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Staff Country Reports

Qatar: Selected Issues

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QATAR

Selected Issues

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Approved by the Middle East and Central Asia Department

December 19, 2012

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I. MEDIUM-TERM BUDGET FRAMEWORK IN QATAR¹

A. Introduction

Qatar has recently taken steps towards introducing a medium-term budget framework (MTBF) to enhance the predictability of spending decisions and link its medium-term development plans to the budget. As a resource-rich country with volatile fiscal revenues and a commitment to a mega infrastructure spending program, multi-year fiscal planning is both a much needed reform and a very challenging task. Going forward, successfully implementing medium-term fiscal planning requires parallel efforts to enhance the credibility of the annual budget and of macroeconomic forecasting through a macro-fiscal unit, as well as to build and enhance capacity at the Ministry of Economy and Finance (MoEF) and line ministries. Furthermore, a formal fiscal rule is a way of reinforcing the fiscal framework. Given Qatar's significant exposure to hydrocarbon price movements and its long-lasting hydrocarbon reserves, such rules would need a degree of flexibility and, at the same time, should be set to maintain consistency with long-term fiscal sustainability.

B. Components of Medium-Term Fiscal Planning and Current Arrangements in Qatar

1. **Sound fiscal policy in Qatar is at the forefront of economic development, stabilization, and timely and efficient implementation of the planned mega infrastructure projects.** This assumes more importance given Qatar's significant reliance on volatile hydrocarbon revenues and the limited independence of monetary policy under the exchange rate peg. Qatar's multi-year budget framework from FY 2012/2013² will help "ensure that budgets perfectly fit in with realizing the key objectives and goals of government policy and increasing its focus on outputs and results recorded by the ministries and government agencies."³
2. **Qatar has started multi-year fiscal planning with a basic MTBF, which is still in its infancy stage.** Budget planning now focuses on a 3-year period, with the budget approval done on an annual basis for the upcoming fiscal year. The outer year budgets are determined as a simple inflation adjustment of the first year's estimates. Ministries requesting more than just a simple inflation adjustment to their budgets are required to explain in their requests (i) how the objectives and services for which they are responsible will improve; (ii) what strategies and techniques they will use to improve those services; and (iii) how their proposals fit in with the Qatar's national development plan. Thus far, the MTBF aggregates expenditure proposals from about 60 percent of ministries and government agencies representing about 90 percent of total expenditures. In addition, the framework is not yet binding and is being used for internal purposes without being published.

¹ Prepared by Ghada Fayad (MCD) and Sami Ylaoutinen (FAD).

² The fiscal year runs from April to March.

³ Based on MoEF budget circular issued in June 2011.

3. **A recent budget circular issued by the Ministry of Economy and Finance (MoEF) provided the timeline as well the detailed instructions for ministries/agencies to prepare their performance-based budgets starting from 2012–13.** First, ministries/agencies will be given more time to prepare budgets. For instance for 2012–13, the process started in August 2011 and final drafts were submitted by the line ministries/agencies in January 2012. During this period, first drafts as well as formal semi-monthly reports about progress in budget preparation were submitted by ministries, and meetings were held with the Public Budget Department of MoEF to determine whether adjustments to the content or the required funds or both are required. Second, ministries/agencies are required to provide (qualitative or quantitative) performance indicators for outcomes achieved under approved budgets. A small percentage of ministries and government agencies responded according to the guidelines provided in the circular. In order to help achieve better responses, a revised version of the circular will be issued soon with more clarifications, and training workshops for ministries are in the pipeline.

4. **This paper is organized as follows.** Section C discusses the desired objectives of Qatar’s adoption of the MTBF, and Section D analyzes its current standing in satisfying the key pre-requisites for successful multi-year fiscal planning. In doing so, the paper assesses the challenges posed for resource-rich countries in running successful MTBFs, and draws from international country experiences. Section E presents simulations addressing the potential eventual adoption of an appropriate fiscal rule in Qatar. Section F concludes.

C. Medium-Term Budgeting in Qatar: Objectives and Focus

5. **The MTBF in Qatar should be centered on (i) managing volatility of spending and shielding it from hydrocarbon revenue uncertainty, (ii) achieving macro-fiscal stability, and (iii) ensuring efficient execution of large infrastructure projects.** Given that resources are likely to be relatively unconstrained in the medium-term, Qatar’s MTBF should be embedded in a long-term sustainability framework that reflects the time profile of non-renewable reserves and intergenerational choices. This would contribute to a more stable macroeconomic framework in which Qatar would save more for building strong buffers and for intergenerational equity purposes.

6. **The volatility of growth and inflation in Qatar over the last two decades underscores the importance of sound fiscal policy through the MTBF as a key tool for stabilization.** Over 1990–2011, the volatility of these key aggregates in Qatar has been higher than in other GCC economies, and increasingly so for both measures over the last 2 decades (Table I.1). The high volatility of non-oil growth in the 2000s can be linked to strong and rapid growth in the construction sector.

Table I.1. Macroeconomic Volatility in Qatar, 1990–2010

	1990–2010	1990s	2000s
Standard deviation of real non-oil GDP			
Bahrain	3.4	3.4	2.7
Kuwait	8.2	9.1	7.1
Oman	4.8	4.3	5.3
Qatar	10.7	4.8	11.6
Saudi Arabia	1.6	1.7	0.9
UAE	5.2	4.3	6.0
Standard deviation of inflation			
Bahrain	1.8	2.0	1.6
Kuwait	2.9	3.1	2.9
Oman	3.2	1.7	4.0
Qatar	5.2	2.2	6.7
Saudi Arabia	2.7	1.6	3.4
UAE	3.2	1.6	4.1

Sources: Country authorities; and IMF staff calculations.

7. **Furthermore, insulating fiscal policy from oil price volatility remains a key challenge in Qatar.** The link between fiscal spending and oil revenues has significantly increased over the last 2 decades, relative to other GCC countries, based on simple correlations. The response of fiscal policy to changes in domestic demand, as first measured by the simple correlation between real expenditure growth and real non-oil GDP growth has increased in Qatar between the 1990s and 2000s, suggesting a more procyclical response during the boom in oil prices in 2000s compared to the ‘relative’ bust in the 1990s (Table I.2).⁴ Lower procyclicality in busts can be explained by the fact that an unconstrained country like Qatar can indeed afford to spend more in relatively bad times (for instance from returns on accumulated financial assets). The key challenge is then to revert the fiscal expansion in good times, to avoid spending pressures, and instead to save more, thus preventing fiscal policy from amplifying the boom in business cycles. This correlation has instead decreased in all other GCC countries, and in fact characterized as having graduated to countercyclical policy in the 2000s in Frankel, Végh, and Guillermo (2011).⁵

⁴ The problem of procyclicality or pronounced economic cycles in resource-rich countries like Qatar is to some extent inevitable, but its impact can be mitigated by sound and well-chosen policies and institutions. The main reason for the observed procyclicality of fiscal spending in resource-rich countries is that governments cannot resist the temptation or political pressure to spend in booms, often borrowing more to finance such spending, exacerbating the adjustment process during busts when credit is not available and debt repayments come due. In a recent study, Frankel, Végh, and Guillermo (2011) show that institutional quality was a critical determinant of the graduation of many developing countries into countercyclical fiscal policy in the last decade. Also see Medas and Zakharova (2009) for a discussion on procyclicality of fiscal policies in resource-rich economies.

⁵ We back up this simple correlation analysis with an annual VAR model estimated on each of the GCC countries, linking real world GDP (to capture the effect of the global environment on GCC business cycles), real government expenditure, and non-oil real GDP. Our measure of cyclicality is the orthogonalized impulse response of government spending to shocks in non-oil GDP. Endogeneity concerns arising from reverse causality between spending and growth are usually dealt with by using quarterly data such as in Ilzetzki and Végh, (2008). However, since this is not available for GCC countries, our identification strategy assumes that fiscal policy cannot react within a year to news on non-oil GDP growth, and the VARs may underestimate the reactivity of fiscal policy. Despite this underestimation, our results show that Qatar’s fiscal policy has been procyclical, and more so than other GCC members, some of which were found to have countercyclical fiscal policy.

Table I.2. Volatility of Government Spending, 1990–2010

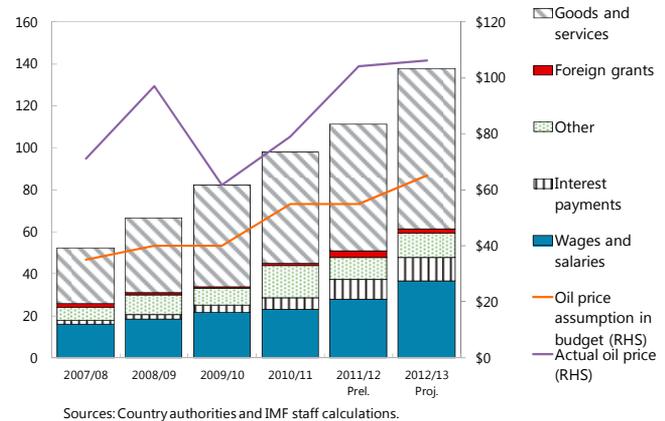
	1990–2010	1990s	2000s
Standard deviation of oil prices			
	28.1	2.7	28.1
Standard deviation of real government expenditure			
Bahrain	8.5	5.3	8.8
Kuwait	24.6	9.4	29.7
Oman	6.4	7.6	4.6
Qatar	11.3	10.5	9.8
Saudi Arabia	11.2	15.1	8.0
UAE	15.9	11.0	17.7
Correlation between real government expenditure growth and oil revenue growth			
Bahrain	0.27	0.40	0.40
Kuwait	-0.28	-0.78	0.16
Oman	0.48	0.58	0.39
Qatar	0.21	-0.12	0.55
Saudi Arabia	0.50	0.78	-0.14
UAE	-0.07	0.20	-0.28
Correlation between real government expenditure growth and real non-oil GDP growth			
Bahrain	0.28	0.12	-0.09
Kuwait	0.20	0.44	0.15
Oman	0.18	-0.02	0.30
Qatar	0.39	0.01	0.26
Saudi Arabia	0.66	0.76	0.14
UAE	-0.26	0.05	-0.26

Sources: Country authorities; and IMF staff calculations.

8. **The annual budget cycle encourages more procyclical policy responses during booms and busts.** Delinking the annual budget from the short-term volatility in oil revenue, and basing spending decisions on a longer-term perspective is in this respect particularly important in preventing volatile annual revenues from translating into expenditure fluctuations that can destabilize the economy and reduce the quality of government spending. 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, 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.** Between 2007 and 2011 development expenditures rose in line with the actual oil price—an increase of about 50 percent—while the hike in current expenditures was much more significant at 130 percent (Figure I.1). Without a well-functioning and detailed MTBF, ad-hoc increases in current expenditure, which are typically difficult to unwind, have imposed budget rigidities. This comes at a time where adjustments from the capital expenditure side should not be an option for two reasons. First, they involve reputational risk given Qatar’s commitment to complete the investment program by 2020. Second, capital investments are expected to be key non-hydrocarbon and overall growth drivers in Qatar over the medium term when hydrocarbon growth reaches minimal levels due to the moratorium on further developments on hydrocarbon projects. In that respect, the MTBF can help enhancing 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.

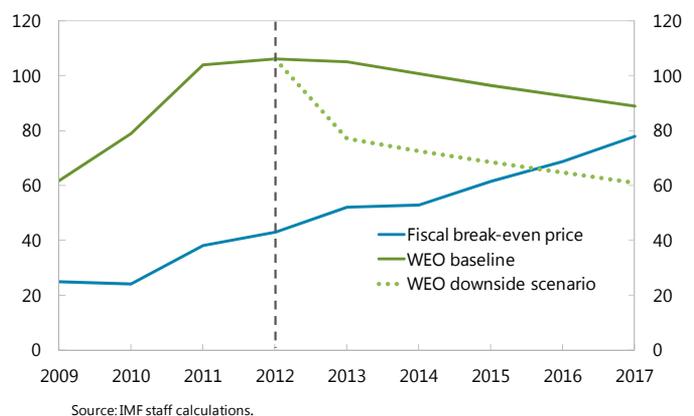
Figure I.1. Composition of Current Expenditure, 2007–12
(In QR billions, left scale)



hydrocarbon growth reaches minimal levels due to the moratorium on further developments on hydrocarbon projects. In that respect, the MTBF can help enhancing 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. **A consequence of increased spending pressures is the rapidly increasing fiscal break-even oil prices—the oil price levels that balances the budget at a given level of spending—in Qatar over the medium term.** While these prices are projected to remain below the WEO baseline oil price, the gap is significantly tightening. A downside scenario, calculated based on one standard deviation (\$28) drop in oil prices, imply that after 2015, WEO prices will fall below fiscal breakeven prices, requiring significant and disruptive fiscal adjustments (Figure I.2).

Figure I.2. Fiscal Break-Even Oil Prices, 2009–17
(US\$)



11. **Medium-term budgeting can help secure effective implementation of the government’s large capital spending program, and achieve the full growth potential of capital spending.** A credible medium-term orientation to the budget would help boost public investment management capacity by providing a coherent and rigorous set of procedures for project selection, appraisal, and programming that would enhance efficiency, accountability and governance. In addition, it helps take into account the recurrent costs of completed

investment projects and budget adequately for them in the medium and long term. This would in turn help alleviate domestic supply constraints and shortcomings in institutional capacity that might otherwise increase the cost and reduce the efficiency of capital investment.⁶ This is all the more important to avoid delays and inadequate execution of the mega investment program.

12. In that respect, several ‘budget management’ mechanisms that ought to be in place under a successful multi-year fiscal framework would help ensure timely and on-budget execution of large infrastructure projects. These include:

- Commitment mechanisms that define the nature, level, and terms of the restrictions being placed on future budget decisions.
- Expenditure prioritization mechanisms that ensure that expenditure is allocated within those multi-year restriction in a manner that reflects the government’s policy priorities.
- Multi-year control mechanisms through which the consistency between updated medium-term expenditure projections and approved medium-term expenditure plans are monitored and enforced.
- Transparency and accountability mechanisms through which adherence to stated medium-term objectives can be assessed by “outsiders.”

D. Pre-requisites of MTBF in Qatar

13. In general, a medium-term fiscal framework (MTFF) together with a fiscal strategy document should be first put in place before introducing 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. Further reforms should aim at developing a more binding framework.

14. A full and effective MTBF requires several critical pre-requisites, including (i) credible annual budgets, (ii) accurate medium-term macroeconomic forecasts, and (iii) a comprehensive and unified top-down budget process. These requirements which are based on the experiences of countries that have successfully introduced MTBF, explain why

⁶ At the macro level, Qatar (and the GCC in general) has had an easy access to a perfectly elastic supply of foreign workers, which has thus far eased any bottleneck pressures.

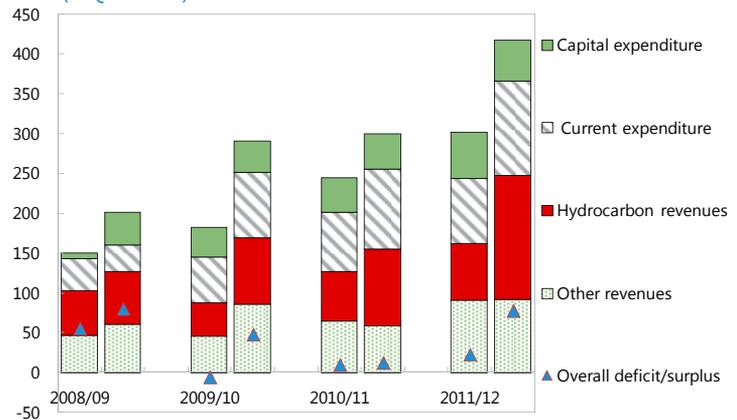
the adoption of MTBFs is a relatively recent phenomenon, with mixed success rates. In addition, challenges specific to resource rich countries include the difficulty to assess long-term fiscal sustainability in the face of uncertain prices and resource stocks and to translate long-term fiscal sustainability into intergenerational equity while responding to investment needs and ensuring high-quality projects.

15. The first foundation for the medium-term revenue and expenditure projections is a credible annual budget. In Qatar, this prerequisite is yet to be fully met. The annual budget is based on a very conservative oil price assumption, which is consistently much

lower than actual oil prices. As a result, actual outturns have deviated from budgets, with spending and revenue outcomes typically far above the initial allocations (Figure I.3). In that respect, the recent upward revision in budget assumptions from \$55 to \$65 per barrel is a welcome, yet insufficient, step given currently high oil prices. In Qatar, like in any resource-rich country, using more realistic oil price

assumptions in the preparation of the budget is key in avoiding consistent deviations of actual oil prices from budget and the ad-hoc elements in spending decisions that they often cause

Figure I.3. Budgeted vs. Actual Outcomes, 2008–11
(In QR Billions)



Sources: Country authorities and IMF staff calculations.

16. Second, 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 recently established in Qatar, consistent with previous staff advice, but is still not functional. The MoEF needs to develop capacity to formulate medium-term macroeconomic forecasts.⁷ 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. Furthermore, avoiding a usually observed pattern of overly optimistic forecasts in boom times is warranted (Frankel, 2011).

17. 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 oil and gas 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 analysis to varying assumptions regarding price, cost, and production, and to

⁷ Such forecasts exist in the General Secretariat for Development Planning, which is a governmental agency mandated to draw a national development vision for Qatar which became Qatar National Vision (QNV) 2030.

adequately plan for contingency reserves to smooth spending over the medium term in the face of shocks.

18. **Third, a comprehensive and unified top-down budget process is also required for medium-term budget planning to shape fiscal policy in line with the government's overall objectives.** 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. In the case of Qatar, there is still no top-down process, and ad hoc budget decisions are still taken throughout the year.

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

20. **The MTBF also needs to be anchored in and guided by the country's fiscal objectives.** A transparent and simple medium-term fiscal objective or rule can provide much needed anchor for the formulation of medium-term expenditure ceilings or projections in MTBFs. This is discussed in greater detail below.

E. Going Forward: Fiscal Rules

21. **A well-designed fiscal rule could be considered as a way of reinforcing multi-year 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.

22. **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 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 MoEF 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.⁸

23. Staff carried out simulations to illustrate how the Qatari budget would have performed under two potential suitable rules: the Non-Oil Primary Balance Rule (NOPB) and the Expenditure Rule (ER).^{9,10} The objective of the simulations, which are for illustrative purposes, is to provide policymakers in Qatar with a view of how fiscal outcomes compare to the potential outcomes under the various rules, and illustrating the impact these rule would have had on countries' savings. In particular, each rule will imply different outcomes in terms of whether it ensures fiscal sustainability and/or entails a demand management mechanism that could dampen temporary economic fluctuations.

24. The Non-oil Primary Balance Rule (NOPB) would have required larger budget surpluses in 2011 for Qatar. The NOPB rule is implemented by calculating the sustainable level of spending according to the permanent income hypothesis (PIH) methodology.¹¹ For this calculation, projected oil prices depend on when the projection is made, with prices for each year from 1990 assumed to stay constant in real terms at their average level in the three preceding years. For Qatar, the NOPB rule would have implied larger deficits for most of the period since 1990, and the deterioration in the fiscal balance over the last few years went beyond that called for by the rule (Figure I.4). These results illustrate how the NOPB rule can limit the scope for countercyclical action, underscoring the case for escape clauses. The estimation and communication of the equilibrium level for fiscal sustainability would also pose practical challenges. In particular, the PIH results are highly sensitive to assumptions regarding future oil prices and other key parameters that are highly uncertain such as long-term rates of interest and population growth. Therefore, the focus of the PIH should not be on a point estimate but rather be illustrative of an available fiscal space path.

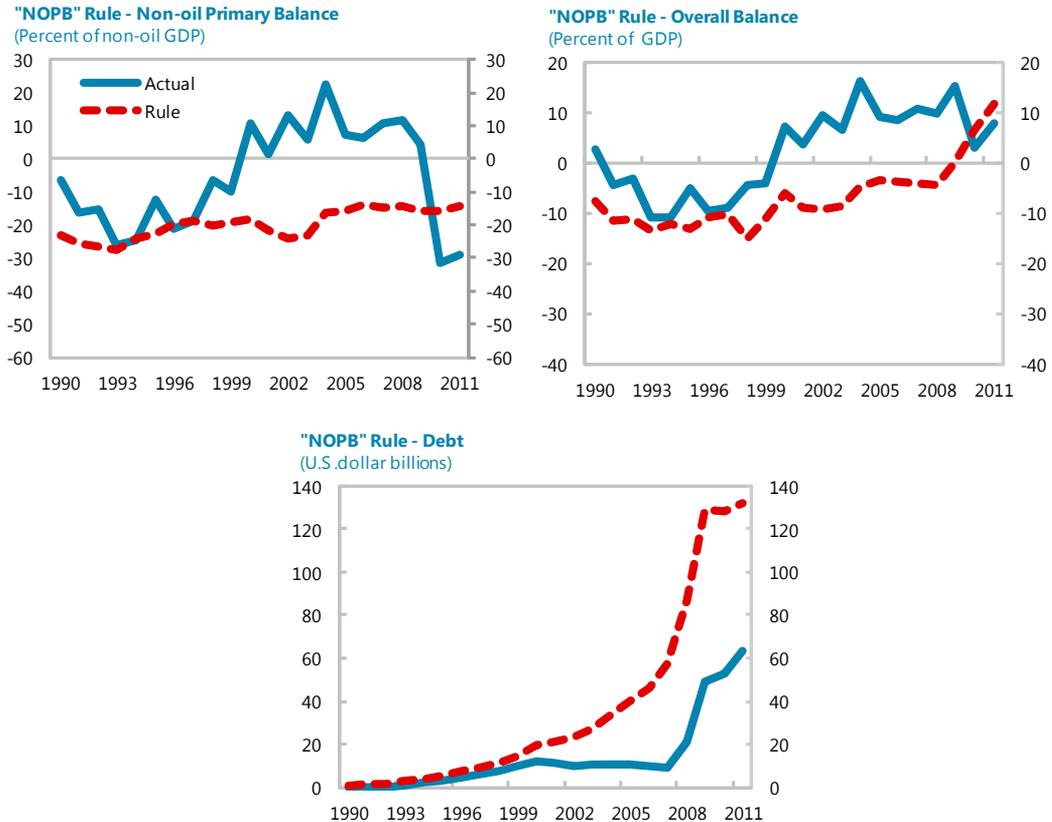
⁸ See the appendix for a detailed description of potential fiscal rules for Qatar, and their ranking on the basis of four criteria: simplicity, guidance, countercyclicality and sustainability.

⁹ The simulations are carried out using historical data for the period 1990–2011. The first step in the simulations is to determine the fiscal balance in each fiscal year based on each rule. For the expenditure rule, if the actual/projected fiscal balance (or expenditure growth, depending on the rule) has a better outcome compared to the ceiling implied by the rule, then the rule will not be binding and actual fiscal outcomes are used for that year. Otherwise, the fiscal outcome will be bound by the rule-implied ceiling or target. For the NOPB rule, the estimated sustainable spending level is assumed to be followed in each year. For both rules, the next step is to link the impact of the fiscal balance to the accumulation or reduction of debt or to building savings.

¹⁰ Designing a fiscal rule that would yield the right mix of sustainability, simplicity, counter-cyclicality, and policy guidance for Qatar is a complex exercise that goes beyond the scope of this paper.

¹¹ Under the PIH, the sum of financial wealth is added to the net present value of projected future hydrocarbon revenue to calculate an annuity that maintains constant wealth per capita for future generations. This benchmark is then used to determine the sustainable path for the non-hydrocarbon primary deficit (the NOPB rule).

Figure I.4. NOPB Rule Simulations, 1990–2011



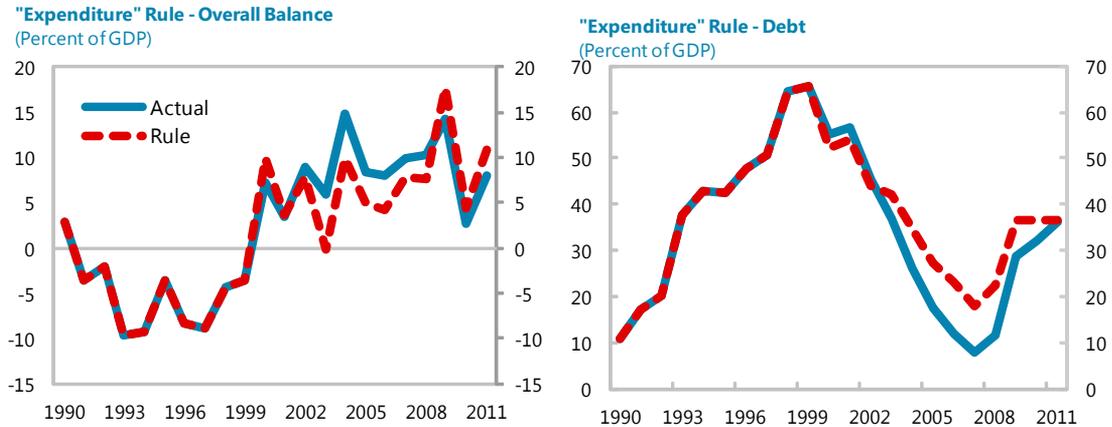
Sources: Country authorities; and IMF staff calculations.

25. **The Expenditure Rule would need careful calibration for Qatar.** This simulation imposes ceiling on the rate of real expenditure growth that is equal to long-term rate of real GDP growth.¹² By setting expenditure growth this way, the rule ensures that the expenditure-to-GDP ratio remains constant over the cycle, allowing for temporary counter-cyclical deviations in the short run. However, as the ER relates the expenditure growth ceiling to the estimated long-term trend of output, the behavior and length of the output sample is crucial. The large fluctuations in GDP growth rates and the short sample complicate the calibration of the expenditure rule. In addition, this rule is sensitive to the level of the fiscal balance in the starting year of implementation, therefore calibrating the rule in the context of highly fluctuating fiscal balances as in Qatar needs special care. For our simulation, the average of the overall balance that would be consistent with the historical sustainable non-oil primary deficit was used as our starting point (Figure I.5).¹³

¹² As a proxy for long-term growth, the 10-year moving average of real GDP growth for each year.

¹³ This corresponds to the overall balance using the sustainable non-oil primary balance and the actual oil-related revenues recorded over the simulation period.

Figure I.5. Expenditure Rule Simulations, 1990–2011



Sources: Country authorities; and IMF staff calculations.

26. **While the expenditure rule would have promoted better demand management policies over the cycle, it needs to be supplemented by an additional mechanism to ensure long-term sustainability.** An important drawback of this rule is that it leaves revenues outside the coverage of the rule. Hence, where revenues were falling as a share of GDP, the rule could allow for widening deficits over time, since the expenditure-to-GDP ratio would remain broadly constant under the rule. An additional mechanism (e.g., debt brake or link to a NOPB rule) that could control for this shortcoming might need to be considered. Nevertheless, under this rule, additional savings would have been accumulated or the debt reduced compared to the actual outcomes.

27. **Globally, fiscal rules are increasingly used to guide policy.** In recent years, the number of countries adopting fiscal rules has risen from 10 in 1990 to about 80 at end-2009 (see IMF, 2009). This comprises 21 advanced economies, 33 emerging markets, and 26 low-income countries.

28. **As elaborated thus far, designing and implementing a successful MTBF and subsequent fiscal rules is a challenging task, and can be even more so in a resource rich country.** Experiences are mixed (Box I.1) and no country can be presented as a model for Qatar. More specifically, a number of them have introduced fiscal rules and/or fiscal responsibility laws (FRL) to reduce pro-cyclicality of fiscal policy and to promote long-term savings and sustainability.¹⁴ These have been relatively successful in some countries, particularly in Chile and Norway, whereas in some countries, such as Azerbaijan and Ecuador, the frameworks have not been followed or have been abandoned.

¹⁴ While often incorporating fiscal rules, FRLs provide a deeper guide to fiscal policy making, laying out the principles and process under which fiscal policy will be made, who is responsible for particular elements and, the reporting requirements for fiscal documents.

Box I.1. Country Experience with MTFF/MTEFs in Resource-Producing Countries

A number of resource-producing countries have been re-orienting their budget processes to lengthen the period covered by their fiscal frameworks. Many reform initiatives have included: a fiscal policy statement establishing a medium-term path for expenditure aggregates; medium-term macroeconomic forecasts; requirements for ministries to maintain budget estimates beyond the budget year and to explicitly cost new measures; and hard cash budget constraints for ministries.

In a number of cases, countries have introduced legislation on medium-term budget planning.

- In **Azerbaijan** the organic budget law requires the preparation of a budget for the upcoming year as well as for the three following years. The government prepares medium-term economic forecasts that include the government priorities and the public investment plan, which are updated annually.
- In **Russia**, since 2007, the parliament approves a full-fledged rolling three-year federal budget. Russia's Budget Code mandates a target of the non-oil deficit of 4.7 percent of GDP (although the target was suspended in April 2009 until end-2013 as a result of the global financial crisis). To capture the full effect of spending decisions and to create stability in the budget process, Russia has introduced rolling three-year budget plans, where existing policy is explicitly linked to key parameters (inflation, volumes in transfer systems, etc), and a specific fiscal space available for new policies is determined before the start of each round of budget preparation. Russia also maintains two oil funds: The Reserve Fund (a rainy-day fund) and the National Wealth Fund, oriented toward long-run savings.
- In **Timor-Leste**, the 2005 petroleum fund law establishes the country's petroleum fund as the repository for all petroleum revenues and specifies how the fund is integrated with the state budget. The law includes a formula—based on the permanent income hypothesis—that derives the estimated sustainable income from petroleum and guides transfers from the petroleum fund to the budget. Timor-Leste is also making efforts to include rolling three-year budget projections in the budget documents.
- In **Norway**, a key concern is the use of oil reserves to cover future non-oil deficits resulting from not only the depletion of oil reserves but also from pension liabilities. The authorities' fiscal policy is based on a fiscal guideline—over the cycle the non-oil deficit should average 4 percent of the financial wealth accumulated in the oil fund (approximately equal to the average real rate of return on financial investments). This rule implies limited use of oil wealth in the short term, but increasing over time. The Norwegian fiscal guideline is also unusual as it isolates the annual budget from oil price volatility, but makes it sensitive to variations in the value of the financial wealth accumulated in the oil fund, for example due to changes in the stock market.

Some countries have introduced fiscal responsibility laws (FRLs). In **Chile**, a structural balance guideline was institutionalized in the 2006 fiscal responsibility law. Adjustment is done by long-term price of copper and molybdenum (10-year forecast) as determined by an independent committee. Targets have been changed over time. The framework is supported by two funds (stabilization and savings). **Mexico's** FRL, approved in March 2006, mandates the inclusion of five-year quantitative projections and costing for new fiscal measures in the budget documents. It also envisages a balance-or-surplus rule and the use of a reference oil price to smooth expenditures. With a view to addressing oil revenues' exhaustivity, **Ecuador's** FRL, approved in 2002, required a reduction in the nonresource deficit of the central government by at least 0.2 percent of GDP per year until the non-oil balance reaches zero. Targets were not observed in practice, and the FRL was revised in 2005. Ecuador abolished its oil funds in 2008.

Main sources: Ossowski et al. (2008), Dabán and Héris (2009), Baunsgaard et al. (2012).

F. Conclusion

29. **Qatar is the first GCC economy to have initiated steps to formally adopt a MTBF**, which is considered as key towards aligning its national medium-term development strategy with the budget and ensuring efficient sectoral planning and better utilization of resources by ministries and government agencies. This is a welcome and much needed reform as Qatar embarks on a mega infrastructure investment plan to diversify the economy and boost competitiveness. The process needs to be strengthened further by ensuring a more comprehensive coverage of line ministries as also make the outer years' allocations more binding.

30. **Going forward, a few prerequisites need to be in place to successfully implement a full-fledged MTBF.** For Qatar, this requires parallel efforts to enhance the credibility of the annual budget and of macroeconomic forecasting—through a macro-fiscal unit, as well to build and enhance capacity at the MoEF and line ministries.

31. **Furthermore, a formal procedural fiscal rule would reinforce the fiscal framework.** Given Qatar's significant exposure to hydrocarbon price movements and its long-lasting hydrocarbon reserves, such rules would need a degree of flexibility and, at the same time, should be set to maintain consistency with long-term fiscal sustainability.

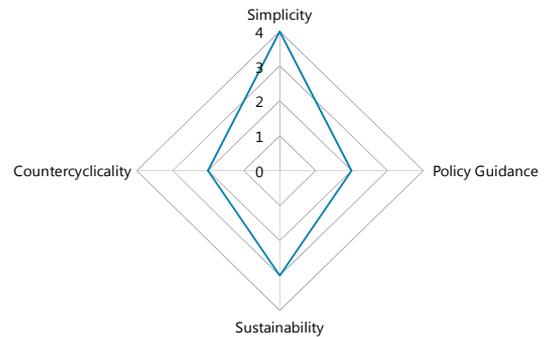
Appendix

I. Potential Fiscal Rules

The discussion below compares three fiscal rules that can potentially be suitable for Qatar on the basis of four criteria: simplicity, guidance, countercyclicality and sustainability. The area of the diamonds in the figures summarizes staff’s view on how the rule performs on each criterion, with a rank of four being the highest score.

- a. The ***Non-oil Primary Balance Rule (NOPB)*** sets a ceiling on the non-oil (primary) fiscal deficit.¹ Timor-Leste has such a rule. A NOPB rule could mitigate some of the procyclicality problem by eliminating oil revenue from the targeted budget balance. The advantage of this rule for a country like Qatar is that it takes into account fiscal sustainability in the context of inter-generational equity. Moreover, it is simple to monitor, and provides some fiscal flexibility that would insulate the budget to some degree from oil price fluctuations (Figure I.6). Specifically, oil revenue windfalls could be saved rather than spent, building buffers for bad times and leaving some of the oil wealth for future generations. The downside of this rule is that while it is closely anchored on fiscal sustainability, it does not entail a demand management mechanism that could dampen temporary economic fluctuations (other than in oil revenues). Finally, since the rule in the context of oil producers would depend highly on long-term forecasts of oil prices, there will be need for periodic revisions of the rule to reflect changes to these forecasts.

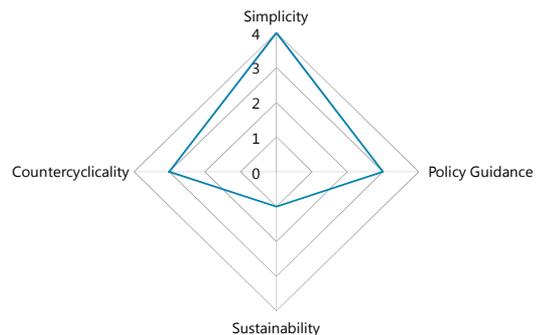
Figure I.6. Properties of the Non-oil Balance Rule



Sources: Country authorities; and IMF staff calculations.

- b. The ***Expenditure Rule (ER)***. This rule puts a cap on nominal or real expenditure growth within a credible MTBF. The rule is simple to monitor and provides clear guidance on how to conduct fiscal policy over time (Figure I.7). Botswana, Canada, and Costa Rica have adopted this rule. The rule embeds a demand management side, as the expenditure-to-GDP ratio would rise (fall) during recessions (booms). However, it is not always anchored in debt sustainability.

Figure I.7. Properties of the Expenditure Rule



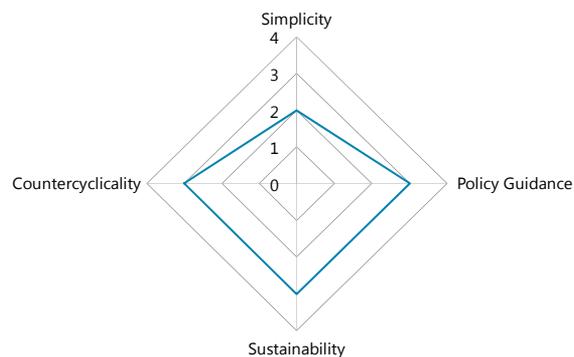
Sources: Country authorities; and IMF staff calculations.

¹Non-oil fiscal primary deficits are calculated by excluding interest and oil-related revenue and expenditure from the budget balance.

While the control on expenditure could be easily achieved with a credible and reliable MTBF that would be based on an expenditure rule, the revenue side is not taken into account by the rule. Consequently, although the expenditure-to-GDP ratio would remain broadly constant over the cycle, this does not guarantee that the deficit is on a sustainable path. In practice, the rule could be supplemented with a correction mechanism (i.e. “debt-brake,” or a medium-term correction mechanism based on an NOPB rule) to ensure fiscal sustainability, but at the expense of heightened complexity.

- c. The **Debt Brake Mechanism**. Under this mechanism, an automatic fiscal adjustment, effectively arresting an undesired build up in public debt, is triggered when cumulative deficits exceed a predetermined threshold. The rules adopted in Switzerland and Germany incorporate this mechanism. It would help ensure debt sustainability while retaining some counter-cyclicality, although at the expense of higher complexity (Figure I.8). It could be combined either with the non-oil fiscal deficit rule or with the expenditure rule.

Figure I.8. Properties of the Debt Brake Mechanism



Sources: Country authorities; and IMF staff calculations.

Other rules such as the Budget Balance Rule and the Structural Balance Rule are not suitable for an oil-producing country like Qatar. The former rule, which imposes ceilings on government debt and/or the overall fiscal deficit in percent of GDP, could lead to a highly procyclical stance. For instance, the rule could trigger an unrealistic consolidation in the event of a severe shock in oil revenues or allow excessive spending during boom periods. The implementation of the latter rule involves estimating the output gap and the long-term price of oil, and could prove difficult to implement in Qatar owing to the complexity in estimating the output gap and projecting the long-term price of oil

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II. MOVING TOWARDS MARKET BASED LIQUIDITY MANAGEMENT IN QATAR¹

Increased fiscal spending supported by a rise in foreign denominated hydrocarbon export revenues has caused a significant expansion of the balance sheet of the Qatar Central Bank (QCB) and injected substantial liquidity in the domestic economy over the past decade. So far, the QCB's liquidity management has largely been passive and relied on a standing deposit facility to absorb the liquidity surplus, but with recent initiatives to develop domestic financial markets, the QCB is now moving towards a more active and market based liquidity management framework. To this end, the QCB needs to more effectively and systematically absorb structural surplus liquidity by developing a reliable liquidity forecasting framework and strengthening its use of T-bills as a liquidity absorbing instrument.

A. Introduction

1. **A structural liquidity surplus is a common characteristic in countries experiencing sustained foreign currency inflows such as Qatar.**² Particularly, if the exchange rate is pegged, the central bank will have to purchase foreign exchange and sell domestic currency. When the supply of domestic liquidity persistently exceeds demand, a structural liquidity surplus will develop. Depending on the central bank's ability to absorb the surplus, liquidity will either accumulate at the central bank or leak out into the economy through the banking system.

2. **Liquidity surplus is a concern from both a macroeconomic and a financial stability perspective.** It may initially be reflected in the accumulation of excess reserves with the central bank. Over time, however, as banks look for higher returns, credit growth is likely to rise and contribute to inflationary pressure. Banks may also relax lending standards, which could increase systemic risk in the banking sector. Moreover, surplus liquidity has the potential to cause the demand for real and financial assets to increase and thus contribute to asset price inflation. Hence, managing surplus liquidity is of interest not only from a monetary policy perspective (e.g., price stability) but also from a financial stability perspective. It is important to point out, however, that in countries that have an exchange rate peg and where there are limited restrictions on cross-border capital flows, the primary responsibility of macroeconomic stability falls on the fiscal authorities while the main task of liquidity management is to smooth volatility in money markets and prevent the build-up of structural liquidity.

¹ Prepared by Niklas Westelius (MCD).

² Historically foreign currency inflows have typically been associated either with the removal of financial restrictions or persistent terms of trade improvements (e.g., commodity price booms). Surplus liquidity has also occurred as a result of the monetization of fiscal deficits or restriction in products markets causing shortage of goods and a surplus of liquidity (see Ganley 2003).

3. **A number of central banks facing structural liquidity surpluses operate a so-called floor-rate system.** A floor-rate system is an interest rate corridor consisting of a lending and deposit facility, but where the central bank does not actively guide the interbank rate within the corridor. Instead, the deposit rate (i.e., the floor-rate) is used as the policy rate. This is especially convenient when there is a structural liquidity surplus as the interbank rate is naturally pushed to the floor of the corridor.³ One potential drawback of such passive liquidity management approach is that the central bank becomes the main counterparty for commercial banks when managing their liquidity and therefore depresses interbank activity.

4. **This chapter reviews the liquidity management framework in Qatar and assesses the progress made towards a more active and more market oriented liquidity management framework.** Section B discusses the underlying sources of liquidity surplus in the Qatari economy and the realized consequences; section C and D describe the country's current liquidity management framework and the authorities' efforts to move towards more market based instruments; and section E discusses the basics of liquidity forecasting in the context of Qatar. Finally, section F concludes and discusses potential ways on how to strengthen the liquidity management framework going forward.

B. The Hydrocarbon Boom, Surplus Liquidity and Asset Price Inflation

5. **Since the mid-2000s, surging hydrocarbon export revenues have supported a ramp-up in fiscal spending, which has caused a persistent liquidity surplus in the economy.** With rising global oil prices and a more than doubling of hydrocarbon production since 2004, export revenues have surged. The windfall has partly helped fund a massive investment effort by the government to diversify the domestic economy, and partly invested in external assets held by the sovereign wealth fund. Although the rise in fiscal spending has boosted outflows of foreign currency through higher remittances and imports, part of the spending has been monetized in order to maintain the peg to the U.S. dollar. As a result, the balance sheet of the QCB expanded five-fold between 2004 and 2011, and its international reserves rose from \$3 billion to \$17 billion. The injection of liquidity resulted in a significant pick up in broad money and credit growth, and inflation rose to 16 percent by mid 2008 (see Table II 1). In addition, imported loose monetary policy from the U.S. further contributed to the growth of money aggregates. Although hydrocarbon export revenues fell in 2009 due to the global financial crisis, fiscal spending growth remained positive and growth in credit and monetary aggregates regained momentum in 2011.

³ Floor-rate systems have been common in emerging market economies (EMEs) facing surplus liquidity, but several EMEs, such as Russia and India, have recently moved to mid-rate systems. Interestingly, a number of advanced economies such as the U.S., ECB and the UK have all moved to floor-rate systems in context of Quantitative Easing.

Table II.1. Hydrocarbon Boom, 2004–11
(Percent)

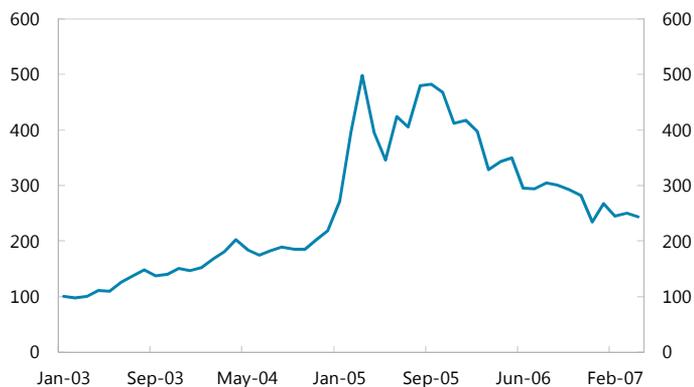
	2004	2005	2006	2007	2008	2009	2010	2011
Growth in hydrocarbon export revenue	33.8	40.6	36.5	27.5	55.1	-31.4	71.6	45.2
Growth in fiscal spending	43.2	40.6	32.3	28.4	15.9	21.7	18.2	18.2
Money growth (M3)	18.6	39.2	40.9	35.6	21.9	12.7	23.2	27.5
Credit growth	11.4	39.5	40.7	54.4	50.9	14.1	16.7	28.2
Inflation	6.8	8.8	11.8	13.8	15.0	-4.9	0.4	1.9

Source: Country authorities.

6. **The build-up of liquidity surplus was a contributing factor to both the equity boom (2003–06) and the real estate boom (2007–08).** The strong growth in monetary aggregates not only spurred price inflation of goods and services, but also contributed to asset price inflation.

- Stock market boom (2003–06):* Stock prices quadrupled between early 2003 and the third quarter of 2005, only to fall by over 50 percent by the end of 2006 (Figure II.1). Although many factors contributed to the rise in stock prices—such as the small number of listed companies, low free float, and limited alternative investment opportunities—the demand for equity was to a large extent driven by strong economic growth and abundant liquidity.⁴ Furthermore, relaxed lending standards by commercial banks made it possible for investors to leverage their investments as consumer credit was redirected to equity investments.

Figure II.1. SHUAA Capital Qatar Index, 2003–07
(Index, Dec. 2003=100)



Source: Haver.

- Real estate boom (2007–08):* According to the QCB, real estate prices rose by about 140 percent between early 2007 and September 2008.⁵ Part of the reason for the rise in real estate prices was the rapidly growing population, which doubled between 2003 and 2008, coupled with strong economic growth. However, the excess liquidity provided easy access to finance while imported low interest rates and high inflation resulted in negative real interest rates. Real estate credit grew by 137 percent between January 2007 and September 2008. It all came to an abrupt end when the global financial crisis hit the region in late 2008. Consumer and investment confidence fell in tandem with oil prices,

⁴ The situation was similar across the GCC countries. Higher oil prices led to fiscal expansion and the injection of liquidity. With excess liquidity, consumer credit increased and was redirected to equity investments.

⁵ See QCB's Financial Stability Report (2011).

banks became more risk averse, and global capital markets tightened. By mid 2009 real estate prices had fallen by over 50 percent. To assure financial stability, the government intervened to purchase a part of the real estate and domestic equity investment portfolios of local banks.

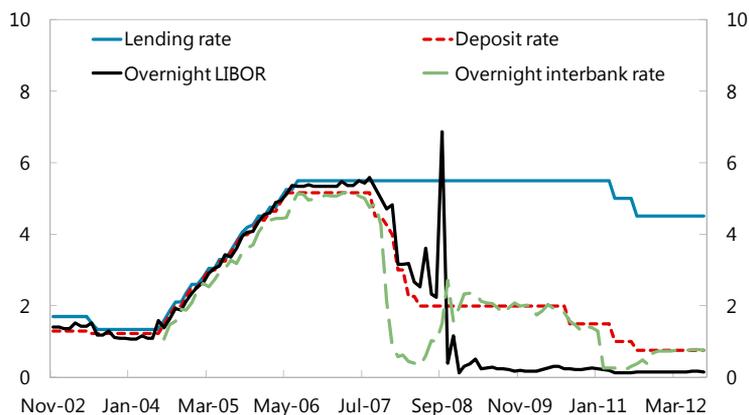
C. Liquidity Management in Qatar

7. **With an open capital account and a strong commitment to the U.S. dollar peg, the QCB is constrained in its ability to manage liquidity.** As any sizable deviations between the domestic policy and international U.S. dollar rates encourage speculative capital flows, the QCB's ability to use its policy rate to actively manage liquidity is limited. Furthermore, with a structural liquidity surplus and underdeveloped money markets, QCB has found it convenient to take a passive approach to liquidity management.

8. **As a result, the QCB has primarily relied on non-market based liquidity management instruments.**⁶

- *Reserve requirement ratio (RR)*: The reserve requirement ratio is defined over the average of commercial banks' foreign and domestic deposit held during the previous month. The required reserves are unremunerated and must be maintained on a daily basis. Banks will be penalized if they fail to fulfill the reserve requirement. The QCB has in the past used the RR ratio as an instrument to absorb liquidity. The RR was raised in several steps between September 2007 to April 2008 from 2.75 to 4.75 percent with the explicit motivation of absorbing liquidity and moderating credit growth.
- *Qatar Money Market Rate (QMR) standing facility*: This is the main instrument used by QCB to manage liquidity. The facility consists of an overnight deposit and a lending facility. Prior to July 2005, the interest rate corridor (i.e., spread between the QMR lending and deposit rates) was kept narrow and tightly followed the London Interbank Offering Rate (LIBOR). However, with the loosening of U.S. monetary policy in September 2007, the interest rate corridor widened sharply as the QCB lowered the deposit rate in line with LIBOR but kept the

Figure II.2. QMR Standing Facility and Interbank Rates, 2002–12
(Percent)



Sources: Qatar Central Bank; and Haver.

⁶ See Box II.1 for a general overview of *market* and *non-market* based liquidity management tools.

lending rate constant. As the global financial crisis hit the world economy in the third quarter of 2008, LIBOR fell sharply, but unlike most of its neighboring central banks, the QCB did not follow suit and kept its deposit rate substantially higher than LIBOR (Figure II.2).

- *Certificates of deposits (CD)*: The QCB introduced non-negotiable CDs in 2008 with maturities varying between 14 to 273 days.⁷ The purpose was to absorb excess liquidity. However, following the introduction of treasury bills (T-bills) in 2011, the QCB terminated the issuance of CDs. At its peak, the outstanding amount of CDs reached approximately 3 percent of commercial bank deposits.
- *Repurchase agreements (Repos)*: The QCB enters into repurchase agreements with commercial banks—backed by government securities—but does not conduct *reverse repos*. Consequently, this instrument is only designed to inject and not absorb liquidity. The repos have maturities of 2 weeks to one month. As there is no active repo market, banks typically initiate the transaction at a predetermined rate set by the QCB. The repo rate is currently equal to that of the QMR credit rate.
- *Public deposit management*: The government and semi-government institutions account for almost 40 percent of total residential deposits in Qatar. However, as public deposits are not under direct control of the QCB, they are generally not part of the QCB's liquidity management framework. Nevertheless, during the global financial crisis in 2008-09, the government, in coordination with the QCB, increased its deposits in commercial bank to inject liquidity in the banking system.
- *Macroprudential instruments (MaP)*: The QCB also considers macro-prudential tools as an indirect channel to manage liquidity through the credit creation process. The primary macro prudential tools are the loan-to-deposit ratio and the liquidity ratio.

⁷The 14-day maturity CD was introduced in August 2010 to shorten the maturity structure of CDs.

Box II.1. Liquidity Management Instruments¹

There are various tools that central banks use to manage liquidity from the banking system. These tools vary from country to country depending on the regulatory and policy frameworks that are in place. Broadly speaking, the tools can be categorized either as *non-market* (or rule based) and *market* based instruments.

Non-market based tools: The majority of these tools are derived from the regulatory and supervisory framework of the central bank.

- **Reserve requirement ratio (RR):**² The RR is typically specified as a percentage of bank liabilities and sets a minimum amount of reserves that banks must hold with the central bank. Hence, by increasing the RR the central bank can withdraw liquidity from the banking system. If averaging is allowed over a specified maintenance period, banks do not have to fulfill the reserve requirement on a daily basis, but may dip into its reserves if needed, reducing the incentive to hold excess reserves.
- **Standing facilities (SF):** Many central banks utilize deposit and lending facilities with pre-specified interest rates, creating a so-called interest rate corridor. The credit facility is important to ensure that banks can always fulfill their payment obligations. The deposit facility, however, is not necessary from a payment system perspective but can be an effective tool as a liquidity absorbing tool.
- **Public deposit management:** Non-central bank government institutions (including central government) may have sizable deposits in commercial banks. Hence, draining liquidity from the banking system could also be done by transferring funds from banks to the central bank. As these deposits are usually not under the control of the central bank, managing liquidity through public deposit management would require an effective coordination between the central bank and non-central bank public institutions.
- **Prudential ratios:** These ratios typically specify a minimum amount and high quality liquid assets (HQLA) that banks are required to hold against short-term liabilities. A number of central banks also impose restrictions on overall credit extension through loan-to-deposit ratios. By tightening these prudential norms the central bank can impact credit creation.

Market-based tools: These tools are based on central bank interventions in competitive financial markets to impact the underlying demand and supply for reserves.

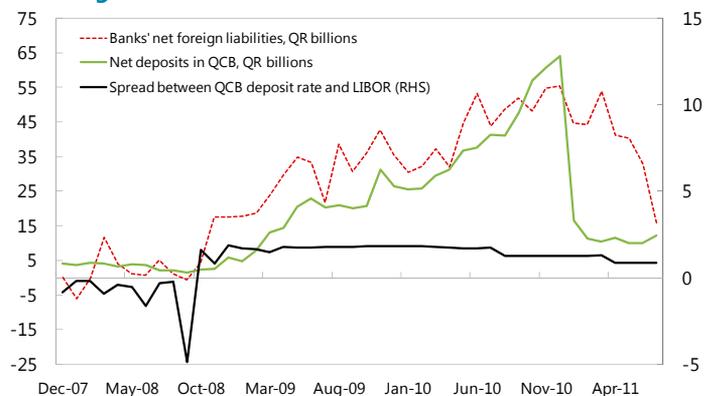
- **Open market type operations:** Auctions regulated by the central bank and usually restricted to subset of financial institutions, including collateralized lending/borrowing, primary market issuance of central bank or government securities, and acceptance of fixed-term deposits.
- **Open market operations (OMO):** Monetary operations conducted by the central bank in money markets, including outright sales or purchases of assets in secondary markets, or through selling and buying assets under repurchasing agreements or through foreign exchange swaps.

¹See Chapter 11 of Financial Sector Assessment: A Handbook (IMF/WB, 2005) and Buzeneca and Maino (2007).

²See Gray (2011) for a discussion on the main purposes of reserve requirements.

9. **The large speculative capital inflows between 2008 and 2011 illustrate the difficulty of actively using the standing facility to absorb liquidity.** With the spread between the LIBOR and QCB's deposit rate widening in 2008, commercial banks quickly began to take advantage of the arbitrage opportunity by borrowing from abroad and depositing at the QCB (Figure II.3). Net foreign liabilities of banks increased sharply by QR 55 billion by the end of 2010 and deposit at the QCB rose by an almost identical amount of QR 57 billion. In 2011, to prevent further

Figure II.3. Deposit Rate-LIBOR Spread and International Arbitrage, 2006–11



Sources: Country authorities; and IMF staff calculations.

speculative flows the QCB limited the amount commercial banks could deposit at QCB and lowered the QMR deposit rate, resulting in a sharp drop of deposit holdings of commercial banks.

D. Recent Reforms to the Liquidity Management Framework

10. **The QCB is moving towards market based instruments in order to align the liquidity management framework with efforts to develop domestic capital markets.** Since 2011, the authorities have made a concerted effort to develop domestic capital markets. To align the liquidity management framework with the objective of developing capital and money markets, the QCB implemented a series of measures

- **On 17 January 2011, the QCB imposed a ceiling on the QMR deposit facility.** To reduce speculative capital inflows, the QCB reduced the interest rate on its deposit facility and imposed a quantity ceiling on the amount that banks could deposit with the central bank.⁸
- **On 10 May 2011, the government began to issue T-bills.** The issuance of T-bills was motivated by a number of factors. According to the QCB, the main objectives were to (i) provide the government with a source of funding in local currency that could be used for domestic current expenditure, (ii) develop a benchmark yield curve of risk-free rates for pricing of financial instruments, (iii) provide an instrument to QCB for managing structural liquidity, and (iv) develop a high-quality, liquid asset for banks in local currency.” The T-bill auctions are conducted monthly and at a fixed amount of QR 4 billion.

⁸ The quantity restriction for each bank was set at 100 percent of the sum of its required reserves and CDs.

- **On May 6, 2012, the QCB released, together with Bloomberg, the Qatar Interbank Offer Rate (QIBOR).** The initiative was part of a general effort to encouraging a more active interbank market in Qatar by making market activity more transparent. QIBOR is constructed on offer rates provided by nine banks and is published on QCB’s website as well as distributed through Bloomberg. The initiative started in August 2010 and the quoted maturities range from overnight to one-year.

11. **The QMR deposit ceiling resulted in a build-up of excess reserves and a persistent disconnect between the deposit and the interbank rate.** With the ceiling on QMR deposits, banks found themselves with a significant amount of excess reserves with the QCB. Not surprisingly, the volume and number of interbank transactions fell markedly in the first couple of months following the policy initiative, and the overnight interbank rate fell from 1.5 per cent on January 17 to 0.28 percent on July 4—well below the current QMR deposit rate of 0.75 percent (Figures II.4 and II.5).⁹ To absorb the liquidity surplus, the government issued bonds amounting to QR50 billion to banks at an interest of 5 percent. However, as the proceeds from the bonds were gradually transferred from the QCB to government accounts, it is unclear how much liquidity was actually drained. The combination of a pick-up in credit demand and an outflow of speculative cross-border capital appear to have tightened liquidity conditions in mid-2011. The QIBOR began to rise in tandem with interbank activity in the second part of 2011 and by early 2012 it had converged to the QMR deposit rate.

Figure II.4. Impact of Liquidity Management Reforms on the Qatar Interbank Rate, 2010–12

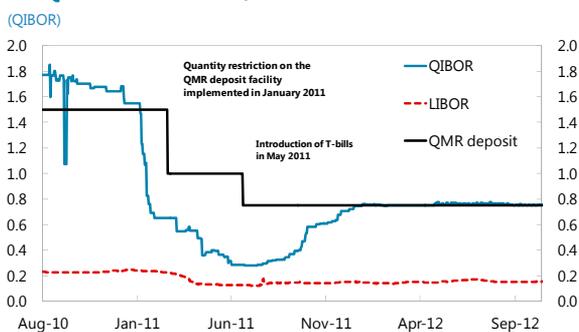
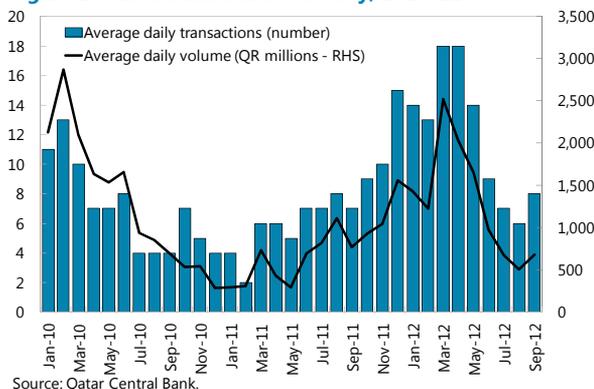


Figure II.5. Interbank Market Activity, 2010–12



12. **The effectiveness of T-bills to absorb liquidity will depend on the institutional arrangement between the QCB and the MoEF.** The approval to issue government securities, including T-bills, was obtained from the Supreme Council of Economic Affairs and Investment, which is chaired by the Emir. By end of 2011, the outstanding amount of T-bills reached over QR14 billion, and by end October 2012, it had risen to QR21 billion. Currently, the debt stock remains constant as the monthly issued debt exactly covers

⁹ See QCB’s Financial Stability Report for 2011.

maturing amount. The proceeds from both the T-bills and T-bonds appear to be first deposited with the QCB but then transferred to government accounts. However, since early 2012, the government has transferred approximately QR4 billion monthly to the QCB to back up the issuance of government debt and make sure that it stays in a blocked account with the QCB.

E. Liquidity Forecasting

13. **As the QCB transitions to a market-based liquidity management, it will be essential to develop a strong liquidity forecasting framework.** In the past, when the QCB primarily relied on its standing facility to passively absorb liquidity surplus, forecasting may have been less of an issue. However, if the QCB intends to move to a more market-based liquidity management approach, forecasting the liquidity needs of the banking system becomes imperative as it help guide the size and timing of liquidity operations. Without good liquidity forecasts the QCB runs the risk of draining too much or too little liquidity, resulting in excess swings in interbank rates. Thus, having reasonably accurate short-term forecasts of liquidity will help reduce interest rate volatility and strengthen the monetary transmission mechanism. Moreover, if the central bank consistently fails to absorb excess liquidity due to poor liquidity forecasting or the lack thereof, more systemic problems may develop (e.g., asset price bubbles and lax lending standards).

14. **The first step towards building a liquidity forecasting model is to reconstruct the balance sheet of the central bank into demand and supply components of reserves.** The supply of reserves is decomposed into factors beyond the control of the central banks (so-called autonomous supply factors) and those directly managed by the central banks through its liquidity instruments

(i.e., policy position). The demand for reserves is decomposed into required reserves and excess reserves (Table II.2). By forecasting the autonomous supply factors and the demand for reserves, the central bank can project the *ex-ante* demand-supply imbalance. By adjusting its liquidity management operations, the central bank can then decide how much liquidity to drain or absorb in order to smooth interbank rates. Table II.2 shows a reconstruction of the QCB balance sheet before the QMR deposit ceiling was implemented.

Table II. 2. Simplified QCB's Balance Sheet, December 2010
(QR millions)

Assets	116,502	Liabilities	116,502
Net Foreign Assets (NFA)	113,262	Currency in circulation	7,974
		Government deposits	668
		Other items net	20,015
		Required reserves	14,611
		Excess reserves	5,177
QMR Standing facility		QMR Standing facility	
Credit	3,240	Deposits	64,046
		Certificates of deposits	4,010

Sources: Qatar Central Bank; and IMF calculations.

Autonomous
supply factors

Demand for
reserves

Policy
position

15. **In order to forecast the change in the autonomous supply factors, it is important to understand their underlying determinants:**

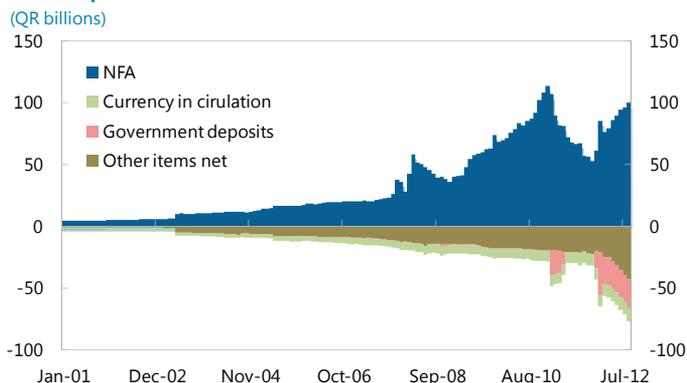
- *Net foreign assets (NFA)*: The net foreign asset position is determined by the QCB's foreign exchange sales and purchases with commercial banks. As a large share of the

foreign currency denominated hydrocarbon export revenue goes to the government—some of the revenues are transferred to the sovereign wealth fund—the fiscal authorities become the main supplier of foreign exchange. On the other hand, imports and remittance payments constitute the main sources of demand for foreign exchange. Private cross-border capital flows also play an important role in determining the ultimate balance of payment surplus and the accumulation of NFA.

- *Government deposits*: In Qatar, the government primarily operates through commercial bank through a Multi Treasury Account (MTA) system. The government’s account with QCB is mainly used for the initial collection of proceeds from government securities issuance. Thus government’s cash management mostly affects the deposit base in commercial banks and hence indirectly the demand for reserves.
- *Cash in circulation*: This component is generally determined by transaction demand in the economy and thus likely to be highly seasonal. Over the long-term, however, currency demand should generally grow proportionally with economic activity. Another factor that can impact currency in circulation is technological and financial innovations (e.g., improvements in the payment system).
- *Other items net (OIN)*: The capital, reserve and revaluation accounts are traditionally the largest components of OIN. Movements in the capital and reserve accounts should be well known to the central bank and the revaluation account should not influence liquidity as it is offset by changes in capital, although in Qatar, capital and reserve accounts have traditionally been driving OIN.

16. **A reliable forecasting model would have to be built around a good understanding of underlying market trends as well as policy factors affecting the NFA position.** As figure II.6 shows, the NFA is by far, the most important component of the 4 autonomous supply factors, both in terms of relative size and volatility. To forecast changes in NFA, it is important to have a good understanding of public and private balance of payment transactions (e.g., government transfers in and out of the sovereign wealth fund; private net demand for foreign exchange based on import and remittance projections; and non-bank and bank cross-border capital flows). Uncovering seasonal patterns in NFA and strengthening balance of payment coverage—in particular with respect to private non-bank financial account transactions—would also help improve the accuracy of the forecast.

Figure II.6. Relative Importance of Autonomous Supply Factors, 2001–12



Sources: QCB; and IMF staff calculations.

Box II.2. An Illustration of the Usefulness of Liquidity Forecasting

The QMR deposit facility ceiling imposed in January of 2011 led to a build-up of excess reserves, causing the interbank rate to fall well below the deposit rate. It was not until early 2012 that the interbank rate realigned itself with the floor of the interest rate corridor again. Clearly, such interest rate volatility is undesirable. To illustrate the usefulness of liquidity forecasting, this box attempts to answer the following question: Based on a simple forecasting model, how much liquidity should the QCB have absorbed in January of 2011 to have kept the interbank rate close to the policy rate. To simplify matters the following assumptions were made:

Net foreign assets: The forecast is based on a regression with the oil price and the spread between the QIBOR and LIBOR as dependent variables. The basic premise is that NFA would be positively correlated with both variables. The forecast for January assumes that the interest spread remains constant. The oil price is forecast based on a simple ARMA (1,1) model.

Government deposits: The MOEF is assumed to perfectly inform the QCB about its transactions.

Currency in circulation: The forecast is based on an estimated long-run trend.

Other items net: Assumed to remain constant.

Required reserves: Due to the lagged calculation of the required reserves, the balance for the next month is assumed to be known.

Excess reserves: The forecasted value of excess reserves is based on past values and would thus reflect the average level of reserve that banks want to hold in excess of what is required.

QMR facility: The assumption is that the imposed ceiling is binding and that the QMR deposits of banks will amount to the sum of the required reserves and CDs. The change in credit is assumed to be zero.

Certificates of deposits: The QCB is assumed to know exactly the change in stock for January.

The table above shows the forecasted changes in the QCB's balance sheet for January 2011 and compares them to actual outcomes. The forecast suggest a liquidity deficit of QR23 billion due to a slight contraction in NFA and a significant increase in government deposits. The rise in government deposit was part of the proceeds from the QR50 billion bond issuance. Despite the deficit, the final position suggests the need to absorb QR24 billion due to the fall in QMR deposits (due to the implementation of the ceiling). The forecast would thus predict that without any active liquidity absorption, excess reserves would have increased by over QR24 billion. Comparing the *ex-ante* forecast to the *ex-post* outcome, one can indeed see that excess reserves increased by QR21 billion.¹ This example illustrates the importance of liquidity forecasting for the purpose of liquidity management. If the QCB would have had the instrument to absorb the projected liquidity injection, the sharp fall in the interbank rate could potentially have been avoided.

Liquidity Forecast for January 2011

	December 2010	January 2011	
	balances	Forecast	Actual
1. Autonomous supply of reserves (A+B+C+D)	84,605	-22,674	-26,524
A. Change in net foreign assets	113,262	-2,720	-6,708
B. Change in government deposits	-668	-19,948	-19,948
C. Change in currency in circulation	-7,974	-6	6
D. Change in other items net	-20,015	0	127
2. Demand for bank reserves (E+F)	19,788	205	21,175
E. Change in required reserves	14,611	82	82
F. Change in excess reserves	5,177	123	21,094
3. Structural liquidity position, (1-2)			
Surplus (+)/deficit (-)	64,817	-22,879	-47,699
4. Policy Position	64,817	-47,313	-47,699
G. Passive policy instruments			
QMR Standing facility	60,807	-46,328	-46,714
Change in credit	3,240	0	706
Change in deposit	64,046	-46,328	-47,421
H. Active policy instruments			
Change in the stock of CDs	4,010	-985	-985
5. Final Position, (3-4)	0	24,434	0

Sources: Country authorities; and IMF estimates.

¹Notice that the NFA fell more sharply than projected. Part of the reason is the actual contraction in the interest rate spread as supposed to the forecast which assumed a constant spread.

17. **Nevertheless, it would be helpful if the MOEF could share its cash flow projections with the QCB.** As the government deposits accounts for a sizable share in the banking system, the QCB liquidity forecasting model would benefit from incorporating the MOEF's projected cash transactions with commercial banks.

18. **The challenge to forecast the demand for reserves lies in predicting banks' need to hold excess reserve.** Since required reserves are calculated based on the previous month's deposit balances and maintained on a daily basis, forecasting the short-run demand for required reserves should be fairly straight forward. However, forecasting excess reserves can be complex as it depends on a multitude of factors, including the opportunity cost of holding non-interest bearing balances with the central bank as well as characteristics of the payments system. For instance, if the central bank requires a minimum settlement balance on top of the required reserves, as is the case in Qatar, it creates a regulatory demand for excess reserves. Historically, excess reserves have averaged around 1–2 percent of the total deposit base in Qatar.

F. Considerations for Further Enhancement of the QCB's Liquidity Management Framework

19. **There are at least three key factors influencing the effectiveness of a liquidity management framework.** First, the central bank must have the appropriate tools to effectively manage liquidity. The availability of instruments will depend to a large degree on the state of financial development and the overall monetary policy framework. Second, the central bank must have a reliable liquidity forecasting framework to determine the size and timing of its liquidity operations both in the very short term as well as over a longer term horizon. Finally, the framework needs to be transparent and well understood by market participants to reduce uncertainties and minimize excess market volatility.

20. **The objective of the QCB's liquidity management should be to smooth volatility in interbank markets, absorb structural surplus liquidity, and promote market development.** As there is limited scope for independent monetary policy, using the deposit rate to absorb or drain liquidity is likely to trigger offsetting cross-border capital flows. Hence, to avoid a repeat of the speculative inflows in 2008-11, the QCB should ensure that the policy rate is consistent with the exchange rate peg. The QCB could also revisit the appropriateness of the QMR deposit ceiling as it limits the function of the facility as an automatic liquidity absorber.

21. **Absorbing the structural surplus liquidity is crucial, if the QCB wants to move towards OMO.** Structural liquidity surpluses are likely to reduce activity in the interbank market since most banks will be in a net lending position. Hence, mopping up the structural liquidity surplus should help tighten liquidity and encourage interbank activity. The T-bill issuances could help in this regard to the extent the proceeds are impounded with the central bank. A stable and sufficient stock of government securities should also help develop the repo and reverse repo markets through which the QCB could conduct OMO to manage

liquidity on a short-term basis. The government could potentially also align its public deposit management with efforts to absorb surplus liquidity if needed.

22. **The issuance of T-bills to absorb liquidity surplus is encouraging, but greater transparency in the operational framework would help market development.** The specifics of the agreement between the Supreme Economic Council and the QCB regarding the issuance of government securities remain unclear to market participants. The operational framework needs to be more clearly formulated and communicated to market participants. Increasing transparency of T-bill operations by reporting through the QCB's balance sheet and improving communication with respect to the QCB's liquidity operations would allow banks to better anticipate liquidity conditions in the interbank market and strengthen their liquidity management.

23. **Developing a liquidity forecasting framework will be imperative to enhance liquidity management.** Effective monitoring and reliable forecasts of liquidity conditions will help guide liquidity operations, smooth interest rate volatility and encourage interbank trading. Initially, the QCB can make monthly forecast on a daily basis to help guide liquidity operations aimed at absorbing structural liquidity. For instance, the forecasts can be used to determine how much of the proceeds from the monthly T-bill auctions should be used to absorb liquidity surplus. Should the QCB decide to move to OMO on weekly or daily basis, shorter horizon liquidity forecasting needs to be developed.

24. **Developing the interbank market is a prerequisite for effective liquidity management through OMO.** Currently, interbank market activity is low, attributable not only to a general liquidity surplus in the banking system, but also to the dominance of a few large banks with excess funds and only a few small banks with liquidity deficits. While absorbing structural liquidity surplus is important, activity in the interbank market will remain constrained as long as the relative dominance of a few banks persists.

25. **A next potential step towards a market-based liquidity management framework would be to move to a mid-rate corridor.** Recently, several emerging market countries have transitioned from a floor-rate to a mid-rate corridor as their liquidity surplus turned into a deficit (See Box II.3). A precondition would be for the QCB to continue absorbing the current structural liquidity surplus through T-bills. The QCB can then set up the interest rate corridor with the midpoint representing the policy rate consistent with exchange rate target, and use OMO to keep the interbank rate close to the policy rate. To this end, it would be useful to not only have a repo instrument to inject liquidity but also a reverse repo instrument to absorb liquidity.

Box II.3. Country Experiences of Moving from Floor to Mid-rate Corridor System¹

Moving to active liquidity management through open market operations would necessitate a move away from the passive floor rate approach to a mid-rate system. Several emerging market economies have made this transition. Although the underlying reasons differed across countries, the transition required a move from a structural liquidity surplus to a deficit in combination with open market operations.

Egypt: Before 2011, the central bank operated a floor-rate system reflecting liquidity surplus in the banking system. With the unrest in early 2011, capital outflows led to a shortage of liquidity as the central bank sold foreign exchange. As a result, the interbank rate rose but was kept at the center of the corridor through liquidity providing repos (the short-term repos were introduced in February in 2011). The move towards a mid-rate approach, however, came at the cost of increased interest rate volatility.

India: The move to a mid-rate system in India followed a policy decision to allow for greater exchange rate flexibility. The consequent decrease in the accumulation of foreign reserve contributed to a shift from a structural liquidity surplus to a structural liquidity deficit. In May 2011, the central bank introduced a new operating procedure consisting of an explicit operating target, a single policy rate and a formal corridor system with a 100 bps spread on either side of the policy rate.

Russia: A combination of scaling back foreign exchange purchases due to capital outflows and a reduction in net credit to the government eventually lead to a structural liquidity shortage towards the end of 2011. The interbank rate rose and resulted in an increase in OMO lending through repos.

Croatia: Unlike the previous examples, the shift to a mid-rate system in Croatia occurred through a regulation change requiring banks to hold reserve balances against foreign liabilities in domestic currency. This caused a significant increase in demand for reserve money and shifted the market position to a structural deficit.

¹See Gray, Karam, Meeyam and Stubbe (2012)

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III. FINANCIAL DEEPENING AND LOCAL CURRENCY DEBT MARKET DEVELOPMENT IN QATAR¹

Developing the local currency debt market is becoming an important policy priority for Qatar. Among others, domestic debt market can help reduce Qatar’s reliance on foreign funding in the current uncertain global environment and facilitate funding for the large infrastructure investment program as Qatar advances its diversification agenda. Qatar has made notable progress in primary market development for government securities. Qatar would benefit from further developing its public debt management and an assessment against the Guidelines for Public Debt Management. The next steps are to further strengthen the primary market and to put in place the building blocks that would foster more active secondary trading, and ultimately, the development of a local corporate debt market. The most important measure that can be undertaken to broaden the investor base is to develop the institutional investor base encompassing pension funds, insurance companies and collective investment schemes as they are generally among the major holders of fixed income securities. Large savings in the region could further contribute to demand for Qatari bonds.

A. Introduction

1. **Well functioning local debt markets make a vital contribution to the efficiency and stability of financial intermediation.** A deep and liquid domestic debt market provides savers with an alternative to bank deposits; provides longer-term or more competitive sources of funding for public debt as well as corporate, housing, and infrastructure investment than may be available from the banking system; and allows banks, insurers, pension funds, and other intermediaries to manage duration and interest rate risks. Robust local capital markets can also act as a “spare tire” for financial systems in distress; they foster improvements in transparency and corporate governance; and they help reduce the risks associated with foreign currency borrowings.
2. **Local currency debt market development is becoming a priority for Qatar as the country is embarking on a large infrastructure investment program.** The country is planning a budget-financed investment program of \$110 billion in the next five years, complemented by an estimated \$160 billion by public enterprises in downstream hydrocarbon, and nonhydrocarbon sectors. Qatar has a long history of issuing foreign currency denominated sovereign and corporate debt. External financing played a major role in funding the country’s hydrocarbon investment program. The external debt of the government, government-owned entities and the corporate sector (excluding banks) amounted to nearly \$90 billion at end-2011.² More recently, Qatar started systematically issuing local currency-denominated government securities with the stated objective of domestic debt market development and liquidity management. Domestic debt market development would help reduce Qatar’s reliance on foreign funding in the current uncertain

¹Prepared by Zsófia Arvai (MCD).

²See Appendix III on the external debt of Qatar in the Article IV report.

global environment, and facilitate funding for the large infrastructure investment program as Qatar advances its diversification agenda.

3. **The development of the government securities market is generally the first step in domestic debt market deepening.** Deep and liquid government securities markets generally provide benefits for government financing, financial deepening, and monetary policy. While the Qatari government does not need to raise funding in view of its surplus fiscal position, these markets have benefits even in fiscal surplus countries. As international experiences show, several countries with persistent fiscal surpluses have made conscious efforts to develop a liquid government securities market. These countries include, among others, Norway, Australia, Hong Kong SAR, and Singapore.

4. **The paper is organized as follows:** The following section describes the current state of government securities market development in Qatar. Section C focuses on the building blocks of secondary market development for government securities in the context of Qatar. Section D discusses the main issues related to corporate debt market development.

Box III.1. Qatar Capital Markets Conference

As a signal to its commitment to developing domestic debt markets, the IMF and Qatar Central Bank (QCB) co-hosted a Capital Markets Conference focusing on the GCC region on September 18–19, 2012 in Doha.

Delegates at the conference focused on the benefits, policy trade-offs, and practical approaches to developing local currency domestic debt markets in the GCC countries. The event, organized by the QCB in collaboration with the IMF and Qatar General Secretariat of Development Planning, brought together representatives of central banks, governments, regulators, academics, private sector as well as international financial institutions.

The discussions in the conference highlighted that for the GCC countries:

- developing liquid and deep domestic debt markets can bring important benefits, including raising funding for the large infrastructure investment program, which the bank-centered financial systems are not able to provide;
- despite running fiscal surpluses a well-functioning government securities market is needed to establish the benchmark yield curve, create new financial products, and enhance monetary transmission mechanism;
- domestic government securities support banks' liquidity management as they serve as the main type of collateral for central bank operations, real-time gross settlement systems, and repo markets. They also help banks to fulfill the Basel III Liquidity Coverage Ratio that is under consideration.
- the government/central bank has an important role in this process in developing the legal, institutional and regulatory infrastructure; and
- more needs to be done on the legal, regulatory and market infrastructure, both for conventional and Islamic finance.

B. The Current State of Government Securities Market Development in Qatar

5. **Local currency government debt comprises Treasury bonds and Treasury bills (T-bills).** The issuance of Treasury bonds predates T-bills, and unlike the T-bill program, Treasury bonds have not been issued with the explicit aim of market development and in the

context of a preannounced issuance calendar. Both conventional and Shariah-compliant securities are issued as the financial system is segregated into conventional and Islamic banks.

6. **The legal basis for the QCB to issue government securities is provided in Article 34 of the existing Qatar Central Bank Law from 2006**, which observes that: “The Bank may work in the open market by way of unrestricted sale and purchase, cash or future or under agreements for the re-purchase of negotiable public debt securities issued by the government, securities issued by the Bank or other securities. The Bank shall have the right to use any other instruments for enforcement of the monetary policy.”

7. **Since 2011, the QCB has been issuing T-bills with the following main objectives:** “First, provide the government with a source of funding in local currency that could be used for domestic current expenditure. Second, develop a benchmark yield curve of risk-free rates for pricing of financial instruments. Third, provide an instrument to QCB for managing structural liquidity. Finally, develop a high-quality, liquid asset for banks in local currency.”³

8. **The institutional framework for domestic debt management between the Ministry of Economy and Finance and the QCB is not formalized, but the responsibility is de facto assigned to the QCB.** The QCB performs the front office (execution of the transactions) and back office (validation and settlement of the transactions) functions. The QCB also performs some elements of the middle office function by designing an (only internally available) issuance plan and projecting various issuance scenarios, but its middle office activities are at a nascent stage.

9. **Qatar lacks a clear and transparent public debt management strategy.** Apart from the main objectives of T-bill issuance, other aspects of public debt management have not been communicated to the public. Most importantly, there is no clarity on issues such as the coordination between the fiscal and monetary authorities, the use of the proceeds from government debt issuance, and the strategy for portfolio diversification and instruments. While there is an issuance calendar, it is not published.

10. **Treasury bonds have been issued domestically aimed at the local banking system since 1999 (Table III.1).** There have been a number of issues between 2004 and 2011 with tenors between 3 and 10 years at yields attractive to investors (between 5 and 8 percent). The outstanding stock of Treasury bonds amounted to QR86.5 billion (\$23.8 billion) at end-2012 (Table III.1). These bonds are not listed at Qatar Exchange, and have been held to maturity by the local banks. The largest issuance took place when QR33 billion (\$9.1 billion) was issued to conventional banks and QR17 billion (\$4.7 billion) to Islamic banks in the form of

³<http://www.qcb.gov.qa/English/PublicDebtTools/Pages/TreasuryBills.aspx>

sukuk in conjunction with changes in the monetary operations framework to cap banks' interest-bearing deposits at the central bank.

Table III.1. Domestic Government Bond Issuances

Year of Issuance	Amount issued (QAR million)	Coupon (%)	Maturity
1999 June (3 years)	2,000		2002
1999 Dec (5 years)	1,000		2004
1999 Dec (5 years)	2,000		2004
2002 June (3 years)	2,000		2005
2004 Dec (5 years)	2,000	5	2009
2004 Dec (5 years)	1,000	5	2009
2005 June (5 years)	2,000	Float	2010
2009 Jan (3 years)	3,000	8	2012
2009 Feb (3 years)	7,300	7	2012
2009 March (5 years)	3,248	5.5	2014
2009 June (10 years)	8,376	6.55	2019
2009 June (3 years)	3,142	1	2012
2009 Dec (5 years)	3,000	5	2014
2010 June (8 years)	5,000	6.5	2018
2010 June (5 years)	2,000	5	2015
2011 Jan (3 years)	17,000	5	2014
2011 Jan (4 years)	33,000	5	2015
2012 Jan	3,000		
2012 July	11,900		
Total outstanding as of end-2012		86,524	

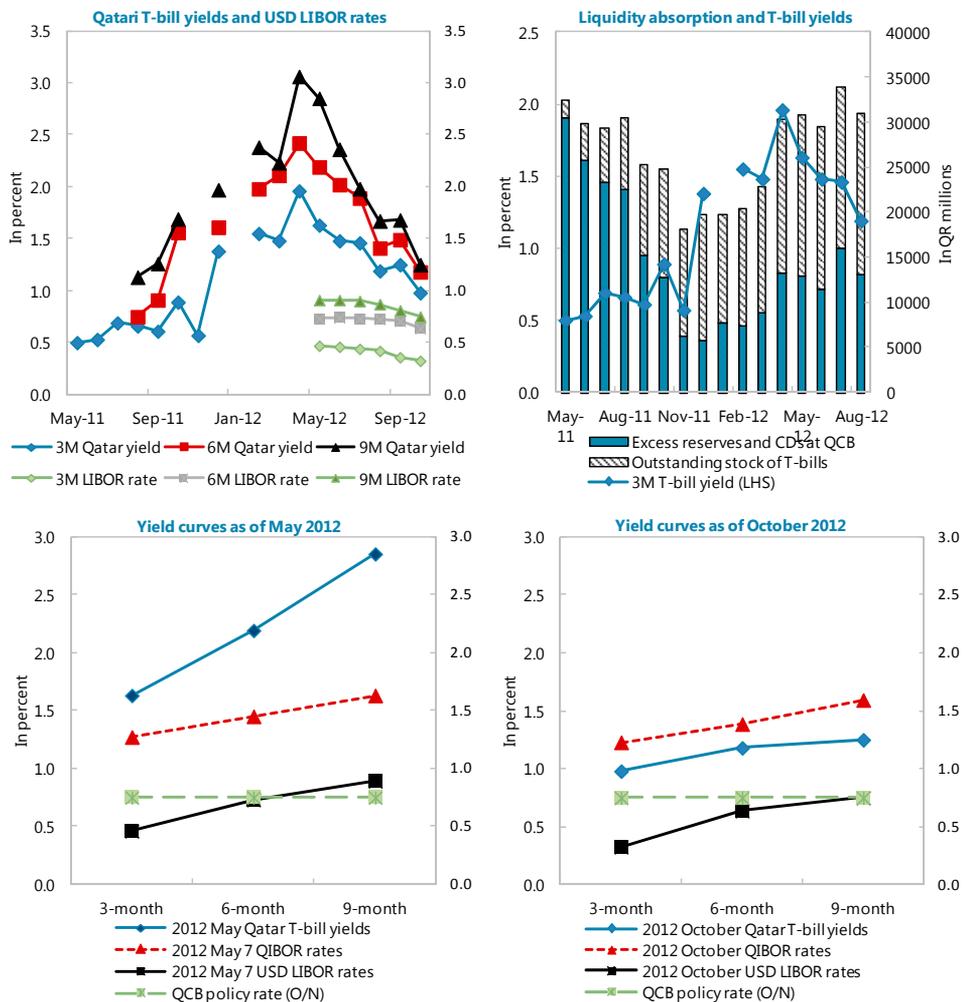
Source: Qatar Central Bank.

11. **The progress in T-bill issuance—usually the first step in the process of deepening financial markets and building a robust yield curve—has been encouraging.** The QCB started auctioning zero-coupon T-bills once a month on behalf of the government in May 2011 for the three-month (91 days) maturity, and in August 2011 for the six- and nine-month (182 and 273 days) maturities. The auctions are generally held on the first working Tuesday of each month at the QCB. At each auction QR2 billion are on offer for the three-month maturity and QR1 billion for the six- and nine-month maturities each. The total current outstanding stock is QR21 billion (around US\$5.8 billion), out of which QR1 billion is issued as Islamic instruments. All banks in Qatar are eligible to bid at the auctions, and each bank can submit one bid for each maturity. The auction is organized as a multiple price auction. There is no limit on the size of a bid by a single bank.

12. **In line with staff recommendations, the QCB has made notable progress in improving primary market transparency in the T-bills market.** The QCB communicates upcoming tenders on its website and through letters to banks with the timing of the auction and the amount tendered for each maturity. Results are announced through Bloomberg and posted on the QCB's website the next day with the main parameters (issue number, issue and maturity dates, allotted amounts, total bid amounts and the average yield). The amounts allocated to conventional and Islamic banks are not separately disclosed. The main parameters of T-bill issuance (participants, amount and currency denomination, calculation of discount rate and yield, settlement and secondary trading) are published on the QCB's website.

13. **T-bill auctions have been successful in reducing excess structural liquidity in the banking system.** T-bill issuances have resulted in converting bulk of the excess reserves of the banking system at the QCB (defined as unremunerated overnight deposits and CDs, the latter discontinued in January 2011) into T-bill holdings. This led to the lengthening of the average maturity of the QCB’s liquidity absorption instruments. As the average maturity of banks’ excess liquidity (excess reserves and T-bills) lengthened and they reduced their reserve buffers at the QCB, T-bill yields rose sharply between December 2011 and April 2012, and some auctions were canceled (Figure III.1). However, yields have been on the decline and the yield curve shifted downward since May 2012, as foreign investors increased the demand for T-bills and the domestic banking system stabilized its unremunerated reserve buffers.

Figure III.1. Treasury Bills



Source: Qatar Central Bank.

14. **The outstanding stock of Qatar’s domestic government securities is at the low end of its peer countries (Table III.2).** While as a percentage of GDP Qatar’s total outstanding domestic government debt is comparable to that of Australia and Norway, the absolute amount of \$26 billion is substantially lower than the debt outstanding in its peer group of advanced countries with fiscal surpluses.⁴ Moreover, unlike in the other countries, the bulk of Qatari government bonds are non-tradable. Although there is no generally accepted rule of thumb on the minimum amount of securities issuance to support secondary market liquidity, Qatar’s outstanding stock seems to be below the average in countries with deep and liquid markets issue.⁵

Table III.2. Outstanding Stock of Domestic Government Securities - International Comparison

	Outstanding amount (U.S. dollar billions)		Total outstanding (USD billions)	Total as a percentage of 2011 GDP
	Treasury bills	Government bonds		
Australia		239	239	16%
Finland	5	87	92	38%
Hong Kong SAR ¹	76	17	93	38%
Norway	38	46	84	18%
Singapore	48	70	118	44%
Qatar	5	21	26	15%

Source: Country authorities.

As of: latest available for each country.

¹Exchange Fund Bills are listed under Treasury Bills and Exchange Fund Notes under Government Bonds.

15. **Secondary market trading has so far been negligible, but this is not unusual for nascent domestic debt markets.** Since December 2011, all T-bills have to be listed at the Qatar Exchange (QE), and secondary trading has to take place on QE, thus OTC trading is not allowed.⁶ However, the 3-, 6- and 9-month T-bills issued to Islamic banks are not tradable, but can be used as collateral with the QCB for repo transactions. Between December 2011 and September 2012 as few as 27 transactions were executed for QR891 million, two-thirds of this amount for the 9-month maturity, 30 percent for the 6-month maturity, and the remainder for the 3-month maturity. However, low liquidity is typical in the early stages of market development, as putting in place the building blocks for a deep and liquid secondary market can take several years.

16. **Foreign investors are eligible to buy T-bills in the secondary market.** In order to purchase T-bills, foreign investors have to go through registered brokerage firms at the QE. So far, trading by foreign investors appears negligible at QE with total transactions by all

⁴ It has to be noted that the peer group countries have been developing their local debt markets for a longer period of time, whereas Qatar is at the beginning of the process.

⁵ McCauley, R and E Remolona (2000): “Size and liquidity of government bond markets,” BIS Quarterly Review (November), pp 52–60., set \$100 billion as the rough threshold necessary for a deep and liquid market. In Qatar’s peer group, all countries are above \$80 billion.

⁶ Government securities have traditionally been traded over-the-counter (OTC), but exchange-based trading is increasing around the world. It is not typical, however, to prohibit OTC trading of government debt as in Qatar.

investors below QR1 billion between January and October 2012. Statistics on primary holdings and secondary trading by investor groups are not published.

17. **Market infrastructure is continuously improving.** QE established a trading platform for T-bills, which became operational in December 2011. The platform for government bond trading is also ready, and is expected to start operating shortly. Clearing and settlement is on Delivery-versus-Payment basis. Settlement is on T+3 basis, complying with IOSCO principles. To promote secondary trading, T-bill transactions are currently subject to a substantially lower fee than equity trading by the QE.

18. **The secondary market is regulated and supervised by the Qatar Financial Market Authority (QFMA).** The QFMA regulates the listing of debt securities at the QE, the relationship between brokerage firms and their clients to ensure the best execution of trades. The QFMA has oversight over the capital rules, margin requirements, risk controls, disclosure requirements and trading practices of intermediaries. Currently, only domestic financial services firms have license to trade government securities at the QE, but foreign firms can also apply for a license.

19. **Qatar has several characteristics that make developing a liquid secondary market more challenging compared to other advanced and emerging countries.** As Qatar has made notable progress in primary market development for government securities, the next step is to put in place and strengthen the building blocks that would foster more active secondary trading. The country's small size and persistent fiscal surpluses constrain the amount of public debt that can be issued. In addition, the financial sector is segmented into conventional and Islamic entities, and the two segments are segregated. This necessitates the issuance of separate securities for the conventional and Islamic segments, which further fragments the already relatively small potential market. Since the size of tradable public debt and liquidity tend to be positively correlated, fragmentation makes increasing liquidity in the secondary market more challenging. Furthermore, international experience shows that the secondary market for Islamic debt securities is generally inactive.

20. **Several initiatives are under way to develop the currently non-existent local currency-denominated corporate debt market.** Fostering the issuance of domestic debt securities by Qatari corporates is one of the main objectives of the Qatari authorities, as it would reduce Qatari corporates' reliance on foreign funding. Between 2000 and 2011, the external debt of government-owned corporates increased from \$9.4 billion to \$54.3 billion, and that of other corporates from \$0.2 billion to \$13.5 billion. At the same time, the foreign liabilities of the banking sector grew from \$0.6 billion to \$44.4 billion.⁷ Several initiatives are being prepared to facilitate domestic corporate debt issuance. The QFMA is preparing the regulations for the listing of corporate debt securities at the QE, and Qatar is in the process of establishing a domestic credit rating agency.

⁷ See Appendix III on the external debt of Qatar in the Article IV report.

C. Building Blocks of Secondary Market Development for Government Securities

21. **The development of deep and liquid secondary markets has proved challenging for many emerging economies.** Not all countries might be able to develop deep and liquid secondary government securities markets. The fixed costs of setting up the infrastructure may be broadly similar across countries, but the benefits increase with the size of trading volume, which also depends on the size of the economy.⁸ This section discusses the main building blocks of secondary market development and focuses on the role of public debt management, monetary management, the legal and regulatory environment, the investor base, and market infrastructure in Qatar. An important prerequisite for debt market development is sound fiscal and monetary policies. Macroeconomic volatility and a high level of uncertainty about the future course of inflation are major obstacles to the development of fixed-rate instruments. They not only raise longer-term yields, but also prevent issuers from extending the yield curve beyond short-term securities.

Public debt management

22. **Sound and transparent public debt management with a market-oriented, long-term strategy and appropriate instrument and operational design is crucial for primary and secondary market development.** Sovereign debt management is the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding, achieve its risk and cost objectives, and to meet any other sovereign debt management goals the government may have set, such as developing and maintaining an efficient market for government securities.⁹ Prudent debt management increases demand for government securities, as issues become more predictable and are better designed to meet investors' preferences.

23. **The QCB is prudently focusing on building the short-end of the yield curve first before extending the maturity profile of government debt.** Improving liquidity in the short-term interbank market and the secondary market for T-bills should precede the extension of the maturity profile into longer-term bonds. The lack of liquid reference rates in the interbank market in Qatar would make it difficult for investors to be able to price medium- and long-term bonds, as short-term rates anchor the term structure of interest rates.¹⁰

⁸Claessens, Klingebiel, and Schmukler (2003), find that more sizeable economies, and countries with proportionately larger domestic investor base tend to have larger government securities markets, suggesting that there are economies of scale in securities market development.

⁹See IMF-World Bank (2003) "Guidelines for Public Debt Management." Available at <http://www.imf.org/external/np/mfd/pdebt/2003/eng/am/index.htm> and http://treasury.worldbank.org/bdm/htm/guidelines_publicdebt.html

¹⁰Interbank QIBOR rates extend to 1-year maturity, but transactions beyond 1-week are scarce.

24. **Ultimately, the aim should be to build a yield curve based on liquid benchmark government securities.** This objective can be achieved by targeting some segments on the yield curve and concentrating issuance on a limited number of maturities and by auctioning the same bond series more than once. Benchmark securities serve as a starting point for the pricing of a variety of bank and nonbank securities because they are market determined, and, under ordinary circumstances, free of default risk. They also provide reference yields that can facilitate marking to market of securities, thereby improving transparency and risk management.

25. **Qatar could usefully examine the possibility of converting its large chunk of non-tradable Treasury bonds into tradable securities in due course.** As mentioned in the previous section, Qatar's outstanding domestic government debt is small in international comparison, and 80 percent of it is in non-tradable form. Several countries have been able to build liquid benchmark securities through bond exchanges and buybacks.

26. **Announcement of primary issuance calendars allows market participants to develop their investment strategies and market securities to end investors.** This reduces the government's execution risk by increasing participation in the primary market. The publication of auction calendars (usually on a quarterly basis initially) has become general practice, but issuers usually retain flexibility to fix the amounts and/or maturities of instruments until shortly before the auction.

27. **Qatar would benefit from further developing its public debt management and an assessment against the Guidelines for Public Debt Management.** The Guidelines encompass (i) Debt management objectives and coordination; (ii) Transparency and Accountability; (iii) Institutional framework; (iv) Debt management strategy; (v) Risk management framework; (vi) Development and maintenance of an efficient market for government securities. Setting up a middle office at the QCB would be crucial, and a review of the QCB's front and back office functions would also be useful.

28. **Public availability of market statistics should be further improved.** Currently, little information is available beyond the basic results for T-bill auctions. It is good international practice to publish data on the auction results, outstanding amount of government securities, new issuance and redemptions, prices and yields of government securities (secondary market reference rates), ownership structure of local currency government securities, and secondary market turnover of government securities aggregate and breakdown by investor group.

29. **Market fragmentation due to Islamic securities cannot be avoided, and it increases the challenges of building a liquid debt market further.** Given the characteristics of the Islamic financial industry and Islamic securities, there may not be scope for developing a liquid market for short- and long term Islamic securities. Nevertheless, these securities can still be used by Islamic banks as collateral for repos with the central bank.

Monetary operations framework and the interbank market

30. **The central bank's liquidity management represents a key element for the development of efficient interbank money market.** Persistent structural liquidity surplus in the banking system discourages active liquidity management and participation in the interbank market by banks. It also impedes active secondary trading of government securities, as banks tend to adopt a buy-and-hold behavior in the absence of sufficient investment opportunities to place their excess liquidity.

31. **The Qatari banking system has been characterized by persistent structural excess liquidity, and the monetary operations framework is currently not conducive to active liquidity management in the interbank market.**¹¹ Although the QCB absorbed some of the excess structural liquidity by issuing QR50 billion worth of three- and four-year Treasury bonds in January 2011, banks continue to hold a significant amount (QR14.3 billion on average in Q3 2012) of excess reserves at the QCB to meet unexpected liquidity needs in the context of reserve requirement rules.¹² In the current environment of low domestic policy and foreign short-term interest rates¹³, the opportunity cost of this reserve buffer is low, reducing the incentive for banks to conduct tight liquidity management in the local interbank market.

32. **While the establishment of local interbank reference rates (QIBOR) is a step in the right direction, trading is nonexistent based on these rates beyond very short maturities.** QIBOR rates are based on submission by six local and two foreign banks, and are posted daily on Bloomberg and the QCB website. Rates submitted by banks for QIBOR fixing are indicative, and according to banks' report, there is no liquidity in the interbank market beyond the one week maturity. Although the QCB publishes the interbank rates, the maturity breakdown of interbank transaction volumes would also be crucial to gauge liquidity in different maturities. The evolution of QIBOR as a credible liquid short-term reference rate would enhance the price discovery of government securities and thus the liquidity of the secondary market.

33. **In summary, the absorption of structural excess liquidity, more active liquidity forecasting and liquidity management in parallel with a well-defined and transparent government debt issuance strategy would be crucial to create incentives for market participants to increase secondary market trading.**

¹¹See Chapter on Liquidity Management.

¹²Required reserve calculation is on a lagged average basis (from the 16th of the previous month to the 12th day of the current month), but reserve maintenance is fixed on a daily basis.

¹³Given the exchange rate peg to the US dollar and the open capital account, GCC banks have traditionally been managing their liquidity in the much more liquid foreign interbank market based on LIBOR rates.

Legal and regulatory environment

34. **A coherent legal and regulatory framework is a necessary condition for sound primary and secondary market development.** In particular, the legal framework should have the following principal elements (i) clear borrowing authority; (ii) rules for the issuance of government securities; (iii) clearing and settlement system rules; (iv) rules governing the organization and functioning of the primary and secondary markets; and (v) rules setting out the legal status of government securities.¹⁴ Qatar’s progress in establishing the legal and regulatory framework for domestic debt market development is advanced, but there is scope for improvement in these areas.¹⁵

Investor base

35. **To ensure stable demand and liquidity for fixed income securities, it is essential to have a diversified investor base in terms of time horizons, risk preferences, and trading motives.** The most important measure that can be undertaken to broaden the investor base is to develop the institutional investor sector. Institutional investors generally encompass pension funds, insurance companies and collective investment schemes (mutual/investment funds). These investors are among the major holders of fixed income securities, with pension funds and insurance companies (the life insurance segment) particularly important for lengthening the maturity structure as they create demand for long-term securities to reduce maturity mismatch arising from the long-term nature of their liabilities. Collective investment schemes are among the major investors in both short-term (money market funds) and longer-term fixed income securities around the world.

36. **As in most MENA and GCC countries, the institutional investment sector is negligible in Qatar.**¹⁶ There is only one pension fund, the General Retirement and Pension Authority that exclusively covers Qatari citizens. There is currently no institutionalized pension scheme for expatriates. The insurance sector is dominated by the non-life segment, and insurance penetration is low, particularly in the life insurance segment, even in regional comparison. Life insurance penetration (premium/GDP) was 0.05 percent, the lowest in the GCC.¹⁷ There are 9 insurance companies operating in Qatar with an additional 13 insurance companies registered in the Qatar Financial Center.

37. **Similar to the pension and insurance sector, the asset management industry is underdeveloped in Qatar.** Only three investment companies were operating in 2011. Their

¹⁴See Chapter 9 in World Bank and IMF (2001) *Developing Government Bond Markets: A Handbook* for details on the elements of a sound legal and regulatory framework.

¹⁵A more detailed discussion on the legal and regulatory environment is beyond the scope of this paper.

¹⁶See Chapter 8 in World Bank (2011) “*Financial Access and Stability: A Roadmap for the Middle East and North Africa*” on non-bank financial institutions in the MENA region.

¹⁷QCB Financial Stability Review (2011).

assets totaled QR587 million (0.09 percent of GDP) in 2011, out of which financial assets amounted to QR299 million. In addition, investment company assets under management were QR692 million in 2011. These assets are invested both in Qatar and abroad, with fixed income securities accounting for a small share of the portfolio. The Qatar Financial Center (QFC) hosts several major global asset management companies, and aims to develop a world class asset management hub.¹⁸ This would provide an opportunity to further expand the investor base for Qatari fixed income securities. As in other GCC countries, High Net Worth Individuals have accumulated substantial savings in Qatar. Due to their relatively high risk tolerance and the dearth of fixed income instruments, their savings have been largely directed to equity or property markets. As debt markets develop, HNWI's could significantly contribute to the demand for fixed income securities.

38. Qatar could consider several steps to facilitate the growth of the institutional investment sector. These steps could include:

- Studying the possibility to expand pension coverage for expatriates by setting up private pension funds;
- Reviewing the asset management framework and strategy of the public pension fund with the aim of creating incentives for active participation in the secondary market. However, care should be taken to avoid that the public pension fund acquire a dominant position distorting market prices and investment decisions;¹⁹
- Facilitating the growth of the life insurance sector;
- Ensuring that the marketing, operation, regulation and supervision of collective investment schemes reflect international best practices codified by IOSCO.

39. Foreign investors can play an important role in developing and deepening domestic capital markets, especially in emerging market economies. Nevertheless, there are also risks associated with foreign investors. Crisis episodes of the recent decades indicate that foreign investors can expose domestic financial markets and economies to volatility and amplify the effects of policy distortions. Therefore, sound macroeconomic policies and a well-established regulatory and supervisory framework are essential to minimize the risks related to capital flows. Active trading by foreign investors is currently hampered by the small outstanding stock of government securities, fragmentation of issues and low liquidity in the secondary market raising transaction costs.

¹⁸Qatar Financial Services Authority (2011) “*Strong and Sustainable Growth: Annual Review 2011*,” available at http://www.qfc.com.qa/en-US/Media-center/Publications/Annual_Review.aspx

¹⁹Some countries have developed pluralistic structure for public pension funds to avoid these problems by (i) establishing several competing public sector entities responsible for managing a given fraction of the assets of the public pension fund; or (ii) requiring public pension funds to hire external asset managers through a competitive bidding process and award mandates for different segments of their portfolios. See World Bank (2011) pp. 250–251.

40. **Large savings accumulated by non-Qatari Sovereign Wealth Funds (SWF) could further contribute to demand for Qatari fixed income securities.** This would have the added benefit of keeping a share of these savings within the GCC in the context of increasing demand for long-term funds for major infrastructure development. However, as other professional institutional investors, SWFs require a certain stage of market development and liquidity before allocating meaningful amounts to local currency debt instruments.

Market infrastructure

41. **Sound and efficient market infrastructure connecting the counterparties in securities transactions is essential for the development of domestic debt markets.** This includes efficient and safe custody, clearing and settlement procedures.

42. **Qatar's Central Securities Depository (CSD) for government securities is currently operated by the QCB, but a new, independent entity jointly owned by the QCB and QE is expected to take over its functions shortly.** Only commercial banks are direct participants in the CSD currently. Beneficial owners cannot be identified at the individual level in the CSD, but direct participants are required to segregate their own holdings from those of their customers.²⁰

43. **Clearing and settlement of government securities for the primary market is currently done through the QCB's Government Securities System (GSS).** The settlement cycle is T+3, and a Delivery-Versus-Payment system was introduced in 2011. Qatar is studying the feasibility of establishing a Central Counterparty, but no imminent decision is expected. The RTGS system, operated by the QCB, was launched in 2001.

44. **Qatar is part of the Arab Payment Initiative that is working towards integrated frameworks for regional payment and securities settlement systems, but there is scope for further harmonization and integration.** The development of an integrated regional infrastructure for clearing and settlement may allow smaller economies to take advantage of economies of scale in market infrastructure, but also of easier access to a larger and more diversified investor base. This would be particularly useful for Qatar with a relatively small and undiversified institutional investor base. Regional trading would also be facilitated by harmonizing of regional or GCC subregional standards such as accounting and auditing rules, intermediary licensing, and securities offering.

45. **A small market like Qatar may not be able to support a traditional primary dealer system due to the limited supply of government debt and the relatively small number of market participants.** The market development level of countries adopting a primary dealer system varies greatly; some countries introduce them in the initial stage of

²⁰Cirasino, M. and Nicoli, M. (2010) Payment and Securities Settlement Systems in Middle East and North Africa. World Bank MENA Finance Flagship Papers.

market development, while others wait until their markets reach a more mature stage. The use of primary dealers, especially in smaller countries, has some risks and drawbacks.²¹ Despite limitations on the amount of securities any one dealer can hold and safeguards built into the auction design, small markets can be squeezed or cornered, seriously limiting the attractiveness to the government of a primary dealer system. Even in the absence of collusion, the establishment of primary dealers in a small market may unnecessarily limit competition. Therefore, an extensive review of the most effective way to sell and distribute government securities should be carried out before introducing a system.

Sequencing

46. **Finally, reforms should be sequenced to ensure the even development of all the structures underpinning the growth of the secondary market.** Weaknesses in one area, for example, inadequate liquidity management, will hinder secondary market growth despite progress in improving market infrastructure and public debt management. Many of the factors that support secondary trading, such as the well-functioning interbank market and investor demand, should evolve in parallel with the government securities market. In this regard, there should be close coordination between the relevant government agencies (the QCB, the Ministry of Economy and Finance and the QFMA) as well as regular consultation with market participants.

D. Corporate Debt Market Development

47. **In the absence of a developed government debt market and an institutional investor base, the development of corporate debt market is a medium-term agenda for Qatar.** Before embarking on an ambitious corporate debt market development program, Qatar is advised to address the uneven development of building blocks for government securities markets. In particular, the lack of an institutional investor base deprives the domestic capital market of an important investor group providing stable, long-term funding. In addition, the absence of a liquid benchmark yield curve makes the pricing of corporate bonds difficult and potentially volatile.

48. **Several initiatives already under way to upgrade market infrastructure in Qatar will facilitate corporate debt market development.** Qatar is in the process of establishing a domestic credit rating agency that would rate local corporate securities and issuers. A central counterparty is also planned that would take over the clearing and settlement function for government securities from the QCB and would be responsible for clearing and settlement for corporate securities.

49. **Getting the development of the primary corporate debt market right is critical, as secondary markets generally have low liquidity given corporate debt securities'**

²¹Chapter 5 in World Bank and IMF (2001): *Developing Government Bond Markets: A Handbook*. pp. 14–16.

inherently fragmented and non-fungible nature.²² Corporate debt markets are dominated by professional investors in both developed and emerging markets as (i) low liquidity entails higher risk of investing; (ii) larger portfolios allow greater diversification of risk; and (iii) less liquid, more complex instruments require greater knowhow and resources to analyze investments.

50. **The experience of an increasing number of emerging markets in building corporate debt offers lessons for Qatar as it embarks on market development.** A recent IOSCO report provides country case studies and distills recommendations for primary and secondary market development for emerging countries.²³ The main recommendations of the report relevant for Qatar and focusing on the initial steps of market development can be summarized as follows:

- **Develop a sequenced strategy for corporate bond market development.** For countries with non-existent or nascent corporate bond markets, the fundamental building blocks include putting in place the necessary regulatory and market infrastructure, tax framework, establishing a core issuer and investor base and facilitating the entry of strategic bond market intermediaries. While Qatar has made progress in the regulatory and market infrastructure, the core issuer and investor base, as well as strategic bond market intermediaries are currently missing.
- **Streamline and coordinate the regulatory framework for corporate bond markets.** This involves establishing effective coordinating mechanisms among the various regulatory authorities by setting up inter-agency coordinating committees or through Memoranda of Understanding (MOU), and reviewing and streamlining the various policies and guidelines administered by these regulatory entities. This should receive adequate attention in the process of operationalizing Qatar’s move to an integrated financial regulatory framework.
- **Introduce regulatory flexibility and broaden the range of offering mechanisms in the primary market to accommodate diverse needs of corporate issuers.** In addition to the usual offering options of public and private placements, hybrid issuance regimes have also been developed in several jurisdictions. They aim at balancing between sufficient flexibility for issuers to encourage greater access to bond financing and adequate investor protections to stimulate investment interest from target investors, such as institutional and high net worth investors.

²²For more details see Del Valle, C. and Loladze, T. (2012) “Lessons from Country Experiences in Primary Market Regulations of Corporate Bonds”. Available at http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/SEC_Workshop_2012_Primary_Market.pdf

²³Emerging Markets Committee of the International Organization of Securities Commissions in Collaboration with the World Bank Group (2011) “Development of Corporate Bond Markets in the Emerging Markets: Final Report.” Available at <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD360.pdf>

- **Adopt a facilitative process and reduce the time taken to approve or register corporate bonds.** Consider adopting a differentiated approach depending on the type of issuers (frequent vs. infrequent issuer), issuance rating (highly-rated or otherwise), the type of investors (institutional vs. retail) and the type of corporate bonds issued (plain vanilla vs. complex structures). Further, consider making public an upfront commitment in terms of approval timeframes.
- **Standardize bond offering documentation.** A standardized format on the bond offering documentation may be put in place to facilitate the better understanding and preparation of such documents by issuers as well as ease investors' decision making process.
- **Strengthen investor protection by**
 - Enhancing the quality and timeliness of disclosures by issuers;
 - Promoting trading and price transparency;
 - Strengthening surveillance and supervision through enhancing regulatory capacity including ensuring adequate skills, experience and technical knowledge, as well as technology and systems and internal processes to effectively regulate the bond market;
 - Strengthening the professional standards of bond market intermediaries;
 - Strengthening bankruptcy and restructuring regulations.

51. **Finally, with the growing importance of Islamic finance,** Qatar should ensure that all the necessary regulations, legislation and market infrastructure are put in place to enable the issuance of corporate sukuk.

52. **In summary, Qatar faces an extensive agenda for corporate debt market development.** Nevertheless, as the experience of several emerging markets indicate, the challenges of market development can be overcome by the commitment and concerted efforts on the part of the government, the central bank and the securities regulator.

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