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QATAR

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QATAR

SELECTED ISSUES

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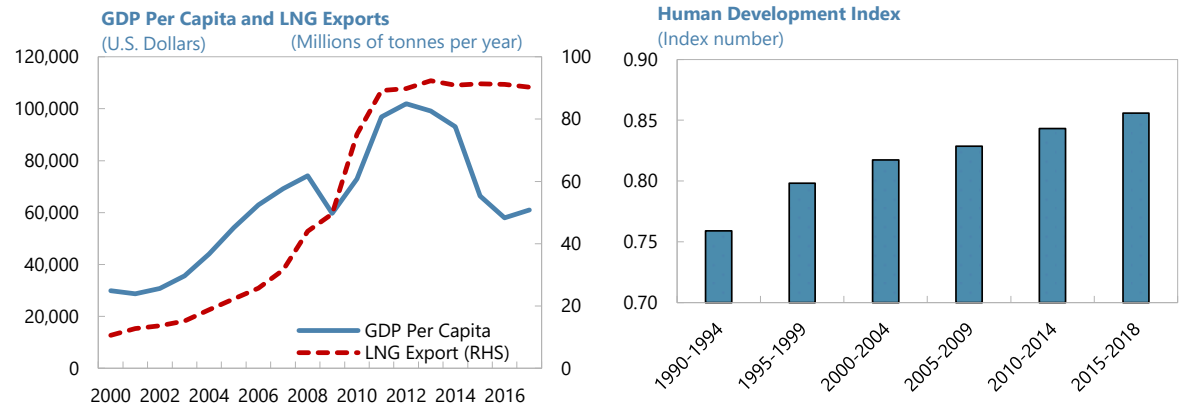
POLICIES TO DRIVE DIVERSIFICATION FOR QATAR[1]

Diversification is important for a large commodity exporter like Qatar: it helps manage temporary shocks and prepare for sweeping changes to the economic setting. Qatar's large financial holdings can help diversify revenues. Both structural reforms to improve the business environment and sector-specific policies can support diversification of activity and exports. Sector-specific policies should build on existing economic strengths in areas with room for exports and innovation. Emphasis should be placed on developing expertise in specific clusters. Export markets and competition provide crucial mechanisms to ensure discipline.

A. Introduction

1. Qatari living standards have improved substantially in recent decades with rapid hydrocarbon-led growth. Income per capita has climbed upwards as Qatar has become a major player in liquified natural gas (LNG) markets. Development consists of more than just greater income (Sen 2000), and indeed Qatar has made significant investments in health and education, reflected in improvements on the Human Development Index. With substantial remaining hydrocarbon reserves, Qatar plans to raise natural gas production further by the mid-2020s.

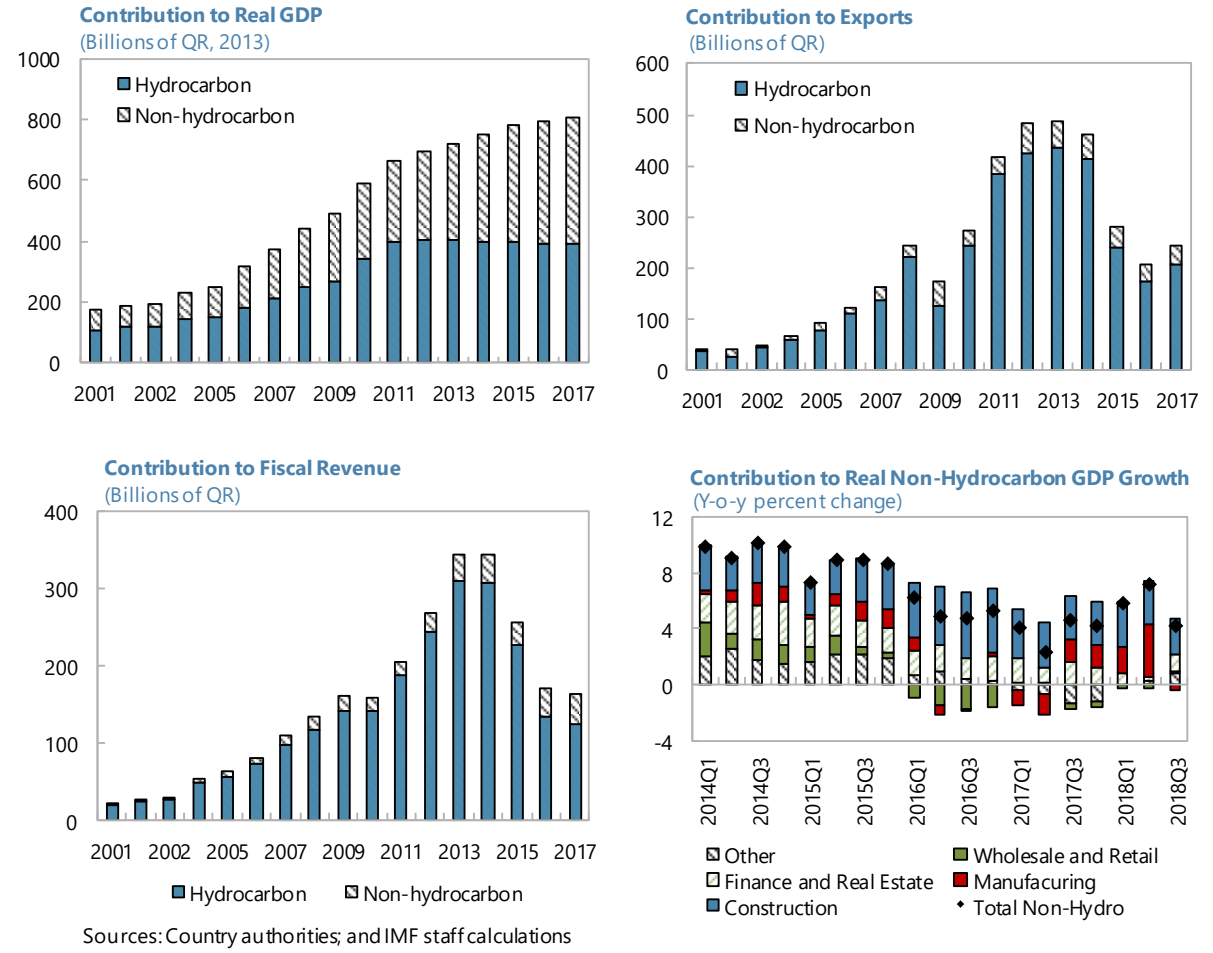


Sources: UNDP, Human Development Report; country authorities; and IMF staff calculations.

2. Nevertheless, greater diversification—increasing the breadth of economic activity, exports, and revenues—would increase the resilience of Qatar's economy and help prepare it for the coming decades. Hydrocarbons represent a significant share of economic activity, exports, and fiscal revenues. Although non-hydrocarbon activity has grown as a share of real GDP in the last decade, government projects funded by hydrocarbon revenues continue to play an important role. Qatar's Second National Development Strategy recognizes room to diversify on all three fronts

[1] Prepared by Divya Kirti, with research assistance provided by Tian Zhang.

through growth outside hydrocarbons. This would help manage both temporary and permanent shifts in the economic environment.

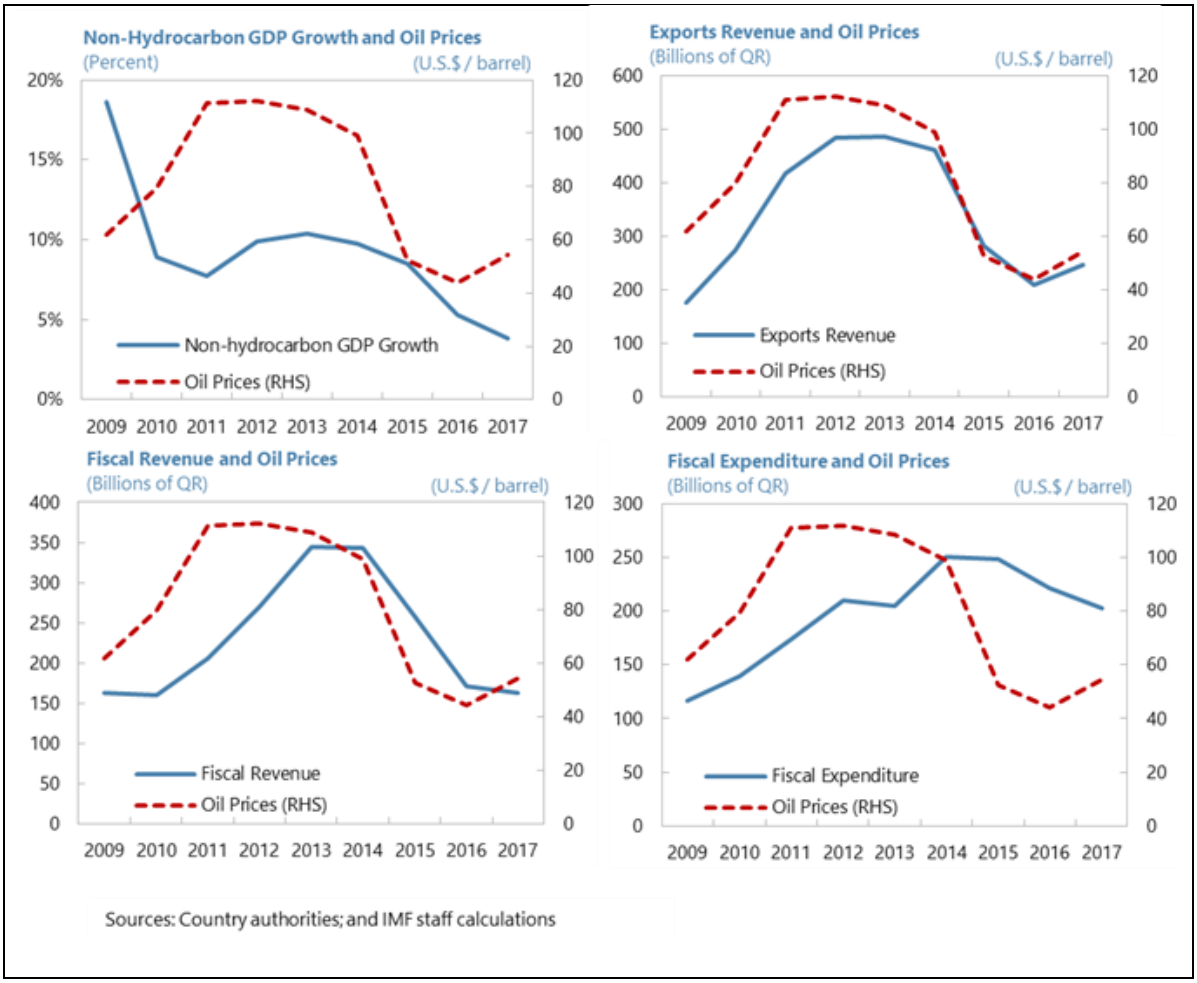


B. Why is Diversification Important?

3. Diversification is essential to help Qatar manage temporary shocks and prepare for permanent shifts in the economic setting. When activity, exports, and revenues are highly reliant on oil and gas, shocks to hydrocarbon markets can have a large impact on the economy. Two types of shocks are important to consider. First, hydrocarbon prices can exhibit substantial temporary variation. For instance, while Brent (oil) prices doubled to well above $100 from 2009 to 2011, in 2016 they dipped back below $50. Qatar sells most of its natural gas through long-term contracts with prices linked to oil benchmarks. Second, the global economic environment may shift in more permanent ways: demand for hydrocarbons may dwindle before Qatar's large reserves are physically exhausted. Moving towards a medium-term fiscal framework that decouples government expenditures from hydrocarbon revenues would reduce the destabilizing impact of oil price volatility

on the economy.[2] While diversification is a long-term process, it can help address the effects of these shocks by reducing Qatar's exposure to oil and gas markets over time.

4. Diversification reduces exposure to, and facilitates management of, temporary shocks to oil prices. Over-reliance on hydrocarbons leads to heightened macroeconomic volatility: per capita consumption in Qatar, as in other Gulf Cooperation Council (GCC) countries, is strongly linked to oil prices (IMF 2016). The outlook for oil prices remains highly uncertain with shifting supply dynamics, and an uncertain global economic and geopolitical environment. A more balanced economic structure would reduce exposure to this uncertainty.



5. Diversification can help sustain comparable living standards for future generations, even if hydrocarbon reserves diminish in value or after they are exhausted. Qatar's hydrocarbon reserves are vast. Even with the planned expanded rate of production, natural gas reserves are expected to last for more than a century. However, they are finite. Moreover, the value of these reserves may be impaired before they are physically exhausted. Solar power, or even

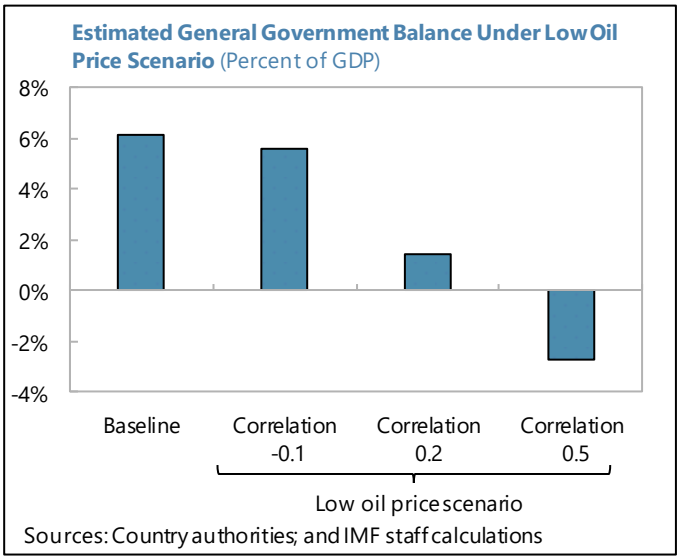
[2] See the accompanying Selected Issues Paper titled "Fiscal Policy in a Medium-Term Context and Fiscal Rules".

nuclear fusion, may become feasible earlier than expected.[3] Efforts to address climate change could potentially reduce the demand for hydrocarbons. In the short term, natural gas may provide a cleaner way to generate power than coal. Over a longer horizon, however, a shift away from all hydrocarbons could take place (Gillingham and Stock 2018).

C. Financial Diversification

6. Through prudent fiscal management, Qatar has accumulated a substantial pool of financial assets that can significantly contribute to revenue diversification. Returns on financial investments can provide a component of revenues that does not directly rely on hydrocarbons. These returns can help diversify revenues, even if economic activity and exports remain concentrated in hydrocarbons (i.e. even if limited progress is made with 'real' diversification). It is important to consider the role financial diversification can play for Qatar. Prudent fiscal management has allowed assets held by Qatar Investment Authority (QIA) to reportedly cumulate to over $300 billion. Returns are therefore likely to be substantial even as a share of current central government revenues.

7. Returns on financial assets can help Qatar diversify revenues if they do not move together with developments in oil markets. Depending on how correlated they are with oil prices, financial returns can help diversify revenues. With a low or negative correlation, the general government balance can be relatively insulated from even significant shocks to oil prices. In contrast, with a large positive correlation, the government's overall position is even more sensitive to oil prices than it would otherwise be. This finding could be taken into consideration in determining QIA's strategic asset allocation.[4] QIA does avoid concentrating its portfolio within any specific sector, including oil and gas markets.



8. While domestic investments tend to facilitate economic diversification, they should continue to be evaluated carefully: even when there is little need to borrow from capital markets, they do entail foregone financial accumulation and associated returns. In this regard, the Public Investment Unit of the Ministry of Finance should continue with rigorous evaluation of public capital spending, particularly cost-benefit analysis.

[3] Previous transitions between energy sources have taken place in less than two decades (Cherif and others 2017).

[4] Media reports indicate that QIA has at times made some significant investments in the hydrocarbon sector.

9. Qatar's Second National Development Strategy correctly observes that real sector diversification has to complement financial diversification. Qatar's experience with the 2017 diplomatic rift has accelerated momentum for economic diversification. Higher incomes alone do not constitute broader societal development (Sen 2000). For instance, vibrancy and dynamism require continued improvements in human capital and technological capacity.

D. Policies to Drive Real Sector Diversification

10. Structural reforms to unlock growth across the economy and policies aimed at specific sectors can support diversification of exports and activity. The importance of structural reforms to lay the foundation for dynamism is widely acknowledged. Qatar's Second National Development Strategy also places emphasis on more active policies targeting specific sectors (often also referred to as industrial policies, even when targeting non-industrial sectors). Careful cost-benefit analysis is needed for policies with significant fiscal elements. Raising the non-hydrocarbon share of activity and exports will be challenging given Qatar's plans to substantially increase LNG production. However, there is plenty of room to broaden and deepen beyond hydrocarbons.

Structural Reforms

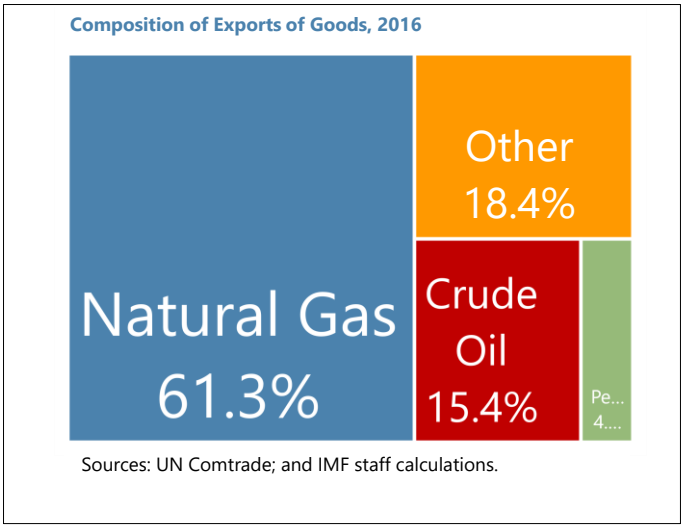
11. Structural reforms should aim to create an environment that enables non-hydrocarbon growth led by the private sector. Widely acknowledged pre-conditions for growth include a stable macroeconomic environment, a predictable and simple legal framework, a favorable business climate, appropriate incentives, low corruption, and a strong education system (Callen and others 2014, IMF 2016, IMF 2018). In their absence, private activity can be paralyzed: businesses are wary of committing to investments, contracts cannot be enforced, and resource allocation can be highly inefficient. Rodrik (2005) suggests that there may be many ways to improve property rights and incentives in the medium term, while Acemoglu and Robinson (2013) argue that robust institutions are crucial over the long term. Some structural reforms require relatively little financial outlay. Improving judiciary capacity to handle commercial disputes, for instance, need not meaningfully constrain financial diversification.

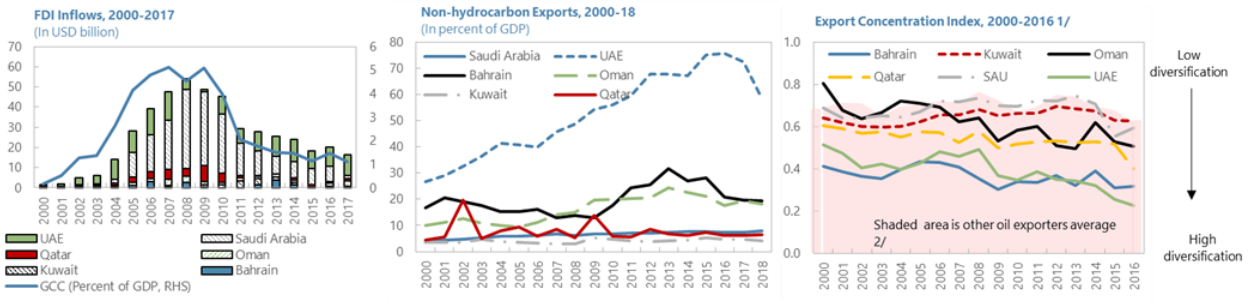
12. While many of these conditions are in place in Qatar, some areas do require attention. Prudent fiscal policy and a credible pegged exchange rate policy underpin macroeconomic stability in Qatar. The World Economic Forum's Global Competitiveness Report (2018) suggests that technological adoption is strong, and the infrastructure base is well developed. Qatar has also engaged in significant anti-corruption efforts in recent years. However, areas with room for progress include contract enforcement and processes for dealing with insolvency and disputes. As in other GCC countries, educational outcomes are also a key target (IMF 2018). Indeed, Qatar's Second National Development Strategy recognizes that the private sector faces challenges such as the "lack of bankruptcy laws", "cumbersome regulatory procedures" and an "ineffective litigation system." It also aims to raise the quality of basic education, and to steer more Qataris to math, science, and engineering programs.

13. Qatar's Special Economic Zones (SEZs) should be viewed as a temporary solution to issues with the business environment while broader structural reforms are pursued. Qatar has established several SEZs (including Qatar Financial Center, Ras Bufontas, and Um Alhoul) and plans to open more (e.g. Al Karaana). Although they can support private activity and diversification, SEZs should be viewed as temporary solutions until a well-structured regulatory framework and environment can be extended throughout the country; after all most Qatari businesses will not be located in SEZs (IMF 2018). For example, Qatar Financial Center offers a legal environment based on English common law, and a special employment dispute resolution process. These should not be treated as a substitute for improvements to contract enforcement and dispute resolution mechanisms that apply across Qatar.

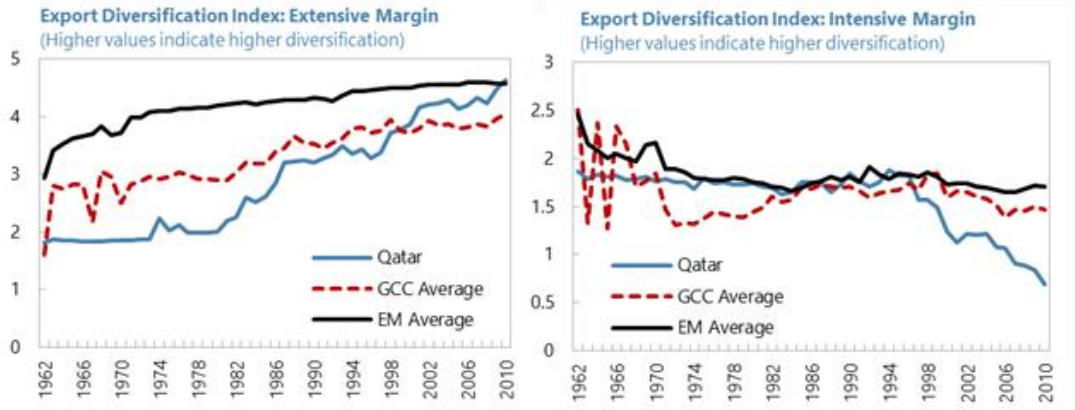
Industrial Policies

14. Sectors that link with existing economic strengths, with potential to expand exports and innovate, can help drive real diversification. Existing export industries can be expanded both vertically and horizontally (Callen and others 2014, IMF 2016). Malaysia presents an example of vertical expansion: it entered upstream and downstream activities related to rubber and palm oil. Mexico, which built links around its existing automotive sector, illustrates the potential for horizontal diversification. Qatar has experience with both vertical diversifications related to oil and gas (with petrochemicals), as well as horizontal diversification (Qatar Airways, and Qatar's airport and port). Nevertheless, hydrocarbons dominate Qatar's exports. IMF (2018) finds that Qatar's non-hydrocarbon exports are smaller, less diversified, and less sophisticated than in countries with similar fundamentals, and the literature links growth and diversification of exports to stronger economic growth (Frankel and Romer 1999, Hausmann and others 2007, IMF 2018). IMF (2018) finds that FDI inflows into Qatar have fallen in recent years, that non-hydrocarbon exports are a smaller share of GDP than in GCC countries, and that exports are more concentrated than in some GCC countries.





Sources: UNCTAD; Country authorities; and IMF staff calculations
1/ Lower index indicates lower concentration and higher diversification.
2/ Oil exporters include Azerbaijan, Brunei Darussalam, Iran, Iraq, Kazakhstan, Democratic Republic of Timor-Leste, Turkmenistan, and Yemen.



Sources: UN Comtrade; IMF Export Diversification and Quality Database; and IMF staff calculations.
Note: The extensive Theil index is calculated for each country/year pair as: TB = ∑k (Nk/N) (μk/μ) ln(μk/μ), where k represents each group (traditional, new, and non-traded), Nk is the total number of products exported in each group, and μk/μ is the relative mean of exports in each group. The intensive Theil index for each country/year pair is: TW = ∑k (Nk/N) (μk/μ) {(1/Nk) ∑i∈Ik (xi/μk) ln(xi/μk)}. where x represents export value."

While Qatar has expanded into exporting a similar range of products as emerging markets as a group over time, non-hydrocarbons continue to account for a small portion of total exports. Lin (2014) stresses the importance of prioritizing sectors with significant room for continued innovation, to leave room for dynamism.

15. Qatar's Second National Development Strategy identifies priorities within both manufacturing and services that can build on existing strengths. This strategy prioritizes six sectors: manufacturing, finance, professional and scientific activities, tourism, logistics, and information and communication.[5] Detailed strategies are being developed to lay out well-defined areas of focus for each priority sector. Specific priorities include 3D printing and agriculture under

[5] Genuine progress in modern sectors may require coordinated, simultaneous investments without which individual entrepreneurs would be unwilling to enter (Murphy and others 1989, Rodrik 1995). New types of activity may involve a level of risk that entrepreneurs are not willing to tolerate (Mazzucato 2013, Cherif and Hasanov 2018).

controlled environments. Qatar may be well placed to explore 3D printing, as it has a cost advantage for the necessary petrochemical-related inputs. For a country that already experiences very high temperatures, exploring how to sustain agriculture if temperatures rise further may be valuable. These examples are very much in forward-looking sectors with room for innovation that can contribute to export growth. Other opportunities include further growth in finance—some Qatari banks already play a significant regional role—and targeted forays in logistics that can call on Qatar's strong air and shipping port infrastructure. As strategies for each sector are developed, emphasis on focused opportunities for exports and innovations with links to existing strengths should continue. Harnessing entrepreneurial activity will require clear, coherent communication of the sector specific strategies.

Building Expertise

16. Investments in specific clusters of activity can initiate self-reinforcing, virtuous cycles of knowledge acquisition and innovation. Clusters of related activity can allow stronger improvements and growth than the pursuit of narrow opportunities in isolation. Such 'agglomeration effects' can operate across three important dimensions (Tirole 2017). First, firms working in related areas can provide each other sufficient demand for growth in scale, impetus for innovation, and together develop real expertise. Second, similar salutary dynamics are possible within the pool of people working in related areas. Third, firms that link with each other can benefit from shared, cost-effective access to specific investments, common infrastructure, and to each other. Qatar has followed this approach for efforts to broaden around Qatar Petroleum's (QP) existing activities: Qatar's major industrial zone (Mesaieed) and several logistics parks are located near QP and Hamad Port. Many of the best-known clusters have developed somewhat naturally around existing universities: the quintessential example is Silicon Valley. There are, however, examples of more active policy approaches to clusters. Singapore brought together international leaders in petrochemicals, and located them together on an artificially constructed island, allowing them to collectively benefit from specialization, low cost transportation links in vertical production chains, and joint innovation (Lin 2014). Qatar will benefit from continuing to encourage related activities to develop in logical clusters.

17. Targeted tax incentives and access to finance can enable entrepreneurial risk taking. The elevated risk and daunting time horizons associated with entering new sectors can be overwhelming for any private enterprise. Qatar offers investors in priority sectors exemptions from income tax for up to ten years, along with land allocations with long-term leases. Development banks and venture capital funds focused on small, innovative firms can facilitate the significant leap needed in infant industries. Qatar Development Bank (QDB) provides preferential credit to Qatari SMEs and operates an equity funding initiative. QP has announced a plan to encourage local suppliers, backed by access to finance through Qatar National Bank. Access to finance should be paired more systematically with sectors prioritized in Qatar's Second National Development Strategy. Programs supporting innovation through early stage financing for small firms are a fixture of many advanced economies. For example, Singapore has used venture capital support linked to private financing decisions to shape innovate ecosystems. More broadly, export subsidies and tax

incentives have been used to encourage innovation and entry into tradable sectors even in advanced economies.[6] While SEZs can also encourage entrepreneurial risk taking by locally addressing weaknesses in the business environment, it is important to continue to improve the economy-wide business environment. However, even with a strong business environment, there may be a case for well-targeted tax incentives and access to preferential financing (also see footnote 5).

18. Foreign partners can play a key role in supporting entry into new sectors. Countries looking to adopt technological and methodological advances in sectors new to them have a significant advantage: they can learn from others. At various points in their histories, the United States, Germany, Japan, Korea, and China have all learned from other countries (Studwell 2013). Working with foreign partners, by inviting foreign direct investment (FDI) and entering into joint ventures with foreign leaders, can be crucial for entering new sectors and improving domestic technological capacity (Lin 2014). When large investments are required, the public sector may need to enter joint ventures. Qatar has some experience with learning through joint ventures in the gas sector: over time Qatar Petroleum has increased its own technological and investment capacity. IMF (2018) estimates that structural reforms such as improved contract enforcement and minority protection could support FDI and increase economic growth in Qatar by as much as one percentage point. Qatar's Second National Development Strategy identifies FDI as an important contributor to diversification.

19. Qatar's should develop a comprehensive strategy to attract foreign investment and pay attention to developing domestic technological capacity. Qatar has multiple portals that aim to attract foreign investment (including invest.qa and Manateq). While invest.qa clarifies that, per Qatari Investment Law No. 1 of 2019, foreigners can now invest in any sector excluding banks, insurance, and commercial agencies, even outside SEZs, a comprehensive communications campaign is needed to ensure that all potential investors are aware of this change. Similarly, plans to facilitate access to finance in priority sectors should be explicitly communicated. Once foreign investment is attracted, it is important to integrate the resulting enterprises into the Qatari economy to facilitate improvements in technological capacity throughout the economy.

20. Deliberate investments in human capital, targeted at priority sectors, are essential for developing expertise. Development of human capital is an essential component of building valuable know-how in advanced sectors. Indeed, productivity has been declining in Qatar, and improving productivity through improved educational outcomes is important. To succeed, plans to prioritize specific sectors must be accompanied by targeted investments in human capital linked to the same sectors (Callen and others 2014). While general improvements to the education system are also needed, Qatar should ensure that the specific skills needed for priority sectors are available in the labor market. Technical training can be more valuable in some cases than other types of higher education: in Switzerland and Germany, apprenticeship programs are a more common path after high school than university (Cherif and Hasanov 2016). Singapore initially focused on training

[6] For example, Boeing, Alcoa, Intel, Dow Chemicals, Airbus, and more recently Tesla have benefited from subsidies amounting to billions of dollars (Cherif and Hasanov 2016, Mazzucato 2013).

technicians, engineers, and local managers, although it increasingly placed emphasis on scholarships extending to the doctoral level at both local and foreign universities (Yeo 2016).

21. Singapore's example shows that with well-sequenced and focused plans that are ambitious over the long term, Qatar can succeed with diversification. Qatar may have a small population, but its endowment of natural resources and accumulated financial wherewithal allow it to approach the process of growth and diversification outside hydrocarbons from a position of comparative strength. In the early decades of its development path, Singapore had little human capital, a shallow labor pool, and few natural resources. Its success should inspire others to be ambitious, but with well sequenced, focused plans. Beyond drawing on its historical strength as a trading hub to encourage trade and financial flows, Singapore followed a structured path, choosing precision engineering, chemicals, and most recently biomedical sciences as priorities (Yeo 2016). This meant eschewing more advanced sectors until the human capital, infrastructure, and technological foundations were ready.

Ensuring Discipline

22. Industrial policy risks supporting rampant inefficiency with widespread economic and financial costs. In the absence of clear benchmarks, industrial policy in some countries has resulted in small groups of business owners and 'national champions' claiming significant rents with little impact on the wider economy beyond inefficient import substitution (Callen and others 2014, Studwell 2013). The international experience suggests that two key mechanisms can help enforce discipline: export markets and competition.

23. Export markets can provide an objective benchmark to assess progress in new sectors. As noted earlier, adopting innovations is in many ways an easier proposition than innovating: it is possible to learn from others. Some countries have effectively used export markets as a yardstick against which to measure progress. The ability to export to consumers that can choose from other established options provides an external benchmark to gauge the extent to which emerging activity can be sustainable without ongoing support. Crucially, support can be discontinued where sustainability seems unachievable. Qatar is no stranger to using export markets to assess quality: Qatar Airways prides itself on winning international awards. Beyond this role as a device to distinguish success and failure, export markets of course also constitute a source of demand at scale.

24. Korea's experience illustrates how export markets can serve to enforce discipline. Export markets featured prominently in Korea's implementation of its Heavy and Chemical Industrialization Plan in the 1970s. To access bank credit or policy loans at favorable terms, industrialists had to produce letters of credit from foreign buyers and meet stringent criteria that included export volumes, minimum requirements for the number of export items, destinations, and overseas branches (Woo 2016). Importantly, industrial groups unable to meet these conditions did not receive continued support (Studwell 2013). Export markets were therefore essential for holding recipients of industrial policy support accountable, ensuring that Korea's industrialization plan did not simply lead to inefficient import substitution. The lesson here is that the inability to consistently export can signal inefficiency and poor quality. As Qatar is a WTO member, policies should to be

carefully designed, perhaps in consultation with the WTO secretariat, in view of rules that prohibit subsidies with direct export conditionality and domestic content requirements.

25. While Qatar's Second National Development Strategy identifies priority sectors, individual firms should not receive special benefits, to ensure that competition can flourish even in new sectors. Domestic competition provides an internal way to ensure discipline. If sector-specific policies ultimately provide support to a single firm, it can be difficult to credibly contemplate removing this support, even if inefficiency is widely observed. While governments are famously unsuccessful at picking winners, sector-specific policies need not try to pick winning firms (Aghion 2016). The international experience highlights the value of encouraging and retaining competition even in priority sectors. Japan and Korea both supported a multitude of industrial groups that competed against each other (Studwell 2013). Decentralized implementation of industrial policy has been vital for the development of general-purpose technologies in the United States. Best practices include calling on independent experts to help identify narrow objectives, supporting many different attempts to achieve these objectives, and again, withdrawing support in the absence of sufficient progress (Mazzucato 2013).

E. Conclusion

26. Further diversification is important to help Qatar manage temporary shocks and prepare for far-reaching shifts to the economic context. Hydrocarbon prices are highly volatile with an uncertain long-term outlook. Qatar's significant financial assets are a source of strength. QIA's asset allocation strategy should not ignore Qatar's already significant dependence on hydrocarbon revenues. The government should continue to carry out rigorous evaluation of public capital spending, as it still has an important opportunity cost (foregone financial accumulation and associated returns).

27. Additional structural reforms are needed to put the economy on the path to real sector diversification. Qatar has a strong infrastructure base, and its economy is generally competitive. However, some areas do deserve attention, including contract enforcement, processes for dealing with insolvency and disputes, and the quality of education. While SEZs can be helpful in the short term, they should not be viewed as an alternative to improvements to the economy-wide business environment.

28. Well-targeted, structured, and sequenced policies to encourage specific sectors can also play a role in diversifying Qatar's economy. Qatar's Second National Development Strategy identifies priority sectors, including manufacturing, and financial and other services. Detailed strategies are being developed within these priority sectors: they should identify specific opportunities for growth that link to current strengths, with scope for exports and innovation. These strategies should also be clearly communicated to invite entrepreneurial participation. Two main lessons from the international experience with sector-specific policies should be kept in mind as the Second National Development Strategy is implemented:

- **Policies should aim to build expertise in specific clusters of innovative activity.** Qatar should continue to encourage related new businesses to cluster together. A coherent strategy to attract investment should systematically ensure access to finance for priority sectors, integrate innovative foreign ventures into the economy, and be well-communicated. Investments in human capital should target the specific skills needed in priority sectors. Acquiring expertise takes time: Singapore's example shows the importance of identifying focused, realistic priorities while being ambitious over the long run.

- **Export markets and competition should be deliberately used to hold recipients of support accountable.** Policies to encourage specific sectors have resulted in little more than inefficient import substitution in many countries. Avoiding this outcome requires discipline: support should be withdrawn in the absence of progress. In sectors that are new to the Qatari economy but not to global markets, success in export markets should be used as an external benchmark to measure progress. Policies should aim to encourage sectors, not specific firms, to ensure that competition is preserved even in new sectors.

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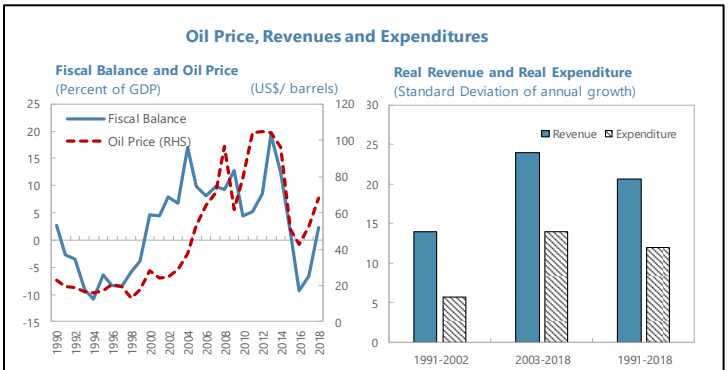
QATAR: FISCAL POLICY IN A MEDIUM-TERM CONTEXT[1]

In the aftermath of lower oil prices in 2014, the government implemented significant fiscal consolidation that has put the fiscal position on a sounder footing. It is important, however, to further deepen fiscal reforms and embed ongoing fiscal consolidation in a medium-term context, given volatile hydrocarbon prices. This approach is crucial to entrenching the authorities' efforts at decoupling expenditures from hydrocarbon revenues. Furthermore, exploring the scope for adopting formal fiscal rules, with emphasis on sustaining intergenerational equity and smoothing the volatility of hydrocarbon prices, could help strengthen the conduct of fiscal policy, with positive impact for economic growth and diversification.

A. Background and Context

1. Fiscal policy in Qatar, as in other resource rich-dependent counties, plays a significant role in macroeconomic policy management and economic diversification. It aims to achieve macroeconomic stability, economic development, and intergenerational equity.[2] The stabilization objective focuses on minimizing the adverse economic and financial implications of hydrocarbon prices volatility by decoupling government spending from changes in hydrocarbon revenues. The development objective is reflected in spending on education, health and infrastructure. The authorities are executing an infrastructure program in the amount of US$200 billion, with a view to facilitating the diversification of the economy and preparing for the FIFA 2022 World Cup. The objective of intergenerational equity culminated in the establishment of Qatar Investment Authority (QIA), with an accumulated savings estimated at more than US$300 billion as at end-2018.

2. Fiscal performance in Qatar has tended to be associated with hydrocarbon price changes, given considerable dependence on the oil and gas sector (Figure 1). Hydrocarbon revenues averaged about 90 percent of total revenues during 1990–2018 and about 34 percent of GDP. The volatility in oil revenues has been accompanied by swings in government expenditure, though to a

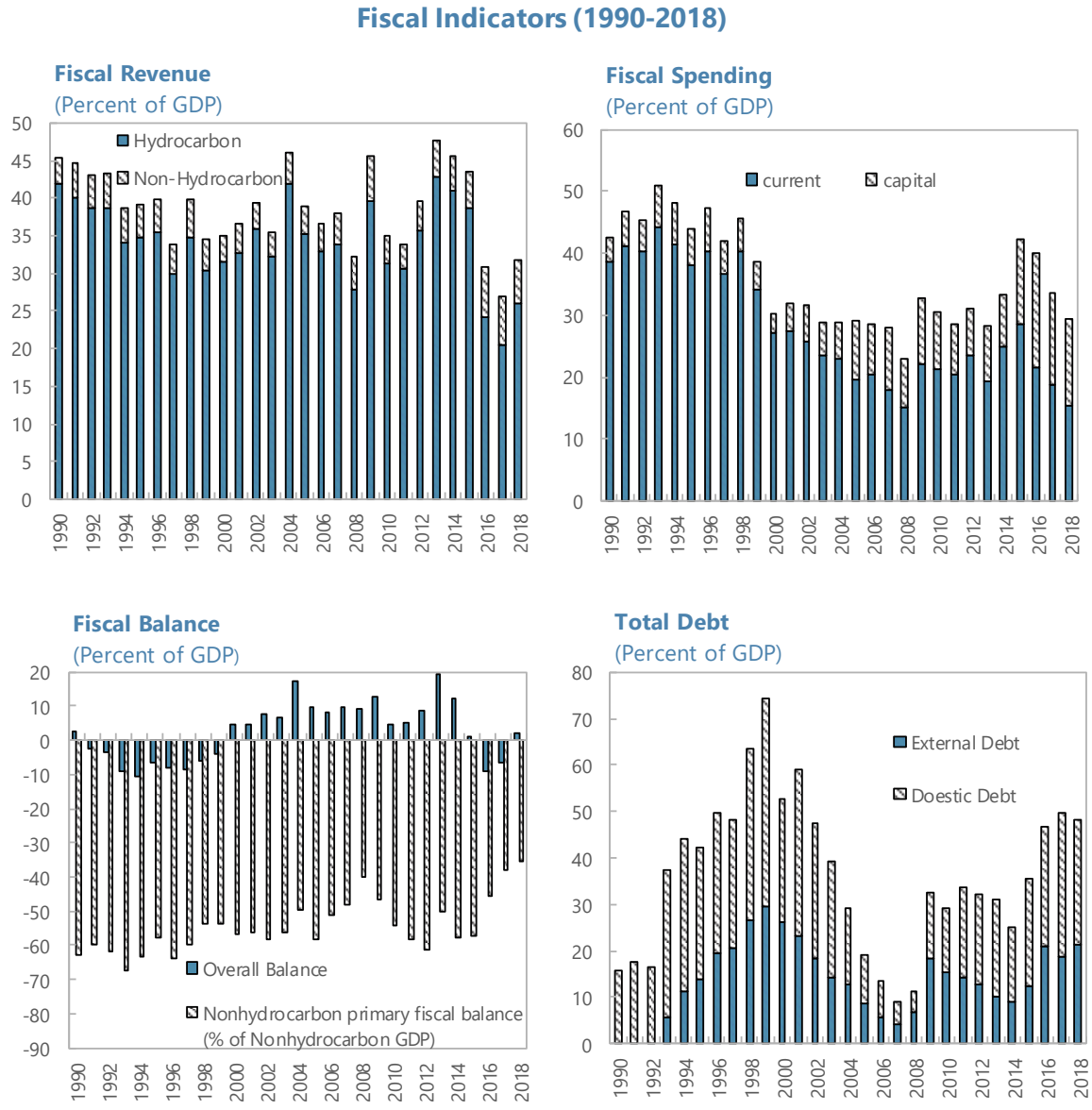


Sources: Country authorities, and IMF staff calculations.

[1] Prepared by Olumuyiwa S. Adedeji and Tian Zhang.

[2] Qatar has recorded impressive rates of economic growth, but inputs such as employment and the capital stock have grown almost as fast, leaving little or no productivity gains (See "Breaking Down Qatar's Rapid Growth: Input Growth or Productivity Growth or Both", IMF Country Report no. 15/87). This finding points to the importance of putting in place strategies to help achieve private-sector led economic growth and diversification (see the accompanying selected issues paper on "Policies to Drive Diversification in Qatar").

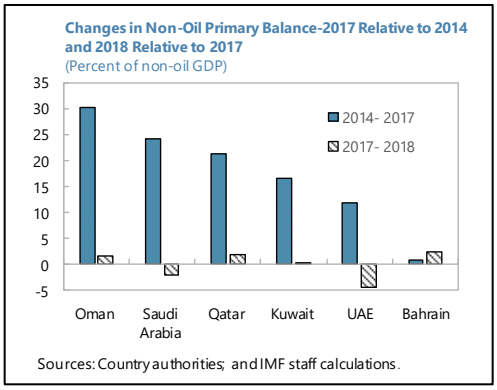
lesser degree. The relatively lower volatility of spending partially captures the limited scope to adjust non-discretionary spending and the use of fiscal buffers (including debt) in response to changes in hydrocarbon prices.



Sources: Country authorities, and IMF staff calculations.

3. Qatar growth volatility moves in tandem with variations in expenditure, as in other GCC countries. Overall real GDP growth was higher (2003–18) when real government spending growth was also higher, in the context of relatively higher hydrocarbon revenues and prices (Table). Further, the volatility of both real GDP growth and non-oil GDP growth have been consistent with the volatility of government expenditure. The high volatility of non-oil growth in the 2000s could be

linked to strong and rapid growth in the construction sector. Qatar has been able to contain inflation, reflecting, among other factors, the use of a pegged exchange rate regime tied to the U.S. dollar, which has provided a clear and credible monetary anchor.



4. The authorities undertook significant fiscal consolidation in the aftermath of the collapse in oil prices in 2014. The government cut recurrent expenditures through reductions in the number of ministries, undertook energy pricing reforms, and placed stronger emphasis on raising

Output, Government Spending, and Inflation
(Annual growth in percent)

	Average			Standard Deviation		
	1991-2002	2003-2018	1991-2018	1991-2002	2003-2018	1991-2018
			Real Non-Oil GDP			
Saudi Arabia	3.1	5.8	4.6	1.2	2.9	2.7
Qatar	3.7	12.3	8.6	5.8	8.4	8.6
Bahrain	3.2	7.1	5.4	1.7	4.8	4.2
United Arab Emirates	10.2	5.2	7.3	5.6	3.7	5.2
Kuwait	4.9	5.3	5.1	4.3	5.3	4.9
Oman	0.8	6.8	4.2	14.3	4.8	10.5
	Real GDP					
Saudi Arabia	1.9	4.2	3.2	4.8	3.4	4.2
Qatar	6.8	9.9	8.6	8.1	7.7	8.0
Bahrain	4.3	4.7	4.5	2.0	1.9	2.0
United Arab Emirates	4.5	4.2	4.3	3.5	3.6	3.6
Kuwait	8.3	4.0	5.9	27.5	6.0	18.7
Oman	4.3	3.5	3.8	2.6	3.0	2.9
	Real Government Spending					
Saudi Arabia	3.7	6.2	5.1	12.6	7.5	10.1
Qatar	3.5	11.8	8.2	5.7	14.0	12.0
Bahrain	4.7	8.3	6.8	15.1	11.9	13.5
United Arab Emirates	-0.6	8.5	4.6	14.4	12.6	14.1
Kuwait	-2.2	7.2	3.2	9.7	20.3	17.2
Oman	3.3	7.4	5.7	7.9	13.5	11.6
	CPI Inflation					
Saudi Arabia	0.5	2.5	1.6	2.1	1.8	2.2
Qatar	2.4	4.2	3.4	1.9	5.4	4.4
Bahrain	0.9	2.3	1.7	2.0	0.9	1.6
United Arab Emirates	3.5	4.1	3.8	1.5	3.6	2.9
Kuwait	2.1	3.4	2.8	2.1	1.6	1.9
Oman	0.3	2.8	1.7	1.5	3.0	2.7

Sources: Country authorities, and IMF staff calculations.

non-hydrocarbon revenues. The positive impact of these measures is reflected in the improvement of the non-hydrocarbon fiscal deficit as a ratio of non-hydrocarbon GDP.

5. The ministry of finance (MoF) continues with efforts to modernize budget management in light of broader fiscal reforms. These include the preparation of a three-year

forward-looking budget. The three-year medium-term fiscal framework is reviewed annually and used to guide the budgeting process and rationalize expenditure as it includes expenditure ceilings on current and capital expenditures. After issuing the State's financial system in 2015, MoF developed a 3-year forward-looking financial framework (2017–2019), which includes overall estimates of state revenues and expenditures (Qatar Second National Development Strategy, 2018–2022).

6. The second National Development Strategy emphasizes the importance of a strong linkage between strategies and national budget, necessitating the strengthening of the fiscal framework. The conduct of fiscal policy in achieving expenditure smoothing, a reserve build-up, the development of the tradable sector, and stronger linkage with the national development plan requires several important elements. These include (i) a medium-term fiscal framework and strategy, (ii) the allocation of revenues among current spending, investment, and saving, and a medium-term expenditure framework with spending ceilings and a public investment program; and (iii) the annual budget designed to support these reforms and linked to a medium-expenditure framework. Based on international experience, this paper provides the main elements of such a robust fiscal framework.

7. This paper is organized as follows. Section B presents the main consideration that could underline medium-term budgeting in Qatar. Section C discusses the use of fiscal rules to complement multi-year budgeting to decouple expenditures from volatile hydrocarbon prices. Section D concludes and points out that strengthening the medium-term fiscal framework and strategy and ensuring stronger linkages with the national development strategy would require more clarity on how oil prices that underline the budget are determined and avoid systematic deviations between the budgeted and actual revenues. Further improving macroeconomic and fiscal forecasting would be important along with strengthening capacity at the line ministries. The proposed measures to underline medium-term fiscal framework could be complemented by a formal but flexible procedural fiscal rule. In addition, improved transparency about QIA assets would support market confidence.

B. Medium-Term Budgeting: Key Considerations

8. The use of medium-term budget framework could help insulate spending from volatile oil receipts. Delinking the annual budget from the short-term volatility in oil revenue and ensuring that spending decisions are based on a longer-term perspective is particularly important. Such an approach would help to prevent volatile annual revenues from translating into expenditure fluctuations and the associated destabilizing effects on the economy. During good times when oil prices or production rates are high, a multi-year framework can help governments resist the pressure to increase spending and buildup reserves, which can be used in bad times without compromising long-term policy objectives. In that respect, medium-term budget frameworks (MTBFs) can help protect priority expenditures and maintain the strategic focus of policy plans.

9. Anchoring spending decisions in a medium-term framework is key to avoiding over-committing future budgets. In the absence of a well-functioning and detailed MTBF, ad-hoc

increases in current expenditure, which are typically difficult to unwind, tend to result in budget rigidities. This is important to preventing drastic reduction in capital expenditure in the event of a need for fiscal consolidation.[3] Second, capital investments are germane to the overall strategy of diversifying the economy. In that respect, the MTBF can help to enhance prioritization processes, and the quality of investments through the evaluation, choice, and management of projects, and thus alleviate risks of long-term project viability, which can otherwise be compromised if ongoing capital projects entail significant operating and maintenance costs.

10. In general, a medium-term fiscal framework (MTFF) together with a fiscal strategy document should be in place ahead of a more binding MTBF. More specifically, in the short term, a simple MTFF would provide a projection of the fiscal balance, non-oil balance and include estimates of government revenues and spending at a more aggregate level. A fiscal strategy document would follow as the basis for annual budget preparation, translating the MTFF into a statement on fiscal policy priorities. This document could also contain fiscal risk analysis, indicating the sensitivity of fiscal plans to varying assumptions regarding the economy, the hydrocarbon sector, contingent liabilities, and other uncertain events. In a second stage, a simple MTBF could provide guidelines (envelopes) to line ministries to prepare medium-term spending plans. framework.

11. A full and effective MTBF requires several critical pre-requisites:

- A credible annual budget is critical to the designing and implementation of a MTBF. In Qatar, this area requires further progress. The annual budget is based on a conservative oil price assumption, resulting in budget revenues much lower than actual oil prices. In Qatar, like in any resource-rich country, using realistic oil price assumptions that are based on explicit rules in the preparation of the budget is key to avoiding consistent deviations of actual oil prices from budget and the potential ad-hoc elements in spending decisions that they could cause.

- Medium-term macroeconomic projections need to be anchored in the government's multi-year projections of revenue and expenditure. A macro-fiscal unit has been established in Qatar that is charged with this responsibility. The MoF needs to enhance capacity to further improve the formulation of medium-term macroeconomic forecasts. Nevertheless, in Qatar as in any other resource-rich country with resource price and production uncertainty, medium- to long-term resource revenue forecasts are clearly a challenge.

- A fiscal risk management framework would help plan for contingencies. The multi-year fiscal framework could help develop strategies to deal with the volatility and uncertainty in hydrocarbon prices and help assess risks and identify longer-term implications of present policies. This highlights the need to prepare, as a part of the forecasting exercise, a sensitivity

[3] Empirical studies have established that fiscal multiplier for capital expenditures in GCC countries are higher compared to recurrent expenditures (see "How Can Growth-Friendlier Expenditure-Based Fiscal Adjustment be Achieved in the GCC", IMF 2017).

analysis to varying assumptions regarding price, cost, and production, and to adequately plan for contingency reserves to smooth spending over the medium term in the face of shocks.

- A comprehensive and unified top-down budget process is also needed for medium-term budget planning to shape fiscal policy in line with the government's overall objectives (such as the NDS 2 in Qatar). To ensure that medium-term ceilings or estimates shape the annual budget, three elements need to be in place. First, the budget process should follow a top-down sequence in which the expenditure aggregates should be determined before the distribution of expenditure within that aggregate is discussed and decided. Second, both the budget and the budget process should be unified so that all major expenditures decisions are taken at one time. Finally, the budget should be comprehensive and relatively unencumbered by extensive earmarking or standing expenditure commitments governed by other legislation.

- Finally, parallel and essential to all pre-requisites is capacity building at ministries and government agencies, including the MoF, to enhance budget preparation and ensure quality of spending. Areas to be strengthened include the costing of new initiatives, reporting and monitoring, and transparency.

C. Towards Fiscal Rules-Anchoring Fiscal Targets

12. A well-designed fiscal rule could be considered as a way of reinforcing multiyear fiscal framework, as it provides an anchor for the formulation of medium-term ceilings or projections. Different fiscal rules have very different implications for the manner in which fiscal policy delivers objectives and responds to shocks. Policymakers' choice of appropriate fiscal rules is thus key in ensuring its success.

13. Many countries have resorted to fiscal rules. Fiscal rules are of several types: expenditure, revenue, budget balance, and debt. Each rule has its advantages and disadvantages.[4] In commodity exporters, standard fiscal rules are modified to take account of fiscal sustainability or commodity price volatility. In addition to the standard rules, non-resource balance rules and structural balance rules have been used (Baunsgaard et.al.2012). Non-resource balance rules take into account fiscal sustainability issues and use indicators based on the permanent income hypothesis (PIH), while the structural balance rules adjust for the volatility of commodity prices (e.g. Chile). Qatar currently does not have an explicit fiscal rule. However, expenditure in annual budget appears to be anchored on having a declining path of fiscal break-even oil price.

14. Given the volatile nature of resource revenues, Qatar would benefit from a framework that includes a procedural fiscal rule, rather than a permanent strict numerical target. A

[4] See Schaechter et. al. (2012). The choice of a particular fiscal rule needs to reflect simplicity, guidance, countercyclicality, and sustainability. The expenditure rules impose a cap on nominal or real expenditure growth within a credible MTBF. The rule does not factor in revenue and in practice the rule could be supplemented with a correction mechanism (e.g. "debt brake," or a medium-term correction mechanism based on a non-oil primary balance rule) to ensure sustainability, but at the expense of increased complexity. Other rules such as the budget balance rule is not suitable for Qatar, as it could lead to a highly procyclical stance.

procedural fiscal rule would include (i) principles for fiscal policymaking, (ii) a requirement for the government to set a target for one or more fiscal indicators, (iii) the content of the fiscal strategy statement in which those targets are set, (iv) the arrangements for reporting performance against those targets; and (v) an escape clause to deal with exceptional circumstances which prevent the government from meeting its fiscal objectives. A procedural rule in a volatile environment thus argues for allowing the MoF the flexibility to change its quantitative fiscal targets within a principle-based framework. This indeed suggests a trade-off between a rigid fiscal rule with high risks of becoming obsolete and a flexible yet less credible rule. In that respect, having explicit revision clauses in place (e.g., targets to be reassessed every four years, for example) will help avoid undermining the credibility of the framework with too frequent changes.

15. Staff carried out simulations to assess the consistency between fiscal performance and the benchmark derived from PIH. The objective of the exercise, which is for illustrative purposes, is to provide policymakers in Qatar with a view of how fiscal outcomes compare to the benchmark. The non-oil primary balance rule is implemented by calculating the sustainable level of spending according to the permanent income hypothesis (PIH) methodology. Challenges for the design of appropriate fiscal policy framework are amplified by the volatility, uncertainty, and exhaustibility of revenues from natural resources**.** One of the main elements of such a framework would be to define a benchmark for assessing long term fiscal sustainability. The objectives underpinning the fiscal framework would depend on considerations such as resource revenue temporariness and the initial level of capital accumulation (Baunsgaard, Villafuerte, Poplawski-Ribeiro, and Richmond, 2012).[5] For Qatar, given the available capital stock, the framework should aim at managing volatility and achieving macro-fiscal stability. Preserving intergenerational equity, through the buildup of sufficient financial saving is also a key issue.

16. Qatar's long-term fiscal sustainability is assessed using the permanent income hypothesis (PIH) formulated by Friedman (1957). The PIH relies on simplifying assumptions which imply that, for a highly resource-dependent country, the intertemporal budget constraint is satisfied when the non-resource primary fiscal deficit is limited to the perpetuity value of resources wealth.[6] This theoretical framework, with desirable intergenerational equity considerations, suggests that the government should be forward-looking in smoothing consumption over time, in line with the permanent income. Given some assumptions on the main parameters, including population and oil price growth, interest rate, and return on assets, the permanent income hypothesis implies constant real per capita government spending out of hydrocarbon revenues over time that is equal

[5] In the case where resource revenues are temporary, the priority in countries with ample capital should be to accumulate sufficient financial saving for future generations, while those with scarce capital would have to balance between accumulation of saving and domestic investment to increase non-resource growth. With long-lasting resource revenue, countries with ample available capital should focus primarily on managing volatility and ensuring macro-fiscal stability, while those with limited capital accumulation will need to invest domestically, but at a measured pace as not to threaten macroeconomic stability.

[6] The PIH model can be questioned, especially in the case of low-income countries rich in natural resources, because it does not fully incorporate the fact that those countries are both capital and credit constrained. A more flexible approach, that facilitates fiscal spending financed by resource revenue to support growth, may be needed in that specific case.

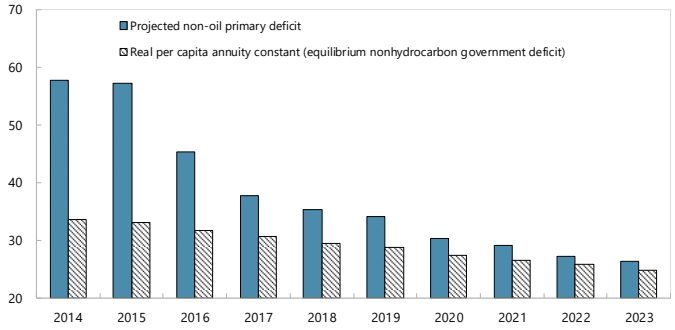
to the annuity present value of expected hydrocarbon wealth. This would stabilize government expenditures, avoid boom-bust cycles, and enhance intergenerational equity. According to the permanent income hypothesis, sustainable per capita government spending out of hydrocarbon wealth in a given year can be determined as follows:

$$G_{t+1} = (r - n)\left[W_t + \sum_{k=0}^{K} \frac{R_{t+k}}{(1+r)^k}\right]$$

where W_t is the value of the accumulated revenue in the sovereign wealth fund at the end of the previous year, R_{t+k} is the amount of hydrocarbon revenues the government expects in period k, $(r - n)$ is the expected average real rate of return on hydrocarbon wealth minus the annual rate of population growth, and K is the number of years until the depletion of hydrocarbon resources.

17. The application of this approach suggests that, under baseline assumptions, savings would be broadly adequate by 2023 to maintain constant real per capita spending. The gap between the projected non-hydrocarbon primary fiscal balance and the non-hydrocarbon primary fiscal balance consistent with intergenerational equity (i.e., the level that would permit maintaining government spending constant in real per capita terms even after hydrocarbon wealth is exhausted) is estimated at 6 percentage points of non-oil GDP in 2018.[7] Continuation with fiscal consolidation will help to close the estimated gap in the medium term. The proposed gradual approach is appropriate so as to avert the adverse impact on non-hydrocarbon growth of a more aggressive consolidation path. In addition, Qatar has substantial fiscal space, as reflected in low gross financing needs, declining public debt path, significant access to the international financial markets and substantial financial wealth.

Non-hydrocarbon Primary Deficits and PIH-Based Benchmarks, 2014-23
(In percent of non-hydrocarbon GDP)



Source: IMF staff calculations.
Notes: Benchmark non-hydrocarbon primary deficit is calculated using the Permanent Income Hypothesis (PIH) under the assumption of constant real per capita annuity. Projections until 2023 use WEO assumptions. After 2023, the baseline scenario assumes annual oil price growth of 2 percent and real return on assets of 4 percent. Projected non-hydrocarbon primary deficit excludes portions of QP investment income and corporate income tax (that come from hydrocarbon activities).

D. Other Considerations

18. Alternative oil price-based fiscal rules tend to produce different degree of smoothing out volatility and generating different levels of financial assets. For a given price formula, higher/lower structural targets are associated with an increase/decrease in the level of financial savings over time. A price-based formula on a slow-moving average may achieve higher smoothing

[7] The estimated optimal fiscal position is subject to some degree of uncertainty due to oil price projections and assumptions on the model parameters.

of expenditure, but at the cost of possibly large discrepancies between projected and actual revenues.

19. Sovereign Wealth Funds (SWFs) have been effective stabilization instruments. Some countries have used SWFs as an instrument to save part of oil revenues. Nonetheless, challenges could arise in the event the accumulation and withdrawal rules from the SWF are somewhat rigid and disconnected from overall fiscal targets. In the aftermath of the oil price collapse of 2014, commodity exporters that had buffers in their SWFs used them to smooth the adjustment and avoid exchange rate pressures, but this use was not always governed by a clear fiscal rule (Algeria, Azerbaijan, Iran, Kazakhstan, Kuwait, Qatar, and UAE). This led in some cases to conflicts between the stabilization need and the intended investment for future generations. Another typical problem with SWF is that some countries accumulate assets with low returns while they borrow expensively to finance fiscal deficits. SWFs are, however, best used when they are set up as financing instruments funding the budget either for stabilization or long-term financing purposes (IMF, 2015), and have no spending authorities (to avoid the creation of extra-budgetary funds that would perform quasi-fiscal operations without proper oversight from fiscal authorities). In the context of Qatar, consideration could be given to making publicly available the relationship between the fiscal authorities and QIA, including the main principles underlying the transfer from the budget to QIA. In addition, improved transparency about QIA assets would support market confidence.

E. Conclusion

20. Fiscal policy focuses on many objectives, given the need to diversify away from hydrocarbon, a major and volatile source of income for the government. In view of the volatility of hydrocarbon prices, smoothing expenditure becomes important as does accumulating financial assets. Diversification away from one source of income argues for solid human and capital infrastructure to ensure the competitiveness of the non-hydrocarbon tradeable sector.

21. Qatar has initiated steps to have in place MTBF, which is critical to aligning its national medium-term development strategy with the budget. The process needs to be enhanced further by strengthening the underlying medium-term fiscal framework and strategy, adopting a more comprehensive coverage of line ministries, and making the outer years' allocation more binding. Going forward, a few requirements have to be met with a view to having in place a full-fledged and robust MTBF. This would require more clarity on how the determination of oil prices by the authorities that underline the budget and prevent consistent and systematic deviations between the budgeted revenues and actuals. Further improving macroeconomic and fiscal forecasting would be important along with strengthening capacity at the line ministries.

22. Proposed measures to underline medium-term fiscal framework could be complemented by a formal procedural fiscal rule. Qatar has considerable exposure to movements in hydrocarbon price and at the same time its proven reserves have a long horizon. In this connection, the adoption of a formal fiscal rule (such as non-hydrocarbon balance as a ratio of non-hydrocarbon output derived from permanent income hypothesis) would need a degree of flexibility and concurrently set to ensure consistency with long-term fiscal sustainability**.**

23. The IMF stands ready to provide technical assistance to the Qatari authorities on explore in more detail potential fiscal rules and new supportive fiscal arrangements to strengthen the fiscal framework.

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