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ABSTRACT

The ongoing democratic movements and civil wars in the Middle East have challenged the stability of regimes across the region. On the other band, the commercial exploitation of large reserves of unconventional oil and gas in the United States is poised to significantly change the current equilibrium in energy markets. What are the implications of these developments on Saudi Arabia's energy policy? Will the long-standing U.S.-Saudi alliance remain the cornerstone of the kingdom's relationship with the outside world? We study these questions using a game-theoretic approach. Specifically, we investigate whether the new political and economic trends may warm the Saudi regime to a workable energy cartel with Russia. We analyze the outcomes from different coalitions that could form among major energy suppliers and show that this is indeed a possibility. We discuss the implications of our results for U.S. policy toward Saudi Arabia.

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\mathbb{K} INTRODUCTION \mathbb{M}

Regional and global foreign forces have supported different factions in the ongoing Syrian civil war. In contrast to Russia and Iran, who have backed the Syrian government, Saudi Arabia has taken the side of opposition forces. This is consistent with a decades-long anti-Soviet Union attitude by the Saudi government, rooted in great measure to its aversion to atheism and communism (Bronson 2005, 2006). A legacy of such proxy conflicts in places such as Yemen and Afghanistan has so far prevented the two energy superpowers from forming a coalition in the energy market and, at the same time, has contributed towards a special bond between Saudi Arabia and the United States. In recent years, the Saudi-led Organization of Petroleum Exporting Countries (OPEC) refused to let Russia into the club, despite an interest expressed by Moscow.¹

Yet, despite this history of hostility, recent major political and economic events could result in an unprecedented Saudi-Russia coalition in the energy markets in the future. First, the democratic movements taking place across the Middle East have put pressure on the Saudi government to be more inclusive in sharing oil revenues with a larger set of its population.

^{1.} For a survey of media accounts of Russia's attempts to join OPEC, see Elass and Jaffe (2009).

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Second, many pressing crises in the region, such as the Syrian civil war and the Iranian nuclear program, have increased the importance of Russian cooperation for Saudi Arabia. Third, rising supplies of unconventional oil and gas in North America and new giant conventional finds in Africa and Latin America are raising the possibility that global markets will enter a new period of supply surpluses (Jensen 2004, 2012). These developments are likely to put OPEC member states and Russia under intense economic pressure. As a result, Riyadh may be forced to reevaluate its energy policy and its relationship with Russia, which may bring about a coalition between the two energy superpowers that hitherto has been inconceivable.

In fact, senior leaders in Saudi Arabia have already been considering whether energy coalition overtures to Russia might prove effective in altering Russia's support for Syria and Iran. In one media account, Saudi Arabia offered a guarantee not to use a post-Assad Syria as a transportation hub for competing natural gas shipments to Europe if Russia would withdraw its current military support for the Syrian regime.² The Saudi overture suggests two significant changes in its geopolitical calculations. First, Riyadh considers it a possibility that Russia might be willing to trade its political stance on Syria for some sort of cooperation with the Saudis in energy markets. Second, Riyadh recognizes that the United States has been reluctant to provide the support that Saudi Arabia needs to achieve its political ends in Syria. Saudi Arabia's growing dissatisfaction with the United States' Middle East policy has escalated in recent months, and the kingdom's leaders have made no secret of their unhappiness with U.S. waffling over Syria.³ So far, the Saudi offer to Moscow has not led to a new energy cartel, but it does raise the possibility that an unprecedented energy coalition including both Saudi Arabia and Russia may emerge in light of democratic movements and shifting geopolitical alignments in the Middle East. Peace negotiations regarding a diplomatic resolution of the Syrian conflict would almost certainly require some level of condominium between Saudi Arabia and Russia, potentially paving the way for agreements on other matters. Riyadh might also feel it could get the U.S. to take its concerns more seriously, if it had a realistic option to leverage greater energy cooperation with Russia.

We use a game-theoretic approach to study the viability of different coalitions forming in energy markets. In addition to Saudi Arabia and Russia, we include Qatar as a major player in our model because Qatar is the largest exporter of liquefied natural gas (LNG) globally. Given the substitutability of natural gas for oil, both Saudi Arabia and Russia will be influenced by Qatar's competitive market position and each of their respective relations with Qatar in considering the effectiveness of any energy coalitions. We will consider the following coalitions:

$\{R_o, S\}, \{R_G, Q\}$
$\{R_o, S\}, \{R_G\}, \{Q\}$
$\{R_o\}, \{S\}, \{R_G, Q\}$
$\{R_o, R_G\}, \{S\}, \{Q\}$
$\{R_o, R_G\}, \{S, Q\}$
$\{R_o, R_G, S, Q\}$

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^{2. &}quot;Saudi Arabia offers Russia Deal for Backing off Assad Support," Reuters, August 7, 2013 http://www.huffingtonpost.com/ 2013/08/07/saudi-arabia-russia-assad_n_3719215.html?utm_hp_ref=tw. Also, see Ambrose Evans-Pritchard, "Saudis offer Russia secret oil deal if it drops Syria" The Telegraph, August 27, 2013 http://www.telegraph.co.uk/finance/newsbysector/energy/ oilandgas/10266957/Saudi-offer.

^{3. &}quot;Saudi spy chief says Riyadh to shift away from U.S. over Syria, Iran," Reuters, October 22, 2013.

where S and Q stand for Saudi Arabia and Qatar, respectively, while R_o and R_G stand for Russia as an oil producer and as a natural gas producer, respectively. For example, $\{R_o, R_G, S, Q\}$ indicates the grand coalition of all players. Our analysis leads to two main findings. First, the status quo configuration is stable, to the extent that Saudi Arabia and Qatar continue to assign great value to their alliances with the United States. Second, as a consequence of the Arab Spring, a concern about regime stability may compel Saudi Arabia to pay more attention to domestic demands, which will elevate the importance of economic revenue from oil. These changes can result in weakened ties between the United States and Saudi Arabia, and lead to an increased attractiveness of a Saudi-Russian coalition in energy markets. This would be especially true if Russia were to be more effective than the United States in helping contain Iranian nuclear ambitions and other regional threats in a manner that is less costly to Saudi internal stability. We discuss the implications of our findings for U.S. policy toward Saudi Arabia, taking into account the potential increase in energy supply in the United States.

💐 DOMESTIC DETERMINANTS OF SAUDI FOREIGN POLICY 🖊

Historically, Saudi Arabia's regional leadership aspirations and conservative religiosity has put it at odds with Moscow's forays into the Middle East, discouraging energy cartelization. For instance, the kingdom fought over a decade to prevent Soviet and Egyptian-backed radical communist parties from gaining power over Yemen, and it aided rebels fighting against the Soviet invasion of Afghanistan (Bronson 2006). The seemingly durable Saudi antipathy for Russia, while often couched in anti-secularist ideology, reflected a concern for Soviet efforts to overthrow the conservative regional status quo that holds the Saudi monarchy in power domestically. In a nutshell, Saudi leaders have viewed Moscow's actions as a threat to the domestic security of the regime.

Against this backdrop, the United States has forged close security relations with two major energy suppliers in the Mideast—Saudi Arabia (the world's largest oil exporter) and Qatar (the world's largest LNG exporter). The United States has maintained substantial military power in the Gulf to "deter conflicts and protect energy assets" from "coercive leverage" or to prevent a disruption of oil flows too large to permit a quick and low-cost market adjustment (Gholtz and Press 2010). In addition to the oil-for-security relationship, the two countries also bonded during the Cold War over their common antagonism toward atheist communism (Bronson 2006). The U.S.-Saudi special relationship has further hindered Russia's ability to achieve resource rent-seeking alliances in the Middle East.

In the early 2000s, Russia tried to tap its large energy resource endowment in order to reassert its place as a global superpower (Morse and Richard 2002). These efforts were not well received by members of OPEC, particularly Saudi Arabia and Qatar (Reed 2008). Since then, the public discussion of Russia joining OPEC has made little progress. In 2009, Alexander Medvedev, the Russian gas industry leader suggested that Iran, Qatar, and Russia consider joint "projects that could be implemented by the three countries in gas production and transportation" (Glazov 2008). While Russia has approached the leadership of Iran, Libya, Algeria, and Qatar, so far it has failed to create convincing partnerships that could serve as the basis for cartelization.

Despite the apparent failure of new coalitions to emerge in the energy markets, there has been continuing speculation in policy circles about the prospect of a gas cartel. Purely economic analysis of this issue tends to reach a negative conclusion. The reasons range from a

collective action problem that has prevented members of the Gas Exporting Countries Forum from reaching an agreement (Canty 2010, Mirza 2010), a fragmented gas market structure (Finon 2007), and an imbalance of a growing surplus supply potential versus demand that is likely to prevent a cartel of producers from gaining sufficient monopoly power in the market (Wagbara 2007). These studies, however, failed to account for important geopolitical considerations for the major producers.

In the meantime, the scholarship on Middle East politics provides two important insights on the questions we investigate. The first is that domestic regime stability is the driving force behind Saudi external relations (Nonneman 2005, Gause III 2010). As Gause III notes, "Time and again, when faced with difficult choices in the security realm, states in the region . . . chose policies aimed at protecting regime security over other values" (Gause, III 2010, 242). Second, there is an important element of pragmatism to Saudi foreign policy (Bronson 2005, Nonneman 2005). In terms of Saudi external relationships, this literature tends to predict continuity in U.S.-Saudi relations, but also recognizes the need for some adjustments in the relationship (Aarts 2005, Aarts and Nonneman 2005, Bronson 2005, Gause III 2010). In particular, with the Cold War ideological struggle receding into memory, scholars suggest that the War on Terror can be the new cause that glues the two countries together, though not as tightly as the threat of communism (Bronson 2005, Arts 2005).

Two assumptions are implicit in the prediction that U.S.-Saudi relation will largely remain intact. First, it is assumed that the oil-for-security aspect of the relationship will not change. This might no longer be true following the commercial exploitation of large reserves of unconventional oil and gas in the United States. Second, there will continue to be a great deal of regime stability for the monarchies. In particular, it is assumed that any democratic reform in Saudi Arabia will come from a push from Washington, and it would be relatively minimal (Gause III 2010). The Arab Spring challenged the assumption. The sudden collapse of Mubarak's government, the ensuing turmoil in the region, and most recently, the Syrian civil war, have put tremendous pressure on all regimes in the Middle East, including Saudi Arabia, to make adjustments in order to maintain monarchical order. As the strongest advocate of democratic movements around the world, the United States is not useful in countering what Saudi Arabia perceives as the undermining effect of such movements on its internal stability. A case in point is the U.S. (perhaps reluctant) disapproval of the Saudi intervention in Bahrain in 2011.

In light of the new developments in energy markets and of the geopolitical environment in the Middle East, we believe that it is important to investigate whether it is in Saudi Arabia's self-interest to consider new external alignments. The democratic movement has forced the Saudi regime to spread its wealth more generously within its population. A downturn in oil prices, which may be the result of the anticipated increased supply in the United States, might render this strategy ineffective (Gause III 2013). Thus, the endurance of the Saudi regime might necessitate new energy coalitions.

➡ MAJOR PLAYERS AND THEIR GOALS

In this section we employ a cooperative game-theoretic approach in order to evaluate the potential of new coalitions forming in the energy markets. We will consider both economic and geopolitical payoffs for the countries we study. Moreover, we will analyze potential coalition formations in oil and gas markets simultaneously. Over the past two decades, natural

gas has made strong gains as a substitute for oil in electricity generation, industrial activity, as a feedstock for the manufacturing of petrochemicals, and in residential heating.⁴ This substitutability of natural gas for oil is expected to grow in the coming years, as new conversion technologies allow natural gas to enter the transportation sector.

We will consider all possible coalitions for the three major resource producers in the world: Saudi Arabia, Qatar, and Russia. The actions of these producers generate much of the dynamics in energy markets.⁵ Saudi Arabia is primarily an oil producer and can influence international oil prices at least in the short-term. Qatar, primarily a gas producer, is the largest supplier of globally traded LNG and has recently gained a price-setting role in natural gas markets as LNG trade has rapidly expanded. Russia is a key player in both oil and gas markets, and while Russia is currently free-riding on high oil prices set by OPEC, it was hurt by the oil price wars waged by Saudi Arabia in the mid-1980s and by competition from Qatari LNG more recently.

We assign Saudi Arabia three main foreign policy objectives: maintaining its regime security, maximizing its economic and geopolitical benefits from being the major oil producer, and maximizing its regional and global political influence.⁶ These three dimensions are certainly not independent of each other; in particular, Saudi Arabia's regional and global influence is in large part derived from its status as the most influential player in the oil market. Despite the interdependence of the three main foreign policy objectives, for conceptual clarity, we find it useful to treat them as distinct. Qatar has similar foreign policy objectives: maintaining its regime security, maximizing the economic benefits from being the major gas producer, and promoting its global and regional influence (in particular, in a manner that is independent of the regional power of Saudi Arabia). For Russia, we focus on two main foreign policy objectives for the purposes of this exercise: reasserting its status as a major power in international politics, and deriving maximal economic benefits from being a major oil and gas producer (Jaffe and Manning 2001, Morse and Richard 2002).⁷

In the next section we will identify outcomes (in terms of the corresponding payoffs resulting from various coalition formations) that are stable; i.e., that cannot be improved upon by an alternative coalition. We say that a coalition improves upon an outcome if there is an alternative feasible outcome that makes all members of the coalition strictly better off. In other words, we will argue that certain payoffs will not be realized if there is an alternative coalition that can make the participating countries better off.

➡ THE STATUS QUO AS AN OUTCOME OF A STABLE COALITION

We consider six possible outcomes, which we outlined earlier, and proceed by eliminating those that are not stable. We then turn our attention to those coalitions that cannot be blocked. The first outcome results from Russia forming a cartel with Saudi Arabia in the oil market

^{4.} Recent Citi forecasts project that natural gas could eliminate as much as 20 million barrels a day of oil demand by the 2020s through fuel switching from oil.

^{5.} We will not consider Iran in our model even though it is the third largest reserve holder of natural gas. This is because longstanding international economic sanctions have prevented Iran from developing export capacity. At this juncture, given market competition and political risk, it could take Iran as long as 15 to 20 years before it could become a major player in the global gas scene.

^{6.} See Aarts and Nonneman (2005) for more detail.

^{7.} Russia also cares deeply about securing its borders and preventing separatism in its far-flung regions as well as about other international matters. For the purposes of this study, we consider those objectives most relevant to the questions at hand.

and a cartel with Qatar in the gas market (outcome 1). Alternatively, Russia might form a coalition with Saudi Arabia in the oil market while Russia and Qatar operate independently in the gas market (outcome 2). A third possibility involves Russia and Saudi Arabia operating independently in the oil market, while Russia forms a cartel with Qatar in the gas market (outcome 3). Russia, Saudi Arabia, and Qatar can also operate independently in both markets (outcome 4), or Russia may operate independently in both markets, while Saudi Arabia and Qatar form a cartel over both oil and gas (outcome 5). Last, all three countries might form a coalition and act as a cartel in both oil and gas markets (outcome 6).

First, we argue that outcomes resulting from a coalition involving Russia and Saudi Arabia (outcomes 1 and 2) cannot be stable since Saudi Arabia will be significantly better off both geopolitically and economically by acting unilaterally. Geopolitically, an alliance with Russia would presumably dilute Saudi Arabia's special relationship with the United States and reduce its access to U.S. protection and military assistance. This will negatively affect its security against its regional rival, Iran.⁸ Moreover, if Saudi Arabia and Russia form an oil cartel, oil consuming countries would be even more motivated to diversify their energy usage away from oil and would likely seek out Qatar and other natural gas producers. Taking both economic and geopolitical factors into consideration, it appears more plausible that Saudi Arabia would be better off alone, regardless of whether Russia forms a cartel with Qatar in gas production or not.

Second, we argue that outcomes resulting from a coalition between Qatar and Saudi Arabia (outcome 5) cannot be stable. Constrained by Saudi Arabia in such a coalition, Qatar will be worse off in terms of deriving economic benefits and exercising international and regional influence. Economically, by emphasizing LNG exports, it has made its income stream relatively more independent from Saudi Arabia. The shift in Qatar's energy portfolio toward natural gas has allowed the tiny country to export a commodity on which Saudi Arabia has much less dominating influence. The strategy fits with Qatar's desire to obtain greater independence from Saudi Arabia and to attain economic and security relationships that are outside direct Saudi control (Doherty 2012, Hashimoto et al. 2006). Qatar has also brought in American firms to develop its natural gas, hoping to strengthen its security relationship with the United States (Hashimoto, Elass, and Eller 2006). The move to natural gas has paid off handsomely, as Qatar is now the largest exporter of LNG and boasts the highest per capita gross domestic product in the world. In the meantime, by being an independent gas supplier, Qatar becomes more important geopolitically and is able to strengthen its independent security relationship with the United States, which provides a balance against the influence of powerful neighbors in Saudi Arabia and Iran (Blanchard 2012). An alliance with Saudi Arabia would negate all these benefits.

This leaves us with 3, 4, and 6 as viable candidates leading to stable outcomes. Notice that outcome 4 is in fact the status quo. We proceed by asking the following question: under what conditions will all three countries want to move away from this status quo, possibly leading to a future oil coalition that includes Russia and Saudi Arabia? From a purely economic perspective, each of the three countries would receive the greatest payoff if they form a grand coalition (outcome 6). However, this scenario is highly unlikely: when geopolitical considerations are taken into account, a very different outcome may be preferred by at least a subset of the three countries. More precisely, while it is true that Russia—having both oil and gas

^{8.} This weakening of security could be ameliorated if Saudi Arabia could make its coalition with Russia conditional on Russia's cooperation with containing Iran's access to arms. We will revisit this issue later.

reserves—is better off in the cartel scenario both economically and geopolitically, the same cannot be said for Qatar and Saudi Arabia.

For Qatar, a grand coalition can eliminate the possibility of a price war with either Russia or Saudi Arabia. This would increase Qatar's revenue, but the increase would likely not be substantial. On the other hand, it would weaken Qatar's relationship with the United States, Japan, and Europe, while it would increase the political influence of Saudi Arabia in regional and international affairs. We believe a strong case can be made that the increase in economic benefit from joining the grand coalition will not be enough to offset Qatar's loss in the geopolitical arena. Perhaps more importantly, Saudi Arabia does not have an incentive to form such a coalition. Currently, Saudi Arabia already enjoys enormous economic gains from relatively high oil prices, and the additional economic gains from the grand coalition may not be all that enticing, as they would likely come at the cost of losing some of the geopolitical leverage that the country currently enjoys, particularly through its close relationship with the United States and emerging importance to China.

This leaves us with the only other alternative to the status quo, outcome 3. This is often touted as the most plausible scenario, given that Russia is eager to solve the problem of a potential "two-front economic war" with both Qatar and Saudi Arabia. In this scenario, Russia forms a gas coalition with Qatar, while it remains in a competitive relationship with Saudi Arabia in the oil market. One aspect of this scenario is that, having both resources, Russia will have an incentive to use the cartel to advance its overall interest, while Qatar will be constrained in the gas market and weakened geopolitically by losing its special relationship with the United States and Europe. Qatar's close ties to the OECD countries result, in part, from its important role as an alternative supplier of natural gas in competition with Russia. Indeed, Russia's past behavior toward its smaller neighbors (for example, Turkmenistan) and trading partners demonstrates little reluctance to use aggressive tactics to gain uneven economic advantages. We conclude that Qatar would be reluctant to form a coalition with Russia, as history suggests that Russia would use such an alliance to advance its own economic interests at Qatar's expense.

➡ CHANGING DOMESTIC CONDITIONS AND ENERGY MARKET REALIGNMENTS ¥

Our model's prediction that the status quo alignment of interests in the energy markets is stable depends critically on the assumption that Saudi Arabia and Qatar view their alliances with the United States as central to their geopolitical interests. This makes the prospect of an energy coalition with Russia unlikely. However, the Arab Spring, which continues to unfold, may bring significant changes to the domestic conditions in many of the countries in the region, including Saudi Arabia and Qatar. Such changes could, in turn, create new dynamics in regional relationships, leading to a revaluation of the countries' economic and security needs. These changes in domestic and regional conditions are likely to result in a decline in U.S. influence in the region, which would in turn reduce the geopolitical payoffs that Saudi Arabia and Qatar derive from their alliances with the United States. If this occurs, our model can no longer rule out the possibility of new stable coalitions involving Russia. We discuss this scenario next.

At least at the outset of the Arab Spring, many political analysts and commentators have taken the view that the emergence of democracies in the Middle East has a positive effect on the U.S. relations with the countries in the region, and thus on U.S. national interests. The

sentiment is best captured by the Secretary of State Hillary Clinton: " [D]emocracies make for stronger and stabler partners. They trade more, innovate more, and fight less. They help divided societies to air and hopefully resolve their differences. They hold inept leaders accountable at the polls. They channel people's energies away from extremism and toward political and civic engagement. Now, democracies do not always agree with us, and in the Middle East and North Africa they may disagree strongly with some of our policies. But at the end of the day, it is no coincidence that our closest allies—from Britain to South Korea are democracies."⁹ However, others have pointed out that there is no guarantee that a popularly elected government will be friendlier to the United States than its autocratic predecessor. Recent developments in Egypt support the latter view. Both sides of these arguments, however, seem to ignore a fundamental institutional difference between democracies and non-democracies: the support of a greater proportion of the population and a larger number of internal political coalitions is necessary for a government to stay in power in a democracy (Bueno de Mesquita et al. 1999, 2003). We believe that this difference could lead to a decrease in U.S. influence in the region, particularly on issues related to energy policy.

As some countries in the region move towards democracy, even traditional monarchies will be under pressure to widen the distribution of economic benefits and patronage in order to stave off popular demonstrations and unrest. "The inconsistent ways the kingdom distributed oil wealth" has always been a source of vulnerability for the Saudi regime (Jones 2010, Okruhlik 1999). As Saudi and Qatari leaders take popular sentiments into account, it will likely become more difficult for them to disregard the reactions of domestic audiences on important economic and security issues in order to satisfy the policy demands of the United States. Long before the Arab Spring, it was noted that public opinion in the Gulf Arab counties constrained the rulers in their pursuit of security ties with the United States (Gause III 1994, 143). Consequently, a close relationship with the United States may no longer be sustainable, or it might come at the cost of losing significant domestic support. More and more commentators on Middle East politics have come to this assessment (Miller 2011, Fakhro and Hokayem 2011).

Saudi Arabia has already instituted a number of domestic reforms in response to the current political atmosphere in the Middle East and has increased its economic handouts (worth over \$130 billion) to the wider population. Some analysts predict the kingdom will have some difficulty maintaining higher spending on social services and military salaries in the coming years, with rising national budgets requiring crude oil prices of \$88 a barrel in 2011 to balance expenditures with income, increasing to \$110 a barrel to prevent budget deficits by 2015.¹⁰ This reality could motivate the kingdom to favor higher oil prices over other policy priorities, as the revenue needs to maintain internal security and regime survival increase.

Both Saudi Arabia and Qatar are actively providing financial and other kinds of support for opposition groups in Syria and other parts of the Middle East. As the need to increase spending on internal security and regional conflicts rises, it will become even harder for Saudi

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^{9.} Keynote address at the National Democratic Institute, November 7, 2011.

^{10.} The Institute of International Finance, an international banking trade group, predicted in its March 2011 report that, while the Saudi government needs to average \$88 a barrel for its crude to balance the budget this year—up from \$68 a barrel in 2010—Riyadh will begin facing budget deficits unless it can sell its oil for an average of \$110 a barrel by 2015. See Brad (Bourland and Gamble 2011).

Arabia to sustain the low prices that feeds its oil-for-security relationship with the United States.

In the short run, the ability of the Saudi monarchy to hold onto the reins of power seems assured, as economic handouts, targeted repression, and the promise of reform have so far kept the vast majority of Saudis off the streets, with the notable exception of unrest in the Shia dominated Eastern province. In the long run, however, as expectations of the population increasingly need to be met with broadly distributed benefits, higher oil prices will likely become a top policy concern for Saudi Arabia. Under these circumstances, cooperating with Russia to sell oil and gas at higher prices may become a much more attractive option than it has been in the past. As Gause III notes, "Oil wealth, when it is abundant allows regimes that use it wisely to expand their support coalitions, reducing the zero-sum aspect of most political conflict, and to reduce the economic incentives for mobilization of opposition and for cross ideological opposition coalitions to form" (Gause III 2013, 25).

Moreover, the democratization of neighboring countries around Saudi Arabia and Qatar will likely change the regional dynamics, creating new security needs that may not be met by the countries' strong relationships with the United States. Saudi Arabia is concerned with being the spiritual leader of the Arab world. Such a status can translate into a political power that can hold sway over other monarchies and the Arab population at large. This influence may be challenged as nearby states become more democratic. While a special security pact with the United States is critical for Saudi Arabia to counter external military threats, particularly those from Iran, U.S. support for democracy building is becoming increasingly inconvenient for the Saudi monarchy. There is no similar democratization concern with respect to Russia.

An important question remains as to whether Russia, if properly motivated, could be more effective than the United States in helping Saudi Arabia reduce the threats from Iran (and perhaps Syria). Iran and Saudi Arabia have engaged in intense geopolitical rivalry in the region as well as inside OPEC. Moreover, a nuclear weapon controlled by Tehran would pose a grave threat to Saudi Arabia's national security. While the United States has actively sought to stunt Iran's nuclear weapons program by economic sanctions, Russia has taken a more ambiguous stance. In fact, Russia may have found that its geopolitical interest is enhanced by its friendly relationship with Iran. By backing Iran militarily, Russia gains access to a regional proxy that can directly influence the security of Saudi Arabia and Qatar, its major competing energy suppliers. In addition, Russia is motivated to support Iran to constrain the success of Sunni jihadist movements that might spread to its borders. Thus Russia's involvement in the critical regional security issues is significant, and it is worthwhile for Saudi Arabia to contemplate sharing power in the oil market in exchange for Russia's cooperation on the geopolitical front.

Russia too has an incentive to form a stable coalition with Saudi Arabia, even though in the short-run it can benefit from high oil prices due, in part, to the Iranian nuclear crisis. The interaction between the United States and Iran during the 68th United Nations General Assembly in September, 2013, suggests that a political solution of the crisis is not out of the question. A long term solution to favorable oil prices is, thus, in Russia's interest. Such a coalition would benefit Russia by eliminating the possibility that Saudi Arabia would initiate an oil price war.¹¹ In addition, if it is true that Europe's dependence on Russian gas will not

^{11.} This likelihood, though, has decreased. In addition to the pressure to spend more for domestic stability and regional interets, Saudi Arabia has less spare capacity immediately available (only about 1 to 2 million b/d) today than in the past, and it will be quite expensive for Saudi Arabia to bring on new oil fields.

increase (Noël 2009), then Russia will have additional incentives to be amenable to form a coalition with Saudi Arabia in the oil market. Thus, while a strong coalition between Saudi Arabia and Russia may not be imminent, a scenario under which such a coalition may become more compelling in the future appears to be plausible.

There has been ongoing discussion about the actual ability of OPEC (or by extension, any other coalition of oil producers involving Russia), with Saudi Arabia as a core producer, to influence oil prices through collusion. The economics literature on oil cartels and on OPEC in particular is vast and diverse in opinion on OPEC's effectiveness.¹² Smith (2005) points to some statistical challenges in econometrically evaluating the effectiveness of a cartel. Yet, he documents strong evidence of collusive behavior among OPEC members, resulting in price inefficiencies through uncompetitive pricing. Despite coordination failures, cheating, and entry from alternative sources, this ability is unlikely to vanish in the near future. Even if it sees its impact on prices decline, OPEC can still create an enormous transfer of wealth to producers of crude oil. Thus, coordination on oil investment and production policies between Saudi Arabia and an equally large producer such as Russia could reasonably be assumed to yield some economic benefits.

In contrast, the regional dynamics are less likely to change Qatar's relationship with the United States. Qatar is a small and wealthy country with ambitious foreign policy goals, the most important of which is to protect its security and interests against bigger regional powers. Qatar now enjoys the highest per capita income in the world and its population is less likely to be concerned about higher gas revenues. Security issues loom large and, in this sense, a strong military alliance with the United States is not easily substitutable. We conclude that a Russo-Saudi coalition in the oil market is more likely than a gas cartel.

Structure Conclusion 🖉

We analyzed the likelihood of a new configuration of coalitions that might emerge in energy markets in light of the Arab Spring. Due to the legacy of the Cold War and close alliances between the United States and both Saudi Arabia and Qatar, neither Saudi Arabia nor Qatar has engaged in sustainable collusive coalitions with Russia. Instead, at different times in recent years the two countries acted competitively on oil and gas pricing to harm Russia's earnings from its oil and gas sales. Our analysis suggests that democratic movements, as well as regional security crises in the Middle East, may bring about significant changes in Saudi Arabia's external relationships. In particular, we argue that it is not inconceivable that Saudi Arabia could eventually consider forming an energy coalition with Russia in the future. Russia's offer to work in tandem with Saudi Arabia to keep oil prices high might become increasingly important for Saudi long-term stability as budget pressures mount over time.

How should the United States respond to such a potential realignment in energy markets? The new domestic discovery of shale oil and natural gas is already making the United States less dependent on foreign oil imports. As a result, the value of a close U.S.-Saudi alliance might decrease over time for the United States. Moreover, Saudi Arabia's diminishing spare capacity and export capability will weaken its ability to launch and win an oil price war against Russia. In fact, low oil prices resulting from such a price war could further destabilize Saudi Arabia, rendering this option infeasible. At the same time, the U.S. preference for democracy

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^{12.} Smith (2008) provides an excellent review.

promotion in the Middle East may increasingly come into conflict with the interests of the Saudi ruling class. Taken together, these factors suggest that the United States might re-evaluate its relationship with Saudi Arabia.

This, however, does not necessarily imply that the relationship should be significantly downgraded. Strong arguments can be made for the United States to maintain a close relationship with Saudi Arabia. First, Saudi Arabia remains a major oil producer, and therefore, Saudi energy policy will affect world energy prices even as the United States becomes a major producer itself. U.S. allies in Europe and Asia will still be dependent on Saudi exports. Moreover, billions of Saudi petro dollars are invested in the United States, and a sudden withdrawal could threaten U.S. economy. Last, the United States and Saudi Arabia have a common interest to prevent Iran from becoming a nuclear power and to fight terrorism.

These common interests while more diverse than in the past, they are grounded in new reality and are far from transient. Therefore, more rigorous U.S.-led conflict resolution initiatives in the Middle East would, in addition to avoiding military escalations that drive up oil prices, reduce the opportunities for Russia to leverage regional conflicts to bargain for energy coalitions. The United States should also take advantage of its current close relations with Saudi leaders and activists to encourage the kind of political compromise and reforms that could promote a soft landing for any Saudi political transition.

This approach will reduce Saudi concerns for drastic domestic instability and diminish the appeal of a coalition with Russia.

Ultimately, as the United States has few concrete means to successfully influence internal politics in Saudi Arabia, it should start preparing for a change in the status quo oil coalitions. This includes realigning the policies of the U.S. strategic petroleum reserve. If domestic shale oil abundance reaches the level that completely frees the United States from foreign oil important dependence, the U.S. will have more discretion on when and how to use the Strategic Petroleum Reserve. In such circumstances, a President could consider using the SPR to either loan oil to other countries for geopolitical aims (for example, to *counter the economic blackmail of the "oil weapon"* against an allied country) or to provide extra oil into the market to influence global prices.

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