

# ISSUE BRIEF **10.29.19**

## **The US Response to Attacks on Persian Gulf Oil Infrastructure and Strategic Implications for Petro–States**

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On Sept. 14, 2019, Saudi Aramco's enormous oil processing plant at Abqaiq was hit in a surprise cruise missile and drone attack. Further strikes damaged facilities at the Khurais oil field 150 miles away. The attacks on some of the world's most vital pieces of energy infrastructure initially knocked out 5.7 million barrels per day (Mb/d) of Saudi oil production and 0.7 Mb/d of natural gas liquids production, the largest ever outage in volume terms in the modern history of oil. Oil prices immediately jumped from \$60 to \$69 per barrel.

Just over two weeks later, the sense of urgency was gone. Saudi Aramco had fully restored the lost production, even as repairs to damaged infrastructure were just getting underway.<sup>1</sup> Oil prices responded by falling below pre-attack levels.<sup>2</sup>

The drone and missile attacks were just the latest in an escalating series of sabotage and disruptions of oil infrastructure in and around the Persian Gulf. In May, four empty tankers were sabotaged at Fujairah, just outside the mouth of the Persian Gulf, apparently by undersea mines. Nearly simultaneously, armed drones damaged two pumping stations on Saudi Arabia's East–West oil export pipeline. In June, two tankers (carrying methanol and naphtha, respectively) were similarly hit. In July, the Iranian military seized and held a British

oil tanker and its crew for two months. In October, Iran's national tanker company reported an attack on an Iranian oil tanker in the Red Sea.<sup>3</sup>

None of these disruptions had more than a short-lived effect on global oil prices. Iran appears to have played a direct or indirect role in the May/June tanker and Saudi attacks. But the Trump administration has not, as yet, followed the guidelines in the 1980 Carter Doctrine, which states that Washington would use military force—if necessary—to protect its interests in the Gulf.

The US president suggested at one point that ultimate responsibility in dealing with the attacks rested with Saudi Arabia. "That was an attack on Saudi Arabia, and that wasn't an attack on us," Trump said on Sept. 16. "But we would certainly help them."<sup>4</sup> The outlines of that help became clear within a week. Rather than ordering the US military to launch a direct attack on Iran, Trump opted for a strategy of deterrence. He approved a deployment of an additional 3,000 US troops to the Gulf, along with a modest beefing up of Saudi air defenses.<sup>5</sup>

Saudi Aramco CEO Amin Nasser gave voice to Saudi frustrations over the intensity of the response. "An absence of international resolve to take concrete action may embolden the attackers and indeed put the world's energy security at greater risk," Nasser said on Oct. 9 in London.<sup>6</sup>



**What does the lack of a forceful US military response say about the strategic value of the region's oil producers?**

**The dwindling of US oil imports has strengthened the perception among the US electorate and political leadership that Americans no longer need to expend blood and treasure to protect Middle East oil.**

This issue brief leverages these events to shed light on the current state of US–Gulf strategic relations and potential directions of its evolution in coming years. What does the lack of a forceful US military response say about the strategic value of the region's oil producers? What are the broader reasons for the tranquility in the oil market in the wake of significant attempts at disruption? Are geoeconomic and societal trends affecting the strategic importance of Gulf oil?

### BIG PICTURE GLOBAL ENERGY TRENDS

The low-key US military and global financial market responses to the Gulf disruptions should be viewed within the context of three broad trends shaping global energy.

First, global demand for oil—and energy in general—is shifting to the rapidly growing emerging market countries, mainly in Asia. While the US remains the world's largest consumer of oil, China surpassed

the US as the world's largest overall energy consumer in 2009. Most forecasters expect future oil and energy demand growth to be concentrated in emerging economies. Already, nearly three-quarters of Mideast oil exports are destined for Asia.<sup>7</sup>

Second, the United States has leaped up the ranks of oil and gas producers to become No. 1 in both.<sup>8</sup> Increased shale production has allowed the US to become a growing net exporter of natural gas, and to approach self-sufficiency, on a net basis, in oil.

Third, intensifying change in the earth's climate is perturbing energy markets. Climate change is starting to incentivize individuals, companies, and governments to reduce use of fossil fuels or substitute them with alternate forms of energy. Climate change is putting increasing pressure on the business models of fossil fuel firms and on the political models of states dependent on export rents.<sup>9</sup>

### DIFFERENT FUELS, DIFFERING RISK EXPOSURE

The implications of climate action differ markedly for each of the three main fossil fuels:

- **Coal**, the dirtiest and most carbon-intensive fuel, is the commodity under greatest near-term pressure, since coal has many substitutes, all of which are cleaner.
- **Natural gas** may benefit in the short and medium term as a cleaner substitute for coal and as a backup for intermittent renewables. But gas also has cleaner substitutes in electricity generation that are already viable.
- **Oil** is the fossil fuel most insulated from climate pressure in the short run due to the lack of substitutes. The array of replacement fuels and technologies—most notably electric vehicles but also including biofuels and hydrogen fuel cells—are not nearly as advanced as those challenging coal and gas.

Moreover, even scenarios that depict successful climate action project oil and gas retaining a significant share of the world energy system.<sup>10</sup> Even so, different economic growth and policy profiles are imposing large shifts in energy balances in some regions. While the scale of the global energy system makes quick changes unlikely, future policy modifications could hasten the transition toward lower-carbon options. Significant changes are still needed to move the energy system onto a pathway to limit the global temperature rise to 2 degrees or less.

## TRENDS AFFECTING THE MIDDLE EAST

The global trends outlined above are being felt most acutely in the Middle East. Growing energy demand in Asia, combined with increasing US self-sufficiency, has reoriented Middle East oil exports away from the United States and Europe and toward Asia. Despite the unprecedented reduction in import dependence, the United States remains the chief security provider for Saudi Arabia and the other Gulf monarchies.

This incongruity has fostered concern in Gulf capitals about Washington's long-term commitment to the Carter Doctrine.<sup>11</sup> The modest US response (at the time of writing in October 2019) to the attacks on Saudi's oil infrastructure reinforces these concerns, as have high-profile calls from American scholars to scale back the US deployment in the Gulf.<sup>12</sup>

The evolving geostrategic relationship has pushed Gulf monarchies to respond in at least three ways. These actions were under way before the attacks but are likely to gather new momentum.

First, Gulf policymakers have sought to diversify security relations beyond the United States by seeking regional defense partnerships with importing powers in East and South Asia.<sup>13</sup>

Second, there is a gathering push for military self-reliance among some of the larger countries in the region. The ongoing military buildups increase the likelihood that Middle East states beyond Israel will seek nuclear weapons.

Third, the regimes appear to be seeking non-oil rationales to retain US strategic interest. One is emerging via the development of civil nuclear programs such as that in the United Arab Emirates. Nuclear programs could provide a "strategic hedge" since they raise the risk of nuclear materials falling into hostile hands and thereby create new impetus for American protection of regimes that cooperate on these issues.<sup>14</sup>

## THE 'LOSE-LOSE' CLIMATE DILEMMA

For the Gulf region, the most important unfolding trend is the threat from climate change. The warming climate poses an overwhelmingly negative development for Middle East and other equatorial oil states, since these countries face potentially devastating consequences whether or not the world succeeds in arresting carbon emissions.

Fragile Middle East geographies are directly exposed to physical climate damage, particularly from rising heat and humidity. If decarbonization fails, the possibility arises that parts of the Gulf coastline will be rendered uninhabitable, even within the current century.<sup>15</sup>

But the success of climate action exposes the region to enormous economic damage, since it would undermine demand for, and prices of, the region's chief exports—oil and gas. These exports provide the largest source of income for government budgets, including funds that maintain the viability of patronage-based regimes.

The "lose-lose" prospects of climate change have injected new urgency into longstanding but ineffective efforts by Mideast producers to diversify their economies. Government plans such as Saudi's Vision 2030 and National Transformation Plan aim to enlarge the private sector, create jobs for unemployed citizens, attract foreign investment, and ultimately raise non-oil businesses' contributions to GDP and government revenues.

At the same time, producers are diversifying the oil business itself, moving into non-combustion uses for oil and gas. The largest of these efforts is in petrochemicals, where hydrocarbon feedstocks are converted to polymers and resins that eventually become finished plastic goods. The plastics industry is also viewed as a major future provider of local manufacturing jobs.

Plastics and chemicals, however, are also exposed to consumer risk. Feedstocks may not be combusted—and therefore do not emit CO<sub>2</sub>—but plastic and petrochemical manufacturing involve large requirements of industrial heat, provided by burning

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fossil fuels. Plastics also face problems with improper disposal and sea accumulations. As a result, policy efforts in many countries seek to reduce their use.

### POLITICAL REPRESSION ON THE RISE

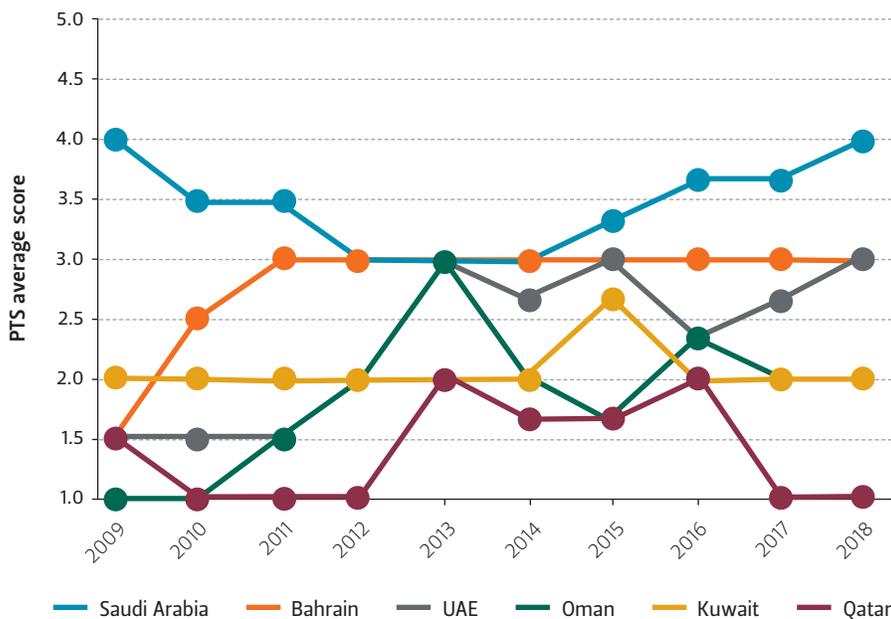
Economic reforms in Mideast petro-states—whether climate-driven or not—are undermining longstanding state-society social contracts. Such reforms include economic diversification programs and retractions of generous energy subsidies.

More diversified economies may eventually increase employment and broaden sources of national income. But the oil export business brings concentrated financial rewards that are based on the huge competitive advantages enjoyed by these petro-states. Rents provided by oil will be difficult to match.

Meanwhile, subsidy retractions since 2014 have taken away sources of free or cheap energy that were key patronage tools undergirding public support for autocratic regimes. Some Middle East oil-exporting regimes, once largely consultative, have responded to public protest with increased repression. So-called “political terror” data show increasing repression in Saudi Arabia, the UAE, Oman, and Qatar (temporarily), as well as in Iraq and Iran<sup>16</sup> (Figures 1 and 2).

The Gulf monarchies and other Middle East states face the possibility of falling into the so-called “Dictator’s Dilemma” trap. As once consultative regimes grow more repressive and curtail opposition speech, citizens grow less willing to express their opinions publicly. The dearth of public commentary feeds “regime survival” paranoia in ruling circles, which in turn tends to reinforce repression.<sup>17</sup> Thus, the more repressive a regime, the less informed it is about public preferences.

**FIGURE 1 — POLITICAL TERROR SCALE DATA FOR GCC STATES SINCE 2009**



**NOTE** Political Terror Scale (PTS) data combines scores from Amnesty International, Human Rights Watch, and the US State Department. The scores range from 1 to 5, with 1 representing secure rule of law and 5 representing unlimited government repression.

**SOURCE** Political Terror Scale 2019

### IMPLICATIONS OF US OIL SELF-SUFFICIENCY

Outside trends reinforce the narrative of petro-states’ declining strategic importance. The United States could achieve oil self-sufficiency as soon as 2020.<sup>18</sup> Net imports averaged 2.2 Mb/d in 2018, equivalent to just over 10% of domestic consumption. In 2019, net imports have averaged just over 1 Mb/d, the lowest amount since 1958.<sup>19</sup>

The dwindling of US oil imports has strengthened the perception among the US electorate and political leadership that Americans no longer need to expend blood and treasure to protect Middle East oil. That view appears to disregard the reality that the United States remains exposed to market events no matter how much oil it produces. A more convincing development is that shale has provided Washington room for increasingly confrontational foreign policy. The United States has imposed simultaneous sanctions on two major oil exporters, Iran and Venezuela, without subjecting US motorists to spiking gasoline prices.<sup>20</sup> Those sanctions, which include secondary measures that have essentially

halted exports from these countries, would have been unthinkable without the additional ~7 Mb/d of US shale oil production over the past decade.

The US path to oil self-sufficiency is having further unintended effects in the form of a reduced trade deficit, which has strengthened the US dollar—and the currencies of countries linked to the dollar, including all six Gulf monarchies. For oil-importing countries with currencies that are depreciating relative to the dollar, oil prices that look cheap in dollar terms are not so cheap in domestic purchasing terms. In this way, currency effects are likely contributing to downward pressure on oil demand.

### PUZZLING LACK OF POST-ABQAIQ PRICE SPIKE

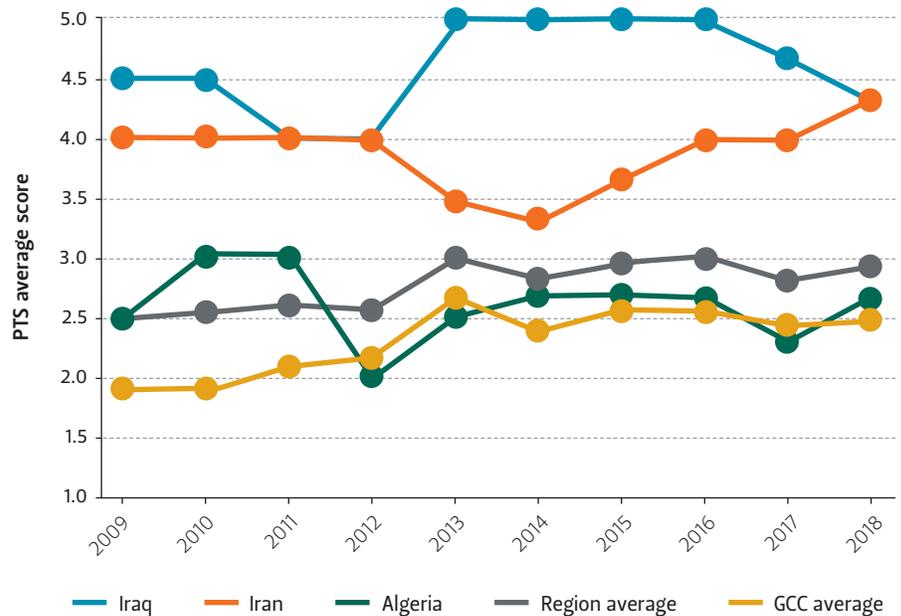
What about the recent oil disruptions in the Gulf? Why did the attacks on Saudi oil facilities, which were so effective in curtailing oil output, not bring longer-lasting pain in the global oil market?

Most importantly, Saudi Aramco’s strong technical capabilities limited the damage from the attacks and allowed the company to quickly restore lost production. This bolstered Saudi Arabia’s credibility, as Saudi oil officials were quick to confirm that all supply contracts would be honored and that production would quickly be restored to levels that predated the attacks.

To meet these commitments, Aramco quickly shifted to a “backup” strategy that allowed it to meet export commitments by drawing on domestic oil storage inventories and substituting the lost capacity in lighter oil processed in Abqaiq with heavier grades that were available via unused production capacity from offshore fields.<sup>21</sup> Aramco also cut back on domestic refining of crude oil and sought to supply its own consumers with imported gasoline, diesel, and fuel oil.<sup>22</sup>

However, some Saudi processing capacity remained lost at the time of this writing. The Saudi outage could eventually lead to a tighter global supply-demand balance. A price response based on fundamentals, as opposed to fear, remains possible. Further, a repeat attack on Saudi

**FIGURE 2 — PTS DATA FOR OTHER HYDROCARBON EXPORTERS, AND AVERAGES FOR THE MIDDLE EAST AND THE GCC**



**NOTE** The scores range from 1 to 5, with 1 representing secure rule of law and 5 representing unlimited government repression.

**SOURCE** Political Terror Scale 2019

Arabia or on another oil exporter, at a time when Saudi Arabia has reduced spare output capacity, could have a larger and longer-lasting price effect.

Part of the answer also lies in the slack in the global oil market. Inventories were relatively high in large part due to historic US production growth.

### PRESSURE FOR US-IRAN SETTLEMENT

The attacks, widely blamed on Iran, point up the importance of finding an accommodation between the Trump and Rouhani administrations. The Trump administration’s pullout from the 2015 nuclear agreement and reimposition of sanctions on Iran is the most likely trigger for the disruptive activity in the region. The sanctions have placed enormous strain on the Iranian economy, all but cutting off its access to hard currency and global financial markets.

Iranian officials have long vowed that Tehran would not allow itself to be

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singled out in any hostile effort to curb its exports, and that neighboring countries would also suffer.<sup>23</sup> The recent series of oil infrastructure attacks—none of which Iran claims to have committed—appear to be Iran's response. Tehran seems to be seeking new talks with Washington that would allow it to revive oil exports, using President Trump's sensitivity to higher US gasoline prices as leverage.<sup>24</sup>

It is worth noting that an enormous amount of readily available spare oil production capacity is now held by Iran. Iranian crude oil production was just under 4 Mb/d when US sanctions were re-imposed. Blocked Iranian output would be of enormous value in the event of a future supply crunch. Given the moral hazard incurred in seeking Iran's help to restore a market that Tehran's own actions may be responsible for damaging, one expects that Iranian oil would be released only as a last resort.

Lacking a comprehensive settlement with the US, any Iranian return to markets would likely be done quietly and on an ad-hoc basis, perhaps by halting enforcement of secondary sanctions or granting additional waivers.

## CONCLUSION

The hardline US approach toward Iran may have been calibrated too strongly to be maintained over the long term, even with favorable oil market conditions driven by the US shale revolution. Escalating incidents of Iran-authored or Iran-enabled sabotage have left Saudi Arabia paying a high price for its support of US sanctions. Even as they call for a more robust international response, Riyadh and Abu Dhabi now appear to be seeking to dilute the Trump administration's "maximum pressure" strategy, while opening channels for dialogue with Tehran, so that Iran is not provoked to further press its "maximum resistance" strategy.

Regardless, the series of oil disruptions and acts of sabotage around the Gulf have been accompanied by a curious lack of meaningful response from the United States or the two Persian Gulf monarchies that had lobbied for US pressure on Iran.

The US perception that growing American oil self-sufficiency reduces US interests in the Gulf has probably contributed to the reluctance to escalate the conflict with Iran, even as US consumers remain vulnerable to oil shocks. And since oil markets remain well-supplied and prices comfortable, there is a sense that it would be counterproductive to further antagonize Iran and provoke more disruption.

Finally, while Middle East producers will remain cornerstones of the global oil market for decades, current trends look likely to reduce the strategic importance of these major petro-states in the eyes of the US, which will force them to seek alternate sources of revenue as well as military protection.

Intensifying climate action only enhances the pressure on fossil fuel producers. As oil importers seek alternatives for fossil fuels, export states face a reduction in the all-important rents that bolster the durability of autocratic regimes, adding to pressures for economic reforms and perhaps political changes as well.

## ENDNOTES

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20. Shale's untethering of US foreign policy is not just a Trump phenomenon. It also assisted the Obama administration's Asia pivot and provocative policies in the Mideast (e.g., pro-Arab Spring position, anti-Mubarak stance, withdrawal from the Gulf carrier battle group, the Iraq drawdown, engagement with Iran, etc.)

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Cite as:

Krane, Jim, and Mark Finley. 2019. *The US Response to Attacks on Persian Gulf Oil Infrastructure and Strategic Implications for Petro-States*. Issue brief no. 10.29.19. Rice University's Baker Institute for Public Policy, Houston, Texas.

<https://doi.org/10.25613/FF9S-SK08>