

# VULNERABILITY, RESILIENCE, AND REFORM: THE GCC AND THE OIL PRICE CRISIS 2014–2016

Laura El-Katiri

**DECEMBER 2016**



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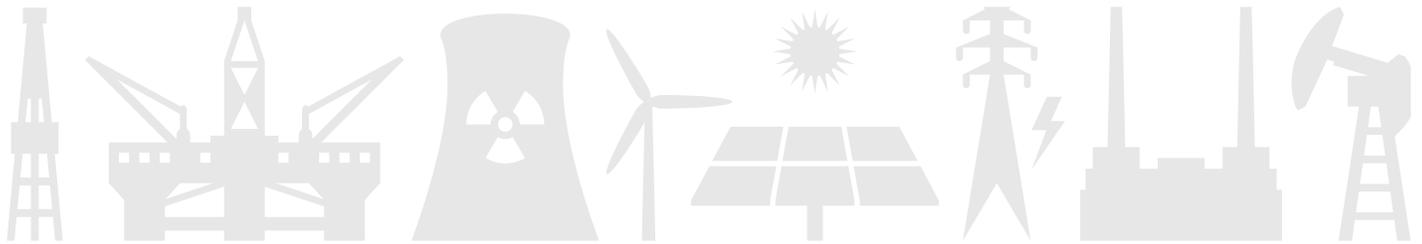
# VULNERABILITY, RESILIENCE, AND REFORM: THE GCC AND THE OIL PRICE CRISIS 2014–2016

Laura El-Katiri\*

DECEMBER 2016

\***Laura El-Katiri** is an Abu Dhabi–based consultant specialized in energy policy in the Middle East and North Africa, with particular focus on the Gulf economies. She formerly worked as Research Fellow at the Oil and the Middle East Programme, Oxford Institute for Energy Studies, and taught Middle East economic and financial development at the Department of Financial and Management Studies at the School of Oriental African Studies (SOAS), University of London.

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK



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## EXECUTIVE SUMMARY

Oil price volatility is not only a problem for consumer countries but also for producers, particularly those with oil sectors that have a central role in their economies. The past two years have seen a tremendous downward cycle in oil prices. After rising during the early part of the century, oil prices held to a relatively high and stable oil price band of around \$100–110 a barrel for much of the period of 2011 to mid-2014, before spiraling downward in historic collapse from which the market has yet to recover. More than two years after the start of that oil price drop, many market observers consider the \$50 per-barrel level as an acceptable norm for the time being, with a view that future market developments may hold more oil price volatility.

This paper explores the response to lower oil prices and dwindling revenue streams by the Gulf Cooperation Council (GCC) economies—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE).

- The sharp decline in the oil price has undoubtedly altered the economic outlook for the GCC economies as a whole. This includes current and, what is to be expected, future budget deficits over the coming years, even if oil prices recover some of their past three-and-a-half-years' losses in 2017.
- There are intraregional differences between GCC economies, however. Some of the smaller GCC, particularly the UAE and Qatar, are undoubtedly better positioned than, for instance, Saudi Arabia, owing to their considerably higher per capita wealth that relates to their large hydrocarbon resources relative to their small populations. The UAE is protected within its Sovereign Wealth Fund (SWF) portfolio, one of the largest in the world.
- Saudi Arabia's fiscal position is more complicated than that of its GCC neighbors. The country's large economy, coupled with its considerably larger population and lesser per capita wealth than those of smaller Gulf sheikhdoms, implies Saudi Arabia is highly vulnerable to midterm budget fluctuations.
- Nevertheless, the past years of lower oil prices have proven to be a time in which structural economic reforms looking beyond oil have become more politically feasible in the Gulf. This includes long-term challenges such as job markets, energy subsidies, and other citizens' benefits historically deemed untouchable by the government.

If the time of lower oil prices has been one of many economic challenges, it also has been one of opportunity. The past years have shown national discourse in the oil-producing Gulf states can popularize ideas such as the need to reduce resource waste, and to think more systematically beyond oil as the mainstay of the region's economies. The coming years will reveal whether these conclusions are translatable into effective policy action, beyond what has been promised in the past, in what is one of the richest regions in the world.

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# INTRODUCTION

Oil price volatility is not only a problem for consumer countries but also for producers, particularly those with oil sectors that have a central role in their economies. The past two years have seen a tremendous downward cycle in oil prices. After rising during the early part of the century, oil prices held to a relatively high and stable oil price band of around \$100–110 a barrel for much of the period of 2011 to mid-2014, before spiraling downward in historic collapse from which the market has yet to recover. More than two years after the start of that oil price drop, many market observers consider the \$50-per-barrel level as an acceptable norm for the time being, with a view that future market developments may hold more oil price volatility.

This paper explores the response to lower oil prices and dwindling revenue streams by the Gulf Cooperation Council (GCC) economies—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). One of the world’s most powerful groups of oil-producing countries, the six GCC states combined account for nearly one third of the world’s proven crude oil reserves, and supply over one fifth of the world’s oil supply.<sup>1</sup> Saudi Arabia is the world’s second-largest producer of oil liquids just behind the United States and the heavyweight inside OPEC, which still wields considerable power in international oil markets.<sup>2</sup> Importantly, oil revenues account for a vast share of revenues in the GCC.

The ongoing period of low oil prices has arguably been a catalyst to a whole series of national economic visions and plans—including Saudi Arabia’s high-profile National Transformation Plan (NTP). Many of these plans have presumably been in the making for longer periods of time, especially since many of the region’s underlying economic long-term challenges—such as expanding economic activity into non-oil sectors, creating high-skilled jobs for citizens, and reforming domestic energy subsidies—had been identified long ago. While the level of economic policy change has picked up in comparison to the previous decade, there is an important difference between the nations that are fast-tracking change (Saudi Arabia, the UAE, and Qatar), and the rest that thus far have been more reactive.

This paper explores the economic developments that have been undertaken in the GCC and attempts to contextualize them within the wider framework of the region’s socioeconomic and political stability. Recent oil market developments—including the OPEC agreement in November 2016 to reduce the organization’s overall production, and later with non-OPEC producers in December 2016—may yet influence the direction and pace of these reforms throughout 2017.

## Oil and GCC Economic Stability

Oil has played a uniquely important role in the development of the modern GCC states, where the state-building process overlapped with (and was largely funded by) the region’s oil bonanza in the 1970s and 1980s.<sup>3</sup> The majority of the GCC economies are now heavily reliant on oil and gas export revenues for their incomes, with fossil fuels accounting for at least two-thirds of their export revenues and up to 85 percent of their central government revenues. Only the UAE has managed to somewhat reduce its dependence on oil relative to its neighbors (table 1). Underlying the GCC economies’ vast reliance on fossil fuel export revenues is the region’s respective socioeconomic model: the GCC states do not tax their citizens’ income but rather distribute the enormous revenue streams generated by oil (or in the case of Qatar, natural gas) to their citizens. The socioeconomic wealth resulting from oil and gas revenues has formed the financial basis of the GCC’s modern-day societies.

Thus the decline in global oil prices since summer 2014 has deeply affected the GCC economies by slashing government revenue. The US Energy Information Administration (EIA) estimates that total oil export revenues in these four countries have fallen by nearly half between 2014 and 2015 alone, a massive cut in revenue for even the wealthy Gulf nations.<sup>4</sup>

The multiplier effects of these revenue losses caused by the subsequent decline in government spending on large-scale projects in areas such as infrastructure construction, as well as the impact on business sectors that primarily serve the government, are more difficult to quantify. Still more complex to determine are losses in revenue in GCC industrial sectors indirectly linked to world oil prices, such as the region's substantial petrochemicals industries.

Table 1: GCC Hydrocarbon Vulnerability, 2014

	Fossil fuels % of GDP	Fossil fuels % of exports	Fossil fuels % of government revenue	R/P* (years)
<b>Bahrain</b>	26.2	73.1	85	11
<b>Oman</b>	49.7	66.1	87	21
<b>Saudi Arabia</b>	45.1	85.7	78	66
<b>Kuwait</b>	62.6	94.3	80	91
<b>Qatar</b>	54.4	91.7	80	106
<b>UAE</b>	38.9	31.1	65	81

\*Includes gas on BOE basis.

Source: MEES (2014), based on IMF data; IMF (2016).

The high vulnerability of GCC oil producers to large fluctuations in world oil prices has been known for many decades, and was exemplified by the economic shock waves that hit oil producers across the board in the 1980s and 1990s.<sup>5</sup> Despite long-standing calls for the diversification of the GCC economies away from oil—even by governments within the region—progress has been mixed. One popular strategy has been the pursuit of complementary, energy-intensive industries such as petrochemicals, steel, and aluminum. The UAE, Qatar, and Bahrain initiated a series of large-scale initiatives to systematically expand alternative economic sectors that generate cash flows entirely independent of developments in the oil and gas industry. Such sectors include: banking and finances, logistics, hospitality, and tourism; knowledge-clusters such as university cities; and renewable energy.<sup>6</sup>

Overall, only the UAE has been the only Gulf nation to significantly reduce the contribution of oil toward GDP and export revenues, though oil remains the primary revenue source of the state (albeit to a lesser degree than its GCC neighbors) (table 1). Like other GCC countries, the state remains the primary employer for nationals in the UAE, and public spending maintains a pivotal role inside the economy as an engine of growth, including of private sector activity. The UAE thereby illustrates that the single most important factor that makes the GCC economies vulnerable to fluctuations in oil revenues is not the diversification of their economic output per se. Rather, it is the absence of income tax and, relatedly, a heavily state-centered business sector, even in countries like the UAE where the private sector has been promoted systematically in recent years.

Importantly, the massive inflow of export revenues that occurred in the years before the crash in oil prices reduced the pressure for structural reform in the GCC economies and encouraged an expansion of state budgets and welfare payments. Progress in the privatization of many long-held state-held businesses—utilities, telecommunication, and others—was seen as a lesser priority during this period. The outbreak of political uprisings in many parts of the Arab world, popularly known as the Arab Spring, arguably added to GCC governments' focus on maintaining and even expanding generous welfare and employment spending to the benefit of their citizens.<sup>7</sup> GCC states' spending policy on their citizens reflects their unwritten social contract, whereby political loyalty is paid to the tribal chief, or monarch,

in return for direct benefits financed by the state through the taxation of oil, rather than citizens' income. While the state benefits financially from oil sales, the population benefits through access to salaries through government jobs, welfare benefits, and subsidies.<sup>8</sup> The comparable political calm and stability of the majority of the GCC states in 2011 and 2012 have since been ascribed in part to this ability to spend on their citizens in a way other Arab states could not.<sup>9</sup>

#### *The 2014–2016 Price Cycle and Its Effect on Government Revenues*

The sharp decline in the oil price has undoubtedly altered the economic outlook for the GCC economies as a whole (table 2). Following a period of sustained GDP growth over the period of 2000 to 2012 of above 5 percent per annum, the IMF projects a slowdown in real economic output for the GCC in 2016 and 2017 that reflects the decline in government expenditure and overall economic activity after the collapse in global oil prices since 2014. The large fiscal surpluses of the 2000s and early 2010s are furthermore contrasted by what is expected to be budget deficits across the GCC for the years 2015–2017 of as much as 10 percent in 2015 and 12 percent in 2016. Recent EIA estimates suggest real oil export revenue nearly halved in Saudi Arabia, Kuwait, the UAE, and Qatar between 2014 and 2015 alone.<sup>10</sup> Qatar, for instance, is set to post a record budget deficit in 2016 of an estimated \$21 billion,<sup>11</sup> an impressive figure for a country with fewer than two million people.

Table 2: Selected Economic Indicators for the GCC, 2013–2016  
(Percent of GDP, unless otherwise stated)

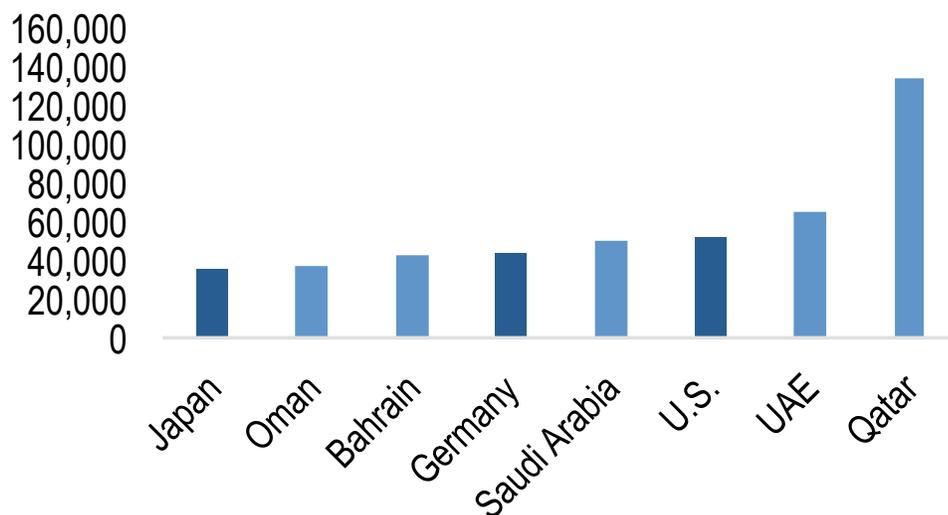
	Average 2000–2012	2013	2014	2015	2016 (proj.)	2017 (proj.)
Real GDP (annual growth)	5.1	3.2	3.5	3.3	1.8	2.3
Current Account Balance	17.1	21.3	14.5	1.0		4.1
Overall Fiscal Balance	10.8	10.2	3.3	9.9	12.3	10.8
Inflation, p.a. (annual growth)	2.8	2.8	2.6	2.5	3.3	1.9

Source: IMF (2016).

Nevertheless, it is important to qualify the outlook for the region on the basis of its relative financial strength. Among the Gulf economies, some of the smaller GCC states are undoubtedly better positioned than Saudi Arabia. Saudi Arabia and Kuwait, for instance, have low levels of foreign and domestic debt: 1.6 percent and 3.2 percent of their respective GDPs in 2014, although this percentage is expected to increase substantially over the coming years.<sup>12</sup> In addition, Saudi Arabia and Kuwait have accumulated large foreign assets, including some of the world's largest sovereign wealth funds (SWFs), the result of a relatively prudent savings policy for decades, including during the period of windfall oil revenue since 2003.

The SWFs of the UAE hold an estimated total of US\$1.2 trillion (table 3), with a total population of around nine million (of which less than 20 percent are Emirati nationals). This provides a comfortable fiscal buffer and a strong basis against which to borrow from international capital markets. The high percentage of foreigners in the country also opens up additional avenues for cutting expenditures, for instance by targeting nonnationals via means such as separate utility bills and a series of self-targeting taxes and fees. Kuwait and Qatar, with only a few million people each, are similarly equipped—at least theoretically—to fiscally sustain prolonged periods of lower government revenues. The comparably vast fiscal resources of the UAE and Qatar are also reflected in large GDP per capita, indicating the enormous wealth the countries hold both in regional and international comparisons (figure 1).

Figure 1: GDP Per Capita, PPP (Constant 2011 International \$) in the GCC Compared with the United States, Germany, and Japan, 2014



Source: World Bank (2016).

Table 3: Foreign Assets in GCC Sovereign Wealth Funds (SWFs), March 2016

Country	Fund Name	Inception	Value (US\$ bn)
UAE	Abu Dhabi Investment Authority (ADIA)	1976	792
	Abu Dhabi Investment Council (ADIC)	2007	110
	International Petroleum Investment Company (IPIC)*	1984	66.3
	Mubadala Development Company*	2002	66.3
Dubai	Investment Corporation of Dubai (ICD)	2006	183
Ras Al Khaimah		2005	1.2
	RAK Investment Authority		1,218.8
		n/a	598.4
Saudi Arabia	SAMA Foreign Holdings	2008	160
	Public Investment Fund		758.4
<b>Total</b>		1953	592
Kuwait	Kuwait Investment Authority (KIA)	2005	256
Qatar	Qatar Investment Authority (QIA)	1980	34
	State General Reserve Fund	2006	6
Oman	Oman Investment Fund (OIF)		40
		2006	11.1
<b>Total</b>			
Bahrain	Mumtalakat Holding Company		

Notes: \*The government of Abu Dhabi announced in July 2016 the merger of IPIC and Mubadala into a streamlined new entity. Source: Sovereign Wealth Fund Institute (2016).

Saudi Arabia's fiscal position is more complicated than that of its small, wealthy GCC neighbors. This is despite a number of assessments that focus on the financial strength of Saudi Arabia in absolute terms by the size of its foreign assets and its limited domestic and foreign debt. The EIA, for example, viewed the Saudi budget in February 2015 as “insulated from the effect of lower oil prices” and noted the short-term effect of lower oil prices on the country “should be minimal,”<sup>13</sup> while APICORP saw Saudi Arabia's fiscal power as “almost inexhaustible.”<sup>14</sup>

In real terms, however, Saudi Arabia's continued business-as-usual spending has very far-reaching fiscal consequences for the country. In a statement issued in August 2015, the IMF adjusted its estimated central government fiscal deficit for Saudi Arabia in 2015 upward to 19.5 percent of GDP, and 13 percent in 2016, compared with 3.4 percent in 2014 and a fiscal surplus of 5.8 percent in 2013.<sup>15</sup> Saudi Arabia's January 2015 and April 2015 fiscal packages alone amounted to around \$27 billion (SAR 101 billion), some 80 percent of which involved current spending on payouts to public sector employees, students, and retirees early in 2015 after King Salman's accession to the throne.<sup>16</sup> Meanwhile Saudi foreign reserves saw a total withdrawal of some \$50 billion between December 2014 and March 2015.<sup>17</sup> Saudi investment bank Jadwa by April 2015 estimated Saudi Arabia's fiscal deficit in 2015 based on an average oil price of US\$57 per barrel throughout 2015 at SAR 397 billion (\$105.9 billion), 2.7 times more than the original deficit projected in the 2015 budget—reflecting the government's apparently chosen strategy of issuing debt as part of its deficit strategy.<sup>18</sup>

Looking at more recent data, it is clear that Saudi Arabia's budgetary situation has been weakening further and at fast pace over the past two years. EIA estimates suggest Saudi Arabia's real oil revenues declined 47 percent between 2014 and 2015 alone, from around \$246.8 billion in 2014 to \$130 billion in 2015. For the period of January to May 2016, the EIA estimates total revenues of \$39 billion—about a third so far of 2015 revenues.<sup>19</sup> The IMF put Saudi Arabia's official foreign reserves as of March 2016 at \$587 billion, down about 18 percent from the \$714 billion the kingdom had in February 2015.<sup>20</sup> If Saudi Arabia continued to withdraw at this rate, its foreign reserves could be depleted in less than six years. Deputy Crown Prince Mohammed bin Salman, in an April 2016 interview in which he announced far-reaching changes to the Saudi economy and government finances, said Saudi Arabia would reach insolvency in just two years, without giving further details.<sup>21</sup> The GCC's largest economy thus appears to be one of the most vulnerable in the short term.

### **Economic Planning and the Look at “Post-Oil”**

Despite the changes already on the books and the current plans, structurally reforming the region's oil-dependent economies remains a difficult task. The GCC economies have long been seen as the epitome of the Middle Eastern rentier state—the legacy of the modern state model in the Gulf that rests on the state's continuous ability to ensure high living standards and a share in the nation's original natural resource wealth for all its citizens. However, this sort of “rentier ideal” fails to capture the realities of Saudi Arabia in comparison to some of the smaller—and on a per capita basis, richer—Gulf neighbors such as Kuwait, the UAE, and Qatar. This term is almost certainly unsuitable as a description of the economic realities of Oman. There are low-income Saudis and Omanis as there are Bahrainis who benefit less from their country's resources than others. There are also considerably more resources to distribute in economies such as Kuwait, the UAE, and Qatar than there are in Saudi Arabia or Oman.

#### *Overall Reform Progress*

Some of the region's smaller economies, such as the UAE, Bahrain, and Qatar, have indeed been issuing long-term economic visions and regular economic plans for years. The UAE, for instance, launched its Vision 2021 back in 2010, during a period of high oil prices. The UAE's national agenda includes specific targets such as: to achieve national non-

oil GDP growth of 5 percent; to be ranked among the world's top-ten countries in terms of gross national income (GNI) per capita by 2021; as well as to be among the top-ten countries of the Global Competitiveness Index.<sup>22</sup> In addition, the agenda aimed:

“...for the UAE to be among the best in the world in entrepreneurship as this plays a key role in unlocking the potential of nationals and enables them to be a driving force of the UAE's economic development through small and medium enterprises in the private sector. Furthermore, the Agenda strives to instill an entrepreneurial culture in schools and universities to foster generations endowed with leadership, creativity, responsibility and ambition. This will allow the UAE to be among the best in the world in ease of doing business, innovation, entrepreneurship and R&D indicators. Moreover, the government aims not only to achieve leading positions in global reports, but to also provide a good life for its citizens. Therefore the National Agenda seeks to place the UAE among the top countries in the world in income per capita and ensure high levels of national participation in the private sector workforce.”<sup>23</sup>

The UAE has also been among the first countries in the GCC to invoke a series of policy reform packages that have been specifically linked to the lower oil price environment. In parts at least, many of the resulting steps may well reflect longer-term strategic priorities—such as rationalizing the country's energy and water pricing system.<sup>24</sup> However, such actions may have taken on some additional urgency in 2015 when it became clear that oil prices would remain lower longer than may have been initially expected. In January 2016, the federal government's senior members went for an official and public “UAE government retreat” to “propose ideas” for the UAE's “post-oil economy.” The retreat resulted in the drafting of a “strategic roadmap” aimed to help the UAE shift into the “post-oil era” while charting the UAE's economic direction in a “world of \$30 oil.”<sup>25</sup>

While the publication of strategic long-term visions is not a new development in the UAE, the step signified a statement by the country's government to its population that economic reforms, including painful and unpopular ones, would be necessary to maintain sustainable economic growth over the medium and long term. The federal government thereafter announced substantive cabinet reshuffles, accompanied by the appointment of eight new ministers—five of them women. The symbolic nature of the reshuffle is perhaps epitomized most by the appointment of the world's youngest cabinet minister, twenty-two-year-old Shamma Suhail Faris Al Mazrui as the Minister of Youth, a move that supposedly represented the country's future focus on knowledge creation and human capital formation.<sup>26</sup> And in a true political novum for the Gulf, the UAE created a separate Ministry of Climate Change and the Environment—reflecting the country's policies of promoting a “greener” Gulf-based development model alongside its proactive efforts inside international climate negotiations.<sup>27</sup>

Changes at the top government level have since been accompanied by a series of cost-saving and revenue-generation measures, including the restructuring of national oil company ADNOC's top management. This was followed by a streamlining of operations, including job cuts both inside ADNOC and within the oil sector as a whole;<sup>28</sup> the announcement of a 5 percent VAT on many consumer goods to be introduced from 2018 onward;<sup>29</sup> the reform of private health insurance;<sup>30</sup> and, among the most prominent steps of all, the systematic reform of domestic fuel prices and subsidies, accompanied by prospects for further price reform in the utilities segment. New ways to collect revenues other than through direct income tax have been implemented as well. Abu Dhabi, for example, introduced charges such as an additional tourism fee on hotels, and an airport departure fee in 2016.<sup>31</sup>

In July 2016, a high-profile merger was announced between two of Abu Dhabi's main foreign investment arms, Mubadala Development Company and International Petroleum Investment Company (IPIC).<sup>32</sup> At the micro level, UAE property markets, particularly in Dubai and Abu Dhabi, have experienced a decline in rental rates for the first

time in many years. This may signify signal a tangible cut in jobs in response to tightening government budgets and reduced investment into new government projects—a first after the economic boom years of the 2000s and early 2010s.

Saudi Arabia's high-profile, seemingly bold economic reforms in early 2016 can be seen in this context as following a series of similar national reform plans its smaller neighboring countries embarked upon several years earlier. Saudi Arabia's most recent reform process has been crucially linked to the country's new monarch, King Salman bin Abdulaziz Al Saud, who succeeded his brother, the late king Abdullah, to the throne in January 2015; and to the king's Deputy Crown Prince Mohammed bin Salman, a man in his thirties. Together with Crown Prince Muhammad bin Nayef, who stands for the expected intergenerational shift in the ruling Al Saudi family's line of succession, Saudi Arabia's new leadership has since presented itself as departing from past economic aspects of the kingdom. Other reforms, such as of the role of women under the law, remain largely untouched up to the present time, however.

After the initial spending bonanza in early 2015 that immediately followed the accession to the throne of King Salman,<sup>33</sup> in early 2016 the king announced the country's most comprehensive economic restructuring plan thus far, directly referencing the lower oil price environment.<sup>34</sup> Saudi Arabia's National Transformation Program 2020 (NTP) is linked to the king's new economic Vision 2030, aimed to fundamentally restructure and reform the Saudi economy, and to turn it into what the deputy crown prince sees as “a global investment powerhouse.”<sup>35</sup> One of the first actions under the new plan was to slash energy subsidies in the kingdom, a notable break with the past and a sign that citizens would face some reductions in the state's welfare payment system in the short term.

The language in Vision 2030 was striking in many ways for the region. Deputy Crown Prince Mohammed bin Salman, viewed by many as the actual ruler behind the scenes, announced the reforms will be used to “wean off” the Saudi economy from its “addiction to oil” and make Saudi Arabia more competitive in a low oil price world.<sup>36</sup> The reforms are ambitious: plans as of early June include boosting the country's non-oil economy and more than tripling non-oil revenues by 2030, and creating more than 450,000 jobs, including for women, in the private sector. The government also aims to thoroughly restructure its own functions; review and enhance the kingdom's regulatory environment; invest in human capital creation; and transform major public institutions and companies as well as public investment.<sup>37</sup>

The initial announcement was followed by substantive changes inside the government in the first half of 2016, following an initial round of changes of top government posts in early 2015 when King Salman took over the reins. One of the highest-profile changes to the government has undoubtedly been the replacement of Oil Minister Ali Al-Naimi who had been guiding Saudi Arabia's oil policy since 1995. His successor, Khalid Al-Falih, is well known and has deep experience in the oil industry, having served as CEO of Saudi Aramco, one of the most powerful and valuable oil companies in the world. Al-Falih takes over Saudi Arabia's top oil post as the nation combines the formerly three separate ministerial portfolios of oil, industry and trade, and electricity and water, under the umbrella of a new Ministry of Energy, Industry, and Mineral Resources. This new ministerial portfolio should at least in principle help streamline energy sector-related policies across the Saudi economy, including the formerly separate Ministry of Electricity and Water and the vertical trading arm of Saudi Arabia's fossil fuel industry, its petrochemicals producers.

In May 2016, Prince Mohammed bin Salman made another high-profile announcement as part of a long interview with Bloomberg in which he offered an unusually close look at the behind-the-scenes workings of Saudi government decisions.<sup>38</sup> He mulled government plans for the public listing of minority shares for Saudi Aramco by as early as 2018.<sup>39</sup> The announcement created the presumably desired level of public attention, both domestically and abroad. The step is significant, even if the initial offering will not exceed 5 percent of Aramco's share value, for three reasons. First, it constitutes a potentially important step toward opening up Saudi Arabia's massive upstream oil business to

potentially foreign, private ownership. This represents a considerable shift in the Saudi government's thinking and modus operandi in upstream oil, although it does follow the gradual openings of the upstream gas and downstream refinery and petrochemicals segments in its economy over the previous decade. Second, it raises questions about the amount of transparency the public will be given about Saudi Arabia's oil reserves and production in order to fulfill the likely requirements for listing Aramco shares.<sup>40</sup>

Third, the listing of Aramco is significant because it forms part of a wider-ranging strategy of restructuring the way the government collects revenues. Aramco's share value is expected to feed into a new investment fund, which in turn will help generate income for the Saudi government. By turning toward a broad portfolio-style sovereign wealth fund, Saudi Arabia is moving beyond its past investment strategies of holding bonds through institutions like the Saudi Monetary Agency (SAMA) and moving closer to existing models of more diversified investment foreign investment arms such as ADIA in Abu Dhabi and QIA in Qatar.

But Saudi Arabia's investment fund approach moved further than that. While taxing the income of its citizens appears to remain off limits, Saudi Arabia aims to not derive any more government revenue directly but from public investment funds that collect oil and other forms of state revenue, invest it domestically and abroad, and thereafter feed it into the government's budget. The principle idea behind the scheme is fairly simple, if unprecedented for governments in the region: The government will cut—even if only indirectly—its long-term reliance on oil export revenues by delinking oil export revenue and government finance. Rather than taxing citizens or oil, it will tax investment revenues. The initially announced numbers at play appear vast, with suggestions that Saudi Arabia's new government income fund could amount to as much as US\$2 trillion, although how those numbers were derived remains unclear.<sup>41</sup>

Other GCC countries have passed government plans, typically with sensible objectives, that will need to be successfully implemented in order to achieve their policy goals. Kuwait's government announced a six-point plan in March 2016 to increase non-oil revenues and the role of the private sector in the economy.<sup>42</sup> More practical measures include public sector salary freezes and the partial privatization of state assets, such as airports, ports, power plants, and other projects.<sup>43</sup> Oman announced significant budget cuts worth 11 percent of government spending, including a 56 percent reduction in subsidies. Natural gas prices to industry will increase to \$2.5–3/MMBtu, making them among the highest in the Gulf. Corporate taxes were also increased.<sup>44</sup> A new development plan aims to structurally diversify the economy away from hydrocarbons and toward sectors such as manufacturing, transport, and tourism.<sup>45</sup> Qatar has established a ten-year cap on public investments<sup>46</sup> and has looked into raising government fees and increasing taxes on alcohol and tobacco, as has Bahrain.<sup>47</sup>

### *Gaining Momentum: Domestic Subsidy Reform*

Subsidies are one of the most pertinent features of the GCC economies, reflecting the region's decades-old unwritten social contracts between the ruler and the ruled. The populace pledged political allegiance to the tribal chiefs, and later to the ruling sheikhs, in return for access to food, water, and energy.<sup>48</sup> Today, several GCC economies are among the largest per capita consumers of energy, electricity, and water in the world; their highly urbanized lifestyles in capitals such as Riyadh, Abu Dhabi, Dubai, Doha, and Kuwait City include everything ranging from around-the-clock, air-conditioned, glass-coated signature skyline towers to golf courses in the desert and luxury resorts to support the region's growing tourism industries.

However, this low-cost energy for final consumers and industries has come at a considerable overall economic cost. In 2015, on-budget, explicit fiscal costs for energy subsidies (that is, costs that are direct fiscal allocations to fuel and utility companies) by GCC governments excluding Saudi Arabia amounted to \$16.2 billion, or 2.1 percent of the five reporting countries' GDP.<sup>49</sup> Kuwait and the UAE alone accounted for some \$11.6 billion.<sup>50</sup>

The far larger part of the economic cost of underpricing energy and water, however, is found off-budget, in the form of foregone export revenues (or opportunity cost) for oil, oil products, and natural gas consumed domestically that could otherwise have been exported and sold on international markets. It is also manifested through deadweight losses to the economy caused by wasteful energy and water consumption. This includes the widespread use of private vehicles for all forms of transport, reinforced by relatively limited public transport options and city architectures that reflect past decades' perceptions of an abundance of cheap energy. In addition, Saudi Arabia and Kuwait still burn crude oil in power generation to make up for fuel shortages during the peak summer months—a practice that amounts to effectively burning money.<sup>51</sup>

Many of the GCC states acknowledged these challenges and pledged gradual policy change. The UAE, for instance, introduced the region's first (albeit limited) set of efficiency standards in buildings in 2013, at the height of the oil price boom. Saudi Arabia has long run the Saudi Energy Efficiency Program (SEEP) under the chairmanship of Prince Abdulaziz bin Salman, preceding by several years the accession to his father's throne and the kingdom's current reform drive.<sup>52</sup> Prince Abdulaziz, along with current Energy Minister Khalid Al-Falih, was among those who acknowledged early on that Saudi Arabia's domestic energy consumption patterns were increasingly unsustainable.<sup>53</sup>

The massive costs of subsidies point toward the potential benefits of reforming domestic energy prices, both in outright fiscal terms and in more structural, regional energy consumption. The difficulties arising from decoupling domestic GCC prices from international ones have become increasingly apparent since the collapse in oil prices in June 2014. The fiscal pressure that had been building up in the preceding years due to high energy prices has been alleviated. Others have noted that the political sensitivity of subsidy reform has kept governments from attempting changes to their domestic energy market pricing. For instance, Coates-Ulrichsen argued in 2015:

“Another policy option that likely will be resisted for as long as possible will be cuts to current spending on politically sensitive issues such as wages and subsidies. Here, the dilemma for officials in Saudi Arabia (and other Gulf states) is that, while increases in government spending largely kept pace with rises in oil prices, they are far harder to bring down when revenues fall.”<sup>54</sup>

Part of this consideration stems from the idea that the political legitimacy of a Middle Eastern oil producer derives from the state's role as an allocator of citizens' welfare,<sup>55</sup> a benevolent economic guardian of economic welfare and growth.<sup>56</sup> This arguably contributed significantly to the GCC states' comparable resilience to popular demands for political change in the aftermath of the Arab Spring outbreak in December 2010–January 2011, which is frequently linked to their continued ability to spend.<sup>57</sup>

In reality, lower oil prices have created some momentum for GCC economic reform, including in regard to energy subsidy reform.<sup>58</sup> With the sustained reduction in oil revenues, many of the region's governments have been faced with the choice of cutting welfare, increasing external debt or drawing down reserves. The benefit of reforming subsidies rather than cutting other government outlays on education and health is that subsidies can be targeted, and selective pricing incentives can be used to sanction overconsumption rather than access per se.

Electricity subsidies illustrate this consideration. In most countries they are meant to make access to modern energy affordable and secure for all income ranges. However, if subsidies are universal, the primary beneficiaries are those who consume electricity most—that is, industries and large households.<sup>59</sup> The same consideration applies to transport fuels. Benefits only begin if a household can afford a car in the first place, and households with several cars consume more petrol benefit than those with only one car. Raising the price of electricity and fuel can thus be a way of reducing government expenditure while, in principle, targeting those who can afford price increases most.<sup>60</sup> The reality is of

course more complex, and electricity differs markedly from fuel, but the reform concept is one that has gained more attraction inside GCC governments over the recent year.

The UAE has pressed ahead as the first GCC country to comprehensively reform domestic prices for fuel and electricity. Some emirates had already launched some initiatives, with Dubai revising electricity and water tariffs in 2011 to a level far above those in neighboring Abu Dhabi and other GCC states.<sup>61</sup> Gasoline prices in the UAE have also traditionally been higher than those found in other GCC countries, in part due to its reliance on imported petroleum products. In addition, the UAE's smaller hydrocarbon resources (relative to some of its neighbors) made rationalizing fuel and electricity prices a priority earlier on than elsewhere. This is particularly true for some of the UAE's less fossil fuel-rich emirates, such as Dubai (the UAE are a federation of self-governing emirates, or city states, with most national hydrocarbon resources being concentrated in the emirate of Abu Dhabi, not in Dubai or the other five emirates). Hence Dubai raised its domestic utility prices several years earlier than oil- and gas-rich neighboring emirate Abu Dhabi. In addition, the UAE government has consistently emphasized energy price reforms as a rational response to weighing up costs and benefits of subsidizing energy for a population of which some 80 percent are not Emirati nationals.

In July 2015, the government went a step further and unexpectedly announced the end to all gasoline and diesel price subsidies and linking domestic prices to international prices, which would be revised once a month by a specially formed committee.<sup>62</sup> The step effectively ended a major cost draw on central government resources with only a modest impact for consumers thanks to low global oil prices. Gasoline prices increased by around 24 percent in August 2015, while diesel prices, which had previously been fixed, declined by 29 percent.<sup>63</sup> The IMF estimated the UAE would save some US\$500 million from the gasoline and diesel price reform alone by the end of the year.<sup>64</sup>

The UAE fuel price reform was an important first step in region-wide efforts for energy reform. The additional cost of around AED 50 (around US\$16.5) per average tank fill proved to be affordable by the majority of vehicle owners in a country with a per capita GDP (PPP) of over \$64,500 per year.<sup>65</sup> Many of the country's non-Emirati car drivers are European and North American expats, for whom the UAE's new transport fuel price range still compares favorably to the costs of diesel and gasoline back home. In addition, the country's low-income workers typically do not drive their own cars and therefore remain unaffected by the price change. With no noteworthy political upheaval or public controversy following the reform, the UAE thereby demonstrated the feasibility of targeted subsidy reform inside the GCC context that had previously been discounted. It was hailed in both national and international media as a painful but necessary reform step of a government determined to rationalize fuel demand while building a stable economy that functions without government subsidies.<sup>66</sup>

Other GCC countries have taken subsequent actions. Oman, Qatar, and Bahrain have followed up with similar fuel price reforms, including for gasoline, diesel, and kerosene. Oman in January 2015 doubled the industrial price of natural gas, while Bahrain has put in place a process that will double industrial gas prices from 2015 levels by 2020.<sup>67</sup> As in the UAE, there has been relatively limited public outrage.

In January 2016, Saudi Arabia followed with its own round of subsidy revisions and energy price increases. Saudi Arabia's case marks an important benchmark for the region owing not only to the size and complexity of the market relative to the country's neighbors but also because Saudi Arabia had been a major force opposing calls for universal energy subsidy reforms in developing countries. As recently as 2010, Saudi Arabia was among those states disagreeing with the application of definitions, proposed by organizations such as the IEA and the G-20, for energy subsidies that did not distinguish between energy consumers and producers of fossil fuels.<sup>68</sup>

Under King Salman, the kingdom has perceptibly—though perhaps implicitly—changed its public position on subsidies. Prince Mohammed bin Salman has publically acknowledged the problems created by subsidies for the Saudi

economy.<sup>69</sup> Estimates of the size of energy subsidies in the kingdom, published in December 2015 by McKinsey shortly before the announcement of reforms in January 2016, appear to use the IEA's price-gap approach with no further questioning.<sup>70</sup>

Hence, after several years of discussions about whether fuel subsidy reforms could be politically palatable for a country like Saudi Arabia, the kingdom raised prices for domestic transport fuels by two-thirds. Natural gas for industries, including Saudi Arabia's major petrochemicals industry, increased by over 130 percent.<sup>71</sup> Saudi Arabia's domestic prices for fuel, electricity, and water historically have been among the lowest not only in the region but also by global comparison (table 4). The IMF estimates that the implicit costs of Saudi Arabia's pricing framework amounted to \$83 billion in 2014, 11 percent of the country's GDP. Around 86 percent of this cost was attributed to petroleum products,<sup>72</sup> foregone revenue of which at least parts are now being retained.

Table 4: Prices for Energy Products in the GCC, January–August 2015

	<b>Gasoline</b>	<b>Diesel</b>	<b>Natural Gas</b>	<b>Electricity</b>
	<i>US\$/liter</i>		<i>US\$/MMBtu</i>	<i>US\$/KWh</i>
Bahrain	0.27	0.27	2.50	0.03
Kuwait	0.24	0.39	1.50	0.01
Oman	0.31	0.38	3.00	0.04
Qatar	0.27	0.27	0.75	0.05
Saudi Arabia	0.14	0.06	0.75	0.09
UAE	0.59	0.56	0.75	0.10
GCC Average	0.30	0.32	1.54	0.05
GCC Maximum	0.59	0.56	3.00	0.10
US Pretax	0.53	0.64	2.80	0.10

Source: IMF (2015f).

While fuel prices are still below international levels—and in the case of natural gas, realistic domestic production costs—the price hikes signify a desire by the government to reduce its subsidy burden over time, confronting citizens with substantial increases that are likely to be followed up by further revisions over time. The same is true for industries. While companies like Sabic are still enjoying relatively cheap gas prices of \$1.75/MMBtu (up from \$0.75/MMBtu),<sup>73</sup> its annual costs are expected to rise by at least 5 percent. This indicates the size of the challenge of gradual energy price reform in countries like Saudi Arabia.

Indeed, the kingdom has proceeded cautiously with reforms, relative to other GCC states. Saudi Arabia differs from its smaller neighbors in important ways. It boasts a population of 30.2 million, compared to 9 million in the UAE and 2.1 million in Qatar,<sup>74</sup> as well as a significantly larger size. As such, there are greater socioeconomic differences among regions, and significant differences in income ranges, including among Saudi nationals. Unlike in the UAE, there are low-income Saudi citizens, which makes reforms such as welfare spending cuts and domestic price hikes potentially more problematic in socioeconomic terms than for smaller Gulf states.<sup>75</sup> When in April 2016 many Saudis took to social media to express their frustration over the first round of electricity price changes, the government responded by firing the Minister of Electricity and Water,<sup>76</sup> paving the way for the subsequent reshuffle in ministerial portfolios related to energy.

The scale of reform needed for countries such as Saudi Arabia and Kuwait (which have largely left domestic energy prices static since the 1970s and 1980s) to bring energy prices to international levels suggests the process will take years. However, such gradual reform raises the problem of continuity over a period of time that will undoubtedly see changes in government and economic conditions, including future rises in international oil prices that could defer further steps. Thoroughly reforming the wider energy market frameworks across utility sectors, industries, and final consumer sectors will thus be a critical challenge for GCC governments over the coming years, not least due to the political unpopularity such reforms carry. It also epitomizes the challenge of deep economic reform inside the GCC, a process that is more complex and requires greater government skill than what many of the plans currently reflect.

### *Remaining Challenges: Building National Capacity*

Building national capacity will be part and parcel of the economic reform process in the region, both institutionally and in terms of national human resources. Demographics play an important part in this: 60 percent of the labor force in Saudi Arabia and 90 percent of the labor force in the UAE are expats.<sup>77</sup> In the UAE, Bahrain, and Qatar, nationals are a minority—both inside their workforce and their country's total population. While the vast majority of the GCC's national labor force have white-collar jobs in the public sector—exceptions apply in Saudi Arabia and Oman—expatriate workers dominate the private sector from blue-collar labor in low-skilled work such as construction, hospitality servicing, and taxi driving, to highly skilled, white-collar jobs in everything from tourism management to financial services and public sector roles.

While most GCC states have active government programs aimed at gradually replacing expatriate labor with nationals in white-collar roles (blue-collar jobs remain intrinsically unattractive to nationals), the challenge for Gulf labor markets is actually much more complicated. Current labor market incentive structures continue to reinforce existing patterns of labor distribution across the GCC through well-known mechanisms. These include higher pay packages and benefits in the public sector for nationals, easy and often automatic promotion, and secure, guaranteed jobs for life, on the one hand; and underemployment of young, increasingly well-trained nationals under the combined umbrella of existing labor market structures and reliance on foreign consultants, on the other.<sup>78</sup>

In this context, the ongoing regional economic reform process presents a critical opportunity not only to invest more but also to move the management of human capital into the center of education and labor market policies. Part of this process is the reform of the education systems and labor markets that are conducive to equipping young people in the Gulf with the skills required for productive work. Core competitive values need to be instilled, such as diligence in work, a motivation to work hard for benefits other than salary packages and promotions, critical and self-induced thinking, and initiative in action.

Within labor markets, there is a need to further examine how government sectors make use of their national skills pool. This includes understanding the various forms of management styles and work ethics brought in by the many different nationalities that form part of Gulf labor markets; the incentive structures that are determined by salary packages and promotional policies; and the preexisting and long-lasting family, tribal, and regional ties that determine eligibility for certain jobs. It also may include the revision of a myriad of labor regulations that influence employability and access to decision-making positions beyond criteria such as skills sets and job qualification. As the GCC states unlock decades-old privilege systems such as government subsidies and generous welfare handouts, these areas will over time become much more important in determining their citizens' satisfaction than low-cost fuel.

Such considerations will play a key role in influencing the ability of this and the next generation of GCC nationals to

make effective choices and to provide responsive services to GCC entrepreneurs and business sectors. In turn, the region will learn how to manage its own growing skill pool, its human capital. Some have criticized the region's apparent dependence on foreign strategy consulting companies,<sup>79</sup> including to devise economic transformation programs, but it is exactly this capacity that the GCC economies need to build and nurture.

The current period of tighter government budgets tied to more than two years of lower oil prices may in some ways prove counterproductive to these goals. Cuts to government sector jobs at the same time—when the government desperately needs much more capacity internally at the midlevel planning, reform oversight level, and out-of-the-box thinking—will likely result in a further brain drain in the public sector. One of the biggest challenges in the coming years for the public and the private sectors will be to learn how to do a lot more with less, a task which is difficult to carry out and enforce via top-down government plans.

### **Conclusion: Looking Ahead**

The period of low oil prices that began in mid-2014 will likely be remembered as a sobering one for oil producers globally. For GCC oil and gas producers, however, this time could also mark an important opportunity to implement long-overdue reforms. Many economic challenges in the region have been clear for a while, including the need for economic diversification, to create more job opportunities for the growing youth population, and to build skills-driven labor markets and economic systems that value knowledge and innovative power. Falling oil revenues place pressure on policymakers to respond in ways that not only cut absolute spending on citizens but also offer citizens a long-term perspective that ensures, with or without high oil prices, the Gulf oil economies are able to prosper in ten to twenty years from now. This makes low oil prices a potentially valuable opportunity.

But the way there is not easy. The historical role of the state as a central distributor of jobs, welfare, and social protection in the Gulf may not be completely rewritten, but it will undoubtedly need to be redefined and potentially renegotiated between the citizens and the state, as the Gulf economies aim to wean themselves off their dependency on oil. This is likely to be a gradual process, faster in some GCC members than in others, but it will put into the spotlight a process of change in the relationship among governments, business, and citizens. It is also a process with the potential for future policy revisions and step-backs, particularly if oil prices structurally recover in the future for a period long enough to put reverse pressure on governments to expand spending. 2017–2018 could prove critical in this context as we await oil market responses to producer action if OPEC and non-OPEC states fulfill their pledges to cut surplus output.

How well governments effectively manage these changes will be critical. The populations of the GCC states, accustomed to the benefits of the current system, must be made to understand the need to contribute, to economize, and to adjust expectations. That GCC states have been seen as a haven of stability compared to some of their neighbors conceals the fact that their governments are indeed concerned about political instability, popular uprisings, and economic and political demands of an increasingly educated, urbanized, and materialistic youth whose political acquiescence will depend on their states' ability to deliver on economic promises and expectations. These changes are happening at a time when widespread access to international media means there is no such thing as an "island state" anymore, even in the wealthy Gulf region.

Meanwhile, a parallel, generational transition inside Gulf governments is under way, with potential repercussions for how GCC monarchies relate to their people. In Saudi Arabia, economic reform pledges come with such a generational change in governance. Shortly after acceding to the throne in January 2015, Saudi Arabia's new king, Salman bin Abdulaziz, appointed Muhammad bin Nayef as crown prince, the first successor-apparent inside the Saudi line of

succession who was not a son of King Abdulaziz bin Saud since the founding of the modern nation. For the past twenty or so years, Saudi Arabia's kings were men in their seventies and eighties, who had known Saudi Arabia prior to the oil boom of the 1970s. In contrast, Crown Prince Muhammad bin Nayef, nephew of current King Salman, is in his fifties.

In addition, the king's decision to appoint his own son, Prince Mohammed bin Salman, a man in his thirties, as deputy crown prince effectively put in place two generational changes inside the kingdom's line of political succession within a few days. Mohammed bin Salman has since held a series of key offices inside the kingdom, including second deputy prime minister, the chief of the House of Saud royal court, and the chairman of the all-important Council for Economic Development Affairs (CEDA). He has been made the world's youngest defense minister, in charge of Saudi Arabia's ongoing military intervention in neighboring Yemen. And while the eventual succession line will be confirmed in the coming decades, it appears the deputy crown prince is currently driving Saudi Arabia's economic transformation agenda.

It is important to remember that, more than five years since the onset of the Arab Spring, the GCC states' current level of political and socioeconomic stability is no small development. This is even more obvious when looking at the wider region of the Middle East and North Africa, and the continuous challenge of maintaining and increasing living standards of citizens throughout the Arab world and meeting the aspirations of its highly educated young population. The coming years will also prove a challenge to reform begun today, not least in light of the prospect of recovering oil prices in 2017 after the November 2016 OPEC agreement—although the outcome of this agreement has yet to materialize. The repercussions of the current period of low oil prices for policymaking, and the unfolding relationship among the state, society, and economy in the Middle East suggest the region is at the most important crossroads it has faced since the initial oil boom during the 1960s and 1970s.

# NOTES

- 1 EIA (2016a).
- 2 EIA (2016a).
- 3 Crystal (1990); El-Katiri (2014).
- 4 EIA (2016b).
- 5 Gately (1986); Mabro (1998).
- 6 For example, Callen et al. (2014); Hvidt (2013); IRENA (2016).
- 7 El-Katiri (2013); El-Katiri et al. (2014).
- 8 Two seminal works on this subject are Beblawi and Luciani (1987); Crystal (1990).
- 9 El-Katiri (2013); Gause III (2013).
- 10 EIA (2016b).
- 11 MEES, 23 December 2015.
- 12 The IMF publishes regular gross government debt figures and projections in its Article IV Consultation reports. IMF (2015c, g).
- 13 EIA (2015).
- 14 Aissaoui (2015).
- 15 IMF (2015e; 2016e).
- 16 IMF (2015c: 6).
- 17 MEES, 8 May 2015.
- 18 Jadwa Investment (2015: 10).
- 19 EIA (2016b).
- 20 IMF (2016d).
- 21 Waldman (2016).
- 22 The full plan is available on Vision 2021's website at <https://www.vision2021.ae/en> (accessed September 2016).
- 23 The full text is available on Vision 2021's website at <https://www.vision2021.ae/en/national-priority-areas/competitive-knowledge-economy> (accessed September 2016).

- 24 Discussion of this issue dates back many years prior to the UAE's fuel reform step in mid-2015 with several rounds of smaller-scale electricity tariff reforms preceding the oil price fall in mid-2014. For example, see *Gulf Business*, 5 November 2014.
- 25 *The National*, 31 January 2016.
- 26 *Gulf News*, 14 February 2016.
- 27 For example, Luomi (2015). The UAE's INDCs submitted to the UNFCCC in October 2015 are accessible online at <http://www4.unfccc.int/submissions/INDC/Published%20Documents/United%20Arab%20Emirates/1/UAE%20INDC%20-%2022%20October.pdf> (June 2016).
- 28 MEES, 20 May 2016; *The National*, 12 May 2016; Al-Emarat Alyaoum, 22 May 2016.
- 29 Al-Emarat Alyaoum, 14 July 2016.
- 30 Al Khaleej, 2 July 2016.
- 31 Al-Iqtisadi, 12 April 2016.
- 32 MEES, 8 July 2016; Al-Iqtisadi, 29 June 2016.
- 33 See footnote 16.
- 34 The full plan is accessible at the Saudi government's website at <http://vision2030.gov.sa/en> (accessed September 2016).
- 35 The foreword by Prince Mohammed bin Salman is on the government's website: <http://vision2030.gov.sa/en> (accessed September 2016).
- 36 The full Vision 2030 program can be accessed at <http://vision2030.gov.sa/en> (June 2016). See also *Al Arabiya*, 25 April 2016; *Argus*, 29 April 2016; Waldman (2016).
- 37 Refer to footnote 27.
- 38 For the entire Bloomberg interview, see Waldman (2016).
- 39 Waldman (2016); *Al Arabiya*, 25 April 2016.
- 40 For a discussion, see Mills (2016).
- 41 Mills (2016).
- 42 MEES, 18 March 2016.
- 43 MEES, 18 March 2016.
- 44 MEES, 8 January 2016 (a).
- 45 MEES, 8 January 2016 (b).
- 46 IMF (2016a).

- 47 IMF (2016b).
- 48 See footnote 8.
- 49 IMF (2015f: 5).
- 50 IMF (Ibid).
- 51 Sdravovich et al. (2014); Fattouh and El-Katiri (2012); Lahn and Stevens (2011).
- 52 The program's website is available at <http://www.seec.gov.sa>.
- 53 Saudi Aramco's then-CEO Khaled Al-Falih publically expressed his worries in 2010 about the levels of domestically consumed oil in Saudi Arabia and the effect unchanged demand growth could have on the country's export potential for crude oil in the long term (*Financial Times*, 26 April 2010). See also Al Saud, Abdulaziz bin Salman (2014).
- 54 Coates-Ulrichsen (2015).
- 55 Luciani (1987).
- 56 El-Katiri (2014).
- 57 El-Katiri (2013); Gause III (2013).
- 58 For example, Benes et al. (2015).
- 59 For an empirical exploration of the benefits of subsidies in the GCC context, see El-Katiri et al. (2011); Fattouh and El-Katiri (2012).
- 60 For a discussion, see Alderman (2002); Coady et al. (2006); De Moor and Calamai (1997); Del Granado et al. (2010).
- 61 Statistics as of mid-year 2012, latest available. SCAD (2016).
- 62 The UAE's fuel prices and information about its pricing mechanism with monthly updates are available on the Ministry of Energy's website at <https://www.moenr.gov.ae/en/knowledge-center/petrol-prices.aspx> (June 2016). See also Boersma and Griffiths (2016).
- 63 UAE Ministry of Energy (2016).
- 64 *Reuters*, 4 August 2015.
- 65 See Table 3 above.
- 66 For example, *The Wall Street Journal*, 22 July 2015; *The New York Times*, 22 July 2015; *The National*, 22 July 2015; *Gulf News*, 2 August 2015; *Arabian Gazette*, 27 July 2015.
- 67 MEES, 15 January 2016; Lahn (2016); IMF (2015d).
- 68 IEA, OPEC, OECD, and World Bank (2010: 8).
- 69 The deputy crown prince is cited, among others, saying, "When we open the lists of 2015, we will find that seventy percent of the subsidies go to the rich. That is not permissible. The income should go to the people on average and below-average incomes, who

constitute thirty percent” and “...we do not deserve subsidies...The people who deserve and need subsidies are those who are on average incomes and less.” *Al Arabiya*, 25 April 2015.

70 McKinsey & Company (2015).

71 MEES, 8 January 2016.

72 IMF (2015d). The calculation method used by the IMF for these numbers is based on a price-gap approach, which uses US prices as a proxy for international prices. Different proxies could have been used, which, particularly in the case of natural gas, could have inflated this number additionally. The IMF notes that due to the decline in oil prices in 2015, the cost of subsidies for the following year would have declined as well.

73 MEES, 8 January 2016.

74 World Bank (2016).

75 Population data from World Bank (2016).

76 Bloomberg, 24 April 2016.

77 McKinsey & Company (2015) for Saudi Arabia; SCAD (2016) for the UAE.

78 For example, Fasano and Goyal (2004); The Government Summit/McKinsey & Company (2013). See also IMF (2015c); Mohammed Bin Rashid Al Maktoum Foundation and PWC (2008); Yamada (2015); Hertog (2014a, b); El-Katiri (2016); Barnett (2015); UNDP/Mohammed Bin Rashid Al Maktoum Foundation (2014); Sfakianakis (2014).

79 Saif (2016).

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