

RESOURCE NATIONALISM OR ENERGY ABUNDANCE?

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Energy security has become a common phrase of late in both the popular and academic literature.

Understood, at the very least, as ensuring sufficient supplies of energy at affordable prices, the concept of energy security has become a lens through which the foreign and domestic policies of states can be analyzed. In practice, this idea refers particularly to oil and natural gas, which along with coal, serve as the major energy sources of the global economy. Whether the issue is the response of the West to Russia's takeover of Crimea, Israel's production of natural gas in the Eastern Mediterranean, American and EU biofuels policy, or China's financial commitments to oil-producing states, the element of energy security often enters into the equation.

It may or may not be the case that the demand for energy will grow faster than supplies over time, and that a country's power and global standing seems to be, in part, a function of its control over energy supplies.¹ Whether or not these statements prove to be true, to the extent that states prepare for such eventualities, addressing potential resource insufficiencies, the goal of energy security will become more likely to be tied to nationalism, leading to what is termed "resource nationalism." With respect to global energy supplies, particularly oil, state actions such as jockeying for access to the Arctic, making claims upon uninhabited islands, or bypassing market mechanisms to purchase oil in state-to-state contracts, suggests that the market-based system of energy trading is coming under stress. Countries want "their" oil and natural gas, and are seeing energy acquisition as a zero-sum game. The result has been more state-led activity in seeking access to energy. The longer-term fear is outright armed conflict over the acquisition of energy.

At the same time, the past few years have seen remarkable growth in oil and gas production among major producers such as the US, Canada, and Russia, along with significant investments and new production of oil and gas in places like Brazil, Israel, China and other countries. One need only to briefly look at the newspapers and energy trade publications to see evidence of new discoveries of oil and gas, growing investments, and new production. These developments suggest that energy supplies are on the increase. If this is true, and energy supplies are able to keep up with rising demands, then sufficient supplies at affordable prices will be more likely to remain available, and markets for energy will be more likely continue to function without state intervention. This development would suggest that concerns over resource insufficiency would diminish, and with it, the prospects for state-to-state conflict over access to energy resources.

This paper examines these two countervailing trends, looking at the extent to which the global energy system is being defined by action that reflects the sense of A) increasing energy abundance as supplies grow, and a diminished likelihood of conflict over energy acquisition, or B) increasing energy scarcity as global demand outstrips supplies, and therefore greater potential for conflict over securing energy supplies.

A SIGN OF THINGS TO COME?

On August 1, 2007, sailors from a Russian mini-submarine planted a Russian flag on the seabed of the Arctic Ocean, 14,000 feet under the ice at the North Pole. As a technological feat, it was not particularly compelling. As a practical matter, it meant little for anything the Russians are currently doing in the Arctic. As a political matter, however, it was significant, and potentially troublesome, as the Russians were making a political claim, whereby planting their flag was connected to a presumed right to exploit natural resources in the area.

Establishing a sovereign right to natural resources in a maritime setting is nothing new or surprising. Countries do this all the time in their territorial waters, and in areas where they are granted economic rights under international law. In waters not globally recognized as part of a particular country's territory, (which is currently the case with regard to Russia's claim to resources at the North Pole), there is a defined process in the Law of the Sea Treaty to consider such claims, but this type of action can also cause problems. Countries such as the United States and Canada were quick to dismiss the Russian move as a stunt. As the Canadian Foreign minister said, "This isn't the 15th century. You can't go around the world and just plant flags and say 'We're claiming this territory'."² But Russia has made the claim – currently under consideration – that significant portion of the Arctic seabed is Russian maritime territory, and that the vast energy resources there are thus Russia's.

If this is a sign of things to come, it may represent a worrisome departure from current practice. One of the benefits the victorious allies provided to the world in the wake of World War II was the restoration and strengthening of an open, global trading regime – a set of rules that made it so countries could acquire the resources they wanted by trading, rather than being tempted to seize or conquer lands with resources they coveted. One of the lessons of the war, in which Japan and Germany pursued (among other things) economic strength and self-sufficiency through war and conquest, was most certainly that there is great value in building and maintaining an open trading order.

This type of approach to the acquisition of goods has been a consistent feature of US foreign policy, which has long seen US security as being tied to a maritime-based, open, global trading system. In the 1940's, with the adoption of the General Agreement on Tariffs and Trade (GATT), the US sought to make its preferred way of doing business global, attempting to get itself and others to move away from the

economic policies, practices and conflicts of the interwar years. In the era of the GATT, and its successor, the World Trade Organization (WTO), this liberal economic order can be understood as a success in preventing great power conflict – over natural resources and other interests. During this period, trading rules and institutions, along with US power and leadership, helped to break, or at least diminish, the links between nationalism, violence and resource sufficiency. In the postwar period, in order for the US, or Japan, or Europe to acquire oil, they have not needed or wanted to conquer or colonize lands that held the oil. The US certainly has a long record of shady dealings in order to install or support friendly governments, whose energy policies conformed to American goals and interests. The ousting of the government of Iran in 1953 is a notable example of this. More recently, the US-led war in 1991 to remove Saddam Hussein's Iraq from Kuwait, and contain Iraq lest it become too dominant in the global oil market, was indeed a massive and violent undertaking. Nonetheless, these examples are a far cry from Japan's Greater East-Asia Co-Prosperity Sphere of the 1930's and 1940's, in which Japan sought to conquer and control most of East Asia and the Western Pacific to ensure its power, along with its economic security and self-sufficiency. The US never sought outright control of Iran's or Iraq's land and oil resources in a way that Japan did in East Asia. The levels of violence, insecurity, destruction and disorder between the two eras is incomparable. One may argue that the pre-WWII period was a different world, but that is exactly the point. It was. Now, countries can largely rely on markets to meet their energy needs, and even the US has thrown its weight around favoring one government over another in a particular country, it has generally been done to get that country to operate within the trading rules and international norms that govern the dominant, liberal trading and economic order.

With respect to energy, this system is starting to show signs of stress. In the efforts states are making to ensure that they will have sufficient and reliable energy supplies – and this means largely oil and natural gas – to fuel their economies, it appears that nationalism is becoming increasingly tied to the problem

resource sufficiency. Countries want “their” oil and natural gas, and are increasingly seeing energy acquisition as a zero-sum game. It can be argued that this is what drove the Russian expedition to the North Pole, which Michael Klare calls “the race for what’s left” and Britain’s *Daily Telegraph* characterized as the beginning of “the world’s last colonial scramble.”³ It is what drives America’s goal of seeking to deny regional power and influence in the Persian Gulf to others, while trying to bolster its own. It is what drives China’s vast undertakings in Africa to secure energy resources. The confluence of energy acquisition and nationalism is increasingly at the core of what is called energy security, and it is unclear if more of this is what the future holds.

ENERGY, ENERGY EVERYWHERE

A look at the newspapers or energy trade publications on any given day seems to suggest that there are efforts in every region around the world to seek out new energy supplies – oil and natural gas in particular – and that these investments are paying off. The need for energy supplies is vast and growing, and both countries and firms are responding to this need. China, and to a lesser extent India, account for a large part of growth in global demand for energy. Both countries saw their total energy consumption increase by about 50% from 2005 to 2011.⁴ Latin American countries such as Brazil, Chile and Mexico have also increased consumption, and are expected to continue to have growing demand for energy. The Middle East and Africa are also projected to have higher energy demands.⁵ The opportunity to capitalize on what appears to be an unending demand for oil and gas, along with the fear of not having enough, have spurred much action, and the results are significant.

The United States has been a global leader in this area. The use of hydraulic fracturing and horizontal drilling technologies to tap into previously unavailable reserves of “tight” oil and shale gas have led to the phenomenal growth of domestic production in recent years. Only as recently as 2005 the United

States imported two-thirds of its daily oil needs. Today the figure is closer to 40%.⁶ The Bakken Shale in North Dakota has propelled the state past Alaska as the country's second largest oil-producing state, producing at this writing (early 2014) roughly 29 million barrels of oil a month, a record high. Only two years earlier, the figure was just under 17 million barrels per month, and 7.3 million two years before that.⁷ In Texas production in the Permian Basin and the Eagle Ford shale has soared, leading the state to produce 89 million barrels of oil per month, roughly 35% of all US oil production.⁸ In both states, new wells are continually coming into production, and one in Texas under development in the Permian Basin (the Spraberry/Wolfcamp field) is said to rival the size of Saudi Arabia's massive Ghawar field, the largest in the world.⁹ As one industry analyst stated, "I don't really think anyone saw this coming...The U.S. shale boom happened much faster than people thought. We're in the middle of a new game. There's nothing in the past that predicts what the future will be."¹⁰

With regard to shale gas in the United States, the story is a similar one. US natural gas production grew only 1% in 2013, which was the lowest annual growth since 2005. The previous two years, however, saw 5% and 7% growth. The Marcellus shale, which stretches from West Virginia to New York, has led the way in the US with regard to shale gas production. Even as many other sites in the US saw no or little growth in 2013, gas output from the Marcellus shale continued to rise.¹¹ While the United States remains a net importer of natural gas, the level of imports has been cut by almost two-thirds since 2007, from 3.8 trillion cubic feet (TCF) to 1.3 TCF in 2013 (the US is expected to become a net exporter by 2020).¹² The availability, and thus continued low prices of natural gas (the average 2013 Henry Hub spot price was \$3.73 per million BTU, down from a high of \$8.86 in 2008), has led to greater usage of natural gas in electricity generation, while prompting debate about the wisdom of exporting liquefied natural gas.¹³ This is a dramatic turn from only a few years ago, when talk of natural gas supplies in the US was about building terminals to import liquefied natural gas.

While other countries may not be able to soon replicate the US experience using fracking technologies to access shale oil and gas (places as diverse as China, Poland, Venezuela, Algeria, Australia and South Africa are estimated to possess hundreds of trillions of cubic feet of technically recoverable shale gas¹⁴), there are still a great number of new oil and gas discoveries being made worldwide, along with expanding production. Numerous countries are involved. A few recent examples include the following.

- The Canadian oil sands in Alberta have become a growing source of petroleum in North America. According to the US Energy Information Administration, “production from the oil sands accounted for over half of Canadian oil output in 2011, a proportion that has steadily increased in recent decades. In total, Alberta was responsible for almost 75 percent of Canadian oil production in 2011.”¹⁵
- In Iraq, after years of warfare, the country has seen oil production increase and new operations come on line. The most recent example of this is the West Qurna-2 field, operated by a consortium led by Russia’s Lukoil, which began pumping oil in March 2014.¹⁶
- Israel is becoming a producer of natural gas with the development of the Tamar and Leviathan gas fields in the Eastern Mediterranean off the Israeli coast. Tamar began producing in March 2013, and the bigger Leviathan is expected to start producing in 2016 or 2017.¹⁷
- In Mexico, the government approved legislation in 2013 to open up the oil industry to foreign investment, which is expected to help Pemex, the state-owned oil company, access sizable, but as yet largely untapped, reserves of oil and gas in the Gulf of Mexico.¹⁸

- Brazil's Petrobras leads a consortium that in October 2013 won the rights to develop the Libra oil field off the coast of Brazil. Libra is estimated to hold anywhere from 4-15 billion barrels of oil. Petrobras also discovered new offshore natural gas potential at the Jupiter field in late 2013, and is developing the Lula oil field. As the EIA states, "The world's largest oil discoveries in recent years have come from Brazil's offshore, pre-salt basins." And that "The potential impact of the discoveries upon world oil markets is vast. However, considerable challenges still must be overcome to produce these reserves."¹⁹
- In Malaysia several new gas fields with combined estimated reserves of 7.3 trillion cubic feet of natural gas were discovered in 2012, along with oil fields containing a possible 1.4 billion barrels of oil.²⁰
- In southern Australia a discovery of between 133 billion and 233 billion barrels of shale oil trapped in the region's rocks was reported in October 2013, though the initial report suggested that only 3.5 billion barrels is recoverable.²¹

These examples are only a portion of the new production operations and discoveries being made around the world. After all, the financial rewards of oil and gas development are immense, the demand for energy resources continues to rise, and the technology to find and access these resources continues to improve.

MARKETS, STATES AND ENERGY

Alongside the ongoing growth in exploration and production of oil and natural gas, there are other circumstances to be considered. New proved and unproved reserves do not mean that the world's energy problems are about to be solved for some extended period of time, or that all of the potentially recoverable reserves will actually materialize and one day become available on the market. Nor does this suggest that states will not conflict with one another over energy resources in the coming years and decades. What this activity suggests is that there are multiple developments occurring simultaneously in response to concerns over energy security. One path involves the market, and the role of firms and investors responding to high energy demand and high oil prices to find new supplies and get them to customers around the world. The other path involves the role of states in taking a more assertive role in assuring access to energy and control over its production and use. In a world characterized by relative energy abundance, and an expectation of continued abundance, it is expected that market mechanisms will be less likely to be bypassed by state action, as fears over energy security – sufficient, reliable supplies at affordable prices – will be diminished. In a world characterized by growing scarcity, and/or an expectation of growing scarcity, it is expected that state action to avoid or bypass energy markets will become more prevalent.

The Giants in the Room – The US and China

As the two largest consumers of oil in the world, the US and China, which accounted for over 29 million barrels per day in 2013 (out of 90 million barrels per day worldwide), heavily influence both the global oil market and the concern over its future.²² Still, energy policy in any country is defined not only by supply, demand and price, along with projections about these things, but upon a number of factors: whether the country is a producer and/or exporter of energy; the opportunities and threats the country

faces; its economy; its type of government; and its leadership and foreign policy, and the relationship among government agencies, interest groups, and energy companies, to name a few.²³

Because of its position in global affairs, its energy demand, and the fact that international energy trading occurs largely in dollars, the United States has had an outsize influence on the shape of the global energy trading system. Despite its ideological and political attachment to market capitalism, the United States has not been willing to leave energy development and markets entirely free of government control and planning. From early in the 20th century, US energy policy has understood adequate supply as something more than total quantity of energy, but also by distribution and affordability of said quantities, such that consumer and corporate interests were addressed. The breakup of Standard Oil, the creation of the Tennessee Valley Authority and Bonneville Power Administration, the imposition of quotas on imported oil, the regulation of natural gas markets, the financial support provided to nuclear energy development – these policies have bridged the gap between the aim of providing consumers fair access and prices, and the aim of relying entirely on market mechanisms to allocate energy resources. Policy has been both cause and consequence of a changing conception of energy security in the US – away from being a strictly “marketable good,” and toward the status of being a “marketable public good” that requires both state action and markets to ensure energy security.

This approach continues to reflect American actions in global energy markets. In thinking about oil, US energy policy has not been designed only to ensure exclusive American access to oil resources, or even to assure that contracts go to American companies. Instead, its aim has largely been aimed toward assurance that a global energy market can continue to function. In other words, it uses policy and state power to allow a market to allocate oil resources, rather than using policy and power to supplant a global oil market, and this arrangement in itself serves and reflects US interests in maintaining a steady,

affordable supply of oil. An example of this is the fact that one of the biggest beneficiaries of expanded Iraqi oil production is China. As reported in June 2013, China purchases half of Iraqi oil output.²⁴ But even beyond this, Chinese firms are winning contracts from the Iraqi government to invest in oil production. For example, the China National Petroleum Company owns stakes in the Rumaila and Halfaya oil projects in Iraq, and PetroChina has a 25 per cent stake in Iraq's West Qurna 1 project.²⁵ The government of China has also pledged to make additional investments in Iraq to boost oil production.

This circumstance may seem ironic or problematic. After all, it seems that the US fought a war and maintains a military presence in the region to protect what has become China's oil. As one former Defense Department official in the Bush administration put it, "The Chinese had nothing to do with the war, but from an economic standpoint they are benefiting from it, and our Fifth Fleet and air forces are helping to assure their supply."²⁶ Considering that US oil companies are not state owned and do not necessarily pursue state interests, while Chinese oil companies are at least in part state owned and do more readily reflect state policy and interests, it may be the case that the US is making a strategic mistake and being taken advantage of. However, employing the point of view that the goal of US oil policy in Iraq is primarily designed to bring Iraq further into the global oil market, then the fact that China invests in the Iraqi oil industry and purchases half of Iraqi output may not be problematic, but instead may serve as proof of the policy and its success in achieving the intended result.

US aims and practices notwithstanding (and the admittedly generous explanation of them provided above), it also seems readily apparent that there is a trend around the world increasingly leaning in the direction of resource nationalism, of states trying to secure control over "their" energy resources, whether they are consumers or producers.

There are two varieties of resource nationalism. One concerns “efforts by energy-rich countries to increase their control over (and the benefits from) natural resource exploitation by limiting the role of international companies and other states in the energy sector. These kind of actions range from soft resource nationalism that involves tweaking fiscal arrangements to get a bigger tax share for the state, to outright expropriation and nationalization of foreign-owned companies.”²⁷ Numerous examples of this abound, most particularly in the case of OPEC countries in the 1970’s renegotiating contracts with oil companies, and expropriating property awarded in contracts decades earlier. With respect to a more recent example, the case of Russia’s recent cutoff (and threatened cutoffs) of natural gas to Ukraine and other European countries, the targets of state action are not only companies, but other countries.

The second form of resource nationalism involves consumer states taking actions to ensure the availability of supplies that they do not directly control. The US-led effort in the 1990-91 Gulf War can be seen as an example of this, as can the reflagging of Kuwaiti oil tankers as US-flagged ships (protected by the US Navy) during the Iran-Iraq war in the 1980’s. Currently, China’s actions, as they do in many contexts, loom large in the popular and academic literature, and the case of Chinese investment in Iraq can be understood as an example of a consumer pursuing resource nationalism. It can be credibly argued that Chinese firms readily agree to contract terms set by Iraq (in which royalties, taxes and fees can take up to 90% or more of what might otherwise be a firm’s profit), because China is more interested in energy to fuel its economy than profits for its oil companies, which are not to be seen as independent actors but as tools of China’s foreign policy.²⁸ In this light, the failed attempt by the China National Offshore Oil Corporation (CNOOC) to acquire US-based Unocal in 2005 is but another example of China’s foreign policy aim of securing ever-greater oil supplies being carried out by state-owned Chinese oil companies. (Still, there is no agreement that this is a threatening development. As one editorial put it, “If the Chinese want to gulp more oil, it’s high time that Sinopec and other big Chinese

energy companies spend the money and take the risks of getting the stuff out of the ground...if the Chinese want to settle for lower margins in Iraq – and help keep a lid on gas prices in the process – what's the problem?"²⁹) Of course, the American opposition to the proposed sale of Unocal was evidence of the US acting in a similar, nationalist manner.

Other actions taken by the government of China and Chinese companies also can be seen to fit this understanding of resource nationalism. Two notable examples involve Sudan and Kazakhstan.

- China has made extensive energy investments in and oil purchases from Sudan and South Sudan, in spite of criticism it has been supporting/fueling war and human rights violations. Chinese firms own a large stake in Sudanese and South Sudanese oil production operations, which supply China with oil – 80% of South Sudan's oil goes to China.³⁰ (The secession of South Sudan gave it control of most of the two country's oil fields, though Sudan still owns/controls much of the pipeline infrastructure. South Sudan has stopped sending oil to Sudan, however, due to a dispute over transit revenues.) As one former child soldier and now South Sudanese celebrity, Emmanuel Jal, described the relationship, "The Chinese don't influence our politics. They don't comment on it, and what they want, they pay for – sometimes double the amount. This tends to make all Africans happy – from the dictators to the democrats. There isn't a party in Africa that doesn't like them. Even if you're a rebel movement and you say to them you can secure gold, the Chinese will simply say they want to buy it. The only foreign policy advice I heard from China was when they said to Sudan, 'Don't go back to war.' That's all they said. They didn't push anything else."³¹

- China purchases oil from Kazakhstan via a pipeline system between the two countries that became operational in various stages starting in 2006. In 2013 China imported 86 million barrels of oil from this source, a record, and a new contract will allow oil from Russia's Rosneft to be sold to China via the Kazakh-China pipeline.³² This direct, state-to-state supply agreement between two national oil companies, in effect, sidesteps the global oil market to ensure oil supplies for China. Other Chinese investment in Kazakhstan, such as a \$5 billion investment in the Kashagan oilfield in the Caspian Sea, and another agreement to build an oil refinery in Kazakhstan, all reflect the quest for energy security via state action as opposed to strictly market mechanisms.³³

Beyond these examples, China's dispute with Japan over the Senkaku/Diaoyu Islands are also consistent with the view that China is pursuing resource nationalism, as is China's plan to open an oil futures market in Shanghai priced in RMB.³⁴ Such actions reflect a growing concern in China over securing energy to keep the country's economy growing, while bolstering its global power and influence.

There seem to be two types of responses to China's actions. One is that this is simply emblematic, and the most significant example, of a global phenomenon, in which competition for control and access to energy resources is ramping up everywhere. Increased state intervention and participation in oil markets, or bypassing oil markets, is the new normal, and countries everywhere will have to become increasingly attuned to this development in order to secure themselves.

Another response is that things are not all that different now. The world, and particularly Americans, have simply grown accustomed to US superiority, and American concerns associated with China, or any other country, pursuing its energy security are nothing more than a double standard, hypocrisy. The

United States for decades has sought to set the parameters of the global oil market, via everything from its policy in the Middle East, to its support for American energy companies gaining rights and access to exploit resources worldwide, to its domestic policy regarding oil production and markets. The United States has often characterized its actions as those of a disinterested party that is not simply pursuing its own selfish, national interests, but a larger, general interest, that serves oil producers and consumers around the world. But perhaps this is nothing more than the self-justification of a superpower, a common conceit among great powers. To what extent, then, is it appropriate to accuse China of aggressive behavior or resource nationalism when American companies invest in oil projects everywhere, or its citizens work on oil projects in other countries? The US government and American energy companies have been doing these things for decades. In addition, the United States has turned a blind eye toward dictatorship and human rights abuses when other national interests have been involved. The United States has a futures market priced in its own currency. The United States deploys military forces to ensure the flow of oil, and long ago announced in the Carter Doctrine that the United States would use military force to stop the cutoff of oil supplies. If China announced the development of a military command structure that divided up the world into different regions, and said it would intervene as necessary to protect global peace and security, or the flow of oil, the United States would no doubt react strongly and negatively. But when the United States does this, it is assumed to be appropriate, almost natural.

WHICH WORLD WILL WE LIVE IN?

This analysis is incomplete in that it has only briefly considered the United and China, and considered not at all the role of Russia, another energy giant flexing its muscles, and doing so more as a major producer of energy rather than as a consumer. Moreover, rather than both asking and answering a question, this analysis has (as yet) only asked a question. It is unclear if the American boom in oil and gas

production will be able to translate into a long-term global trend, whether it will be sufficient to offset a large portion of growing global demand, if it is only a domestic phenomenon, or worse, a market bubble that will soon collapse. It is unclear if China's version of state capitalism will become more statist, or more market oriented with regard to energy. It is also unclear if Russia's actions with natural gas prices and supplies to Europe, along with its takeover of Crimea and support for political opposition in Ukraine, will spur a drive toward greater resource nationalism.

It is not unreasonable to see that the actions of energy giants such as the US, China and Russia can spur/reinforce a dangerous trend that prompts others to respond in a way that fuels even more resource nationalism. It is also not unreasonable to see that markets will ultimately supply the world with its energy needs, and that the alternatives to market mechanisms will not be worth the price. As analyst Thomas P.M. Barnett asks, "Are we going to fight over the Middle East, when the majority of that oil already flows to Asia and the U.S. is on the cusp of an industrial renaissance thanks to shale gas and tight oil? Or with China holding the world's largest known reserves of shale gas? Are we going to fight it out in Africa over platinum group metals? (Don't even get me started on the canard that is "rare earth" metals.) In this day and age of globally integrated production chains? Honestly, these strategic rationales all start looking rather comical once they escape the confines of the Pentagon and meet the fresh air of real-world global economics."³⁵ The answer to these questions are probably best provided by the former Chinese Premier Chou En-Lai, who famously said to President Nixon in 1972 about his view of the impact of the French Revolution on Western civilization, it's too soon to tell.³⁶

¹ The view that a new standard of power, involving energy as opposed to only military force, is captured clearly in Michael Klare, *Rising Powers, Shrinking Planet*, 2008.

² BBC News, "Russia Plants Flag Under North Pole," August 2, 2007,

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- ⁵ US Energy Information Administration, *International Energy Outlook 2013*; International Energy Agency, *World Energy Outlook 2013*.
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¹⁵ US Energy Information Administration, Canada Analysis Brief, <http://www.eia.gov/countries/cab.cfm?fips=CA>.

¹⁶ “Russia’s Lukoil Opens Giant Iraq Oil Field, Adding to Crude Glut,” *The Telegraph*, March 29, 2014, <http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/10731708/Russias-Lukoil-opens-giant-Iraq-oil-field-adding-to-crude-glut.html>.

¹⁷ “Israel’s Tamar Gas Field Signs \$500 Million Jordanian Export Deal,” *Haaretz*, February 19, 2014, <http://www.haaretz.com/business/.premium-1.575155>.

¹⁸ “Pemex Opening to Foreign Investment Will Pave the Way to Mexico’s Deepwater Oil Fields,” *International Business Daily*, March 18, 2014, <http://www.ibtimes.com/pemex-opening-foreign-investment-will-pave-way-mexicos-deepwater-oil-fields-1562128>.

¹⁹ US Energy Information Administration, Brazil Analysis Brief, <http://www.eia.gov/countries/cab.cfm?fips=br>.

²⁰ “Malaysia Beats Indonesia in New Oil and Gas Discovery,” *The Jakarta Post*, February 9, 2013, <http://www.thejakartapost.com/news/2013/02/19/malaysia-beats-indonesia-new-oil-and-gas-discovery.html>.

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²² US Energy Information Administration, *Short Term Energy and Summer Fuels Outlook*, Global Petroleum and Other Liquids, April 8, 2014, http://www.eia.gov/forecasts/steo/report/global_oil.cfm.

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