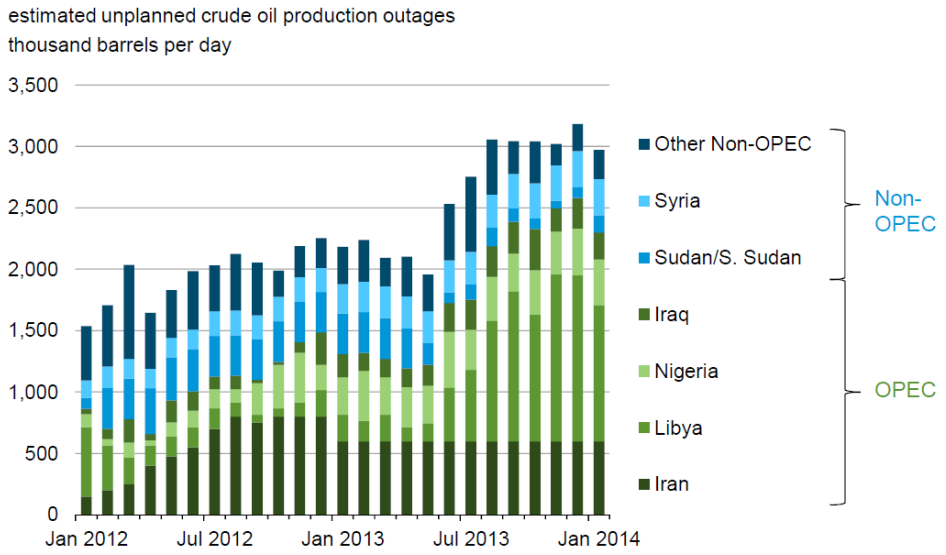
In addition, the cost of not providing security in shipping lanes transited by both domestic goods and oil bound for foreign markets can be significant when compared to the cost of additional infrastructure. "In the spring of 1794, marine insurance premiums on [U.S.] ships sailing for

transatlantic destinations had risen to 25 percent of the total value of ship and cargo…. The burden would be carried not just by merchants, but by farmers who exported their produce and by consumers on imported goods."[53] A similar economic argument could be made today. When U.S. intelligence analysts sifted through the treasure trove of information taken from Osama bin Laden's villa in Abbottabad, one of the things they found was Al Qaeda plans to attack oil tankers.[54] Thus national security dollars spent on securing the commons are a good and appropriate investment.

COUNTERARGUMENT 3: U.S. ENERGY GROWTH WILL PROVIDE ENERGY STABILITY, AND THUS GEOPOLITICAL STABILITY, IN AN UNSTABLE WORLD

As Figure 20 shows, the recent boom in U.S. oil production of more than three million barrels per day has effectively covered the unplanned outages of global oil supply. It is interesting that most of the oil disruptions are from OPEC countries, thus showing an increasingly fragile cartel. However, the potential for a growing list of outages is very real.

Figure 20



Source: EIA, Short-Term Energy Outlook, February 2014

The history of Venezuela is a telling story, with a charismatic army lieutenant colonel by the name of Hugo Chavez coming to power in 1999 via the ballot box less than seven years after attempting a failed coup. It was a combination of social unrest and an oil price collapse that thrust Chavez into power.[55]

Years of populist rule combined with oil sector mismanagement are translating into significant unrest in Venezuela today. The odds are against President Nicolas Maduro, the new leader and heir apparent to Chavez, as he continues to implement the same populist policies. His oil minister, Rafael Ramirez, recently announced a new production target of 6 million barrels per day by 2019. The recent five-year target through 2012 was 5.8 million barrels per day, with only 2.9 million barrels reached in 2013.[56] There is a stronger chance of Venezuela joining the unplanned outage list than reaching this ambitious target. The danger is that a growing list of unplanned outages could easily outpace the North American boom.

There is a significant possibility of additional production disruptions and unplanned outages occurring in the Middle East. Iraq's security situation continues to deteriorate, threatening its struggling production forecasts. In 2013, Iraq averaged 2.4 million barrels per day.[57] 2014 is looking brighter as production is surging to levels not seen since 1979.[58] However, these gains could easily be reversed if Al Qaeda's grip on Ramadi and Fallujah manages to spread to Baghdad and beyond.

Another possible scenario that is somewhat counterintuitive is a return to full supply by the major OPEC countries combined with a continued boom of U.S. tight oil. If this were to occur in the medium-term as the current business cycle peaks, downward pressure on oil prices could be significant. Resulting revenue decreases could introduce significant social pressure, specifically in the petro states where the cost to the national budget is high.

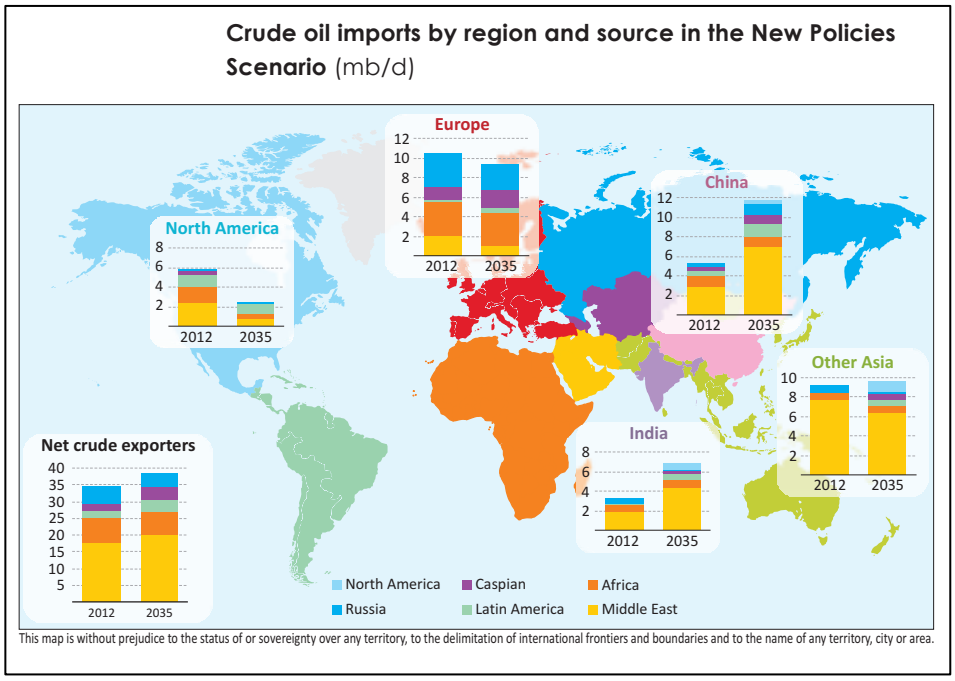
We have already discussed Saudi Arabia, but Russia currently relies on oil revenues for 37 percent of its budget, and needs oil to stay at $110 to balance its budget.[59] Significant downward pressure on prices could provide increased latitude for continued aggressive action against its neighbors, designed in part to distract the Russian public from the budgetary reality. It is not too difficult to imagine a scenario where Russia dusts off its operational war plan against Georgia, but this time doesn't stop until it reaches the oil and gas fields off of Baku, Azerbaijan.

Regardless of the scenario or region, the price of continued engagement now will be more cost effective than intervention at a later date when the global security situation becomes untenable. As Al Qaeda begins to claim victories in western Iraq, there is no doubt that Pentagon and CENTCOM planners are working on scenarios requiring U.S. intervention, even if limited, to secure Iraqi, Kuwaiti, and Saudi oil fields. It is important to emphasize that no imperial intent exists. The plan's primary objective, whether stated or not, would be to return stability to the region and thus the global energy market. The solution to avoiding such a crisis is to continue with sustained and focused engagement in critical regions of the world.

CONCLUSION

"Energy is a central challenge to U.S. foreign policy, not simply one of many challenges."[60] Figure 21 reveals a good news story for the United States as dependency on foreign sources of oil decreases. With expanding energy markets come a smaller trade gap, a stronger dollar, and more domestic jobs. However, if the 2035 figures are good news for the U.S., they are status quo at best for Europe, and troublesome for China as it becomes more dependent on Middle East oil. These trends are important factors in the future development of U.S. foreign policy, energy policy, and grand strategy.

Figure 21



Source: IEA, World Energy Outlook 2013

U.S. grand strategy should not only attempt to "rebalance," it should also focus on shoring up the critical linkages between the historic entanglements and the emerging regions discussed in this paper. In terms of energy, Asia and the Middle East are developing stronger ties on a daily basis. Political and military ties will follow closely behind. The U.S. needs to continue to partner with both regions as these relationships develop.

The U.S. also needs to update its grand strategy through a new lens, one that focuses on developing a well-thought-out energy plan in sync with a strategy-driven defense plan. Focus must be given to

working with allies and peer competitors alike. The world is more closely linked than some like to think, and the U.S. cannot pivot its way out of the areas of which it grows tired.

Secretary of State John Kerry recently said in Davos that "Far from disengaging, America is proud to be more engaged than ever…."[61] Perhaps true, but the proof is in the details. Even though the U.S. still holds a significant economic and military advantage over its peer competitors, declining capacity in military terms does not foster confidence in a world where security in the global commons is increasingly challenged.

Churchill once famously stated, "On no one quality, on no one process, on no one country, on no one route, and on no one field must we be dependent."[62] Diversification is indeed one of the keys to reducing vulnerability. However, global diversification requires global engagement and the military capacity to support it. The current world order was built out of the ashes of WWII under U.S. leadership. It is no longer a stand-alone power, but the U.S. is still the leader of the global security system that guarantees global energy supplies. U.S. credibility as a global leader hangs in the balance. Net global engagement must therefore increase as the U.S. rebalances its forces across key regions to include Asia, the Arctic, and the Middle East.

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