Shale Shock: Developing and Testing a Framework of Saudi Repression

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What are the implications of the U.S. unconventional energy revolution for human rights in Saudi Arabia? While international level assessments propose various degrees of resulting U.S. leverage over its traditional security partner, domestic level analyses remain confined to a consensus view that the Saudi regime can withstand changes in the global oil market better than other oil-exporting countries. But external perceptions of regime stability may not match those of the royal family. Drawing from the propositions of the "resource curse" literature, the article examines how the vulnerabilities of an oil-dominated economy may influence decisions to silence critical voices and key actors. The article proposes a framework including three plausible effects of the U.S. unconventional energy revolution, hypothesizing that while domestic level effects encourage repression, the international level effect forces progress. Using annual human rights reports on Saudi Arabia, the article then tests an underexamined link of the framework: whether lower oil prices, even across a short time frame, correlate with crackdowns. Finding little evidence for this relationship, the article concludes that although the regime appears resilient to short-term price shocks, unabated repression in the fallout of the 2014-2016 crash indicates anxieties over a long-term market effect. Although the U.S. cannot settle for shale, the framework contains important lessons for U.S. economic statecraft, including its exertion of a new source of power, understanding of Saudi threat perception, and response to future factors impacting the global oil market.

Introduction

Since the late 2000s, the modernization and combination of two technologies—horizontal drilling and hydraulic fracturing—have catapulted the U.S. to new prominence in the global energy market. Shale gas production increased by over 50% annually between 2007 and 2014 (Blackwill and Harris 2016, 205), accounting for 8% of U.S. production of natural gas in 2007 and 79% in 2021 (ibid., 206; USEIA 2021). Shale oil production, particularly important for U.S.-Middle Eastern relations, rose by 56% between 2008 and 2014, "an increase that, in absolute terms, is larger than the total output of each of eight of the twelve OPEC countries" (ibid., 206). The influx propelled a 77% overall oil production increase during the same time period (Ibid, 206). These trends, driving increasing energy exports and declining imports since 2005 (USEIA 2021), have allowed the U.S. to assume the mantle of the world's top oil producer, surpassing Saudi Arabia and Russia (Elliott and Santiago 2019). Furthermore, in 2019, the U.S. became a net total energy exporter (USEIA 2021).

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The trends of the "unconventional energy revolution" have remained fairly stable (U.S. Department of Energy 2021), but not to the same extent as the U.S.-Saudi "special relationship," which has influenced the global energy market for nearly a century. "Oil for security," the term coined to sum up U.S.-Saudi relations, overlooks the roles of anticolonial rhetoric, anti-Communist ideology, market access, strategic location, and religious identity, but the label has stuck (Bronson 2006, 23). The approximately 90-year partnership between the world's preeminent military power and (former) preeminent oil producer has withstood terrorist attacks, price spats, and a slew of human rights violations. Saudi abuses—including repression of critics (U.S. Office of the Director of National Intelligence 2021; Schenkkan and Linzer 2021, 31-34), arbitrary arrests and detentions (ALQST for Human Rights 2021), gender-based restrictions (Beckerle 2016), and torture (ALQST for Human Rights 2021)—have spanned from founder Ibn Saud to the current Crown Prince, Mohammed bin Salman (MBS). Since the early 1980s, NGOs have criticized the U.S.'s failure to reprimand Saudi Arabia due to economic and security interests, as well as the "reassuring and profitable" nature of doing business with a "small, stable, entrenched elite" (Freedom House 1985). Pressure has escalated since MBS ordered the assassination of Jamal Khashoggi in 2018, while the amount and proportion of imported oil from Saudi Arabia has declined. Biden entered office intending to recalibrate the relationship (Sanger 2021), but the Saudis—who remain the U.S.'s largest military arms customer (United States Department of State 2020)—have concluded that the administration's rhetoric lacks conviction (Kelly 2021). If the energy revolution meets some analysts' expectations, it presents an opportunity to exercise newfound leverage over the U.S.'s autocratic partner and demonstrate a credible commitment to human rights.

This paper addresses the consequences of the U.S. energy revolution for the human rights situation in Saudi Arabia, focusing on how the vulnerabilities of an oil-dominated economy can influence decisions to repress critical voices and key actors. First, I identify a gap in the literature regarding the domestic implications of the shale oil revolution. Then, drawing on existing scholarship, I propose a framework of how the short- and long-term effects of increased oil supply in the global market may motivate the regime to increase repression. Afterwards, using annual human rights reports on Saudi Arabia, I investigate one underexamined link of the framework: whether lower oil prices, even across a short time frame, correlate with crackdowns on potential domestic threats to regime stability. Although I find little evidence in support of this correlation for early crashes, the 2014-2016 crash appears to confirm some relationship between price and repression. The framework carries important lessons for U.S. economic statecraft, including its leverage of the energy revolution, understanding of Saudi threat perception, and response to future factors impacting the oil market.

The International Debate and (Underexamined) Domestic Debate

When attempting to exert leverage, policymakers must consider the characteristics and status of their target as much as they focus on their power bases and arsenal of policy tools (Tostensen and Bull 2002; Nephew 2018). Yet, in comparison to the international effect literature, which considers whether the U.S. can derive the requisite leverage to influence Saudi decision-making, scholarship on the domestic effects of the U.S. energy revolution remains underdeveloped.

A general consensus has emerged that Saudi Arabia's regime is likely more resilient to the shale revolution than other oil-exporting countries like Venezuela, Iran, and Russia, with only a few academics challenging (Setser and Frank 2017). From that premise, many have suggested that the Saudi Arabian regime is vulnerable to long-term reduced crude oil prices and revenue (perhaps caused by shale), but largely dismiss the possibility of short- or medium-term oil price shocks (caused by shale or a different factor) having an impact on regime stability (Blackwill and Harris 2016; Rundell 2022; Westphal, Overhaus, and Steinberg 2014; Sons 2018, 129; Feldstein 2014). As Robert Blackwill and Jennifer Harris write, citing 2015 IMF numbers:

> Analysts warn that Saudi Arabia's long-term fiscal position is not sustainable, and prolonged slack in the price of oil will eventually test Riyadh's ability to maintain the public services that are an important basis for the regime's legitimacy. But this would take many years, given the kingdom's enormous insurance policy in the form of another geoeconomics instrument: its roughly $700 billion in holdings of foreign exchange reserves (Blackwill and Harris 2016, 211).

Fewer still have drawn a connection between oil-based vulnerability in Saudi Arabia and repression, although scholarship in the spirit of the "oil curse" (Ross 2001) has demonstrated relationships between oil price shocks and civil conflict in Nigeria and Colombia (Nwokolo 2021; Dube and Vargas 2013). Instead of focusing on the nexus between oil and abuse, most have written about waves of Saudi repression caused by security factors (Wilcke 2009), "pragmatic sectarianism" (Louër and Rundell 2020), and the personality of its leaders (Khashoggi 2017; Kirchgaessner 2021; Hope and Scheck 2021). There are a few exceptions: David Rundell, the former Chief of Mission at the American Embassy in Riyadh, describes the relationship between reform and high-level repression, and Chatham House analysts have put forth three possible scenarios given oversupply of the oil market, including a period of internal repression in OPEC states (Stevens and Hulbert 2012). Still, answering whether we should take for granted the imperviousness of the Saudi regime to short- and medium-term oil price declines—or, at least, the leadership's low levels of perceived threat in response to them—has important implications. American policymakers must understand the full effects of the shale oil revolution to capitalize on this potential opportunity for leverage and craft effective responses to human rights incidents.

The Framework

My proposed framework includes three plausible effects on repression resulting from the U.S. unconventional energy revolution: a long-term leverage effect, a long-term market effect, and a short-term price effect. The central hypothesis is the following: on the international level, shale oil can grant the U.S. greater independence from Saudi Arabia. Equipped with new leverage, willing American presidents can apply pressure regarding human rights and reduce repression. On the domestic level, two pro-repression effects occur simultaneously. Both center on anticipation, which plays a unique role in the oil market and weighs heavily in the decision-making of autocrats prioritizing their regime's stability (Feldstein 2014). Shale oil, as a long-term additional supply in the global energy market, may represent a fundamental threat to the Saudi "rentier state" model, requiring both a massive reform of the system and repression of stakeholders with the most to lose. However, shale oil has also contributed to short-term price windfalls. When faced with downward price shocks, in anticipation of reduced oil revenues, fiscal deficits, and constrained ability to distribute oil-backed benefits, the Saudi government turns to repression to uphold its image and pre-empt mass unrest.

Experts have discussed elements of this framework to various extents. Underlying the framework, the premises are three-fold: the energy revolution will affect the calculus of traditional oil-producing states; economic statecraft can affect the price of crude oil; and oil undergirds Saudi Arabia's social contract and political economy.

First, regardless of the debate over how much leverage the shale oil revolution will grant the U.S. over Saudi Arabia, few deny that increased supply—even oversupply—in the energy market has affected Saudi leaders' decision-making. Most observers agree that decision-making in 2014-2016, the first significant oil crash since U.S. fracking began in earnest, marked a strategic re-prioritization away from oil price control and towards market share, even if they disagree on whether Saudi Arabia welcomed such a shift.

Second, the historical record indicates that economic statecraft by oil-producing states can have intentional and significant effects on crude oil prices. As an early example, in 1986, frustrated by OPEC partners' failures to observe production quotas, "Saudi Arabia and its allies undertook to produce their 'fair share' and let price fall as a consequence" (Gately, Adelman, and Griffin 1986, 237). More recently, Russia and Saudi Arabia have engaged in an "oil price war," as prices spiraled after an "OPEC+" deal unraveled in 2020 (Raval, Sheppard, and Brower 2020). In general, Saudi Arabia, as the traditional "swing producer"—given its key geopolitical advantage of having more spare capacity than any private company or other OPEC member—has sought to maintain price stability (Rundell 2022, 221). Namely, it aims to "keep prices above a lower bound that would discourage a healthy degree of investment and competition among suppliers and below an upper bound that would begin to erode long-term oil demand" (Livingston, Claes, and Goldthau 2015).

American economic statecraft has also caused shifts in the energy market and therefore oil prices. For example, U.S. sanctions have spiked prices at times (Congressional Research Service 2020; Carlson 2018; Rundell 2022, 221), and President Trump threatened to reduce defense spending in an attempt to influence OPEC behavior and oil prices in 2018 (Carlson 2018). Additionally, although the U.S. government and producers cannot directly affect production and prices to the same extent as Saudi Aramco and OPEC, American presidents have tried to leverage shale production to decrease consumer prices. In late 2021, facing seven-year highs in gas prices (Rovnick et al. 2021), the Biden administration contacted oil industry representatives in search of a solution (Wall Street Journal 2021). Although COVID-19's abrupt interruption and shale producers' aversion to low prices have obscured some of the long-term effects of the shale revolution, many have predicted a sustained decline in prices, following the logic of supply and demand. In addition, shale has contributed to short-term price drops, especially in 2014-2016.

Third, Saudi Arabia serves as the "prototype of the classical 'rentier state." (Sons 2018, 126). The Al Saud's social contract involves deploying "high oil revenues to provide widespread welfare allocation to several strata of the society" in exchange for compliance and stability (ibid., 125). They have endowed themselves with "eudemonic legitimacy" (from "economic well-being and provision of social welfare") and proven their ability to "boost massively the national identity and social status of their citizens" (Davidson 2013, 49-50). Furthermore, as Rundell explains, "the Saudi people have accepted and, in fact, supported the Al Saud monarchy, not simply because of its historic role in creating the nation, but also because of the broad coalition of stakeholders that it has built" (Rundell 2022, 91). That coalition has been forged through clever plays by Ibn Saud, politically-oriented Wahhabi doctrines, and "their own determined will to power" (ibid., 91). And oil has greased its gears.

Through oil revenues, the Al Saud has constructed an "opaque system of client networks among:" the rural tribes (led by sheikhs) which once threatened to divide the kingdom; the Wahhabi clerics (ulama) which provide justification for the Al Saud's power; the merchant class which runs the economy; the technocrats who oversee the distribution of oil rents; and the royal family itself (Sons 2018, 126). As examples, the Saudi Arabian National Guard serves as a tribal social safety net, providing "training, jobs, and pensions to tens of thousands of tribesmen," as well as healthcare for their extended families (Rundell 2022, 104). Under King Faisal, oil revenues became the primary source of religious funding, and "the ulama acquired regular salaries and control over new institutions with generous budgets, large staffs, and formal regulations to enforce" (ibid., 116). The merchant class has welcomed government contracts, "heavily subsidized power and water, free healthcare for their foreign labor force, and tariff protection" (ibid., 130). The technocrats reap civil-service benefits. Royal family members receive monthly stipends, although the Al Saud has been the most important "distributor of wealth rather than an extractor, and arguably this remains the central pillar of monarchical survival"(Davidson 2013, 49). Finally, paved roads, imported cars, newspapers, phones, water, healthcare, education, and electricity stem from "massive, oil-funded government intervention into the lives of ordinary Saudis, which gave them all a stake in the state's survival" (Rundell 2022, 141).

Oil continues to loom large in the Saudi political economy, despite a new diversification campaign. In 2020, "petroleum exports accounted for nearly 70% of the country's total exports in terms of value… and about 53% of the Saudi government's revenues were oil-based" (U.S. Department of Energy 2021), making mild progress from 2016 (U.S. Department of Energy 2017). Furthermore, in 2017, 42% of employed Saudis worked directly for the government, seeking the public sector's "high pay and lenient demands" (Hani and Lopesciolo 2021, 6). The nationality breakdown of the private sector is also revealing: "only 18.6% of private sector jobs in Saudi Arabia [are] held by Saudi nationals" (ibid.), with expatriates composing the remainder and receiving lower pay and benefits. This model has positioned the Saudi government on the extreme end of wages as a percent of the total government spending of a nation (IMF 2021).

I. The Long-Term Leverage Effect

Experts and policymakers have argued that newfound energy abundance has and will continue to have dramatic effects on the political and economic balance of power, which may give the U.S. room to pressure the Saudis on human rights (Blackwill and Harris 2016; Blackwill and O'Sullivan 2014, 102-114; O'Sullivan 2017; Yergin 2014; Bremmer and Hersh 2013; Morse 2016; Krauss 2018). With regards to OPEC, many have pointed to the 2014-2016 oil price drop as an inflection point in the shale revolution, U.S.-OPEC relations, and OPEC strategy (Blackwill and Harris 2016; Fattough and Sen 2015, 23; Alvarez and Di Nono 2017; Baffes, Kose, and Ohnsorge 2015). In their analysis of the drop and partial rebalancing afterwards, economists at the European Central Bank conclude that "[s]hale oil is the key novel factor affecting the structure of the oil market and influencing OPEC's decisions whether to target price stabilization or market share" (Alvarez and Di Nono 2017, 57). Throughout 2015, as Blackwill and Harris emphasize, OPEC's sustained production ceiling of 30 million barrels per day, despite low demand and a supply glut, demonstrated a re-prioritization of market share over price stability (Blackwill and Harris 2016, 28). Even those who argue that the December 2016 agreement to cut production "should not be misunderstood as an OPEC defeat" concede the likelihood that shale has permanently increased energy sector competition (Ansari 2017, 166-178). Most of these arguments have come from outside the kingdom, but in 2013, billionaire Prince Alwaleed bin Talal sent an open letter to the Saudi oil minister warning that the U.S.'s supply constrains Saudi Arabia's ability to increase its crude production. Regarding threats of retaliation for U.S. punishment of human rights violations, experts have concluded that "Saudi Arabia has no leverage" due to the U.S.'s grip on its economy and the fact that U.S. imports of Saudi oil have halved in the past decade (Wald 2018). In fact, in the first week of 2021, the U.S. did not import any Saudi crude for the first time in 35 years (Tobben and Lee 2021). Some have argued that reduced dependence on Saudi

Arabia has already made a difference on security issues, pointing to President Obama's negotiation of the Joint Comprehensive Plan of Action (JCPOA) with Iran, Saudi Arabia's long-time foe (Hope and Scheck 2021, 320-321). In sum, through reduced dependence on foreign oil and an increased share in the global energy market, shale can empower rights-defending economic and diplomatic statecraft.

Others have contended the energy revolution will have little advantageous effect for the U.S., both broadly and in its bilateral relationship with Saudi Arabia (Sfakianakis 2021). While some in this camp recognize the geopolitical potential of shale, they also emphasize the distinctiveness of the Saudis: due to their impressive savings and low production costs, they are shielded from downward price effects (Claes, Goldthau, and Livingston 2015; see also The Economist 2014; Feldstein 2014). The Saudis have, predictably, announced that the kingdom benefits from shale; the deputy oil minister stated at a 2013 conference that "The kingdom welcomes new resources of energy supplies" (Fineren 2013). Observers have added that a new emphasis on market share, in addition to passing on the "swing producer" burden to the North American shale industry, better positions the kingdom in the long run (Claes, Goldthau, and Livingston 2015). Some have taken a middle route: acknowledging that shale has helped protect the U.S. and the price of oil from supply disruptions, while arguing that the 2020 price war between Saudi Arabia and Russia points to new vulnerabilities for the U.S. as a target, especially given the shale oil industry's high sensitivity to price (Bordoff 2019; Bordoff 2020). With regards to leverage on human rights, Saudi Arabia's advantage in proven oil reserves indicates that "even the shale oil revolution can't wean Washington off its despotic Middle Eastern ally" (Schiavenza 2015).

For all the pessimism, there exists a major, untested variable: the willingness of the American president to take on the Saudi regime. By embracing Saudi Arabia (Tharoor 2019)—even congratulating his "friend" MBS for doing a "spectacular job" in 2019 (Guardian 2019)—Trump squandered any possible advantage to be gained from the U.S. energy "dominance" he heralded. And although the Biden administration declassified the report regarding Khashoggi's assassination and imposed targeted sanctions on those responsible, the president refused to punish MBS directly (Sanger 2021). Shale may grant the U.S. sufficient leverage to hold its long-standing ally to espoused American values, but presidential gumption has not yet risen to the task.

II. The Long-Term Reform Effect

Saudi Arabia desires lower crude prices than the rest of OPEC given their calculations regarding competition from their adversaries and domestic demand (Sons 2018, 129). However, as they flooded the market with cheap oil in 2015, their confident public rhetoric did not match internal perceptions. One cabinet official remarked in private, "We were going to hit the wall – and in our own lifetime, not our children's" (Rundell 2022, 2). Indeed, as a result of the fall in crude oil prices, from over $100 per barrel in summer 2014 to less than $30 per barrel in March 2016, "the Saudi budget became a gusher of red ink as falling oil revenue could barely cover the country's civil service salaries" (Rundell 2022, 258). (Some estimate that $24 billion in lost oil revenue during this timeframe was attributable to the fracking boom (Kilian 2017, 137, 154).) In 2015, the government reached a historic and "unsustainable" budget deficit of 16% of GDP (Rundell 2022, 261), surpassing the IMF's forecasts (Kerr 2015).

In response, King Salman tapped into the government's financial reserves, with "IMF data show[ing] a reduction in Saudi net foreign asset holdings of near $90 billion between mid-2014 and August 2015," a drop which would have been reduced by 27% in the absence of the shale revolution (Kilian 2017, 154). In February and March alone, King Salman spent $26 billion in reserves, depleting the central bank's stock by five percent (Kerr 2015). The government also announced a budgetary spending cut in December 2015 for the first time since 2002, planning for total government spending equivalent to "48.4 percent of 2016 non-oil GDP, lower than the 64.4 percent average over the [preceding] five years" (Sons 2018, 129). In September 2016, the Cabinet announced cuts to ministers' salaries and state employee bonuses (Amnesty International 2017, 312). Other policy tools were limited: the Saudi riyal is pegged to the U.S. dollar, the country has no personal taxes, and most goods are imported (Rundell 2022, 261).

Shale presents a fundamental challenge to the Saudis. The new supply of crude has exacerbated many of the fissures in Saudi Arabia's oil-based economy, and, in doing so, has exposed the unsustainability of its current social contract. For one, growing domestic oil consumption both increases spending pressure and "threatens to cannibalize the Saudi crude production available for export in the years ahead" (Claes, Goldthau, and Livingston 2015; Westphal, Overhaus, and Steinberg 2014, 18). Thanks to plentiful oil revenues, the Saudi state has long subsidized gasoline and oil-produced electricity and desalinated water (Rundell 2022, 258), resulting in rising and inefficient consumption of these commodities (Westphal, Overhaus, and Steinberg 2014, 25). In fact, "by 2015, Saudis consumed roughly 20 percent of their own oil production," prompting the petroleum minister to warn that "Saudi Arabia would be burning three quarters of its production by 2030" (Rundell 2022, 259). In addition, as described above, oil has distorted the country's labor market, causing high unemployment in a young, rising population (Sons 2018, 127). Public sector employment has taken on the specter of an entitlement; the majority of the workforce follows the "mudir (Arabic: 'boss,' 'director') mentality" and lacks qualifications for private sector work (ibid., 127). By 2015, with oil prices plummeting, "the direction of necessary change was clear. Saudi workers needed to return to the private sector, many foreign workers needed to go home, and Saudi women needed to rejoin the workforce" (Rundell 2022, 261). Saudi Arabia anticipated a long-term need to kick its "addiction to oil," in the words of MBS (ibid.).

Therefore, in 2016, the Crown Prince announced Vision 2030, an ambitious and comprehensive social and economic development plan. The key objectives, crafted by "a small army of international consultants," include balancing the budget, reducing dependence on oil revenue, and increasing the non-oil private sector's share of GDP (ibid., 136). However, it is crucial to remember that "The core of Mohammed bin Salman's vision [is] political, not social or economic" (ibid., 87). MBS seeks social and economic reform for the purpose of political stability, as the old rentier state model has proven untenable post-energy revolution. Therefore, as oil-backed benefits fall to the wayside, there is another side to these reforms: repression.

First and foremost, such fundamental and far-ranging reforms can and have undercut stakeholders whose loyalty is crucial in upholding the Saudi regime. The "merchant class" and royal businessmen have borne the brunt. With reduced government spending in 2016 and 2017, "many Saudi businesses saw sales decline by 20 to 30 percent" (ibid., 126). Other measures have included: cancellation and delay of projects, new property and value-added taxes, increasing residence fees for foreign workers, and reduced subsidies (with an accompanying 50% rise in gasoline prices and doubling of electricity bills in 2016) (ibid., 262). Vision 2030 also includes a five percent IPO of Saudi Aramco, a move which may meet "resistance by the company's inner decision-making circle" (Sons 2018, 133). Notably, the government has compensated the poor through a new, specialized agency called the Citizens Fund; "[F]or those earning less than $2,000 per month, the compensation payment actually exceeded the expected loss" from the price hikes (Rundell 2022, 262). It has also not changed subsidies and compensation relevant to tribes and sheikhs.

Other reforms have threatened members of the royal family and religious establishment. For example, King Salman has replaced royal family members with technocrats in high-ranking energy administration positions, "professionalizing" this crucial industry (Sons 2018, 132). He has also sought to eliminate the costly system of "kings and several vice kings" that his brothers spawned, instead consolidating economic and military power under his son, MBS (Rundell 2022, 163). In 2017, he orchestrated a bloodless coup by replacing then-Crown Prince Mohammed bin Naif ("by far the most senior and most experienced grandson" of Ibn Saud) with MBS (ibid., 83). This move addressed the complicated third-generation succession issue, but it, combined with high-level reshuffling, a reduced "privy purse," and new anti-corruption watchdogs, risks marginalizing ousted members of the royal family (ibid., 164). With regards to social liberalization, King Salman and MBS have accelerated efforts around women; they have removed long-standing conservative ministers and replaced them with liberals, created affirmative action programs, amended guardianship regulations, and allowed women to drive (ibid., 250-251). These moves allow greater workforce participation—in 2021, "the share of Saudi women in the labor market expanded by an incredible 64 percent in just two years" (Tamayo, Koettl, and Rivera 2021)—but breed resentment among the ulama. Some view the "liberalization of gender roles as a direct challenge to their authority, and a cause to question the king's right to rule" (Rundell 2022, 254).

Second, shale has constrained the government's preferred method of pre-empting unrest: spending. As the Arab Spring began in 2011, the Saudi government released two packages of extra spending—"$32 billion in February and $97 billion in March"—which "included an across-the-board increase of 17 per cent in public-sector wages" (Stevens and Hulbert 2012, 9). Specifically, King Abdullah "gave state employees a two-month salary bonus, hired 60,000 new civil servants, and increased the minimum wage for Saudis" (Rundell 2022, 291). As a result, the kingdom's fiscal breakeven price of oil skyrocketed, but the kingdom also received a payoff. As Rundell (2022, 291) describes, "Civil and religious authorities repeatedly warned people not to participate in public protests and most had little interest in doing so. The 'Day of Rage' promoted by Saudi dissidents living abroad turned out to be a non-event." The government has increased spending at more recent points of political uncertainty. In April 2015, when reshuffling his royal court and appointing technocrats to high-level economic posts, King Salman also unveiled extra compensation for those fighting Houthi rebels in Yemen (Kerr 2015). As Steffen Hertog, a London School of Economics (LSE) professor, explains, the military bonuses show that "the knee-jerk reaction to political challenges is to distribute more money" (ibid.). No matter the source—oil revenues or foreign exchange reserves—such spending is unsustainable with a slowly-reforming economy in the price-dampening age of shale.

Facing threats to regime stability and having little extra cash to throw at them, the Saudi government has resorted to repression, and an escalated version at that. The regime must not only silence the traditional opponents which threaten to provoke the public (their specialty), but also the stakeholders who stand to lose the most from reforms and have a significant platform to criticize the regime (mostly uncharted territory). Freedom of speech and the press have markedly declined under King Salman and MBS, who have centralized control over editorial policy, mandated active support for Vision 2030, and monitored social media for dissent, meting out harsher punishments for any opposition (Rundell 2022, 147). Meanwhile, businesspeople and royal family members have been systematically targeted. The most prominent example so far has been MBS's anti-corruption campaign, which has resulted in the detainment, interrogation, and in some cases alleged torture of hundreds of officials, business leaders, and royals. Many, including 11 princes, stayed in MBS's "five-star prison" (the Riyadh Ritz Carlton) in November 2017 (ibid., 105). Prince Alwaleed bin Talal Al Saud, the famous Saudi businessman who published the open letter regarding the threats of the shale revolution, found himself shuttled to the hotel, along with the head of the Saudi National Guard, meant to protect the royal family from a coup (Hope and Scheck 2021, 6). After Major General Ali al-Qahtani spat on his interrogators, he died in captivity. Notably, MBS did not detain any important sheikhs during this period (Rundell 2022, 105), as the tribal population had been shielded through Citizens Fund. If the government cannot spend to placate, then it will repress to silence.

The crackdown has continued since. In early 2018, thirty princes were detained "allegedly for protesting against new electricity bills, but in reality for challenging the authority of the Crown Prince" (ibid., 164). Most recently, in early 2021, MBS's sovereign wealth fund filed an anti-corruption lawsuit against Saad al-Jabri, whose counter-terrorism efforts and close relationship with Al Saud gave him access to sensitive information about MBS's "covert political scheming" and "corrupt business dealings" before he fell out of favor with the royal court (England and Kerr 2021). He has accused MBS of sending a hit squad to Canada to assassinate him, reminiscent of the Khashoggi case. Human Rights Watch (2021) has also drawn attention to the Saudi authorities' incommunicado detention of al-Jabri's children. Anti-corruption is undoubtedly a necessary reform for the Saudi state, but it is also a powerful means to silence powerful opposition. As Madawi al-Rasheed, another LSE professor, explains, "There has been corruption and there is still corruption, and this is like a mafia eliminating competitors within the whole regime" (England and Kerr 2021). In Saudi Arabia, anyone can be targeted for corruption, making it a perfect addition to MBS's arbitrary arsenal. And the billions of dollars sought and recouped from this campaign do not hurt either, especially when reforms need private-sector investment, not leakage to Geneva (Hope and Scheck 2021, 6; Rundell 2022, 105).

Writers who claim that "Mohammed bin Salman is the worst enemy of his 'Vision 2030' plan" miss the point that repression and reform are two sides of the same strategy. Social liberalization and economic reform under MBS are parts of an agenda with regime stability as the goal, not guiding values on their own. A crown prince seeking to secure the stability of his future—and even current, given his father's ailing health—regime does not allow reforms to occur faster than he desires, much less allow airtime for challenges. As Rundell writes, "The king and his son are not trying to make Saudi Arabia more democratic, but they are trying to make it more stable, prosperous, and religiously tolerant" (Rundell 2022, 3). Al-Rasheed similarly concludes that "[t]he Saudi regime is… an autocracy in which only a superficial social liberalism is allowed to flourish" (Al-Rasheed 2020, 331).

In this light, MBS is less of "a prince with a plan" and more of a "plan with a prince" (Ghafar 2018). The autocratic father-son duo seems intent on consolidating their own power (Al-Rasheed 2020), but their preferred tools of repression align well with their social and economic reforms. It may be that the two men view a powerful, ruthless leader with increased repressive capacity as the only kind able to satisfy their personal aspirations and reform the Saudi political economy. Taking a more positive view, Rundell points out a legitimizing effect: "Gaining public support for painful economic reforms required fighting high-level corruption and downsizing the royal family" (Rundell 2022, 164), or at least targeting the high-level, corrupt actors most convenient to the Crown Prince.

III. The Short-Term Price Effect

Many analysts agree that Saudi Arabia's massive foreign reserves shield it from real concerns of regime instability due to short-term price shocks like those caused by the shale oil revolution, economic statecraft, or a pandemic. However, is the mere possibility of sustained low oil revenue—indicated by a severe price drop—enough to cause repression as an insurance policy? The next section aims to find out.

The Test

My research design identifies three of the sharpest declines in Brent crude prices in the past 35 years and compares levels of repression immediately before, during, and after. While prices also declined sharply from 2019 to 2020 as COVID-19 impacted the global economy, the U.S. government and non-governmental organizations (NGOs) have not yet released their reports for 2021, making it difficult to assess a post-decline effect. The fiscal breakeven price serves as a rough indicator of regime anxiety. I draw from four credible annual sources—the U.S. State Department's Country Reports on Human Rights Practices, Amnesty International's The State of the World's Human Rights Report, Freedom House's Freedom in the World Report, and Human Rights Watch's World Report—and focus on three marginalized groups: political dissidents; Shi'a activists and leaders; and women's rights activists. At various points, these groups have called for greater representation and criticized the regime for its abuses, with the potential to rally others to their causes. If the regime anticipates dwindling resources to placate the masses—even if Sunni men, not these groups, benefit most directly from oil-funded welfare—then it may view pre-emptive repression of provocative groups as necessary for stability. A large group of men, feeling newly deprived of their entitlement as Saudi citizens, cannot be exposed to a spark. I find little correlation between crude oil price and repression for the first two declines. I find a stronger connection for the 2014-2016 crash, although it is difficult to disambiguate between repression caused by the short-term price effect and long-term market effect, especially when accounting for the long shadow of the Arab Spring.

I. 1983-1986: Punishing OPEC

Facing a significant decline in global petroleum consumption in the early 1980s—a long-term demand response to 1970s price hikes—Saudi Arabia voluntarily halted 75% of its production between 1981 and 1985 (Hamilton 2011, 18). After failing to prevent a 25% decrease in the nominal price of oil (and a larger decrease in the real price), the Saudis decided to increase production in 1986, causing prices "to collapse from $27 per barrel in 1985 to $12 per barrel at the low point in 1986" (ibid.). Throughout this period, according to the State Department, the Al Saud faced concerns about internal security from the Iran-Iraq war, anti-regime activity in 1979 and 1980, terrorist incidents in other Gulf states, and the Iranian Revolution's negative ideological stance towards Saudi Arabia. In 1984 and 1985, the State Department also noted economic adjustment due to steadily, though not yet rapidly, falling oil prices and national income over several years.

During this period, low oil prices had little correlation with repression of political critics and the media. Prior to the collapse in early 1986, Amnesty and the State Department had received reports of detention of political prisoners who may have been prisoners of conscience; this did not change over the course of the four studied years. In addition, "several score critics of the regime," including journalists, university lecturers, and other vocal critics, were reportedly arrested, detained, interrogated, warned, and released in late 1982 and early 1983 Bureau of Democracy, Human Rights, and Labor, U.S. Department of State 1984); such mass arrests were not reported in the following years, even as oil prices plunged. In fact, although some magazines were temporarily removed and others had certain articles removed in 1985, in 1986, with oil prices at the average low point, the State Department noted several examples of increasingly-objective foreign news, even regarding important political and security events.

The experience of the Shi'a minority may indicate a pattern, but not a strong one. Prior to the crash, other than some reports of increased surveillance and temporary preventative detainments, documented incidents of repression stayed relatively low. In 1985, with the decline underway, Amnesty wrote that most political arrests that year occurred in the Shi'a-populated Eastern Provinces, and those arrested were reported as Shi'a (Amnesty International 1986, 353). Many of these arrests and incommunicado detentions occurred on and after Yom al-Ashura, which commemorates the grandson of the prophet Muhammad. However, the lack of documented, freely celebrated Shi'a ceremonies before the price drop makes this an imperfect comparison. In 1985 and 1986, Amnesty also noted an increase in consistent reports of torture, and in 1986, detailed the death in custody of a Shi'a man whose arrest "appeared to be connected with the appearance of opposition slogans on walls and the distribution of opposition leaflets in the village" (ibid., 368). Authorities returned his body, which had signs of torture, to the family and instructed them to bury him without the customary funeral. This incident, combined with the events of 1987 as oil prices recovered—several dozen Shi'a arrested in 1986 were released "in what appears to have been a general amnesty," and a previously-closed Shi'a mosque was allowed to re-open (Bureau of Democracy, Human Rights, and Labor, U.S. Department of State 1988, 1292)—provide some tentative evidence for oil prices causing an increase, then easing, in repression.

Finally, the status of women remained mostly unchanged between 1983 and 1986: the government neither made large strides nor cracked down on advocates—possibly because there were no reports of such advocacy or organized women's rights groups. Overall, the events of 1983-1983 depict a Saudi state in control of its population and production: it had caused the accelerated price decline in 1986, despite the significant political and military risks (Gately, Adelman, and Griffin 1986, 160-161), likely in prediction of a rebound or stabilization as its OPEC partners eventually adjusted. Controlled short-term price events do not necessitate repression.

II. 2007-2009: Accommodating the Recession

Oil consumption and prices rapidly increased before the Great Recession: UCSD economist James Hamilton describes the price spike as "the biggest in postwar experience" by some metrics (Hamilton 2011, 23). The chaos following December 2007 had much more to do with subprime mortgage deals and poor regulation in Manhattan and Washington than decision-making in Riyadh; the Saudis, along with the rest of the world, faced an external shock largely out of their control. However, Saudi Arabia did not fight the drop, as it sought to keep diminishing global demand afloat with lower prices. In September 2008, while OPEC members feared prices nearing the "symbolic $100 threshold," Saudi Arabia pledged to keep pumping to keep prices down, and King Abdullah stated that $100 was too high (Mouawad 2008). Hours after OPEC announced it would cut oil output by about half a million barrels per day, Saudi Arabian officials privately conveyed that they did not feel bound by the decision, asserting itself as the "producer of last resort" (Rundell 2022, 221; Mouawad 2008). As a result, Saudi Arabia retained some level of control over the situation, and when prices began to recover as a result of reduced OPEC production, the oil minister expressed confidence, saying, "We are happy where it is [$70] and it's going to be there for a while. We don't have the slightest worry" (Mouawad 2009). In this case, then, the Saudis faced a (somewhat welcome) decline and quick recovery—the entire decline occurred between July and December 2008, with average monthly prices falling from approximately $133 to $41. The volatility, with prices slipping below the breakeven point, caused mixed results for repression. In its 2009 report, Freedom House provided an explanation: "The downturn placed new stresses on the kingdom, most importantly by diminishing the extent to which it was able to spend on development programs. However, as a result of careful budgeting, Saudi Arabia has yet to face any significant related political fallout" (Puddington and Piano 2009, 618).

In comparison to the previous case, this period included several moments of restricted freedom coinciding with faltering and plummeting prices. Prior to mid-2008, when prices were rising, the State Department reported fewer restrictions on issues discussed by the media, including the deaths of two citizens allegedly caused by the religious police. However, in 2008, Human Rights Watch noted a deterioration in freedom of expression, evidenced by the state condoning official incitements to violence and authorities detaining and charging dissidents (Human Rights Watch 2009). For example, in September, with OPEC struggling to respond to the drop, "the head of the Supreme Judiciary Council issued an edict allowing the killing of the owners of satellite television channels if they air immoral content" (Puddington and Piano 2009, 619). The religious police detained, beat, and forced a silencing agreement upon a critical poet and blogger in November; authorities also stopped a previously-detained blogger in the Jeddah airport and prevented him from leaving the country to speak at the third annual Arab Free Press Forum (Bureau of Democracy, Human Rights, and Labor, U.S. Department of State 2009). Escalations earlier in the year—including a cleric calling for the trial and potential death of two writers for "heretical articles"—do not align with the price drop, but may show the effects of financial insecurity in general. In 2009, with prices rapidly recovering, the government reversed some of the damage. The State Department noted the lack of official libel cases against dissent and the replacement of the Supreme Judicial Council head (ibid. 2010).

On some accounts, the government improved religious freedoms: they allowed the celebration of Shi'a holidays, and there were fewer reports of government officials confiscating religious materials both within Saudi Arabia and from travelers entering the country. In fact, in 2008, "in contrast to the previous year, there were no reports that religious police pressured employers and sponsors to reach verbal agreements with non-Muslim employees that they would not participate in private or public non-Muslim worship services" (ibid. 2008). However, such liberties did not extend to the more politically-minded Shi'a. In June, authorities arrested and detained a prominent cleric "after he called a previous anti-Shia statement by 22 Salafi clerics an incitement to violence and demanded greater rights and political representation for the Shia of al-Ahsa" (ibid.). They re-arrested him in September for performing prayers according to Shi'a doctrine, and also arrested and detained a Shi'a rights activist upon his return to Saudi Arabia in October.

On the surface, the combination of increased religious tolerance and increased repression of politicized religious activity points to an overall strategy of minimizing civil unrest during a price shock. However, the fact that religious tolerance also declined in 2009—while oil prices had recovered to a more profitable $75 per barrel—casts doubt on that conclusion. In February 2009, religious police attacked hundreds of Shi'a pilgrims in Medina for visiting an important gravestone. In October, "authorities banned the building of Shiite [Shi'a] mosques, marking a significant reversal," and in December, the Medina government and religious police officially banned the use of gravestones, removing all existing ones from the city (ibid. 2009).

Women, although still facing severe official and societal discrimination, did not encounter any significant repression at the time of the crash. In 2007, activists gathered 1,100 signatures on a petition for women's right to drive, which they presented to King Abdullah. During the decline, King Abdullah continued with his reform agenda regarding women's issues. The government instituted a more lenient guardianship system for noncitizen women, allowed women to study law for the first time, and broke ground on the country's first women-only university. The following year, the State Department received no reports of women struggling to obtain National Identity Cards (NIC), which had posed a problem in the past.

III. 2012-2016: Trading Price Control for Market Share

Previous sections have largely explained this decline. Like the two other crashes, the Saudis refused to cut production in response to a glut in 2014 and 2015, this time attempting to defend its market share and test the willpower of American shale producers (Solomon and Said 2014). However, two other contextual factors impact the analysis of this period. First, the Arab Spring placed the Kingdom on high alert in 2011. The regime: arrested and prosecuted hundreds of citizens in Eastern Province demonstrations; arrested prominent human rights activists and Shi'a advocates; carried out a three-fold increase in executions in comparison to 2010; sent troops to Bahrain to quell foreign protests; and introduced new restrictions on basic freedoms of expression and association. The king issued a royal decree criminalizing any criticism of the religious or political establishment, while the Ministry of the Interior and

Council of Senior Religious Scholars warned of the practical and moral consequences of seeking to "disrupt order" (Bureau of Democracy, Human Rights, and Labor, U.S. Department of State 2012). Due to these developments, Freedom House downgraded Saudi Arabia's civil liberties score to 7, matching its political rights score at the bottom of the spectrum. In addition, King Salman assumed the throne following Abdullah's death in January 2015; the Al Saud have undergone several successful, peaceful transitions since Ibn Saud, but any transition in an autocratic system has potential for increased repression as the new ruler establishes themselves. Regardless, in its 2016 report, Freedom House explicitly recognized the connection between the price of oil, threats to economic well-being, and increased crackdowns in "repressive petro-states… wary of spending cuts, declining living standards, and the social unrest they could cause" (Freedom House 2016, 2).

Bearing all contextual factors in mind, the reports indicate an increasingly systematic and punitive approach to silencing political opponents. 2012 provides an already-repressive baseline: authorities arrested the creator of the "Free Saudi Liberals" site, the cofounder of the Saudi Civil and Political Rights Association (ACPRA), and the authors of Twitter comments on Islam. Although some were charged with apostasy (which carries a life sentence), most received a maximum prison sentence of four years or a travel ban as punishment. The authorities also allowed more frequent, small, and unauthorized demonstrations than in the past.

In 2013, with prices dropping more steeply, the regime accelerated their campaign against political dissidents, human rights lawyers, and ACPRA, sentencing three of its founders to four, ten, and eleven years in prison respectively, after convicting them on charges including "breaking allegiance with the ruler" (Human Rights Watch 2014). The court also sentenced one member to four years in prison and 300 lashes. In addition, Ra'if Badawi, a prominent human rights activist, received seven years in prison and 600 lashes "for violating Islamic values, breaking sharia law, blasphemy, and mocking religious symbols using a website" (Bureau of Democracy, Human Rights, and Labor, U.S. Department of State 2014). In 2014, while continuing to dole out prison years and lashes, authorities implemented a new "anti-terrorism" law giving the police wide discretionary power and freedom from judicial oversight. By the end of the period, with oil prices dropping the fastest, a Saudi court had sentenced a poet to death in a retrial on charges of blasphemy (his original sentence in 2014 was four years in prison and 800 lashes), arrested a critic of the Sudanese government (even criticism of other governments would not be tolerated), flogged Ra'if Badawi (met with international outcry), and jailed nearly all the founders and several members of the ACPRA.

The religious minority did not fare much better. Shi'a protests flared in October 2011, January 2012, and July 2012, particularly in response to the killing of Shi'a in protests and the arrest of a prominent cleric, Sheikh Nimr al-Nimr, in July 2012. Shi'a organized around political reform and against Saudi intervention in Bahrain, with authorities issuing most-wanted lists and resorting to violence in response. As oil prices began to drop, appeals courts increased the length and severity of sentences, the government restricted the travel of at least 60 leaders who had signed a critical letter, and the Specialized Criminal Court sentenced both Nimr al-Nimr and his nephew to death. The events of 2016 were especially alarming for their scope and rationale: in January, Saudi Arabia carried out its largest mass execution since 1980, killing 47 men for "terrorism offenses," although "four were Shi'a allegedly involved in protest-related crimes in 2012 and 2012" (Human Rights Watch 2017, 515). An additional 14 Shi'a were sentenced to death in June for their involvement in the protests, which the court classified as "terrorism"; this repeated and intentional blurring between national security and political repression grants the state immense power to repress and accuse at will. Saudi Arabia executed over 150 people in both 2015 and 2016, twice breaking a threshold that had not been surpassed in 20 years.

Finally, female activists launched the Women2Drive campaign in 2011 and made some headway in political participation and the professional world in 2012 and 2013. In 2013, at least 50 women drove in the Kingdom despite the ban, and approximately 50 women in different cities conducted "freedom sit-ins" to criticize the arbitrary detainment of human rights defenders and relatives on terrorism charges; authorities arrested the protestors, but released them all by year end. In 2014, women agitated for the right to drive more forcefully. Authorities warned they would arrest any supporters of the campaign, and made good on the threat, arresting and bringing terrorism charges against Loujain al-Hathloul and Mayssa al-Amoudi. Although both were released, al-Hathloul was later imprisoned for an extended time; she has accused security forces of sexual assault and torture. Her case serves as a symbol of MBS's liberalization on his terms.

Conclusions and Implications

When viewed alone, the 2014-2016 crash seems to vindicate the potential existence of a short-term price effect: oil prices dropped, and detainments, travel bans, prison sentences, lashes, and executions rose. However, as I have discussed, the repression has not abated since prices recovered in 2017 and 2018 – if anything, it has escalated, reaching into the upper class of businessmen and princes as MBS and King Salman attempt to implement drastic reforms. The repression has not abated because the shale threat has not subsided; 2014-2016 functioned more as a final warning than a true shock. The persistence of the crackdown, in addition to the meager evidence from the first two drops, points to two important conclusions. First, observers are right to view the 2014–2016 crash as the starting point for a long-term market effect. The Al Saud have had no choice but to recognize and anticipate shale's disruptive potential for their economy and social contract. Second, albeit based on a small sample size, the regime appears resilient to short-term shocks, at least to the extent that they do not feel compelled to pre-emptively repress across all critical pockets of society. However, as short-term declines become less controllable—a potential effect of shale—they may inspire more repressive outbursts.

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