Qatar Coming to Grips with New Realities of Global Energy Markets

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Executive Summary

Qatar has long dominated the market for liquefied natural gas (LNG), an increasingly popular energy source that can be transported great distances, is widely regarded as being cleaner than coal, and fills increasingly important parts of states' energy mixes. Surging demand and relatively limited supply have created a climate for Qatar to exploit its huge gas resources and consequent economies of scale to bestride the market. In fact, Qatar dominates the LNG market far more than Saudi Arabia dominates the oil market.

But this period of dominance is coming to an end. Demand in China that once underpinned the industry's growth is dipping and not being replaced. Large discoveries have been made across the world and high prices encourage hundreds of millions of dollars of investment in LNG infrastructure. Even with the fall of oil and LNG prices, which challenges many new suppliers and their costly outlay to establish the necessary LNG infrastructure, Qatar's dominant position supplying a third of the world's LNG will be over by the end of the decade.

Though Qatar's budget revenue fell 40 percent from July 2014 to July 2015, the state began cutting back in 2013 when a new administration led by Emir Tamim bin Hamad al-Thani took power. These cuts were partly driven by a savvy medium-term view of the bearishness of the energy markets. But the new leadership was also making political statements, cutting back on some of the more expensive pet projects of its predecessors such as the Qatar Foundation, which oversees foreign universities in Doha's “Education City.” The new administration needs to ensure that it does not hamstring the Qatar Foundation – a central engine of the state's push to diversify away from its hydrocarbon-dominated economy – as Qatar's dependency on the energy industry remains profound. Yet even with the reliance on oil and gas and the impending end of its LNG dominance, Qatar's population remains small and its energy supply role prodigious. Qatar will easily manage fiscally if its ambitions remain more limited than before, as the current administration suggests through its more limited policy ambitions.
**Historical Context**

For anyone familiar with politics in the Gulf or wider energy politics, Qatar is synonymous with liquefied natural gas (LNG). Qatar’s prodigious supplies come from the North Field, by far the world’s largest nonassociated gas field (a field of gas not found with oil), which it shares with Iran. Discovered in 1971, this unparalleled geological feature allowed the state to almost double its income through the 2000s and 2010s as more LNG “trains” came online. Yet it took more than three decades for Qatar to fully utilize this resource due to a range of factors.

On the field’s discovery, the overwhelming elite response was one of disappointment that gas, and not oil, had been found. Oil was so in vogue that gas was seen almost as an irritant, a fascinating insight to the myopia that can afflict entire regions and industries. As budgets were squeezed with the fall of oil prices in the 1980s, the Qatari government turned its attention to the North Field, but only half-heartedly. It took a fortuitous combination of domestic and international politics for development of the field to be actively and efficiently pursued.

In the latter half of the 1980s, a new elite emerged, replacing the staid, old guard with youthful vigor. Then Crown Prince Hamad bin Khalifa al-Thani was brimming with new ideas, including the prioritization of the North Field’s development. He entrusted this to Abdullah bin Hamad al-Attiyah, his childhood friend, confidant, and minister of energy and industry from 1992 to 2011. Attiyah is seen as the father figure of the LNG industry in Doha; he brought a single-minded focus and drive to the project unmatched hitherto as well as a realization of the importance of heavily relying on the advice of international oil and gas majors.

But Qatar still needed partners to get the industry started. Establishing the LNG infrastructure was, and remains, a very expensive venture. Qatar needed foreign energy companies, banks, and governments to come together and provide funding for the infrastructural investment and guaranteed orders for the gas.

Thankfully, from Qatar’s perspective, LNG demand was growing in East Asia. Countries such as Japan, South Korea, and Taiwan were competing for supply. Key Japanese consortia, including banks and regional power companies, provided the necessary mix of funds and orders and become the handmaiden of the Qatari LNG industry. Eventually, in 1997, the first LNG shipment from the North Field’s development arrived for Japan.

Qatar then harnessed unmatched economies of scale to dominate the industry. Complementing the colossal field size, Qatar commissioned a new class of extra-large LNG tankers to further drive down costs and allow the state to take advantage of its relative proximity to European and Asian markets.

Major international oil companies that once pulled out of Qatar – Shell and BP – were eager to get back into the Qatari market. Shell bought its way back in by investing $19 billion into the world’s largest gas-to-liquids plant. Qatar now leads the world in the GTL sector, a significant advantage as it allows the state to convert its gas into more expensive added-value products.

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and reduces its dependency on selling pure LNG. In 2006, after only a decade in the LNG industry, Qatar became the world's largest supplier.

Graph A: World LNG Suppliers 1996-2014

Qatar was by no means a poor country before the introduction of LNG. With a small population currently under 300,000 and significant oil reserves, it has long had a respectably high gross domestic product per capita. Compiled from World Bank statistics, Graph B shows not only the ebb and flow in the economies of the hydrocarbon exporting states of Qatar, Saudi Arabia, the United Arab Emirates, and the United Kingdom for comparison but the surging effect of LNG revenue in the 2000s on the wealth of the Qatari state.

The LNG windfall was clearly not necessary to run the state. But it was essential for enabling the grand foreign and domestic policies of the proactive and dominating Hamad bin Khalifa, who increasingly ran Qatar in the late 1980s before seizing power in 1995.

Externally, Hamad wanted to revolutionize the perception of Qatar from a state that was absent from practically all meaningful conversations in the international arena, to one that would become a center for regional and global mediation initiatives, a sporting hub second-to-none, and, overall, a state with genuine influence. Domestically, he harbored expensive visions for transforming his state's education system. This included a large school building program and the root-and-branch change of the curricula led by a U.S. consultancy.

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3 Michael Peel, “Shell GtL: Masterstroke or a Wrong Turn,” Financial Times, December 16, 2011.
Through the education and socially focused Qatar Foundation directed by Hamad’s second and most influential wife, Sheikha Moza bint Nasser al-Misnad, the state allocated considerable funds toward education. The Qatar Foundation oversaw the construction of a whole new area of Doha – Education City – and its population with a range of mostly American universities. Qatar now has some of the best universities in the region, but this importing of foreign education institutions is far from universally popular in Qatar. Many Qataris are irked by the cost of the venture, the perceived lack of attention given to the state’s indigenous university, Qatar University, and the grafting of purely Western educational establishment courses, ethos, and staff onto the Qatari educational system.

Though LNG was the key enabler of these policies, years of high oil prices meant that oil revenue remained the largest part of Qatar’s budget revenue. According to some analysts, it is only with the 2015 oil price crash that LNG revenue looked set to become the number one source of revenue for the Qatari state.4

**Supply and Demand**

Qatar has enjoyed high oil and gas prices that have filled state coffers and facilitated the country’s expansive and expensive policies. But the tide is turning as factors on both the supply and demand sides of the equation increasingly coalesced in 2014 and 2015 to give the market (and thus, Qatar’s revenue) a bearish tinge that has increasingly concerned Qatari authorities. Exacerbating these ominous fiscal difficulties are wider problems afflicting emerging market states that are felt particularly keenly by commodity exporters like Qatar in the face of what some analysts see as the end of the commodity super cycle.5

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Qatar has known for a decade that its leading role in the LNG industry would come to an end in the late 2010s. In 2012, CNN estimated that six of the world’s 10 most expensive energy projects were LNG projects based in Australia.6 Around $200 million worth of such LNG projects will be online between 2014 and 2018. Australia currently supplies approximately 33 million cubic meters (mcm) of gas, making it the world’s third largest LNG supplier, just behind Malaysia (35,000 mcm), and far behind Qatar (just under 100,000 mcm).7 But there are, potentially at least, approximately another 60 mcm of Australian supply to come online if all the projects go as planned, which would make Australia the world’s number one LNG supplier.8

But competition does not stop there. The shale gas revolution led by the United States further complicated matters. The United States as a market for Qatari LNG supply was part of the state’s earlier plans. The Golden Pass LNG receiving terminal in Texas was funded by Qatar Petroleum, Exxon Mobile, and Conoco Phillips to the tune of $2 billion and completed in 2010. Now, as The New York Times put it, the facility “sits eerily quiet these days, a sleepy museum to a bygone era.”9 The high oil price of the 2010s made the shale deposits in the United States economically viable; U.S. unconventional oil and gas production soared. The United States has become the world’s largest producer of natural gas, breaking its own records of production volume every year since 2011.10 This is increasingly expected to turn into LNG supply. This is why the Golden Pass has only received negligible amounts of LNG and why now, at great expense, the terminal has been flipped around by Qatar Petroleum and Exxon Mobile – Conoco Philips not wanting to, in its view, throw good money after bad – into a gasification terminal to liquefy U.S. gas for LNG export.

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10 Christine Buurma and Chou Hui Hong, “U.S. Gas Boom Turns Global as LNG Exports to Shake up Market,” Bloomberg, October 1, 2014.
Some assessments now suggest that the United States could become a principal source of competition for Qatar given not only its shale gas resources, but its strategic location near key European and East Asian markets. Customers from Korea, Japan, and India are already signed up, or at least interested, in diversifying their supply with U.S. LNG. During the boom of the shale industry in 2014, U.S. LNG looked highly competitive, for example by undercutting Australian LNG suppliers to Japan by nearly one-third. It is unclear how the U.S. shale oil and gas market will react over the medium and long term to the drop in oil prices. While some experts conclude that, although gas markets have seen periods of low prices in the past, this time “it really does feel different.” Others struggle to see how U.S. shale suppliers can live with low product prices but high break-even prices.

But even if Qatar is lucky enough to see the demise of the U.S. shale and LNG industries, the small Gulf state will still face stiff competition. Tanzania and Mozambique have enjoyed significant gas discoveries in recent years that have led to much speculation as to their role as significant future LNG suppliers. Shell recently acquired a smaller energy firm with blocks off the Tanzanian coast, joining a host of East Asian energy companies that have sought stakes in these developments.

There have also been plenty of discoveries in the Mediterranean. Israel hoped to ship LNG to Egypt and Jordan, as well as further afield, but has been mired in antitrust proceedings. Moreover, now that Egypt has discovered its own supergiant, the Zhor field, with enough gas to satisfy Egypt's growing domestic demand for about a decade, Israeli LNG may provide only a short-term solution for Egypt, forcing the state to seek customers further afield.

Russia’s prodigious gas supplies – the largest in the world – have long been mooted as a source of LNG. Expansion of its LNG venture in the far northeast is a possibility, but the industry is deeply stymied by a lack of external investment and technology transfer from Western oil and gas majors. Aside from the inconvenient location of much of Russia’s gas and a consequent high cost to establish an LNG industry nearby, sanctions are Russia’s key problem and look unlikely to ease significantly in the current geopolitical climate.

Unlike Russia, Iran is in the process of having its international sanctions lifted, which will spur its energy ambitions. Iran shares with Qatar the world’s largest gas field, but unlike its smaller neighbor, it has seldom had the opportunity to procure the necessary external financing or expertise to make the most of its resource. But after the Iran deal, this may change.

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11 Christine Buurma and Chou Hui Hong, “U.S. Gas Boom Turns Global as LNG Exports to Shake up Market,” Bloomberg, October 1, 2014.
16 “Russian LNG: A Five Year Window and It's Closing,” Natural Gas Europe, April 20, 2015.
Western hydrocarbon majors are seemingly eager to enter the Iranian market, both upstream (extracting the raw material) and downstream (refining fuel into products, transportation, sales, etc.) and there are suggestions that Iran may seek to ship LNG to Spain at some stage. But there are a range of geopolitical and other issues to consider, including the pace at which sanctions are lifted. Russia will not want to see its dominant position as a gas supplier to Europe undermined, a factor that Iran will have to consider. Iran is still probably nearly a decade away from shipping LNG to Europe given the lagtime in agreeing, contracting, funding, building, and processing gas into LNG. But even if Iran does not become a key supplier of gas, it appears certain that the state will become a more important supplier of oil, a largely fungible alternative to LNG.

Each of these projects comes with its own set of issues. Underdevelopment and political risk in East Africa, the high cost of investment requirements in the United States, high costs with a difficult and regulatory environment in Australia, political and economic difficulties in Israel, bureaucratic ineptitude in Egypt, or geopolitical instability with Iran all pose real and potentially fatal challenges to the projects. Nevertheless, the sheer number of alternatives, some of which already have significant investment sunk into them and others that will soon be central national priorities, guarantee that Qatar’s dominant position in the LNG industry will face stiff challenges from one or more suppliers.

The foreword to the Organization for Economic Cooperation and Development’s 2015 medium-term gas market report opens with, “What a difference a year makes. Only 12 months ago prices were generally much higher and significant disparities existed across regions. The outlook for gas was generally positive, and prospects for supply and investments looked robust.” But no more. If demand for oil or LNG was rising precipitously, then the prospect of an LNG supply glut might not worry the markets. However, most analysts broadly agree with the OECD’s statistically-backed pessimism.

The central driver of the world economy for the last 15 years has been China’s prodigious growth. Since the early 2000s, the Chinese economy has been growing at over 10 percent a year, boosting demand for commodities like oil and gas. But analysts concur that this period of almost unprecedented growth is at an end. Chinese growth around the 5 to 7 percent mark is not enough to take up the supply side slack. Slowly recovering European economies and even a more robust recovery from the 2008 U.S. economic crash are not enough to fill the void left by dimming Chinese demand.

Therefore, on current trajectories and without the interruption of a serious exogenous factor, both the supply and demand sides of the energy equation look bearish for Qatar. The implications of a far more competitive market need to be examined.

Implications

In July 2013, the former emir and architect of the modern Qatari state, Hamad bin Khalifa, passed the throne to his son, Tamim bin Hamad al-Thani, who was 33 years old at the time, precipitating a much wider political transition in Qatar. Of particular note was the retirement of
of Hamad bin Jassim al-Thani, the second most influential man in Qatar who had served concurrently as prime minister, foreign minister, head of the state sovereign wealth fund, and the CEO of the national airline. Signaling a change of tack, instead of the prime minister also serving as the foreign minister, the new prime minister, Abdullah bin Nasser al-Thani, was double hatted as the minister of the interior, neatly summing up the new administration’s internal focus.

The tenor of the initial months in charge further reflected this change. Tamim’s speeches upon taking power were dominated by issues of fiscal prudence, rationalization, and the importance of Qataris working hard for their state. Budgets were soon cut across the board, except for the military budget, which rose significantly. Education was hit particularly hard along with the cultural and museum sectors. Similarly, Qatar Petroleum cut its workforce by 20 percent, key infrastructure projects were effectively cancelled, and the World Cup committee trimmed the number of stadiums it was building for the 2022 football tournament from 12 to eight. Overall, the Economist Intelligence Unit predicted a budget tightening in 2014-15 of 15 percent from the previous year.

In the bearish context of the wider hydrocarbon markets, cutbacks in Qatar make sense. But many of these cutbacks were instigated in the summer of 2013 when the oil price throughout the year averaged a healthy $91 per barrel with a financial year-end GDP surplus of 4 percent, approximately $22.3 billion. While some government officials may have foreseen a tightening fiscal climate, the depth and location of some of the cuts suggest ulterior motives.

First, there was a sense in Doha that the previous administration operated in far too loose and uncoordinated a fashion, in which budgets were at best guidelines alone. Tamim wanted, evidently, to stamp out this culture and replace it with a thrifter, regularized process. Qatar was known in the 1980s for its reliance on former Emir Khalifa bin Hamad al-Thani (who reigned from 1972-95), to sign all checks over $50,000. This had a predictably deleterious impact upon conducting business that improved under Hamad’s tenure, but was still far from ideal. Late payment of bills plagued all sectors in the state and have been just one area where Tamim’s new administration hopes to improve Qatar’s image. But it has a long way to go. Qatar remains tied for worst in the world at “ensuring that public funds are used efficiently and effectively,” gaining a score of zero out of 100 when assessed against criteria of “account transparency, citizen participation, and the strength of independent oversight.”

Second, the Qatar Foundation seemed to suffer particularly heavily in the cuts. While this is not surprising given that it is a high-profile, expensive venture, there are suggestions that the

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20 “Saudi, Qatar and the UAE Defence Budgets Not Shrinking Despite Oil Price Drop,” IHS Jane’s 360, June 1, 2015.
new government wanted to reduce the size of the organization. Tamim bin Hamad, unlike several brothers and sisters, did not attend any U.S. or British universities and has never shown any particular interest in the project. Moreover, like the very best universities in the United Kingdom and United States, the Education City universities are seen as elitist. Qatari students need, in reality, an expensive private education in English to stand a good chance of getting into the Doha-based Western universities, even with language bridge programs in place to help with the transition.

Moreover, the universities are egregiously expensive, costing tens of thousands of dollars per person, more to educate a student in Doha than at the host U.S. university. This affluence is set against the perceived penury of the national higher education establishment, Qatar University. Complaints as to the lavish graduation ceremonies at Education City versus the more demure ones at Qatar University typify the believed disparities in budgets and often cause a storm of social media protest. Such criticisms are not always that accurate – Qatar University's budget, until the recent budget cuts, was limited more by practicality and a lack of staff on the international job market than budget construction – but the perception is there. Even if Sheikha Moza insists that she instigated the budget cuts on the Qatar Foundation, it is far more likely that these are the results of Tamim's fiscal pressures that also assuage public opinion. Nevertheless, Tamim's administration needs to be careful that it does not cut back too fiercely on institutions like the Qatar Foundation. Their central goal is, after all, to facilitate the transition in Qatar's economy away from dependence on the hydrocarbon industry.

Overall, signs that Qatar is seeking to grasp and control its budget is a promising move. Though its budget revenue slumped alarmingly with the oil price crash – revenue was down 40 percent from July 2014 to July 2015 – it remains fiscally well placed. Its small population is a key advantage in this respect, as well as its relatively diversified gas repertoire being neither dependent solely upon LNG, with an important pipeline supplying Oman and the UAE, nor gas sales, given its peerless GTL capacity. Even with oil prices at $50 per barrel, Pearl GTL is still profitable, converting gas into liquids that can be sold at a distinct markup compared to the raw gas itself.

Nevertheless, the use of the word “relatively” is important here, for though Qatar may be well placed compared to its hydrocarbon-dependent allies in the Gulf, this is far from a ringing endorsement. Fundamentally, Qatar's economy remains overwhelmingly dependent upon hydrocarbon processing, which is inherently limiting. Attempts by Qatar and other states in recent years to diversify their economies before running out of key fuel have seldom worked. In the Gulf, only when the fuel is demonstrably running out are semi-serious attempts to curb the rentier excesses employed. States like Bahrain and Oman that used to possess significant hydrocarbon resources but have been forced to transition to the post-hydrocarbon world, are

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“Qatar Varsity Students Vent Ire on Twitter,” The Peninsula, May 17, 2012.
29 “Qatar Exports Plungs over 40 Pct in Year,” AFP, August 30, 2015.
still dependent upon the kindness of their richer neighbors to support them with aid.

A simplistic reading of International Monetary Fund government revenue figures in Chart A might suggest that only 59 percent of government revenue comes from the hydrocarbon industries (33 percent from oil and 26 percent from LNG). But the reality is that a majority of the investment income and corporate tax revenue comes either directly from Qatar Petroleum or its many subcontractors that are there often exclusively to service the direct requirements of the hydrocarbon industry.

![Chart A: Qatar Revenue 2013-14](Image)

It is, therefore, Qatar’s intrinsically small population and its good decision making to somewhat diversify its front-end hydrocarbon industry output (i.e. GTL production) that has protected it relatively successfully thus far, and not a fundamental diversification of its economy. But the implications of this are not promising in the wider context of struggling emerging markets at the end of the commodity price supercycle that has dragged down economic growth in emerging economies overall since 2010.31

During the 2000s, shares in companies dealing in commodities were the ones to buy. Rising demand and seemingly limited supply pushed prices high. At least partly driven by this, key emerging market states – the BRICS countries (Brazil, Russia, India, China, and South Africa) and the Gulf states – buoyed by their commodity exports, prospered. But the cycle has been unraveling for years. The aggregate commodities index tallied by Bloomberg is down 61 percent since 2008 highs and 46 percent from its peak after the 2011 financial crisis.32

The wider depression in emerging markets is yet to deeply affect the Gulf states because hydrocarbons have been the only commodity not following the downward trend. Sluggish growth, growing debt, plummeting revenue, less attraction for foreign investment, and exchange rate (un)competitiveness – thanks to the currency dollar peg – has been the problematic path that other emerging markets have followed. Qatar and its fellow Gulf states are now facing a similar prognosis.

31 “Material Difficulties,” The Economist, August 1, 2015.
An important question for Qatar in terms of its supply of LNG revolves around the moratorium it has in place over further development of its shared gas field with Iran. It is widely assumed that Qatar did not want to develop the field lest it irk Iran by sucking out the gas too quickly and effectively from their shared field, while the Islamic Republic was unable to harness Qatar’s qualitative advantages (cash and Western know-how). There remain three principal problems with Qatar’s lifting of the moratorium and developing the field in the current circumstances.

First, it would be expensive and risky to invest in the field in such a bearish market. Qatar’s leadership would need to take a risky bet on the rebounding of LNG in 15 years and onward. Such a scenario is perfectly plausible but at a time of squeezing budgets, the risk would remain heavily on Qatar, for few international oil companies at the present time would be overly eager to launch into yet another large-scale project with so many others much further along elsewhere in the world.

Second, and linked to this, the Qatari state could barely cope with such a project. It is already the most expensive state in the region in which to complete projects and inflation is creeping up primarily because of the supply bottlenecks that dog companies in Qatar undertaking works. With only one land border across which to import materials, a small port that is already over capacity, and delays on the construction of a larger port, Qatar already suffers from debilitating bottlenecks dogging large projects. Another huge infrastructure project, such as building new LNG trains, on top of existing transportation and World Cup-related construction, would cause, at the very least, a surge in inflation.

Third, Qatar would need to calibrate this policy carefully with Iran. They share the field and Qatar does not want to leave itself open to accusations that it is “stealing” Iran's gas. Such accusations in the past were used as a part of the Iraqi pretext to invade Kuwait. While no one would suggest that Iran would invade Qatar, there are a great many deniable initiatives that Iran could take far short of war to disrupt Qatar’s production if it were so inclined.

Qatar, then, is stuck in the same position with the gas industry as Saudi Arabia is with the oil industry. All around them, competition is taking market share, and driving down the price of their key commodity. Saudi Arabia has gone for a proactive, attacking approach. By not cutting production to inflate the price, as many expected it to do, it held firm and suffered as it watched the price fall. The overarching rationale was, and remains, to undercut and drive out of business the expensive but significant suppliers in the United States as well as potentially creating a bargaining chip for the kingdom to use in its region either with Iran or Russia.

But even though Qatar dominates the LNG industry far more than Saudi Arabia dominates the oil industry – one-third of LNG supply versus the kingdom’s 10 percent of oil supply – the basic dynamics of the market make it more difficult for Qatar to exert as manipulative an effect. Also, where once key Asian buyers preferred longer-term contracts in a market of tight supply and were willing to pay a premium for the guarantee of supply, this is increasingly less

33 “Qatar Is Still the Most Expensive Country to Build in across Middle East,” The Edge, September 9, 2013.
the case. With more supply options coming online, prices overall are dipping, making such premium longer-term contracts less attractive.

For Qatar, the good times of dominating the industry, taking advantage of switching supply from one area to another in search of higher prices, and driving hard economically lucrative contracts are over. But the state’s huge reserves, diversified output, and low cost base for production and shipping remain a key component of the state’s economic viability henceforth. Though its relative importance to the LNG market looks set to diminish perhaps even significantly, Qatar will remain a central plinth of energy markets for the foreseeable future.