Drowning in Oil: Indicators of Instability in a Low Price Environment

Report by the Intelligence Analysis Practicum Team for the Defense Intelligence Agency

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Executive Summary

In June 2014, the world market price of crude oil began a steady decline from $115 per barrel (pb) to its low point of approximately $43pb in January 2015. The decrease in the world market price was brought on by OPEC’s changing policy objectives, increased U.S. oil production, a decline in global demand, and decreasing geopolitical concerns regarding supply disruption in countries such as Libya and Iraq. While many importing countries have benefited from the decline in oil prices, the effects of this drop are not necessarily positive worldwide. Some of the world’s largest oil-producing states have struggled to maintain economic and political stability in the face of declining oil revenue. The destabilizing effect of low oil prices has serious implications for countries and regions of critical importance to U.S. national security interests.

This report was commissioned to develop a preliminary framework of analysis that details indicators of an impending security crisis in a low oil price environment. For the purpose of this report, a crisis is identified as political, economic, or social instability that potentially warrants U.S. military attention. Drawing on open source information on historical oil price dips and today’s oil market, the report first identifies key antecedent conditions that make a state vulnerable to oil price volatility and/or more susceptible to instability. These conditions include the extent of a government’s reliance on oil exports to fund its budget, the degree of government planning in its national economy, and the value of a country’s oil exports as a percentage of total national exports, among other factors. Conditions illustrate a country’s structural dependence on oil and resultant risk of crisis as global prices fluctuate.

After identifying conditions of systemic vulnerability to low oil prices, the report then discusses the economic, oil-industry-specific, social, and political-military indicators that warn of an imminent or nascent crisis spurred by low oil prices. As countries face declining oil revenue, a range of indicators—including a government’s inability to maintain fiscal balance under the current market price of oil, the implementation of austerity measures, or an increase in civil unrest, among others—may emerge to signal political or economic unraveling. These indicators are the warning beacons of instability that may be utilized to develop timely intelligence forecasts.

To demonstrate the analytical value of the conditions-indicators framework, the report offers eight profiles of major oil-producing countries around the world. These profiles detail the conditions and indicators that each country has already exhibited, and explain the potential impact on vital U.S. interests of an oil-induced crisis in those countries. The application of the report’s framework to these country profiles enables an assessment of the comparative risks of crisis for each. Countries such as Venezuela and Iraq are presented as high-risk because they are heavily dependent on oil revenue for all government functions, do not possess structural resiliencies such as large sovereign wealth funds, and have demonstrated a significant number of indicators. Conversely, countries such as Saudi Arabia and Azerbaijan, which continue to demonstrate conditions of high resilience to oil price fluctuations even as some oil-related indicators manifest, are presented as low-risk.

Supporting the development of the analytical framework are two historical case studies that demonstrate the manner in which low oil prices have precipitated crisis in the past: Iraq’s 1990 invasion of Kuwait and the collapse of the Soviet Union in 1991. These case studies serve as illustrations of the prevailing and
recurring conditions and indicators that are identified elsewhere in the report. Moreover, they underscore the potential scope and severity of oil-induced crises that have demanded U.S. military attention in the past.

Recognizing the historical volatility of global oil prices, the report lastly considers the impact of a rise in oil prices on key countries and regions. The report finds that regions such as the South China Sea and the Levant Basin may face rising instability if and when the price of oil rebounds. Ultimately, this section concludes that the ability of consumer and producer states to adapt to price fluctuations is of vital importance in preventing or mitigating the negative consequences of an eventual rise in oil prices.

The report concludes that a decline in the world market price of oil has had serious negative consequences for oil-producing countries in the past, and that oil price fluctuations continue to interfere with states’ economic and political stability at present. These consequences may be assessed through the lens of the analytical framework presented in this report, with the ultimate goal of improving U.S. awareness of, and responsiveness to, security crises spurred by low oil prices.
Introduction

In mid-2014, world oil prices crashed to their lowest point in more than four years. This price plunge has had ramifications for nearly every country in the world. Low oil prices benefit consumer states, where gasoline is cheaper than it has been in years. For producing states that are reliant on oil sales, the drop in the world market price (WMP) of oil is far from ideal. While the impact of the drop varies from producer to producer, many states depend on oil revenue to finance their fiscal budgets. For these countries, a dip in the price of oil can have destabilizing effects on their political and economic stability, as they are forced to confront revenue shortfalls. This destabilization can create security crises that affect U.S. interests around the world. The purpose of this paper is to offer a preliminary, dynamic framework to identify indicators of a potential security crisis that could be brought about by a low world market price of oil. Some countries are already showing signs of crisis as they confront economic woes and political turbulence either spurred or exacerbated by today’s low oil price environment. The number and degree of crises will largely depend on how low the price of oil falls and how long the low oil price lasts. By applying the proposed framework to the current and future low oil price environments, the team hopes to improve U.S. awareness of, and responsiveness to, security crises spurred by low oil prices.

The report is broken down into the following sections: First, it explains the reasons behind the recent oil price dip. Second, this research identifies and explains the antecedent conditions that influence a country’s exposure to risk and resilience when operating in a low oil price environment. Next, the report discusses the economic, oil-industry-specific, social, and political-military indicators that may signal that a country is headed towards an oil-related crisis. Then, the paper identifies and analyzes several oil producing states that have been negatively impacted by the oil price plunge. In support of the analytical framework the report examines two historical case studies that detail the progression of a security crisis, brought on by low oil prices. The paper wraps up with a look at what happens when the price of oil rises and identifies antecedent conditions that make an oil-consuming state most vulnerable to the negative effects of that rise. The report also presents several geographic areas that may be a source of greater contention, aggression, and instability when prices rebound.

Explaining today’s low oil price environment

In June 2014, the world market price of oil began a steady descent from $115 per barrel (pb) to ~$66pb as of April 2015. The fall in oil prices can largely be attributed to the following four factors:

- **OPEC’s changing policy objectives:** In November 2014, the Organization of the Petroleum Exporting Countries (OPEC) failed to agree on production cuts, which resulted in a decision to maintain production levels at 30 million barrels per day (bpd). OPEC’s deferral of production cuts placed greater downward pressure on the WMP of oil and accelerated the fall of oil prices. This decision signaled a shift in the organization’s previous policy objectives from targeting prices to competing for market share and curbing

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1 Terms such as “producer,” “oil-exporter,” and “net-exporter” as well as similar labels, are all used synonymously in this report to refer to states that produce and export oil. The same applies for consumer-related terms like “consumer,” “oil-importer,” and “net-importer,” among others; they refer to states that mainly import and consume oil.

2 For the purpose of this paper, a security crisis has been defined as: A condition of economic, social, or political instability or significant risk induced by a sustained low price in oil that warrants U.S. Military attention.


unconventional U.S. oil production.\(^5\)

- **Increased U.S. production:** A steady uptick in oil prices over the last decade has incentivized investment in U.S. oil production.\(^6\) The 2009 collapse in natural gas prices, new discoveries in offshore drilling, and advancements in fracking technology have opened the door to new sources of oil. In June 2014, the International Energy Agency (IEA) reported that the U.S. had become the world’s largest producer of oil and natural gas liquids.\(^7\) The large supply from U.S. production, combined with lower demand for oil, contributed to the price plunge.

- **Low demand:** Slower-than-expected economic growth, particularly in European and Asian markets, has led to subdued global oil demand growth in the second half of 2014. It slowed to below 500,000 bpd, the lowest level in two and a half years.\(^8,9,10\)

- **Diminishing geopolitical concerns about supply disruptions:** Historically, oil consumers have been subject to sporadic oil price increases due to supply disruptions resulting from conflict within oil producing countries.\(^11\) However, current geopolitical conflict has not elicited the same effect. In 2014, Libya’s El Sharara oil field increased production and is currently pushing output to 350,000 bpd despite the country’s ongoing civil war.\(^12\) Iraq continues to export oil from its southern Basra ports while battling the Islamic State (IS).

It is important to note that oil price volatility is not a new phenomenon. In addition, today’s “low” oil price is not as low as it has been in the past. *Appendix A provides a graph of crude oil price from 1861-2013.* Still, the price of a barrel of oil has been cut in half since June 2014, reaching levels last seen during the 2009 recession. It remains unclear when oil prices will rebound.\(^13\)

**Methodology**

The report provides a preliminary analytical framework for identifying indicators and evaluating the potential for a security crisis as a result of low oil prices. The methodology utilized in researching this paper involved the collection of open source information from academic journals; private and public oil sector reports and country reports; experts in the energy sector and in certain regions of the world; and historical and current media stories. The team then analyzed the compiled information and created a framework for analysis to be applied state by state. This study is primarily qualitative in nature, though it is supplemented with some quantitative studies. Research collected for this report focused on oil-related instability, resilience against and vulnerability to oil price shocks, in addition to instability in general. Indicators and conditions were developed based on the findings of the historical Iraq and USSR case

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\(^5\) The World Bank, “Understanding the Plunge in Oil Prices.”
\(^11\) This was evident during Iraq’s invasion of Kuwait in August 1990. The invasion, coupled with sanctions imposed on Iraq by the international community in response to Iraq’s aggression, removed four billion barrels of oil from the market. Production was compensated with “relief” oil from primarily Saudi Arabia, but also Venezuela and the United Arab Emirates. See: Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York: Free Press, 2008).
studies, among others. Conditions and indicators were also derived from recurring trends in several rounds of research on major oil producers and consumers, as defined by their share of global production and consumption according to the Energy Information Administration (EIA).

Research took place over the course of four months. The project began with the breakdown of the team into three lines of research: net-exporter countries, net-importer countries, and prospective historical case study countries. Researchers in the first two groups were assigned a preliminary set of 24 countries in their respective categories to investigate; they examined both historical and contemporary cases. Conditions and indicators were identified for inclusion in this report largely because of their recurring nature in past and present low oil price environments. Others indicators were conceptualized by the team. The country profiles included in the report were selected to demonstrate the wide and varied second, third, and fourth order effects of a low or declining WMP of oil. The case study researchers explored entire periods of low oil price in the past and investigated 5 specific country experiences during such periods. The Iraq and Soviet Union case studies were chosen to demonstrate the chronicled nature of certain conditions and indicators and to provide historical examples of extreme, worst-case scenarios of security crises caused, accelerated, or exacerbated by a low oil price environment.

The team recognizes that the correlation between a drop in oil price and a seemingly subsequent event or indicator does not imply causation. Still, this long-term research project has led the team to believe that a dip in the price of oil has been a causal variable in certain major events or decisions in the past. In other cases, the low oil price environment has instead exacerbated or accelerated unstable situations that were already present at the onset of the drop. More research is required to explore these connections.

**Conditions**

Recognizing the volatility of oil prices, it is important to determine a state’s exposure to instability as a result of such fluctuations. The impact of a low WMP on a state varies in type and magnitude based on certain domestic conditions. Conditions are the key factors that make up the state’s pre-existing political, economic, and social environment and influence the state’s reaction to fluctuations in the world market price of oil. Oil-specific conditions illustrate a state’s structural dependence on the oil industry and subsequent risk when the market price drops. Furthermore, there are several governance-related conditions that further or reduce the degree of political and economic risk to which a state is exposed. On their own, the governance-related conditions may not lay the groundwork for a crisis, but when coupled with the key structural oil dependency conditions, they can have an exacerbating effect when there is a dip in the price of oil. Collectively, these conditions offer a foundation to assess a given state’s risk or resilience to fluctuating oil prices.

The following factors make up the oil-specific conditions that determine a state’s structural dependence on the oil industry. The greater a state’s structural dependence, the more at risk the state is to instability in light of an oil price dip.

- **Degree of state planning:** If the government plays a large role in running the economy, bureaucratic or political considerations may impede the industry’s ability to adjust or respond to oil price
fluctuations in a flexible and/or expedient manner.\textsuperscript{14}

- **Role of the state in the oil industry:** For many of the states highlighted in this report, the oil sector is made up of national oil companies (NOCs) from which the state directly collects revenue. For these states, a dip in the price of oil will mean less revenue for the government, which negatively impacts the state’s fiscal accounts. This is in contrast to a state where the oil sector is operated by taxable private companies in which the state does not play a role in company operations or revenue collection.\textsuperscript{15} NOCs gain many competitive advantages over private companies and increase the burden on the state when they face growing risk or difficulty. States that issue debt or act as the guarantor of debt on behalf of the NOC(s) are obligated to pay for it if the company cannot. In addition, NOCs may be used by government leadership as an instrument of influence by such means as granting favors or giving unfair advantages to political allies.\textsuperscript{16}

- **Degree of dependence on oil revenue to create and balance budget:** States that greatly depend on revenue from state-owned oil companies to create and balance fiscal budgets face risk when the price of oil falls. The degree of risk depends on a state’s fiscal breakeven price per barrel of oil, or the price at which oil needs to be sold in order for a state to balance its budget. The higher the breakeven price, the greater the budget deficit a state will face as the price of oil drops.\textsuperscript{17}

- **Oil export ratio:** The ratio of the value of oil exports as a percentage of total national exports serves to gauge how dependent an economy is on producing and selling oil for economic growth.\textsuperscript{18} Without a diverse export portfolio, a state is at even greater risk to oil price volatility. For states with a high oil export ratio, an extended period of low global oil price can lead to major trade deficits, which would negatively impact the state’s economy.

Several governance-related conditions make certain states more or less resilient to instability in general. States that are both structurally dependent on the oil sector and less resilient to instability are of most concern in a low oil price environment. Some of these conditions are related to a state’s political structure, while others are related to a state’s financial make-up.

**Regime type** is important as certain regime types are known to be more or less stable.\textsuperscript{19} Full democracies and full autocracies tend to be relatively stable, while partial democracies and partial autocracies are more prone to instability.\textsuperscript{20,21} Full autocracies vary in how vulnerable they are to instability, yet these subsets are still more stable than their partial counterparts.\textsuperscript{22} The degree of risk of instability is determined in part

\textsuperscript{14} Effects of state control on an economy are discussed in: Thane Gustafson, “Putin’s Petroleum Problem,” *Foreign Affairs* 91 (2012): 83-96.


\textsuperscript{18} Securing America’s Future Energy, *Oil Security Index*, October 2013, p. 3.


\textsuperscript{20} Partial democracies are defined as democratic regimes that lack free and fair elections or political participation from the public. Goldstone et al,”Global Model for Forecasting Political Instability,” 195-197.

\textsuperscript{21} Partial autocracies are defined as regimes that hold elections but restrict participation or meaningful contest for the office of chief executive. Goldstone et al,”Global Model for Forecasting Political Instability,” 195-197.

\textsuperscript{22} Against civil conflict, single-party autocracies and monarchies are more resilient due to greater control over co-opting and repression institutions and mechanisms in both cases, and elements of tradition and legitimacy in the latter. Military regimes, however, are more susceptible to civil conflicts due to the absence of institutional capabilities to co-opt rivals. Personalist autocracies are likewise susceptible to civil conflict due to their lack of institutional supports for the regime and reliance upon the head of state’s personal connections to rule. See: Hanne Fjelde, “Generals, Dictators, and Kings: Authoritarian Regimes and Civil Conflict, 1973-2004,” *Conflict Management and Peace Science* 27 (2010):
by the relative strength or weakness of institutions; the state’s capacity to utilize co-option and repression; and the likelihood of a state to listen to and redress grievances of its people.\textsuperscript{23} Whether or not a state has a **revolutionary government** is also important. States that have revolutionary governments and earn more than 10 percent of their GDP from exporting oil are 2.5 times more likely to engage in international conflict.\textsuperscript{24} One must consider how the price of oil influences this tendency. Furthermore, a state’s degree of **factionalism** may also impact its risk to instability.\textsuperscript{25} As oil prices drop, a state can become politically unstable as its leader(s) grapple with the loss of oil revenue needed to maintain state operations and implement policies. In a state with a large degree of competition, different factions may take advantage of the perceived weakness of the government and attempt to delegitimize it for their own gain by inciting a coup, mass protest, or other subversive activity.\textsuperscript{26} Other conditions to consider include the **degree of corruption** within a state and **confidence in government**. A government that is perceived as unjust, incompetent, or unable to meet the needs of its populace may not be able to maintain popular support.\textsuperscript{27} The falling price of oil can erode confidence if the people do not believe that the government can effectively respond to deteriorating economic conditions.

It is important to consider conditions related to a state’s financial resilience in addition to those related to its political makeup. This includes the **size of a state’s sovereign wealth fund** (SWF), which is a state-owned investment fund typically financed by commodities revenue, especially oil sales.\textsuperscript{28} Governments rely on SWFs for financial stability and recovery during economic downturn. A large SWF provides a fiscal safety net from which the government can draw in light of falling oil revenue. It also affords a government considerable freedom in policy decision-making.\textsuperscript{29,30} Additionally, a state’s **national debt**, the **amount of foreign reserves** it holds, and its **credit rating**, are among the other major finance-related factors that should be considered when determining a state’s financial risk or resilience in a low oil price environment. The stronger and more secure a state’s financial position is, before a drop in the WMP of oil, the more resilient it will be to the destabilizing effects of that drop.

\textsuperscript{208-215.}
\textsuperscript{23} Fjelde, “Generals, Dictators and Kings,” 215-216. The type of repression matters as well during times of economic crisis, with repression against dissidents coming in the form of political and legal restrictions proving more effective overall than harsher restrictions on physical integrity. Institutions are still required for effective use of repressive measures. See: Dan Tanneberg, Christoph Stefes, and Wolfgang Merkel, “Hard Times and Regime Failure: Autocratic Responses to Economic Downturns,” Contemporary Politics 19 (2013), 125-126.
\textsuperscript{24} Revolutionary governments are defined as those brought about by deposing the previous government through mass revolt, coup, or similar process. Colgan, Jeff, “Oil, Domestic Politics, and International Conflict” Energy Research & Social Science 1 (2014): 201. Factionalism in this context refers to “a pattern of sharply polarized and uncompromising competition between blocs pursuing parochial interests at the national level . . . [i]t is often accompanied by confrontational mass mobilization . . . and by the intimidation or manipulation of electoral competition.” Goldstone et al., “Global Model for Forecasting Political Instability,” 196.
\textsuperscript{25} Ibid. 196-197.
\textsuperscript{28} Saudi Arabia, for example, has been able to implement an oil production policy that favors market share at the cost of near-term profits precisely because its SWF is more than double the government’s annual revenue (See: Central Intelligence Agency. “The World Factbook: Saudi Arabia,” last modified April 21, 2015. https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html). Conversely, a country such as Venezuela, with a SWF that would cover less than 1 percent of annual expenditures, has little choice but to implement economic, social, and political policies that are near-sighted and potentially destabilizing. (see: Central Intelligence Agency. “The World Factbook: Venezuela,” last modified April 21, 2015, https://www.cia.gov/library/publications/the-world-factbook/geos/ve.html)
\textsuperscript{29} Beyond their role as potential drivers of state-level economic distress, SWFs also may drive regional and global economic decline as a consequence of specific asset allocation. SWFs typically are invested in low-risk, high-liquidity instruments such as government bonds, including U.S. Treasuries; a rapid unwinding of this type of asset by a major stakeholder could flood bond markets, forcing issuing governments to increase yields and reducing the market value of SWFs that remain invested in certain bonds. (See Chris Vellacott, “Oil states’ recourse to sovereign funds could rattle world markets,” Reuters, December 3, 2014, accessed April 18, 2015, http://www.reuters.com/article/2014/12/04/us-sovereignwealth-funds-idUSKCN0JH25I20141204). Additionally, some SWFs also prioritize commercial real estate investments and, as a consequence of rapid divestment, could negatively influence the commercial real estate markets in cities such as London or Dubai.
All of these conditions are important to examine when determining a state’s degree of risk or resilience to the destabilizing effects of a low oil price. States that are highly exposed to instability and heavily dependent on the oil sector are of utmost concern during a low oil price environment. They are more likely to enter a crisis spurred or exacerbated by the drop in oil price than countries that are not structurally dependent on the oil sector and/or less prone to instability. By identifying ‘high-risk’ states through the examination of these conditions, one can better identify countries or regions most likely to display indicators of crisis, which are explained in the next section.

**Indicators**

Indicators are events, decisions, or developments that signal a potential, imminent, or incipient crisis that threatens U.S. interests. The indicators below are separated into four categories: economic, oil industry-specific, social, and political-military. The actors prompting these indicators may be state or non-state, internal or external. While some of the following indicators will only arise in a low oil price environment, others are indicators of crisis regardless of the price of oil. Furthermore, this list is not exhaustive. Other indicators related to the oil sector and instability should be added as they are uncovered.

These indicators are not meant to display a linear progression - each indicator may arise in the absence of others. While it seems intuitive that the more indicators a state displays, the greater the chance of crisis, there is no required number of indicators to signal an imminent crisis. Finally, a crisis can come in many forms. The following have been identified as indicators of crisis:

**Economic**

**World market price average falls below a state’s fiscal budget breakeven price**

For states that own or control the production and exportation of oil, stability in the world market price (WMP) is essential to the formation of the state’s fiscal budget. State-run social programs and financial commitments are developed with an expectation of what the average WMP of oil will be. This benchmark price becomes the state’s fiscal breakeven price. In addition to world supply and demand, market speculators, oil technology investments, exploration and discovery of oil deposits, the activities of non-state actors, and states’ political and economic policies impact the WMP of oil. The goal for producer states is to target a fiscal breakeven price that is equal or less than the average world market price. Formulating budgets targeted to the minimum average price per barrel or breakeven price, allows the state to forecast a balanced budget.

When the WMP falls below the fiscal budget breakeven price, the impact on the state’s ability to fund government services and programs depends on the state’s pre-existing resiliency measures and exposure to oil price volatility. The more prolonged a period of low WMP, the more likely it is that a state will

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31 “Cheaper Oil: Winners and Losers” *The Economist*.
not reach its fiscal breakeven revenue requirement, which means the state may have to restrict government spending or find another revenue source.\textsuperscript{35} A state’s ability to fund its budget will have direct economic and political consequences.\textsuperscript{36}

**State chooses to decrease sovereign wealth fund totals or foreign currency reserves**

As the collapse in the price of oil restricts revenue to states dependent on oil sales, many are cashing in their sovereign wealth fund investments or foreign currency reserves in order to keep their budgets afloat. The larger a state’s SWF or pool of foreign currency reserves, the longer a state can use those funds to maintain balanced budgets, despite the loss in oil revenue. It is estimated that "oil-based sovereign wealth funds are a major force in international finance, holding more than $5 trillion in assets."\textsuperscript{37, 38, 39} The withdrawal of SWFs and foreign currency reserves also directly impacts the United States. Because many countries invest in U.S. Treasury bonds or hold U.S. dollars, the removal of those “recycled petrodollars” would cause U.S. Treasury yields to drop by fifty basis points.\textsuperscript{40}

**State chooses to implement dramatic currency devaluation policies**

Currency devaluation is a form of currency manipulation that occurs, frequently in a pegged or fixed rate economy, where the state chooses to decrease the currency’s official exchange rate or increase the volume of domestic currency in the home market.\textsuperscript{41, 42} For the domestic economy, currency devaluation is a sign of decline in the country’s standard of living.\textsuperscript{43} When the oil price drops significantly, states dependent on oil revenue may print more money instead of introducing budget cuts in the short-term with the hope that prices rebound so that they can fund their programs. Should the state print too much money or adopt a monetary policy whereby the value of the country’s currency has to be robustly defended through spending financial reserves, then currency depreciation and inflation occur. Such a policy forces the country to run the risk of total currency collapse, hyperinflation, or stagflation.\textsuperscript{44}


\textsuperscript{39} While states like Saudi Arabia and Norway have huge SWFs that will allow them to better withstand a prolonged period of low oil price, with SWFs totaling $757 billion and $882 billion respectively, other countries like Nigeria and Bahrain do not have such large SWFs to fall back on. Nigeria’s SWF totals $1.4 billion while Bahrain’s SWF totals $10.5 billion. Sovereign Wealth Fund Institute, “Sovereign Wealth Fund Rankings,” accessed March 15, 2015, http://www.swfinstitute.org/fund-rankings/.

\textsuperscript{40} Chris Vellacott, “Oil States’ Recourse to Sovereign Funds Could Rattle World Markets.”

\textsuperscript{41} Pegged rate economies set a value range for their currency in terms of another stable currency such as the dollar, the euro or a basket of currencies. On one hand, the pegged rate system forces some amount of discipline on government policies and decreases short term exchange rate volatility. On the other hand, the government is forced to defend the value of their currency by spending foreign reserves in order to maintain parity range. Atish R. Ghosh and Jonathan D. Ostry, “Choosing an Exchange Rate Regime,” IMF: Finance and Development, December 2009, accessed March 15, 2015, http://www.imf.org/external/pubs/ft/fandd/2009/12/ghosh.htm

\textsuperscript{42} Fixed rate economies maintain the value of their currency with fixed exchange rates between currencies otherwise known as the official parity. The government must be able to defend these exchange rates with foreign reserves. The advantage of this monetary system is that it eliminates short-term exchange rate risk and forces monetary and fiscal discipline. The disadvantage is that the total lack of monetary independence and the increase in currency speculation. Reem Heakal, “Currency Exchange: Floating Rave Vs. Fixed Rate,” Investopedia, accessed March 15, 2015, http://www.investopedia.com/articles/03/020603.asp.


Dramatic increases in sovereign debt sales
In order to raise money, a government may issue sovereign debt.45 A government’s decision to issue this debt instrument to fund operations may demonstrate that the government lacks the revenue to support its fiscal expenses.46, 47 While issuing sovereign debt to pay for fiscal expenses is a routine operation for a country’s central bank, problems arise when the country is too far extended beyond their ability to pay for the debt that is sold. Increases in debt and decreases in income could lead to long-term debt default.

Debt default
Debt default occurs when a country fails to promptly repay its obligations of interest or principal when due and indicates that a country is already in an economic crisis.48 For countries that spend more than they accrue in revenue, they may have to dramatically increase their issuance of sovereign debt.49 For states that are dependent on oil revenue, a prolonged dip in the WMP may affect the state’s ability to make debt payments. Default could hamper the state’s ability to issue future debt on the global market as it would expose the state to a potential downgraded credit rating and higher interest rates.50

Introduction or increase of austerity measures
If a state is highly dependent on oil revenue to balance its budget, a prolonged drop in oil prices may push the state to introduce or increase austerity measures to respond to a budget deficit. Austerity measures refer to official government action taken during a period of adverse economic conditions, to reduce its budget using a combination of spending cuts and/or tax hikes.51

A government may cut social programs in an attempt to shrink growing budget deficits. The subsequent public reaction would depend on the percentage of the population dependent on the programs for survival and the cost that the public would have to bear without government subsidization. Decreasing social programs may lessen the government’s monetary burden but may increase the political pressure on the sitting administration, which may precipitate the appearance or acceleration of civil unrest.52 For some countries, the government’s provision of gas subsidies is essential to supplement the welfare of the domestic population. Subsidized energy programs, like Venezuela’s Petrocaribe program, can also be used as regional tools of influence.53 In an attempt to reduce expenditures, a government may cut gas subsidies to free up revenue to invest elsewhere.54 Cuts to gas subsidies, like other social programs, may spur internal civil unrest or regional instability. Austerity measures may include the implementation of or increase in taxes, in addition or in substitute of spending cuts.55 This decision directly impacts the taxed

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45 This is the process by where a government issues bonds in a foreign currency and sells them to foreign investors with the promise of paying them back at a certain time with the original investment plus interest, this is known as sovereign debt. Daniel Kurt, “Why Governments Issue Foreign Bonds,” *Investopedia*, May 13, 2013, accessed March 10, 2015, http://www.investopedia.com/articles/investing/051413/why-governments-issue-foreign-bonds.asp.
46 Ibid.
48 Buttonwood, "What Devaluation Actually Means."
populace, and could result in potentially destabilizing civil protests.

Falling oil prices may force states to reduce defense spending, along with other government outlays. Cuts in military spending might hamper the state’s ability to protect and defend itself. Depending upon the preexisting relationship between political and military leaders in the state, defense-spending cuts may have serious political implications. On the other hand, cuts in defense spending may limit a state’s antagonistic tendencies. Oil producing states may not necessarily decrease defense spending in light of falling oil prices, and thus falling revenue. “If nations face falling oil revenues and still have the will and ability to expand their military or security capabilities, then they might do so through the sacrifice of domestic spending or regional stability.”$^{56}$ National objectives, strategic demands, regional threats, the desire to maintain internal status quo and other interests of producers may force the state to maintain and increase defense spending even in light of reduced revenue flows.$^{57}$ This decision could spur内部 unrest, as the government sacrifices social programs for defense. In addition, it could incite regional instability as surrounding states are forced to confront the security dilemma.

Oil-Industry-Specific

**OPEC chooses to increase/maintain oil production while world demand stagnates/declines**

Collectively, OPEC member states produce roughly 40 percent of the world’s oil. As such, their decisions to increase or maintain oil production in the face of stagnant or decreasing world demand impact OPEC and non-OPEC oil-producers worldwide. The OPEC decision to maintain/increase oil production in a low-priced environment creates political and economic difficulty for countries dependent on high oil prices that lack the resilience to ride out the low oil price environment.$^{58}$ When the WMP is low, producer states will maintain/increase production for different reasons like maintaining market share or accruing as much revenue as possible. The irony of such an action is that maintaining or increasing production of oil will only keep the price of oil low or drive it down farther.

**Oil imports increase**

An oil-exporting country may choose to import oil for any number of reasons, including economic mismanagement, lack of investment, or attacks on infrastructure. A state may also choose to import oil because it can no longer support domestic needs with internal production, or, domestic production may no longer be a commercially or financially viable option. Any number of these explanations signals distress in the state’s oil system whether due to political or economic reasons.

**Cuts in spending, staff, and dividends**

As the price of oil falls, oil companies must make cost-saving decisions to stay afloat. Among them are decisions to cut spending, staff, and dividends. Cuts to current and future projects are likely and foreign direct investment is expected to fall as well. Wage cuts or layoffs will not just impact those working on the rigs; it could also reach the more specialized workers like the engineers and geophysicists. Beyond the energy sector, companies that provide equipment, construction, and engineering services for energy-related projects will feel the pinch as well. Dividend cuts, either because of weakening earnings or limited

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$^{57}$ Ibid.

funds available to meet the dividend payment, will signal a company’s declining financial position. Generally, cutting dividends makes the company less attractive to investors.59, 60

Share price falling and/or investors selling stock
The price of an oil company’s shares may fall or investors may sell stock for any number of reasons like weak company performance, lack of investor confidence in the future of the company or wider oil industry. No matter the reason, either action negatively impacts the valuation of the company.61

Decline in remittances
An oil-related company’s decision to lower wages or lay off workers has serious implications beyond the company’s bottom line; these cost-saving decisions impact the amount of remittances sent home by expatriate oil workers as well. This is especially important when considering that economies in the Middle East and North Africa, as well as those in Central Asia and the Caucasus, are heavily dependent on remittances from major oil producing countries.62, 63 Lower remittances will harm the economies of the receiving countries.64

Migrants return to home country
Rising unemployment means some migrant workers will return to their home countries. This collateral effect of low oil prices could have damaging economic consequences for the home country as they struggle with rising unemployment and fewer remittance flows.65

Merging of oil companies
Oil companies may merge in a low oil price environment for various reasons. Two similarly-sized gas and oil explorers could merge or create joint ventures to capture economies of scale, increase buying power, build stronger balance sheets, or cut duplicative functions. Financially strained companies can be picked up by healthier ones that want to increase their market share, which leads to larger assets and synergy benefits.66 There are obvious winners and losers in these deals; mergers are not necessarily bad for the economy in the short-term. However, if in the long-term, the smaller companies disappear and the larger companies grow bigger, the health of the sector may depend on the success of the large remaining few. If a handful of large companies start making poor business decisions, they could risk the entire industry,

59 Goldman Sachs has estimated that almost $1 trillion USD of spending on future oil projects is at risk after the recent oil price plunge. According to the Financial Times, “any cancellation of these developments would deprive the world of 7.5m barrels a day of new output over the coming decade - or 8 percent of current global oil demand.” Christopher Adams, “Oil Price Threatens $1t of projects,” The Financial Times: Oil & Gas, accessed April 10, 2015, http://www.ft.com/cms/s/0/b3d67518-845f-11e4-bae9-00144feabdc0.html?siteedition=intl#axzz3W0o0Bu82.
61 Ibid.
65 Ibid.

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creating a “too big to fail” scenario similar to the one seen in the banking industry in the 2008 U.S. financial crisis.

**Company restructuring**

If a company is struggling to make payments on its debt, it may restructure its operations through cutting costs or reducing the company’s size, among other examples, with the hopes that payments will become more manageable. Generally, restructuring is a last ditch effort to eliminate financial harm and improve the business before it collapses.67

**Bankruptcy**

Bankruptcy occurs when a business is unable to repay its outstanding debts. A sustained low oil price environment can force energy companies out of business. Depending on the size of the company and the number of companies facing bankruptcy, this could have serious economic implications for the host country, the home country, and even the global economy as a whole.68

**Social**

**Upsurge in civil unrest**

A shortage of consumer goods or the cutting of widely used social programs are just two examples of why civilian populations may protest in the wake of falling oil prices. If a government lacks the ability to meet the needs and expectations of their populace during an oil price decline, the state may experience a heightened degree of civil unrest.69 Unrest that leads to violence, whether directed at the government or amongst the populace, is of great concern as it may signal lack of political control or growing fractionalization within the people that may lead to death, destruction, repressive government response, and/or military involvement, among others.70

**Political-Military**

**Increases in political infighting**

As an oil producing state’s revenues diminish, levels of political infighting may rise.71 Tension amongst policy makers become more acute as leaders grapple with how to address the various forms of instability caused by an oil price plunge while maintaining their positions in power.

**Implementation of/rise in repressive measures**

For decades, “oil revenue [has] contributed to continued authoritarianism in some states and [has] encouraged corruption and poor governance.”72 If falling oil prices spur instability within a state, the government may respond with repressive measures in order to ensure political control and/or discourage civil unrest. Increasing repressive action demonstrates a government’s real or perceived sense of instability, which could have any number of implications for the host country, its neighbors, and the world.73 Such repressive measures may include: the imprisonment of journalists; a crackdown on social

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70 Ibid.
media or a ban on external news sources; the assassination of political opponents or critics; or a declaration of martial law, among others. Growing repressive measures may spark domestic protests. Long-term repression may encourage civilian populations to flee to neighboring countries causing potential spillover effects. Lastly, countries around the world may be forced to address human rights abuses if repressive measures become extreme.

**Attacks on oil infrastructure**

The loss of revenue due to a low oil price environment may impact a state’s defense capabilities, making it more vulnerable to attack or sabotage from non-state or state actors. Taking advantage of a state’s vulnerability in a low oil price environment, non-state actors may seek to either commandeer the state’s oil infrastructure, to steal the lucrative resources, or destroy it as a symbolic anti-government act and a denial of the state’s main source of revenue. If non-state actors are able to capture and operate oil facilities, they can use the profits to fund future operations. Non-state actors, less interested in stealing the lucrative good, may attempt to disrupt production by bombing pipelines, oilfields, or refineries and kidnapping or killing oil workers. These attacks not only force oil operations to slow down or completely halt, they also create an insecure environment that discourages foreign investment. Maritime chokepoints represent another target for either state or non-state actors looking to either control it or disrupt trade, among other reasons. The blockage of a chokepoint like the Strait of Malacca or the Bab el-Mandab would lead to substantial disruptions in world energy and trade markets and would signal a crisis.

A less resilient oil producing state may use military action against a more resilient state to disrupt oil production and drive oil prices back up. Alternatively, a state may choose to capture and operate another state’s oil facilities in order to steal its profits. An example of such a situation is Iraq’s invasion of Kuwait, which is featured in the case study below. Similar events today would likely garner a comparable U.S. military response as the one elicited in the Iran-Iraq War.

**Increase in aggressive rhetoric, threats**

Faced with a situation that threatens to weaken a government’s hold on power, a state may search for an external scapegoat to distract its citizens. Hoping to lessen internal criticisms and produce a rally-around-the-flag effect, a state may direct aggressive rhetoric, such as the use of accusations or threats, toward its perceived or invented foreign enemies. A less resilient oil-producer may direct its belligerent rhetoric towards high-resilience states. Historic enemies or neighbors may also become the target of hostile

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83 Saudi Arabia led the OPEC decision to maintain production levels despite protests from Algeria, Iran, and Venezuela, leading to accusations of
rhetoric.83

Escalation of military activities
The transition from belligerent rhetoric to actual military activity simultaneously reinforces the rally-around-the-flag effect against an external "other" while demonstrating the state’s capacity to maintain its military strength despite its vulnerability in a low price environment. The following are examples of such military action:

● **Military readiness:** An increase in military readiness, ranging from unit-wide travel restrictions and leave cancellations to an upgrade of a state's nuclear alert system, signals a state's acknowledgement of a real or perceived security threat. As an oil-exporter suffers from the destabilizing effects of a low oil price environment, it may perceive threats more acutely and respond to them more aggressively.84

● **War games:** Although a state's military will regularly conduct tactical-level exercises regardless of its threat perceptions, the execution of operational and strategic-level war games may increase in preparation for conflict. This includes the use of a dedicated opposing force to replicate an enemy state military's weapons, equipment, tactics, and doctrine. War games can serve as a deterrent; they are often publicized to demonstrate a state's military might.85

● **Shows of force:** Shows of force, in which a state intentionally approaches another state's territory or enters its airspace unannounced, is an attempt to demonstrate the imposing military's capabilities and intimidate target opposition. While demonstrating military might, shows of force run the risk of escalation.86

● **Troop deployments:** The large-scale deployment of troops, especially when staged on a neighbor’s border, is a dangerous provocation, if not a clear indication of intended military action.87

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86 Also: “Russia Threatens to Aim Nuclear Missiles at Denmark Ships if it Joins NATO Shield,” Reuters, March 22, 2015, accessed April 15, 2015, http://www.reuters.com/article/2015/03/22/us-denmark-russia-idUSKBN0MI0ML20150322,

87 Russia, already threatened by a Western-leaning Ukraine on its doorstep, conducted a “snap combat readiness exercise” in the Arctic, with its navy deploying "38,000 troops, 41 ships, 15 submarines, and 110 aircraft" in response to a planned NATO naval exercise in the region. Elliott C. McLaughlin, “Amid NATO exercises, Russia Puts Northern Fleet on ‘Full Alert,’” CNN, March 17, 2015, accessed April 10, 2015, http://www.cnn.com/2015/03/16/europe/russia-arctic-military-exercises/.


87 As illustrated in the Iraq case study below, the staging of the Iraqi army along Kuwait's border was quickly followed by an invasion, which prompted a U.S. military response.
Framework Application: Country Profiles

The purpose of this section is to apply the framework to the current oil environment in order to examine how conditions and indicators manifest in an array of oil-producing countries around the world. Beyond analyzing how the low world market price of oil impacts the political and/or economic stability of each state, the section explains how these negative consequences affect U.S. priorities in the region.

Iran

Iran possesses the world’s fourth largest proven oil reserves.88 Iran is also a key player in the global oil market, producing 3.6 million barrels per day.89 The country is heavily dependent on its oil sector, and thus quite vulnerable to oil price fluctuations. Oil accounts for as much as 75 percent of its fiscal revenue and 80 percent of its total exports.90 These exports have funded a sovereign wealth fund totaling approximately $62 billion dollars as of April 2015.91 Since the 1979 revolution, Iran's oil industry has been controlled by the government's National Iranian Oil Company. Although Iran's government has retained elements of its revolutionary character, it is well-entrenched at home and has been less aggressive abroad since the 1980s. Despite being only partially democratic, the country is internally stable, fueled by a robust sense of Iranian nationalism.

Indicators

With a fiscal breakeven price of $127 per barrel, Iran has surely felt the negative effects of the collapse in oil prices.92 Faced with a growing budget deficit, Iran has withdrawn from its primary sovereign wealth fund, the National Development Fund, to reimburse contractors active in upstream oil projects.93 Imports have been significantly curtailed as part of Supreme Leader Khamenei’s “resistance economy,” stressing domestic self-sufficiency as a way to combat the combined effects of sanctions and the drop in oil price.94 Although Iran has enacted a limited number of austerity measures during the current low oil price environment, some have been politically controversial. Presented as an alternative strategy to Khamenei’s “resistance economy,” President Rouhani has “called for conglomerates controlled by Iran’s Revolutionary Guard Corps and conservative religious foundations to give up their tax-exempt status and begin pulling their weight.”95 Additionally, Iran has reintroduced the sale of military exemptions to mandatory military service, a contentious source of revenue not utilized in over a decade.96 Tensions between Rouhani and Khamenei over the nuclear negotiations with the West, and over how best to respond to Iran’s constrained revenue stream, have intensified the political infighting.

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89 Ibid.
91 "Iran to spend up to $4.8 billion from sovereign wealth fund on oil development," Reuters, February 24, 2015, accessed April 27, 2015, http://www.reuters.com/article/2015/02/24/us-iran-budget-oil-idUSKBN0LS1I620150224.
With its economy crippled by international sanctions and low oil prices, Iran lobbied OPEC to cut production in order to drive oil prices up.\(^97\) Saudi Arabia, Iran's chief regional rival, used its influence in OPEC to maintain production despite Iran's protests and accusations of political manipulation. Although Iran's internal stability remains intact, despite economic hardships, Iran's rhetoric has remained defiant and aggressive. The Iranian Revolutionary Guard has published an article in their newsletter "threatening revenge on the Sunni Gulf kingdoms 'with all the means Iran has at its disposal'" in response to their refusal to cut production.\(^98\) This was accompanied by large-scale military exercises, including the February 2015 operation "Great Prophet 9," wherein the Iranian navy "assaulted a replica of a U.S. aircraft carrier [...] during large-scale naval drills near the strategically vital entrance of the Persian Gulf."\(^99\)

**Implications for the United States**

Iran’s regional ambitions are hindered by its economic woes. As a supporter of several regional parties, including the Assad regime in Syria, Hezbollah in Lebanon, the Houthis in Yemen, and both Shia militias and the government in Iraq, Iran's foreign policy comes with a large price tag. While the United States may support Iran's diminishing ability to fund terrorist groups like Hezbollah or expand its proxy war against Saudi Arabia, Iran's capacity to support Iraq against the Islamic State (IS) may also suffer from its revenue shortfalls.\(^100\)

Perhaps the most immediate impact of low oil prices is seen in Iran’s nuclear negotiations with the United States and other members of the P5+1. With an economy already suffering from international sanctions, the collapse in oil prices may have added incentive for Iran to accept a nuclear deal with the West. Although Khamenei continues to prioritize Iran’s sovereign control of its nuclear program over lifting sanctions, Rouhani has stated that Iranians “can’t have sustainable growth while [they] are isolated.”\(^101\)

The current low oil price environment may strengthen the United States’ hand in its goal of reaching a favorable conclusion to the nuclear negotiations, limiting Iran’s ability to field nuclear weapons and normalizing relations between the two historic enemies.

**Iraq**

Decreasing oil prices, combined with an ongoing insurgency and political upheaval, have threatened Iraq’s financial stability and political security.\(^102\) With over 90 percent of government revenue coming from its oil sector, Iraq's ability to run the state is suffering greatly.\(^103\) Although bidding was opened to foreign companies in 2009, the majority of Iraq’s oil industry remains state-run.\(^104\) The implementation of

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\(^102\) British Petroleum, "BP Statistical Review of World Energy June 2014."  
democratic institutions and rampant Shia triumphalism have isolated Sunnis from the government and embittered the Sunni minority against the Shia majority. This factionalism was partially responsible for the rise of the Islamic State and aided IS’s ability to gain support from the Sunni population.

Indicators
With a fiscal breakeven price of $100.60pb and a costly counterinsurgency war against IS, Iraq has faced many challenges since the collapse in the price of oil. Along with Iran, Iraq lobbied to reduce OPEC production in order to drive prices up. To compensate for the lost revenue, Iraq has been forced to withdraw from its central bank's foreign currency reserves and implement austerity measures, which include salary cuts across the public sector that employs over 6 million Iraqis. Although the election of Haider al-Abadi as prime minister has partially relieved the factionalism and corruption of the Nouri al-Maliki government, it has not helped to erode IS's Sunni support base; civil unrest along sectarian and ethnic lines also continues unabated. Since IS expanded rapidly through northern Iraq, Iraqi oilfields have become prime targets for attacks, further endangering the Iraqi government's revenue stream. In June 2014, IS captured Iraq's largest oil refinery at Baiji. Although Iraqi government forces have since recaptured the Baiji refinery, it remains a hotly contested, and an immensely valuable prize.

Implications for the United States
IS's captured oil resources, sold on the black market, serve as one of the primary sources of funding for the insurgency group. Although it has been unsuccessful thus far, IS has made concerted, repeated efforts to capture the territory around Kirkuk, a region with considerable oil reserves. With the drop in oil price, Iraq has been unable to fund its counterinsurgency campaigns, relying on military and economic aid from the United States and Iran, among others. If Iraq is unable to reverse the tide of IS extremism, it will continue to destabilize its neighbors, including allies like Jordan and Saudi Arabia, for the foreseeable future. If IS is allowed to become fully entrenched, it will directly threaten the survival of the Iraqi government and endanger a vital region to U.S. interests. Still, an increase in oil prices will not only replenish the Iraqi government’s coffers, it will increase profits for IS as well.

Libya
Suffering from widespread political instability before the oil price dip, Libya has devolved further into political and economic chaos since the recent price collapse. Libya's oil industry recovered after the fall of the Gaddafi regime in 2011 to produce 1.6 million barrels per day in 2013. However, since the rise of

110 Manashil Shah, "Falling Forward: The Ramifications of Libya's Oil Crisis," Berkeley Political Review, March 30, 2015, accessed April 25,
militias supporting the rival governments of the secular east and the Islamist west, Libya has entered into a cycle of economic collapse fueling political unrest and vice versa. Its oil production has since fallen to 988,000 barrels per day. Still, Libya possesses the greatest number of known crude oil reserves in all of Africa at 48.5 billion barrels.

Libya's economy is extremely dependent on oil revenue; the country has been severely compromised since the fall in oil prices. Oil accounts for 96 percent of Libya's total government revenue and 98 percent of export revenue. Although Libya's National Oil Company (NOC) is state-owned, it is unclear whether the secular east or the Islamist west controls it. Oil revenues continue to move through Libya's central bank, "one of the last institutions largely left untouched by the power struggle, [...] funding both sides in the civil war." Since the capture of Benghazi by the Islamist Libyan Dawn extremist group, the internationally-recognized eastern government has lost control of the NOC's headquarters.

**Indicators**

Libya’s current fiscal breakeven price is one of the highest, if not the highest, in the world. At $184 per barrel, this breakeven price was unsustainable even before the price collapse. Today, it is nearly three times the world market price of oil. Libya has tried to counter the effects of the oil glut by rapidly "burning through its [foreign currency] reserves," worth $100 billion, and its sovereign wealth fund, worth $65 billion, "to keep the state afloat." Additionally, Libya has implemented austerity measures, primarily gas subsidy cuts. Due to incessant violence and reduced revenue, Libya’s currency has depreciated by 30%.

The state’s oil industry has become a primary target in the Libyan conflict, even as oil becomes less profitable. Islamist militants have attacked the oil-rich region of al-Ghani, forcing 11 oilfields to shut down and its employees to evacuate. Similarly, militants have attacked Libya's oil refineries, most notably the Zawiya refinery that shut down Libyan oil production at its largest oil field at Sharara, leading to a temporary rise in the WMP of oil in September 2014. Foreign investment has also been negatively affected by the power struggle.

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114 Ibid.
117 Ibid.
118 Ibid.
120 Ulf Laessing, "East's bid to control Libyan oil wealth likely to fail."
affected, especially since the recent abduction of nine foreign oil workers by IS militants.¹²⁷

**Implications for the United States**

With Libya's principal means of revenue crippled by an underperforming oil industry, rampant political violence, and low oil prices, the country is teetering on the edge of becoming a failed state. War, high rates of violent crime, and poverty are spurring refugee flows from Libya to southern Europe, placing stress on European allies to accommodate new immigrants. 23,556 refugees have fled to Italy in 2015 alone, an increase of nearly 3,000 compared to a year ago.¹²⁸ In what has been called "the worst maritime disaster in the Mediterranean since the second World War," 900 Libyan refugees died on their quest to Europe in April 2015, triggering calls for substantial change to the European Union’s refugee policies.¹²⁹ The destabilizing effects of the oil price drop are surely not helping Libya’s unlivable environment.

In addition to sponsoring the civil war between the governments of the secular east and Islamist west, and their respective international allies, the United Arab Emirates and Qatar, Libya is quickly becoming the principal outpost for the Islamic State outside of Iraq and Syria, which is of great concern for U.S. interests and priorities.¹³⁰ "In its Dabiq magazine, IS outlined how Libya's chaos and abundance of arms made the country 'ideal for jihad.'"¹³¹ Both rival Libyan governments have struggled to contain IS-inspired violence, a failure that resulted in the execution of 21 Egyptian Coptic Christians, to which the Egyptian Air Force responded with retaliatory airstrikes.¹³² Exploiting wide swathes of ungoverned territory, IS militants could turn Libya into North Africa's principal safe haven for jihadists.

**Saudi Arabia**

With 266 billion barrels of proven oil reserves and a production average of 11.5 million barrels per day in 2013, Saudi Arabia is rich in oil and it is highly dependent on the resource for income. Oil exports account for 46 percent of GDP and 86 percent of government revenue.¹³³ Saudi Arabia exercises a high degree of control over its economy, using its state-owned oil company, Saudi Aramco, to fund its government operations and financial obligations.¹³⁴ Given the state’s low production costs and $750 billion in foreign currency reserves, accumulated during the prolonged period of high oil prices, Saudi Arabia is well positioned to weather the current low oil price environment. In fact, it is probably the state most resilient to oil price fluctuations highlighted in this report.

**Indicators**

Like the majority of the world's net-exporter states, Saudi Arabia’s fiscal breakeven price of $106 dollars

¹²⁹ Ibid.
¹³¹ Ibid.
¹³² Ibid.
per barrel is well above the current WMP of oil, placing pressure on the government to "cover its federal spending, including a lavish budget for infrastructure projects."135 The Saudi government has chosen to rely on its $750 billion in currency reserves instead of implementing austerity measures, as its political stability largely depends on providing social programs and offering government employment to placate much of its population. Despite an expected deficit of about $39 billion in 2015, it is estimated that Saudi Arabia will be able to operate at its current fiscal budget in a $60pb environment for at least four years.136

Implications for the United States

Due to Saudi Arabia’s high resiliency, prioritization of maintaining oil market share, and political rivalry with less-resilient oil-producing states such as Russia and Iran, Saudi Arabia has used its status as OPEC’s swing producer to keep production high and prices low.137 Although the Saudi government would not refer to its economic policy as a political weapon, its decision to maintain current levels of production has real political consequences. Iranian and Russian support for the Assad regime will likely be weakened as they confront falling oil income.138 Furthermore, Iran, already crippled economically by international sanctions, may be more willing to accept a nuclear deal with the West. All of which Saudi Arabia would view as positive for their foreign policy priorities.

Given Saudi Arabia's status as an important and strategic regional ally and its "central place in oil markets and Islam," continued internal stability is of vital importance to the United States.139 If the current price environment persists for the foreseeable future and Saudi Arabia is forced to cut its costly social provisions, civil unrest is likely to accelerate amongst its youthful population who are reliant on government jobs.140 The United States has developed a fairly positive relationship with the current Saudi government, one that has been relatively amenable to U.S. strategic goals. In order to continue this mutually beneficial relationship, the Saudi royal family must remain in power. Most alternatives to the Saudis’ autocratic government would most likely see the end of Saudi Arabia's strategic partnership with the United States, resulting in a severely weakened position in the Middle East and the global energy market.141

Nigeria

A member of OPEC since 1971, Nigeria is Africa’s largest oil producing country. The state owes much of its economic prosperity to the exportation of crude oil and natural gas.142 Despite the country’s vast oil resources (37.1 billion barrels in proven oil reserves), a fast growing services sector, and being home to the continent’s largest economy and population, Nigeria continues to face decades-long political and economic problems.143, 144 The president-elect, Muhammadu Buhari, will inherit economic and political

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137 Mazzetti, Schmitt, and Kirkpatrick, “Saudi Oil is Seen as Lever.”
138 Ibid.
139 "Keeping it in the family," The Economist, January 31, 2015.
140 Ibid.
141 Ibid.
challenges such as crippling corruption, slow economic growth, skyrocketing inflation, quickly depleting foreign reserves and sovereign wealth funds, fiscal debt, and a recalcitrant and violent insurgency when he takes office in May 2015.\(^{145}\) Nigeria’s most severe security issues stem from its ongoing counterinsurgency effort against Boko Haram. Given the declining revenues from oil, the ability of the state to continue to finance the counterinsurgency is questionable.

Estimates from the International Monetary Fund indicate that in 2012, oil and natural gas exports accounted for 75 percent of government revenue and 96 percent of total export revenue.\(^{146}\) The country produces approximately 2.3 million barrels per day.\(^{147}\) Although the country’s economic growth has not been due exclusively to oil sales, the government’s inability to tax other large sectors of the economy, such as agriculture, has left it reliant on oil revenue.\(^{148}\) The Nigerian National Petroleum Corporation (NNPC), a state run corporation, regulates the oil and natural gas sectors. Currently, the bulk of Nigeria’s energy projects are funded jointly through the NNPC and international oil companies where the NNPC is the majority shareholder. Although not passed yet, Nigeria’s Petroleum Industry Bill proposes many unfriendly business practices to the oil industry. The ongoing debate and potential passage of this bill has discouraged FDI in the energy sector.\(^{149}\) Totaling $1.4 billion, Nigeria’s sovereign wealth fund is quite small, especially in comparison to other major oil-producers.\(^{150}\)

One of Nigeria’s most pervasive problems is crippling corruption, which extends to the country’s oil sector. The most recent controversy revolves around allegations made by the then Central Bank Governor, Lamido Sanusi. In late 2013, Sanusi wrote to President Goodluck Jonathan alleging that the state oil company (NNPC) had failed to transfer $20 billion in revenue to the state and submitted more than 300 pages of documentation to the Nigerian parliament as supporting evidence.\(^{151}\) The NNPC denied the accusations and Sanusi was suspended shortly after; the suspension was seen as an attempt to silence the “whistleblower.”\(^{152}\) A national audit of the NNPC indicated that money was indeed missing and a $1.48 billion fine was issued, but there was little effort to bring the guilty party to justice.\(^{153}\) Sanusi’s dossier of evidence detailed three mechanisms through which Nigeria has allowed funds to be siphoned away from the central bank. Among the receivers of these funds are well-placed government officials and society heads.\(^{154}\) Corruption and bad governance are consistent problems in Nigeria and were a focal point of the election campaigns that culminated with a change in Presidential party leadership.\(^{155}\)

145 Whipp, “Nigeria’s Economy in Charts.”
147 Sovereign Wealth Fund Institute, “Sovereign Wealth Fund Rankings.”
151 The three mechanisms are: the awarding of non-competitive contracts to companies that never supply the services but rather sub-contract them out; the use of a kerosene subsidy program that fails to transfer the subsidy to the public; and a series of non transparent “swap deals” that may not be equitable for the state. Swap deals are barter exchanges of one resource for another to be paid in equal value. In Nigeria, crude oil is exchanged for refined fuel. The problem is that the method used to determine the equivalent value is an opaque. Sanusi alleged that the transactions were not properly structured and did not have the appropriate oversight or auditing. Tim Cocks and Joe Brock, “The Extraordinary Story.”
152 Tim Cocks and Joe Brock, “The Extraordinary Story..
The electoral defeat of President Goodluck Jonathan reinstated Muhammadu Buhari, who was the country’s head of state from 1983 to 1985, when the state was under military rule. While some violence accompanied the election, it is too soon to tell whether or not the election of Nigeria’s former authoritarian leader will lead to civil unrest or aggravate tensions between the Northern and Southern regions. In part, factionalism between the wealthier southern Christians and the poorer northern Muslims brought about the formation and radicalization of Boko Haram.

**Indicators**

Since the downturn of oil prices in mid-2014, Nigeria has experienced several indicators of increasing economic strife and political instability. With a fiscal breakeven price ~$123pb, the state may face greater civil unrest as the government is forced to implement austerity measures. The ability of the state to repay legacy debts owed to international trading companies is questionable. One of the country’s largest expenses is its fuel subsidy program, which is unsustainable in the long term if oil prices remain low. In an attempt to curb government spending the Jonathan administration proposed a 50 percent fuel subsidy cut in November 2014. This is not the first time that Nigeria has attempted to do away with the subsidy program. In 2012, during the last oil price downturn, the government attempted to end subsidies only to provoke nationwide protests that forced the administration to reinstate the program at a reduced percentage. As revenue has dropped, Nigeria’s currency has depreciated more than 20 percent against the dollar, suggesting that the country’s ability to balance its budget has been compromised. The central bank has tried to buffer the currency’s fall by selling foreign exchange reserves and increasing interest rates.

Low oil prices do not bode well for the Nigerian economy in the short term. The government's revenue is falling which means that it has limited resources to manage political problems. The Nigerian government has recalculated its budget twice to accommodate an estimated $65 dollars a barrel and cut capital spending plans to less than 10 percent of their 2015 budget. This cut to capital spending means forgoing infrastructure projects and has resulted in major construction industry layoffs. Dependency on oil revenues is “stirring serious concern throughout the country’s political class. Among other things, a whole array of government expenditures associated with petroleum play a major role in sustaining the

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169 Depreciation of the naira against the dollar leads to higher inflation, a slowdown in GDP growth and a more expensive sovereign debt.
171 John Campbell, “Can Nigeria Endure Falling Oil Prices?”
cooperating and competing patronage networks that run Nigeria.” The ability of the Nigerian political networks to remain functional with less political grease is uncertain.

Nigeria’s oil industry is primarily located in the southern Niger Delta Region, where it has been a perennial source of conflict. The two main sources of violence active in disrupting the flow of oil are Boko Haram, in the north, and the Movement for the Emancipation of the Niger Delta (MEND), a Christian militant group in the south. In addition to years of stunted FDI in the Nigerian oil industry, competition for the wealth generated from oil sales continues to be a source of conflict for several local groups, which results in frequent disruptions to supply and attacks on the country’s oil infrastructure.

Implications for the United States
The fall in oil prices has seriously impacted the Nigerian government’s ability to access resources to counter threats to the country’s oil infrastructure and combat violent militant groups in both the north and south. New concerns regarding the security of Nigeria’s Niger Delta oil fields have emerged as it remains unclear whether the new administration will be able to extend the amnesty program implemented in Goodluck Jonathan’s administration. Instituted in 2009, the amnesty program and contracts for pipeline surveillance were largely responsible for decreasing MEND’s attacks on the country’s oil and gas pipelines and reducing “bunkering.” The contracts, however, are due to expire in October 2015. Whether the new government decides to re-up or amend the contracts will likely determine the continued security of the southern district. The amnesty program is likely to continue in some capacity even though it is a severe drain on the country's monetary resources. If the contracts are not renewed, then the Southern region could see civil unrest return to 2009 levels when oil production was reduced by a third. An increase in militant activity could spur another humanitarian crisis in the country, in which the United States may be called on to support.

In recent months, the Nigerian government has sought help from neighboring African countries and from farther abroad to expel Boko Haram. Reports indicate that the group has stepped up their attacks, perpetrating raids and bombings in neighboring countries including Chad, Cameroon and Niger. In response, Chad has sought support from the U.N Security Council to create an African military force, comprised of personnel from Chad, Niger, Nigeria, Benin, and Cameroon to fight the insurgents. It is unclear whether Nigeria’s inability to finance its counterinsurgency efforts was one of the reasons behind the formation of the African military force. Still, the uptick in violence has not only decreased the

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169 John Campbell, “Can Nigeria Endure Falling Oil Prices?”
171 Ibid.
175 Ibid.
176 Ibid.
Nigerian government’s stability, but has also displaced thousands of people. The migration of refugees from northeastern Nigeria could place further stress on the resources of the neighboring countries, fomenting a need for humanitarian aid activities in the entire region. There is some concern in Nigeria, perhaps with the declaration of an alliance with ISIS, that the group may divide their attention between the local fight with the Nigerian government and regional expansion to neighboring states. If this fear proves valid and the group seeks to seriously expand their regional influence then they may become a larger global threat. While the U.S. has not become heavily involved in the counterinsurgency effort against Boko Haram, they may take a more active role in the humanitarian aid effort. In addition, the U.S. may become more involved in the counterinsurgency should the group continue to grow and evolve.

Russia

One of the world’s leading producers of oil and natural gas, Russia’s economy has transitioned from the centrally-planned, isolated, communist economy of the Cold War era to a more integrated, market-based economy in the 1990s and first decade of the 2000s. As the world’s second largest producer of natural gas and third largest producer of liquid fuels, the Russian economy is highly dependent on oil and natural gas exports. The country is home to an estimated 93 billion barrels of oil reserves and produces 10.8 billion barrels a day. Strong political interference in the economy and external friction both with its near neighbors and the West have exacerbated the economic impact of low oil prices. The political regime that governs Russia is centralized, semi-authoritarian, and enjoys high levels of public support. However, maintaining that support may require the Putin administration to divert public attention away from domestic economic problems and towards foreign entities, which may create military security risks for neighboring countries, some of which are NATO allies.

In 2013, approximately 52 percent of the Russian fiscal budget came from energy sales. While the country enjoyed 7 percent GDP growth between 1998 and 2008, difficulties in attracting foreign direct investment and slowly declining oil prices have created a noticeable slowdown in GDP growth. Russia’s national debt stands at 50 percent of GDP compared to the 35 percent of GDP a year ago. This increase in Russia’s debt to GDP ratio suggests that Moscow has had to issue more debt in order to cover its fiscal budget because oil is not bringing in as much revenue as it did in previous years. “Russia loses about $2bn in revenues for every dollar fall in the oil price.” To compound Russia’s economic and political problems, sanctions levied by the West on key industries in the wake of Russia’s incursion into the Ukraine have further decreased Russian growth potential with expectations that GDP will contract 4 percent in 2015.

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183 U.S. Energy Information Administration, "Russia: Analysis."
184 Central Intelligence Agency, "The World Factbook: Russia."
187 Fitch Rating, "Fitch Downgrades Russia to 'BBB-'; Outlook Negative," Reuters, January 9, 2015, accessed February 25, 2015,
On a broad level, Russia’s economic, political, and social conditions have made the state more vulnerable to instability in some aspects, while more resilient in others. Uncompetitive alternate industries force the government to overly rely on oil for the majority of its income. In the oil industry, domestic firms dominate the majority of Russia’s production; and, the Russian government is pushing for greater control in private, domestic companies that have sought rights for exploration and development projects. The energy sector is highly regulated by several ministries, which take interest in several aspects of oil production and transportation. Russian-owned oil companies are calculated to have about $600 billion in external debt, but because Western sanctions prevent domestic banks from providing financing and non-banks unable to access global capital markets, the Russian government has had to bail out both the domestic banks and companies, resulting in a depletion of the country’s currency reserves.

Indicators

In the wake of falling oil prices Russia has exhibited several indicators of economic crisis and possible political turmoil. It is estimated that Russia’s breakeven price requirement to finance their fiscal budget ranges between $98.00 and $105 per barrel. In the latter part of 2014, the ruble suffered from major devaluation against other hard currencies. The Central Bank of Russia (CBR) heavily depleted foreign reserves in an attempt to defend the ruble but eventually could not maintain its value and allowed the currency to float in the last two months of the year. In an attempt to stop the freefall of the ruble, the CBR dramatically increased the exchange rate to 17 percent in December 2014 only to then decrease interest rates to 14 percent in March 2015. This currency devaluation is partially due to the fall in oil prices.

In the early part of 2015, both Fitch and Moody’s credit rating agencies downgraded Russia’s sovereign debt to junk status. This, in addition to the sanctions imposed by the West, made it more difficult and expensive to issue debt. In response to the monetary crisis, Russian officials have started to consider capital controls to shore up the currency’s freefall. With the price of Brent Crude hovering between $50 and $60 dollars a barrel, the fiscal breakeven price is well above the world market price, which implies

http://www.reuters.com/article/2015/01/09/fitch-downgrades-russia-to-bbb-outlook-n-idUSKBN068836

Combined, US and EU sanctions ban the export of services and technology for oil exploration, and cripple the country’s ability to obtain long-term loans and foreign direct investment. Thus far, it is unclear how stalwart European countries will be in maintaining sanctions against Russian interests as the EU is heavily dependent on Russian oil and natural gas. “Ukraine Crisis: Russian and Sanctions,” BBC News, December 19, 2014, accessed April 2, 2015, http://www.bbc.com/news/world/europe-26672800.

U.S. Energy Information Administration, “Russia: Analysis.”


Tim Bowler, "Falling Oil Prices: Who are the Winners and Losers?"


Ibid.


Fitch Rating, "Fitch Downgrades Russia to ‘BBB’; Outlook Negative."


Tim Bowler, "Falling Oil Prices: Who are the Winners and Losers?"
that the government will have to curb fiscal spending. The loss in revenue from the sale of oil has made it difficult to balance their budget and continue to fund state run social and military programs. The Russian government has had to “abandon a number of programs and make certain sacrifices.”

In December, President Putin ordered a 5 percent spending cut across all government departments excluding defense. Earlier in 2015, Russian Finance Minister Anton Siluanov proposed another 10 percent cut to spending in the same departments.

On the political side, the Kremlin has adopted stronger policies of interference in the operations of the nation’s private oil companies. In a public display of power, a Moscow court ordered the privately owned oil company, Sistema to hand over to the state, its majority interest in the country’s largest private oil company, Bashneft. In late 2014, Moscow ordered state-owned oil-exporters to sell foreign currency and conduct business in rubles as a way to force adoption of “deoffshorization” policies. Despite the forced partial capital controls levied on the state owned companies, the policy has only temporarily shored up the ruble. These companies are the foundation of the Russian economy and therefore their debts are “implicit[ly] liabilities of the Russian state since these firms cannot be left to default.”

While a number of international companies have secured drilling rights and land, the Russian state-run monopoly, Transneft, owns the vast majority of pipelines and maintains jurisdiction of all oil exports. In the wake of low oil prices, the country has seen a decline in new oil exploration projects and delays or cancellations of long-term drilling deals.

In what may be an attempt to divert public attention from the economic troubles that the country faces at home, Russia has stepped up its military exercises; increased its rhetoric against the NATO allies; and has violated the airspace of Estonia, Finland, and Sweden. How far President Putin is willing to go in asserting his political will over his near and far relations is nebulous. What is clear is that Russia has become increasingly hostile towards its near neighbors and Western Europe.

**Implications for the United States**

Russia’s economy is in distress because of the downward spiral of oil prices. As a result of sanctions, political decisions, and the currency crisis, the country has found itself as isolated today as it was at the end of the Cold War. However, Russia is still a major player in the global market and its economic collapse would have negative implications for European nations and the U.S. Because many European

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202 Ibid.

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banks have lent money to Russia, a debt default in the country would be problematic for the EU because they would have to write off those debts, which would negatively impact the euro and the global economy.\(^{212}\)

Countries that border Russia have expressed increasing concern about Russia’s military exercises. In early April, the Estonian President, Toomas Ilves, requested a permanent NATO force to be located in his country.\(^{213}\) However, the 1997 Nato-Russia Founding Act prohibits the presence of permanent NATO bases east of Germany.\(^{214}\) Much to Russia’s consternation, several states including Sweden and Finland (non-members) have increased cooperation with the alliance.\(^{215}\) Estonia, on the other hand, joined the NATO alliance 11 years ago and should Russia invade the country, the entire Atlantic Alliance including the U.S. and Britain would be compelled to go to war in its defense.\(^{216}\) In early 2015, NATO quadrupled the number of fighter jets monitoring the airspace over the Baltic States in response to Russia’s destabilizing actions in Eastern Europe. NATO leaders promise a deployable task force of 5,000 should an emergency arise.\(^{217}\) Whether or not the low price of oil will prevent the state from financing further conflict or encourage the Kremlin to distract its populace from higher food prices and a lower standard of living with another military conflict remains uncertain.

**Venezuela**

As an oil producing giant, low oil prices have serious implications for Venezuela’s economic and political stability. According to the CIA World Factbook, oil accounts for roughly 96 percent of export earnings, 45 percent of budget revenues, and 12 percent of GDP.\(^{218}\) The state-run oil company, Petróleos de Venezuela, S.A. (PDVSA), controls the world’s largest crude oil reserves. They also generate nearly all of Venezuela’s hard currency revenue. In 2013, the $78 billion generated in exports from PDVSA accounted for 96 percent of the country’s hard currency revenue.\(^{219}\) With a very small sovereign wealth fund of around $8 billion, the drastically declining oil revenue seriously impacts state operations.\(^{220}\) Even before the oil prices fell, Venezuela was in the midst of a deep recession. Now, the country is facing a major economic crisis as it grapples with a looming debt default and the possibility of triple-digit inflation.\(^{221}\) With an approval rating around 20-25 percent, there does not appear to be much popular support for or confidence in President Maduro.\(^{222}\) Staggering rates of corruption and violent crime are only making

\(^{212}\) Ibid.


\(^{215}\) “Estonian President Toomas Ilves Seeks Permanent Nato Force” BBC News.


\(^{220}\) Sovereign Wealth Fund Institute, “Sovereign Wealth Fund Rankings.”


matters worse.  

**Indicators**

Lacking a competitive non-oil sector, Venezuela is facing many domestic challenges spurred or exacerbated by the low world market price of oil. Venezuela’s currency is losing value faster than any other in the world and its inflation rate is one of the world's highest. The risk of debt default is considerable. While Maduro insists debt payment is a top priority, he may be forced to reprioritize and put the immediate needs of the Venezuelans first, especially as the domestic environment deteriorates further.

The country requires a fiscal budget breakeven price of $117.50 per barrel. As a result of the recent drop in the price of oil, Venezuela faces a growing budget gap. Possibly most crippling for the people, the country is seriously lacking hard currency reserves to pay for imports. In response, the government has been controlling output and cutting imports, resulting in shortages of the most basic necessities ranging from foodstuffs to medicine. In January 2015, President Maduro made a somewhat controversial decision to decrease gasoline subsidies, raising the price at the pump for the first time in fifteen years.

Venezuela’s oil sector has not been immune to the country’s economic downturn. Even before the oil price dip, poor performance was evident in PDVSA operations. The national oil company's oil production fell from 3.5 million barrels per day in 1998 to 2.6 million in 2013. The number of employees increased from 42,000 to 111,000 over the same period while productivity decreased by 72 percent. Largely as a result of these poor business decisions and lack of investment, Venezuela began importing oil for the first time in their one hundred years as an oil-exporter in 2014. This will be especially concerning if the cash-strapped country has to start choosing between importing oil or importing other basic necessities. PDVSA has been trimming its workforce, laying off technical, non-technical, and contracted employees; PDVSA’s management has also been replaced. Many more changes are expected in the industry as PDVSA seeks to increase output while attracting much needed investment.

In recent years, Caracas has faced social unrest for reasons related to dissatisfaction with the economy and the country’s high crime rate. The growing list of implemented austerity measures is only amplifying public grievances and had led to renewed flare-ups between protesters and police. To make

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227 SolHall, “Oil Prices Pushing Venezuela to Economic Collapse?”


231 Alexandra Ulmer and Marianna Parraga, “Its Red Shirts Fading, Venezuela’s Oil Giant Embraces Pragmatism.”

matters worse, police were authorized to use deadly force to control protests in January 2015.\textsuperscript{233} The following month, a fourteen-year-old boy was shot and killed by police in their attempts to break up antigovernment protests, sparking greater outrage among the civilian populace.\textsuperscript{234} “From clandestine meetings to guerilla-style broadcasts, an amorphous and quixotic “resistance movement” has emerged across Venezuela aspiring to force President Maduro from power and end 16 years of socialist rule in the OPEC nation.”\textsuperscript{235} There are also widespread rumors of military dissent.\textsuperscript{236}

Instead of responding to the growing economic crisis with policy reform, the government has largely responded with intensified human rights abuses, escalating political radicalization, and increased inflammatory rhetoric. The regime blames the crisis on an alleged “economic war” sponsored by domestic opposition and foreign powers.\textsuperscript{237} In what many characterize as a desperate attempt to distract the people from their country’s dire economic situation, President Maduro has cracked down on opposition leaders, mainly mayors. 33 of 78 mayors are facing legal charges and several politicians have been jailed.\textsuperscript{238} The government arrested executives from a supermarket chain and pharmacy chain, blaming them for supply shortages.\textsuperscript{239} In addition, Maduro has accused Spain and the United States, among others, of “supporting terrorism” in Venezuela and of being behind “an international conspiracy to overthrow the government.”\textsuperscript{240}

**Implications for the United States**

Beyond domestic volatility, the economic and political woes of Venezuela have major regional implications, especially for the future of the PetroCaribe program. Launched in 2005 by Former President Chavez, PetroCaribe is an energy initiative whereby members purchase oil under preferential terms. Member countries only pay a small portion of the cost of oil up front, and “they can use anything from jeans to beans to pay for it.”\textsuperscript{241} While the bartering system has been an important diplomatic tool for Venezuela, it has meant less cash reserves for the already cash-strapped country. Concerns regarding the continuation of this program as well as the ability of members to afford the rising costs of oil imports are common in the region. A shutdown of PetroCaribe could impact regional stability. According to a recent report published by the International Monetary Fund (IMF), deficits are expected to increase in Antigua, Dominica, Grenada, Haiti, Jamaica, and Nicaragua to the extent that governments take over de-funded social programs and infrastructure projects in the event of a program shutdown. Countries like Haiti and Nicaragua would be most affected by a closure, as they receive large oil flows and lack alternative financing sources.\textsuperscript{242} Several analysts assert that Venezuela’s crumbling economy and the questionable future of the PetroCaribe program are some of the motivating factors in Cuba’s decision to renew

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\textsuperscript{234} Ibid.


\textsuperscript{236} Ibid.

\textsuperscript{237} Prieto, “Understanding the Venezuelan Debacle.”

\textsuperscript{238} Ibid.


\textsuperscript{240} Prieto, “Understanding the Venezuelan Debacle.”


diplomatic relations with the United States. Other PetroCaribe members have not been so keen on diversifying either energy suppliers or energy sources. Thus, a shutdown of the program would not only leave them without a major source of energy, but participating governments would be pushed into public sector and current account deficits and local currencies would face further downward pressure. The United States could be called upon to provide more economic and humanitarian aid to countries like Haiti as the program’s closure destabilizes their already weak economies.

Azerbaijan
Crude oil production in Azerbaijan has declined slightly in recent years since reaching a peak in 2010; the country produced 877 million barrels per day, or just over one percent of total world production, in 2013. Despite declining production, oil still accounts for 41 percent of Azerbaijan’s GDP and has funded a sovereign wealth fund totaling just over $37 billion, or approximately 50 percent of GDP. Moreover, Baku’s budget is based on oil as the primary source of government revenue. Over 90 percent of all exports from Azerbaijan are crude oil or natural gas, both extracted primarily from offshore fields in the Caspian Sea. Azerbaijan’s oil sector relies considerably on foreign operators. The State Oil Company of Azerbaijan Republic (SOCAR) accounts for about 20 percent of the country’s oil output; a BP-led consortium that also includes Chevron, ExxonMobil, Statoil, and Hess, among others, produces the remaining 80 percent. In addition to its role as an oil-producer, Azerbaijan also serves as a transit hub for oil and natural gas produced in Central Asia and distributed, along with Azerbaijan’s own energy exports, to Turkey and Southern Europe.

Despite potential negative economic and fiscal consequences for Azerbaijan, the country’s sovereign wealth fund remains strong and is likely to help mitigate the near-term negative effects of low oil prices. Azerbaijan also remains comparatively more insulated from Russia’s economic woes than many other former Soviet republics, as remittances from Russia equal a much smaller percent of Azerbaijan’s GDP compared many of its neighbors. Additionally, Azerbaijan’s reliance on foreign corporations for 80 percent of its oil output may diminish the localized effects of oil workforce reductions stemming from declining oil revenue.

Politically, the autocratic Aliyev regime enjoys considerable control over Azerbaijan’s populace as well as its economic decision-making. This control enables unilateral policy shifts that entail rapid and multi-sector responses to negative economic outlook. Nonetheless, Aliyev has sought to head off any potential

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247 Sovereign Wealth Fund Institute. “Sovereign Wealth Fund Rankings.”
250 US. Energy Information Administration, "Azerbaijan: Analysis."
251 Ibid.
social consequences of these policy shifts through increased public outreach, including a televised address in February to explain the country’s changing economic circumstances.253

Indicators
As of early 2015, Azerbaijan has demonstrated several indicators of potential economic instability, including currency devaluation, changes in bank policy, a reduction in fiscal break-even price in response to falling WMP, and declining foreign currency reserves. In February, Azerbaijan’s currency was unpegged from the dollar and later devalued against the dollar by 33.5 percent.254 In April, the state-owned International Bank of Azerbaijan, the country’s largest bank, sought to raise additional funds with a 30 percent increase in charter capital.255 Increased capital enable the bank to provide urgent loans or bailouts to Azerbaijani companies should economic conditions worsen, but comes at the cost of share dilution.256

In addition to changes in monetary and bank policy, Baku has also sought to revise fiscal policy in the face of uncertain oil revenue. In April, the central bank of Azerbaijan announced that it would determine the government’s 2016 budget based on a fiscal break-even price of $50pb, down from the $90pb figure used to set the 2015 budget.257 Meanwhile, the country’s foreign currency reserves have fallen 10 percent in the past year, diminishing the government’s budgetary safety net in the face of declining revenue.258

Despite these economic indicators, few political-military indicators have yet manifested in response to low oil revenue. Baku launched surprise military exercises in February amid growing tension with neighboring Armenia, accompanied by heightened rhetoric and accusations of ceasefire violations aimed at Yerevan.259 Additionally, the Aliyev regime faced pro-democracy protests as recently as November 2014 and has only tightened its control over domestic media sources in recent months.260, 261 Should negative economic conditions persist or worsen, increased social unrest could follow.

Implications for the United States
Azerbaijan’s continued economic and political stability is important to U.S. foreign policy in large part due to Azerbaijan’s role in relation to Russia. This role has two primary dimensions: Azerbaijan’s capacity to serve as an alternative transit hub for energy bound for Europe from Central Asia and the South Caucasus, and Azerbaijan’s semi-frozen conflict with Russian-backed Armenia over the disputed territory of Nagorno-Karabakh.

With regard to energy transport, Azerbaijan plays a critical role in supplying oil and natural gas to

253 Keith Johnson, “Central Asia’s Cheap Oil Double Whammy.”
256 Ibid.
European markets via the Baku-Tbilisi-Ceyhan (BTC) and Baku-Tbilisi-Erzurum (BTE) pipelines. Both pipelines are key links in broader pipeline networks that bring energy from Central Asia to Azerbaijan, from Azerbaijan to Turkey, and from Turkey to Southern Europe. By circumventing Russia, these routes avoid the possibility of major European energy supply disruptions that historically have stemmed from political disagreement between Russia and Ukraine. Large-scale economic collapse or social unrest in Azerbaijan could potentially threaten operation of the BTC and BTE pipelines, necessitating a reversion to Russian pipeline networks. This, in turn, would raise the risk of supply disruptions to European markets and increase Russian leverage over European energy consumers.

The Nagorno-Karabakh conflict is also demonstrative of the key role that Azerbaijan plays in regional security. This conflict has persisted since the collapse of the Soviet Union; as recently as January 2015, a border skirmish left two Armenian soldiers dead. Social unrest in Azerbaijan could lead the Aliyev regime to seek a public distraction in the form of heightened tension with Armenia in Nagorno-Karabakh. Conversely, a protracted period of decreased oil revenue could potentially lead to a reduction in Azerbaijani military spending, threatening the balance of military power in the region. Escalation of this conflict could destabilize the South Caucasus and draw in Russia, which maintains an airborne infantry base in Armenia and historically has backed Armenian claims to the region. For the United States and NATO, a shooting war in Nagorno-Karabakh would mean yet another internal conflict, in the same vein as South Ossetia or Donbass, that Russia could use as a pretext to flex its military muscle and expand political influence in regions that increasingly have moved out of the Russian sphere.

High-risk countries
Of the eight major oil-exporting states highlighted, states such as Venezuela and Iraq are presented as high-risk due to their heavy dependence on oil revenue for all government functions. These two states do not possess structural resiliencies such as large sovereign wealth funds, and have demonstrated a significant number of indicators, such as the drawdown of currency reserves and the introduction of austerity measures. The low price of oil has severely impacted these states on an economic, political, and social level. Moreover, the continued instability of both Venezuela and Iraq has serious regional consequences. The further weakening of Venezuela has the potential to destabilize the Latin America and Caribbean region, especially if Petrocaribe collapses. Increased instability in Iraq could also lead to increased instability in its respective region. Less oil revenue will hurt the already weak economic and political environment in the country and will hinder its ability to fight the Islamic State, among other domestic security threats. While Venezuela and Iraq exhibit indicators of pending crisis on several levels Russia also warrants further attention. Although Russia has not shown an alarming amount of internal political instability, the low price of oil has severely impacted the state’s fiscal integrity. Russia’s economic stability is important because the state’s finances are tied to the European Union and much of the EU’s energy flows from Russia. While many of the producer sovereignties have shown a large number of indicators, not all producer states are at the same level of concern. Countries such as Saudi Arabia and Azerbaijan are low-risk due to their continued demonstration of high resilience to oil price

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fluctuations, even as some oil-related indicators manifest. These states will be able to ride out the low price of oil longer than other states that are mentioned in this report.

Case Studies

The case studies of Iraq and the Soviet Union serve as historical evidence of the destabilizing effects of a low oil price environment for producing countries. In the case of Iraq, an economic meltdown, exacerbated by falling prices from the oil glut of the 1980s, led to its invasion of Kuwait and U.S. military involvement in the Middle East region. For the Soviet Union, the fall in oil prices during the 1980s compounded the effects of poor fiscal management, which led to overwhelming state financial problems. The resulting economic crisis metastasized into a political crisis and led to the eventual fall of the Iron Curtain. Both cases provide examples of worst-case scenario events precipitated by low oil prices. The team relied on historical examples such as these to derive many conditions and indicators.

Case Study: Iraq

_A Geopolitical Oil Crisis: Iraq’s Invasion of Kuwait_

On August 2, 1990, Iraqi forces crossed the border into Kuwait and soon after established control of the country. Prior to the invasion, Iraq had incurred approximately $86 billion in post-war debt to foreign countries that had provided loans to finance its war with Iran. $40 billion of this debt was owed to Gulf states, including Kuwait. Low oil prices resulting from the 1980s oil glut, which was fed by Kuwait’s overproduction of petroleum, kept Iraqi oil revenues down. Iraq’s resentment toward Kuwait’s oil policies and its hope that possession of Kuwait’s oil would enhance its resources were two important factors that contributed to the invasion. Iraq’s inability to finance its budget following the drop in oil prices; the country’s introduction of austerity measures; its increase in belligerent rhetoric; its pleas to Kuwait for oil production cuts; and the movement of Iraqi troops to its border with Kuwait were key indicators of the crisis.

Initially, the U.S.-led coalition force responded to Iraq’s hostile action with crippling economic sanctions. Then in January 1991, they began Operation Desert Storm, which included aerial and naval bombardment, as well as the deployment of ground forces to expel Iraqi forces from Kuwait. The coalition drove Iraqi forces back to their territory in February 1991.

_Setting the Stage: Iraq’s Financial Meltdown_

The Iran-Iraq War left the small Iraqi economy overburdened with unemployment, inflation, and a damaged oil infrastructure. This damage, coupled with the 1986 oil glut, led to a massive decrease in oil revenues. Oil income in 1988 was $11 billion, compared to $26 billion in 1980. Oil accounted for 90 percent of export revenues and 61 percent of GDP. A 9 percent decline in GDP in 1989 worsened the economic situation and led to the adoption of an austerity program, which included a 7 percent drop in government spending and a 50 percent government staff cut. In addition, the $40 billion in outstanding loans from Gulf States loomed over the country. Saddam Hussein requested the United Arab Emirates

269 Alnasrawi, Abbas, _The Economy of Iraq_.

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and Kuwait write off the debt, arguing it had protected the Arabian Peninsula from Iranian expansionism, but they refused.

Iraq’s economic liberalization and privatization program, coupled with excessive military spending, compounded its financial distress. “What the economy needed at that particular juncture was an increase in the supply of goods to dampen inflation and restore some of the living standards that were severely eroded during the war. In order to achieve these objectives the government had only one option—to raise oil revenue.”

**OPEC Production Quotas**

Low oil prices in the 1980s led OPEC countries to adopt a quota system that would set the price of oil at $18 per barrel. However, several countries, including Kuwait, did not comply with these quotas, and prices continued to fall. Market conditions improved in January 1990, but Kuwait and other non-complying OPEC countries raised their output to a level that wiped out a major portion of Iraq’s oil income. “In the case of Iraq, a decline in the price of $6 per barrel meant a loss of $6 billion in oil revenue per year, which was a loss that Iraq could not afford. The Iraqi president characterized oil actions leading to above quota production and lower prices as causing damage to the Iraqi economy that was similar to the economic damage inflicted by conventional wars.”

Previous border disputes existed between Iraq and Kuwait prior to the invasion, many of which centered on the Rumaila oilfield. Approximately 90 percent of the oilfield is located in Iraqi territory while the remainder lies in Kuwait. Prior to the invasion, Iraq accused Kuwait of diagonal drilling into its portion of Rumaila. Hussein’s stepped up his bellicose rhetoric by threatening the use of force if OPEC nations did not curb their production. In July 1990, Iraq moved 100,000 troops to its border with Kuwait.

**Response**

Several scholars argue Iraq’s invasion of Kuwait was a quick fix to its economic crisis. Abbas Alnasrawi specifically cites remarks made by Iraq’s Deputy Prime Minister for the Economy; the Deputy Prime Minister stated, “Iraq will be able to pay its debt in less than five years; that the…new Iraq would have a much higher oil production quota; that its income from oil would rise to $38 billion; and that it would be able to vastly increase spending on development projects and imports” if Iraq invaded Kuwait.

Lawrence Freedman and Efraim Karsh also correlate Iraq’s economic situation as an incentive for the invasion, stating, “Adding Kuwait’s fabulous wealth to the depleted Iraqi treasury might slash Iraq’s foreign debt and launch the ambitious reconstruction programmes [Saddam Hussein] had promised his people in the wake of the war with Iran.” Javad Mansuri acknowledges the role Kuwait’s oil played in

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Iraq’s decision to invade, “Iraq in this context attempted to acquit itself from repayment of debt to Kuwait and at the same time, utilize the [oil] money so collected from Kuwait for reconstruction of damages sustained during its war with the Islamic Republic of Iran.” However, Daniel Yergin attributes Iraq’s decision to invade Kuwait to Saddam Hussein’s quest to maintain regional hegemony by acquiring an additional 10 percent of the world’s oil reserves. With this acquisition, Iraq would hold 20 percent of the world’s oil reserves, a level of ownership matched only by Saudi Arabia. Additional justifications for the invasion include Iraq’s historical claims to Kuwait.

In response to the invasion, the U.N. Security Council adopted Resolution 661 on August 6, 1990. The resolution included a ban on trade, an arms and oil embargo, a financial asset freeze, banned financial transactions with Iraq, and suspension of international flights. Failed attempts at a diplomatic resolution resulted in the creation of a U.S.-led coalition consisting of 39 nations to push Iraq out of Kuwait in January 1991. Iraq was expelled from Kuwait the following month.

**Case Study: The Soviet Union**

With a poorly managed economy that prevented the Soviet Union from financing its balance of payments deficit before the glut, and growing instability associated with the Gorbachev era reforms, the 1985-1986 drop in oil prices was the final straw that pushed the Soviet Union to collapse. The USSR’s lack of hard currency not only meant the country could not meet its debt obligations, but it also severely compromised the Kremlin’s ability to make policy decisions that could have salvaged the economy, rectified popular grievances, and preserved the Soviet Union. Economic decline eventually delegitimized the communist leadership and ideology. By 1991, the Soviet Union reached bankruptcy and finally collapsed.

**Soviet Economic Mismanagement: The Economy Before the Glut**

Even before the 1980s oil glut, poor economic policy decisions rendered the state unable to finance its deficits, a problem only made worse by the oil price drop. For decades, the USSR’s command economy emphasized quantity of goods over quality, which prompted a decline in demand for Soviet finished products. This lack of demand forced the state to rely on raw material exports, of which oil was a major component, to generate revenue and balance its budget.

Chronic food shortages played an important role in the collapse of the Soviet Union. In the early 1960s, the USSR reached its production capacity for grain when it ran out of new arable land to cultivate. At the same time, its population was growing rapidly, forcing the government to import increasing amounts of grain to feed its citizens. The state relied heavily on gold reserves to finance its imports, spending a third of its gold reserves on grain:

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278 Daniel Yergin, *The Prize*.
279 Iraq’s claims to Kuwait have varied over the years, however, it originates from Kuwait being a district of Basra province under the Ottoman administration system prior to Britain’s decision in 1899 to establish Kuwait as a British protectorate.
281 Command economy: A system where the government, rather than the free market, determines what goods should be produced, how much should be produced and the price at which the goods will be offered for sale. The command economy is a key feature of any communist society. China, Cuba, North Korea and the former Soviet Union are examples of countries that have command economies. Source: "Command Economy Definition," Investopedia, October 31, 2010, accessed April 28, 2015, http://www.investopedia.com/terms/c/commandeconomy.asp#ixzz3Y9it5y5g.
on grain alone in 1963. Despite oil price hikes from 1975-1980, the USSR could not finance its required grain imports. It imported about 100 times as much grain as it produced, which was one of the many reasons why the USSR consistently ran a balance of payments deficit throughout this time period. By 1981, Soviet debt to Western creditors had ballooned to approximately $31 billion dollars, reducing its resilience before the onset of the glut.

In the 1960s and 1970s, Soviet economic growth and consumption declined; high defense spending robbed the civilian economy of investment capital; and the command economy artificially preserved inefficient industries while inhibiting economic transition from extensive to intensive growth. A vibrant black market emerged and official corruption grew rampant, compounding the Soviet Union’s economic troubles. In 1985, President Mikhail Gorbachev attempted economic reform as part of a failed restructuring program known as perestroika. Gorbachev’s drive to modernize the machine tool industry led to increased importation of machine tools at the expense of consumer goods. This resulted in widespread shortages that cost the government 8.5 billion rubles of lost revenue. Perestroika led to rising prices and unemployment and it weakened the Soviet central planning mechanism without instituting an effective market replacement, thus further contributing to its weak and unstable economic environment.

Politically, perestroika shifted authority away from the Politburo, the institution that held the Soviet Union together. The combination of perestroika, glasnost and democratization, unleashed pent up political grievances including anti-communist and nationalist sentiments. Successive reform efforts failed to address the continuing Soviet economic decline. Between 1987 and 1989, demonstrations and acts of political violence increased, fuelled by discontent with the communist system and the perception of a declining quality of life, signaling greater political instability. Already facing systemic turmoil, the 1986 oil price drop was an exacerbating factor that pushed the Soviet Union toward collapse.

**Oil and the Soviet Economy**

Oil revenue was an important source of income for the USSR. In 1982, oil was responsible for over 50 percent of the Soviet Union’s hard currency revenue with arms being the next most important source by comparison at 17 percent. The limited access to hard currency inhibited the USSR from properly maintaining its oil industry. Hard currency was necessary to afford the Western technologies needed for

283 Gaidar, 2.
286 According to Robert Strayer, extensive growth involves using more inputs to increase output, whereas intensive growth involves using inputs more efficiently and using technological innovation to increase output. Strayer, *Why Did the Soviet Union Collapse?*, 57-58.
oil exploration and extraction.\textsuperscript{294} As the reserves became more scarce, oil exploration and extraction levels fell, resulting in decreased oil production, which limited the country’s main income source.

At the onset of the oil glut, the Soviet Union faced declining oil revenue, shrinking currency reserves, and a ballooning debt it could not afford, among other equally pressing issues. In 1985, Saudi Arabia’s decision to increase oil production forced a 67 percent drop in oil prices, which cost the Soviets $20 billion annually in lost revenue.\textsuperscript{295} With pre-existing deficits, declining GDP growth rates, military overstretch, and massive defense spending topping 22-27 percent of GDP, the USSR could not afford this loss.\textsuperscript{296} The contracting oil industry forced the Soviet Union to rely even more heavily on borrowing, raising its debt from approximately $26 billion in 1985 to almost $60 billion by 1989.\textsuperscript{297} This diminished its credit rating until commercial banks would no longer loan it money.\textsuperscript{298}

To make matters worse, Soviet oil production declined further after 1988 due to lack of investment, and because they ran out of new, large oil fields to exploit.\textsuperscript{299} In an attempt to shore up much needed money and avoid greater hard currency loss, the Soviet Union required fellow members of the Council of Mutual Economic Assistance, a trade bloc that included eight other countries, to pay for energy in hard cash.\textsuperscript{300} The member states, also lacking hard currency, simply reduced fuel usage, further reducing Soviet oil revenue.\textsuperscript{301}

Meanwhile, some of the Soviet satellite states stopped their contributions to the central budget and began to distance themselves from the USSR. In 1989, the Soviet Union devalued the ruble by 90 percent to recapture hard currency from the black market. At the same time, the USSR experienced unprecedented levels of instability as the 1989 Revolutions unfolded.\textsuperscript{302} In an attempt to save the country from economic ruin, Gorbachev drew down cash reserves from western banks, increased gold sales, and implemented budget cuts (e.g. a 6 percent reduction in defense spending), none of which helped to alleviate the economic burden bringing down the state.\textsuperscript{303} Gorbachev, facing mounting anti-communist sentiment and a

\textsuperscript{294} Brynjolfsson, “Soviet Oil: Behind the Pipeline,” 18-19.


\textsuperscript{298} Gaidar, “The Soviet Collapse: Grain and Oil,” 5-6.


\textsuperscript{301} De Sousa, "Peak Oil and the Fall of the Soviet Union: Lessons on the 20th Anniversary of the Collapse," 5.


bankrupt state, resigned as President of the Soviet Union in 1991.

**Lessons Learned**

In the USSR case study, the oil glut accelerated the demise of a state that was already spiraling toward collapse. Although an extreme example, the Soviet case illustrates a worst-case scenario that an oil-producing country might face in a low oil price environment. This is particularly pertinent to those states that lack major alternative revenue sources besides oil. In addition to being heavily dependent on oil revenue to support state operations, the USSR failed to address their declining economic status in a timely, successful manner.

Even though today’s oil-exporting states are not operating communist-style countries similar to that of the USSR, they still suffer from similar oil dependencies and are confronting similar economic setbacks as a result of the drop in oil price. While some countries are resilient enough to ride out the “storm” that is low oil prices, others will have to implement policy corrections and reform in order to prevent an economic demise similar to that of the Soviet Union.

**Oil-Consumers: Vulnerabilities in a High Oil Price Environment**

Just as oil-producing countries may face heightened instability as prices decline, net-importing countries may face similar, albeit less severe, consequences when prices rise. Though estimates vary as to the duration of the current low-price environment, organizations such as the Energy Information Agency predict that prices will increase by more than one-third within the next year.\(^\text{304}\) An increase in oil prices may carry a range of negative economic and political consequences for consumer states, stemming both from the inherent drawbacks of higher prices for consumers as well as from short-sighted policy decisions consumer states may choose to implement when prices are low.

Structural dependencies, including **high oil import spending as a percentage of GDP** (illustrating import dependence), **high oil consumption as a percentage of GDP** (oil intensity), and **high fuel consumption per capita**, necessitate oil for a state’s economy to function and speak to a state’s degree of economic risk in the event of a supply shortage or interruption.\(^\text{305}\) These metrics also show the potential impact of oil price fluctuations on a country’s budget and private sector capital supplies. When a country’s net oil spending and import dependence is high, its public and private sectors may enjoy economic benefits when oil prices are low, but face disproportionate costs as prices rise.

Consumer states also face policy-induced vulnerabilities. Countries with **undiversified energy sources and/or suppliers** face more acute negative effects of price hikes than countries with diversified energy sectors. Similarly, if a state relies on a very small pool of suppliers for its oil imports, or relies on oil imports that must traverse unstable geographic bottlenecks, it is more vulnerable to supply disruptions or coercive politics from its suppliers.\(^\text{306}\) Related to this is the **size of domestic oil reserves**,\(^\text{307}\) which can

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allay the ramifications of a price shock or supply crisis by permitting countries to continue somewhat typical consumption patterns, or reduce consumption only gradually. Likewise, a country’s fuel subsidy programs serve to insulate a state’s public and/or military from shifts in global oil price, but at the cost of government reserves or revenue. Consumer countries may seek to eliminate subsidies when oil prices are low and the public can tolerate marginal price increases, but this raises political risks when prices rise again.

The following cases illustrate historical and modern-day instances of world market price increases and the effects of such increases on security and stability for consumer countries:

**INDIA:** During the 1970s, the world experienced a period of decreased oil supply, accompanied by steep oil price shocks. The oil price increase made transportation costs skyrocket in countries like India, whose citizens responded to the public transportation price hikes with mass protests and riots. Commodity prices also rose sharply with the increase of oil prices as food and other goods became more expensive due to increased transportation costs. India lacked robust energy resources domestically and relied heavily upon oil imported from the Near East, rendering it vulnerable to supply shortages and price shocks due to a lack of diversification in energy suppliers and energy alternatives, problems that continue to this day. The unstable oil price exacerbated preexisting political crises, including challenges to the legitimacy of the existing government. The instability became so severe that the government declared a state of emergency in 1975 and implemented authoritarian rule that continued for a year and a half.

**INDONESIA:** Historically, fuel subsidies have played an important role in Indonesia’s social and political stability. Amid the Asian financial crisis of the late 1990s, the Suharto regime, then in power for more than three decades, sought to offset declining government revenue by reducing fuel subsidies. This move, in combination with economic downturn and widespread uncertainty, led to popular protest against the government. The regime’s growing unpopularity, driven by key events such as a brutal police crackdown at Trisakti University on students protesting the rise in fuel prices, led to Suharto’s resignation in 1998. Today, in an environment of low oil prices, newly-elected President Joko Widodo, popularly known as Jokowi, has aggressively cut fuel subsidies by one-third across the board while simultaneously raising interest rates to prevent resultant inflation.

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http://www.eia.gov/countries/analysisbriefs/China/china.pdf


309 Ibid.


311 India’s main suppliers are Saudi Arabia, Iraq, Nigeria, Angola, Venezuela, Iran, and a handful of other Near Eastern and African States. Ibid.


316 Fitri Wulundari, Eko Listiyorini, and Sharon Chen, “Widodo makes biggest change to Indonesia’s fuel subsidies,” *Bloomberg*, December 30,
also has vowed to increase oversight of the country’s energy sector to combat smuggling and corruption.\textsuperscript{317} While these policy changes may be politically viable in today’s low oil price environment, they could become a future source of political risk and instability. The removal of the subsidies could erode popular support for Jokowi when global prices rise again and domestic prices are no longer restrained by artificial pricing.

**CHINA:** China is the second largest oil-consumer in the world behind the U.S. and is a net-importer of crude oil and refined petroleum.\textsuperscript{318} In 2013, China’s spending on oil imports was approximately 2.5 percent of its GDP, ranking 11\textsuperscript{th} out of 13 on the 2013 Oil Security Index (the lower ranking reflecting lower oil security).\textsuperscript{319} While undoubtedly benefiting from the recent dip in oil prices,\textsuperscript{320} a potential price increase would make it more expensive for China to continue using fuel at its present rate.\textsuperscript{321} In recent months, China has been purchasing oil at low prices to increase its strategic oil reserve, which is predicted to reach ~500 million barrels by 2020, in order to secure its supply.\textsuperscript{322} A large domestic oil reserve helps alleviate supply disruptions and can mitigate the effects of a short-term price shock. China has also been diversifying its oil imports by engaging in pipeline partnerships with Russia, Kazakhstan, and Myanmar, in order to help avoid a potential supply bottleneck in the Straits of Malacca, through which 84 percent of China’s imported petroleum travels.\textsuperscript{323}

**Adaptation is Key**

The ability of a consumer-state to adapt is key when assessing the consequences of a rise in oil price. Higher oil prices may encourage the creation or expansion of efforts to develop alternative energy sources to insulate states from the sharpest price shocks. Both Brazil\textsuperscript{324} and Colombia\textsuperscript{325} have developed or have promoted greater usage of oil alternatives to offset the economic costs of higher oil prices.\textsuperscript{326} States may also seek to develop domestic production capabilities and invest in foreign oil production ventures, as was the case in India, to ensure greater supply security once oil prices rise. High domestic demand may undermine adaptation by consumer-states if demand outpaces the effects of energy diversification in type and supply. Some consumer-states, like China, have focused on diversification rather than development of...
alternatives due to the inability of domestic production and current imports to meet growing demand.\textsuperscript{327}

\textbf{Oil is Power}

Possessing one’s own supply of oil has many benefits. Such a country does not have to divert as much money to oil imports, and the country is less reliant on foreign oil supply. Oil can be used as a coercive or antagonistic policy tool or as a tool for leverage; no state wants to be on the receiving end of such policies. There are quite a few risks that come with heavy reliance on imported oil, and there are a lot of benefits that result from its possession or control. Recognizing both the power and revenue connected to controlling this black gold, consumer (and producer) states may seek to assert sovereignty over unexplored and unclaimed reserves. As oil prices rise, these areas become even more valuable both as a domestic supply source and a revenue source. The following areas represent a few non-exhaustive examples of geographic areas that may become even greater sources of contention and aggression when oil prices rise.

\textbf{The East and South China Seas}

Despite efforts toward energy diversification, China’s oil import dependence and need for secure oil supply should not be understated. China has found itself embroiled in territorial and maritime disputes for years. China may become more aggressive in territorial claims of the East and South China Seas when oil prices rise, as it seeks to control the lucrative oil supply source in addition to gaining other benefits that come with asserting sovereignty over those areas.\textsuperscript{328} The EIA predicts that there may be as much as 200 million barrels of oil in the East China Sea.\textsuperscript{329}

The South China Sea (SCS) is another source of contention in the region. The EIA predicts it may have as much as 11 billion barrels of oil and 190 trillion cubic feet of natural gas.\textsuperscript{330} About one third of global crude oil trade travels through the South China Sea, a significant majority through the Straits of Malacca.\textsuperscript{331} As oil prices rise, these reserves become increasingly valuable, and a state in the region could begin pushing more assertively for its territorial claims as sovereignty provides not only the ability to extract the valuable resources, but the ability to restrict trade or freedom of navigation in those areas as well.\textsuperscript{332,333,334}

Energy-related clashes are not unprecedented in the area. Just last year, the Chinese National Offshore Oil Corporation launched the Haiyang Shiyou 981 oilrig 120 miles off the coast of Vietnam.\textsuperscript{335} Both China and Vietnam lay claim to this area of the South China Sea. The waters are within the 200-mile exclusive economic zone claimed by Vietnam under the UN Convention on the Law of the Sea, to which China is a party. However it is also in close proximity to the Paracel


\textsuperscript{328} Consumer access concerns are one of the pathways for oil to lead to war in: Jeff Colgan, “Fueling the Fire: Pathways from Oil to War,” \textit{International Security} 38 (Fall 2013): 147-180.


\textsuperscript{331} Ibid.

\textsuperscript{332} According to the UN Convention of the Law of the Sea, a state has the authority to restrict trade and freedom of navigation in territorial seas that lie within a state’s Exclusive Economic Zone. See U.S. Energy Information Administration “South China Sea.”

\textsuperscript{333} Colgan, Jeff. “Fueling the Fire.”

\textsuperscript{334} U.S. Energy Information Administration. “South China Sea.”

Island chain, which both China and Vietnam claim as their own. In addition to China and Vietnam, other stakeholders such as Brunei Darussalam, Malaysia, the Philippines, and Taiwan also lay claims to various parts of the South China. If oil prices rise, these disputes could become more hostile and destabilizing for the region.

**Eastern Mediterranean/Levant Basin**

The Eastern Mediterranean and Levant Basin represent another potential case of increased contention and instability, especially when oil prices rise. In 2010, a U.S. Geological Survey indicated there may be reserves of 1.7 billion barrels of oil and 122 trillion cubic feet of natural gas in the Eastern Mediterranean.\(^{336}\) This region has potential to become a strategically important reserve for Israel, Turkey, Cyprus, Syria, and the Gaza Strip.\(^ {337}\) With the exception of Syria, these countries are import-dependent for their energy needs. A key source of vulnerability is that the area is already home to several intractable border and territorial disputes, including the Arab-Israeli conflict and the dispute between Turkey and Greece regarding Cyprus.

Hydrocarbon discoveries in the Eastern Mediterranean could have large geostrategic and economic impacts for the states in the region that are fairly import-dependent and economically weak, especially in light of an increase in oil prices. States in the region may seek control over these resources to use as a buffer against rising oil prices, and thus growing oil import costs. They could also gain a new source of revenue by selling the oil abroad.

**Conclusion**

The world market price of oil remains volatile, and fluctuations will continue to affect the economic and political stability of importers and exporters alike. In the current low-price environment, oil-producing countries already have faced a range of negative consequences, and many show indicators of impending or potential crisis. The dynamic analytical framework presented in this report may be used to assess those consequences and related indicators, with the goal of improving U.S. awareness of, and responsiveness to, security crises spurred by low oil prices.

As the framework demonstrates, key political, economic, and social conditions determine a country’s risk or resilience to oil price volatility and subsequent instability. Those countries at greatest risk to instability in a low oil price environment will exhibit indicators of crisis. While oil-exporting countries suffer the destabilizing effects of such an environment, oil-consuming countries are in an advantageous position to use cheaper oil to fuel economic growth. Consumer countries may also use this low price period to diversify their energy sectors, buffering themselves from oil price shocks when prices do rebound.

Conversely, in a high oil price environment, the winners and losers are reversed. As prices rise, oil-producing states will likely enjoy revenue surpluses while oil-consuming states will face growing costs. As highlighted in this report, the degree of impact of a high oil price on oil-consuming states will largely be contingent on their oil dependency and the diversification of their energy portfolio, among other factors.


\(^{337}\) Ibid, 1-3.
Ultimately, the world market price of oil matters both to regional security and vital U.S. interests. It yields winners and losers at different oil price points, resulting in varying consequences for all parties involved. Today, abundant supply and slower-than-expected demand leave many energy exporting countries in precarious economic and political situations. Depending on how long the current low oil price environment lasts, and how low the price falls, these unstable situations may only get worse. With this in mind, it is important to utilize and build upon the dynamic analytical framework outlined in this report to monitor and anticipate security crises exacerbated, accelerated, or spurred by the low price of oil.
Appendix A: Historic Crude Oil Price Graph

Appendix B: Country-Specific Statistics

**Oil Production (mbbl/d)**

![Oil Production Chart](image)


**Oil Consumption (mbbl/d)**

![Oil Consumption Chart](image)

## Appendix B: Country-Specific Statistics

### Proven Oil Reserves (BB)


<table>
<thead>
<tr>
<th>Country</th>
<th>Total Exports</th>
<th>Oil Exports (mbbl/d) (est.)</th>
<th>Oil as % of Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>34.46</td>
<td>.5344 (2010)</td>
<td>90 (incl. gas)</td>
</tr>
<tr>
<td>Iran</td>
<td>61.22</td>
<td>.3308 (2010)</td>
<td>80</td>
</tr>
<tr>
<td>Iraq</td>
<td>91.99</td>
<td>.0038 (2010)</td>
<td>84</td>
</tr>
<tr>
<td>Libya</td>
<td>38.45</td>
<td>.0119 (2010)</td>
<td>--</td>
</tr>
<tr>
<td>Nigeria</td>
<td>93.55</td>
<td>.0188 (2010)</td>
<td>95 (incl. petro products)</td>
</tr>
<tr>
<td>Russia</td>
<td>515</td>
<td>2.968 (2013)</td>
<td>--</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>376.3</td>
<td>1.471 (2010)</td>
<td>90 (incl. petro products)</td>
</tr>
<tr>
<td>United States</td>
<td>1575</td>
<td>2.311 (2012)</td>
<td>--</td>
</tr>
<tr>
<td>Venezuela</td>
<td>91.78</td>
<td>.0684 (2010)</td>
<td>--</td>
</tr>
<tr>
<td>China</td>
<td>2210</td>
<td>.0612 (2013)</td>
<td>--</td>
</tr>
<tr>
<td>India</td>
<td>313.2</td>
<td>1.380 (2013)</td>
<td>--</td>
</tr>
<tr>
<td>Indonesia</td>
<td>178.9</td>
<td>.1424 (2010)</td>
<td>--</td>
</tr>
</tbody>
</table>

## Appendix B: Country-Specific Statistics

### Imports

<table>
<thead>
<tr>
<th>Countries</th>
<th>Total Imports (billion USD$)</th>
<th>Oil Imports (bbl/day) (est.)</th>
<th>Oil as % of Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>10.68</td>
<td>449 (2010)</td>
<td>.85</td>
</tr>
<tr>
<td>Iran</td>
<td>61.25</td>
<td>180, 400 (2010)</td>
<td>0</td>
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<tr>
<td>Iraq</td>
<td>62.34</td>
<td>172, 600 (2010)</td>
<td>.51</td>
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<td>Libya</td>
<td>16.08</td>
<td>575, 700 (2010)</td>
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<td>Nigeria</td>
<td>52.79</td>
<td>151, 700 (2010)</td>
<td>3.06</td>
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<td>Russia</td>
<td>323.9</td>
<td>28, 040 (2013)</td>
<td>6.94</td>
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<td>Saudi Arabia</td>
<td>162.2</td>
<td>196, 700 (2010)</td>
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<td>United States</td>
<td>2334</td>
<td>2, 071, 000 (2010)</td>
<td>8.2</td>
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<td>Venezuela</td>
<td>50.34</td>
<td>16, 660 (2011)</td>
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<td>China</td>
<td>1949</td>
<td>1, 236, 000 (2013)</td>
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<tr>
<td>India</td>
<td>508.1</td>
<td>312, 000 (2013)</td>
<td>29.78</td>
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<tr>
<td>Indonesia</td>
<td>166.7</td>
<td>473, 400 (2011)</td>
<td>5.5</td>
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</table>

**Sources:** CIA World Factbook, 2010-2014; Observatory of Economic Complexity, 2012.

### Revenue

<table>
<thead>
<tr>
<th>Countries</th>
<th>Total Revenue (billions USD$/yr.)</th>
<th>Oil as % of Revenue</th>
<th>% of GDP in Oil Rents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>27.61</td>
<td>74 (incl. gas)</td>
<td>33.9</td>
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<tr>
<td>Iran</td>
<td>47.84</td>
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<td>30.6</td>
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<tr>
<td>Iraq</td>
<td>99.52</td>
<td>97</td>
<td>43.5</td>
</tr>
<tr>
<td>Libya</td>
<td>41.54</td>
<td>91</td>
<td>39</td>
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<tr>
<td>Nigeria</td>
<td>23.85</td>
<td>70</td>
<td>13.4</td>
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<tr>
<td>Russia</td>
<td>439</td>
<td>28</td>
<td>13.6</td>
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<tr>
<td>Saudi Arabia</td>
<td>302.6</td>
<td>90</td>
<td>43.4</td>
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<td>United States</td>
<td>2849</td>
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<td>Venezuela</td>
<td>103.4</td>
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<td>China</td>
<td>2118</td>
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<td>1.2</td>
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<tr>
<td>India</td>
<td>181.3</td>
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<tr>
<td>Indonesia</td>
<td>137.5</td>
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<td>2.4</td>
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</table>

**Sources:** CIA World Factbook, 2013; Natural Resource Governance Institute, 2010-2011.
Appendix B: Country-Specific Statistics

<table>
<thead>
<tr>
<th>Countries</th>
<th>Sovereign Wealth Fund (billions USD$)</th>
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<tr>
<td>Azerbaijan</td>
<td>37.3</td>
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<tr>
<td>Iran</td>
<td>62</td>
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<tr>
<td>Iraq</td>
<td>18</td>
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<tr>
<td>Libya</td>
<td>66</td>
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<tr>
<td>Nigeria</td>
<td>1.4</td>
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<td>Russia</td>
<td>181.8</td>
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<tr>
<td>Saudi Arabia</td>
<td>762.5</td>
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<td>United States</td>
<td>No federal/state only</td>
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<td>Venezuela</td>
<td>0.8</td>
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<tr>
<td>China</td>
<td>1488.3</td>
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<td>India</td>
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</tr>
<tr>
<td>Indonesia</td>
<td>0.3</td>
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Source: Sovereign Wealth Fund Institute, 2015.
## Appendix C: Country-Specific Indicator Chart

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Iran</th>
<th>Iraq</th>
<th>Nigeria</th>
<th>Russia</th>
<th>Venezuela</th>
<th>Libya</th>
<th>Saudi Arabia</th>
<th>Azerbaijan</th>
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<tbody>
<tr>
<td><strong>Economic Indicators</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. World market price average falls below a state’s fiscal budget breakeven price</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2. State chooses to decrease sovereign wealth fund totals or foreign currency reserves</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3. State chooses to implement dramatic currency devaluation policies</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4. Dramatic increases in sovereign debt sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>5. Debt default</td>
<td></td>
<td></td>
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<td>6. Introduction or increase of austerity measures</td>
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<td><strong>Oil-Industry-Specific Indicators</strong></td>
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<td>1. OPEC chooses to increase/maintain oil production while world demand stagnates or declines</td>
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<td>2. Oil imports increase</td>
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<td>3. Cuts in spending, staff, and dividends</td>
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<td>4. Share price falling and / or investors selling stock</td>
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<td>5. Decline in remittances</td>
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<td>6. Migrants return to home country</td>
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<td>7. Merging of oil companies</td>
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<td>8. Company restructuring</td>
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<td>9. Bankruptcy</td>
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<td><strong>Social Indicators</strong></td>
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<td>1. Upsurge in civil unrest</td>
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<td><strong>Political-Military Indicators</strong></td>
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<td>1. Increases in political infighting</td>
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<td>2. Implementation of / rise in repressive measures</td>
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<td>3. Attacks on oil infrastructure</td>
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<td>4. Increase in aggressive rhetoric, threats</td>
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<td>5. Escalation of military activities</td>
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Appendix D: Acronyms and Oil Industry Definitions

**General Terms**

**Bpd:** Barrels per day, a measure of oil production.

**GDP:** The gross domestic product of a country, which is a measure of the market value of a country’s aggregate production and a gauge of overall economic performance.

**NOC:** A national oil company, i.e., an oil company that is wholly or largely owned by a national government.

**Pb:** Per barrel.

**SWF:** Sovereign wealth fund, a government-controlled reserve fund typically maintained through profits from the sale of oil or other commodities. SWFs provide a safety net to commodity-dependent governments that are especially vulnerable to market volatility.

**WMP:** The world market price of oil, herein based on the benchmark price for Brent crude.

**Organizations and Infrastructure**

**BTC:** The Baku-Tbilisi-Ceyhan pipeline, which runs from the Caspian Sea through Georgia to southern Turkey.

**BTE:** Baku-Tbilisi-Erzurum pipeline, which runs from the Caspian Sea through Georgia to eastern Turkey.

**CBR:** The Central Bank of Russia.

**EIA:** The U.S. Energy Information Administration, a U.S. government agency that collects and analyzes energy information to support U.S. policymakers.

**IEA:** The International Energy Agency, an autonomous intergovernmental organization that collects and analyzes information about the energy sector and serves as a policy adviser to member states.

**MEND:** The Movement for the Emancipation of the Niger Delta, a militant group based in Southern Nigeria.

**NNPC:** The Nigerian National Petroleum Corporation.

**OPEC:** The Organization of Petroleum Exporting Countries, an organization of twelve major oil-exporting states that collectively have significant influence over global crude prices.

**PDVSA:** Petróleos de Venezuela, S.A., the state-run oil company of Venezuela.

**SOCAR:** The State Oil Company of Azerbaijan Republic.
Bibliography

Explaining Today’s Low Price Environment


Conditions


Indicators


**Producer Section**

**Iran**


**Iraq**


Libya


**Saudi Arabia**


Nigeria


Russia


Venezuela


Parraga, Marianna and Alexandra Ulmer. “Its Red Shirts Fading, Venezuela's Oil Giant


Azerbaijan


Case Study: The Soviet Union


http://www.coldwar.org/articles/90s/fall_of_the_soviet_union.asp.

http://www.shsu.edu/~his_ncp/CMEA.html.

http://www.theoildrum.com/node/7878.


**Case Study: Iraq’s Invasion of Kuwait**


**Consumers**


