



KUWAIT

SELECTED ISSUES

January 2018

This paper on Kuwait was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on December 22, 2017.

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KUWAIT

SELECTED ISSUES

December 21, 2017

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FISCAL EXPENDITURE REFORM OPTIONS¹

A. Introduction

1. The oil price shock has resulted in a substantial deterioration of Kuwait's fiscal position. Oil prices have dropped significantly since mid-2014, and are expected to remain durably low—i.e. below US\$55 p/b in the medium term based on the IMF's latest World Economic Outlook assumptions. Given Kuwait's high dependence on oil revenue, the fiscal position has worsened significantly as a result of this shock. The overall fiscal surplus fell from 18.5 percent of GDP in 2014/15 to a meagre ½ percent of GDP in 2016/17. The Kuwaiti authorities' preferred measure of fiscal balance, which excludes mandatory transfers to the Future Generations Fund (FGF) and investment income and better reflects the government's gross financing requirements, swung from a surplus of 2.4 percent of GDP into a deficit of 17.5 percent for the corresponding two years, prompting the government to start borrowing to preserve liquid buffers.² The permanent nature of the shock has highlighted the need to adjust fiscal policy to continue to save sufficient resources for future generations (Figure 1), preserve liquid buffers in case of future shocks, reduce financing needs, limit the buildup in debt, and maintain strong credit ratings.

2. Kuwait faces the challenge of carrying out fiscal consolidation while limiting the potential drag on growth. Empirical evidence points to the potential long-term benefits of fiscal consolidation on growth (IMF, 2015a), particularly in cases of consolidation programs conducted in a balanced way—i.e. relying on both revenue and expenditure reforms.³ However, fiscal consolidation can have a negative impact on aggregate demand and growth in the short run. The magnitude of this impact—as measured through fiscal multipliers—depends on a host of factors that relate to the speed and composition of adjustment, economic conditions, and the dynamic response of private consumption and investment. Kuwait benefits from large fiscal buffers accumulated during favorable high-oil price cycle and from low debt. This provides the country with significant fiscal space to carry out the necessary adjustment gradually. At the same time, given the low non-oil revenue base and the large increase in current spending over the past decade, there is ample room to conduct fiscal consolidation in a balanced way, relying on both revenue diversification and addressing the spending rigidities that have developed over the years, while ramping up the scale and efficiency of public investment to upgrade infrastructure and boost growth.

3. This paper focuses on fiscal expenditures with the aim of identifying potential areas for reform. While the authorities' planned non-oil revenue measures (e.g., the introduction of VAT, excise taxes and the increase in the price of a number of government services) are welcome, these

¹ Prepared by Botir Baltabaev, drawing on "How Can Growth-Friendlier Expenditure-Based Fiscal Adjustment be Achieved in the GCC?", a forthcoming IMF 2017 GCC Paper.

² By law, 10 percent of total net government revenue should be transferred to FGF and investment return in FGF cannot be used by government to finance its budget.

³ Per capita growth in the long term is estimated at about ¾ percentage points higher following fiscal reforms in advanced countries and almost 2½ percentage points higher in developing countries (IMF, 2015a).

alone will not reduce the authorities' fiscal deficit sufficiently, highlighting the importance of expenditure reforms. This paper draws from previous episodes of adjustment in Kuwait and conducts some benchmarking—comparing Kuwait's level of fiscal spending in various areas to that of peers—so as to identify areas for streamlining and efficiency improvement.

4. We find there is substantial room to streamline current spending in Kuwait. The previous episodes of Kuwait's response to low oil prices and in the wake of the Iraq war indicates that the country has the capacity to implement durable fiscal consolidation, based on adjustment primarily focused on expenditure. Our benchmarking exercise indicates that government spending in Kuwait is high, even by regional standards. The bulk of this spending is concentrated on current expenditure, mostly the public wage bill, subsidies and other transfers. Not only this entails significant budget rigidities, but it has also contributed to labor market distortions and inefficiencies. On the other hand, capital spending has been lower than in peers. These results suggest that there is significant scope to tackle these rigidities to underpin fiscal adjustment and to generate space for higher growth-enhancing expenditure such as public investment. Gains from reforms aimed at enhancing efficiency, including in areas such as education and health spending, are potentially large and can be implemented to alleviate the impact from expenditure cuts and boost growth. The rest of the paper is organized as follows: Section B discusses previous fiscal adjustment episodes in Kuwait, Section C analyses the areas of reform in public fiscal spending, and Section D concludes the paper.

B. Previous Episodes of Fiscal Adjustment in Kuwait

5. Past fiscal consolidation episodes in Kuwait took place in conjunction with lower oil prices and the Iraq occupation (Figure 1 to 3). Based on a definition of consolidation consisting of cumulative improvements of at least 5 percent in the level of nominal non-oil primary balance over two consecutive years (IMF, 2017a), there have been three main episodes of fiscal consolidation in Kuwait since the early 1980s (Figure 3):

- The first episode of fiscal consolidation was in response to the first oil price shock of the 1980s,⁴ when Kuwait's nominal oil revenue dropped by almost 34 percent between 1981 and 1987. In response to the shock, the government implemented fiscal adjustment by improving the non-oil primary deficit from over 107 percent to about 66 percent of non-oil GDP between 1981 and 1987.
- The second period corresponds to 1990–98 when oil prices continued to be subdued and the country was occupied by the Iraqi Army for about seven months in 1990–91. The occupation worsened the non-oil deficit from 67 percent of non-oil GDP in 1989 to 232 percent in 1991 as the non-oil economy collapsed and capital spending was ramped up to rebuild the country. The

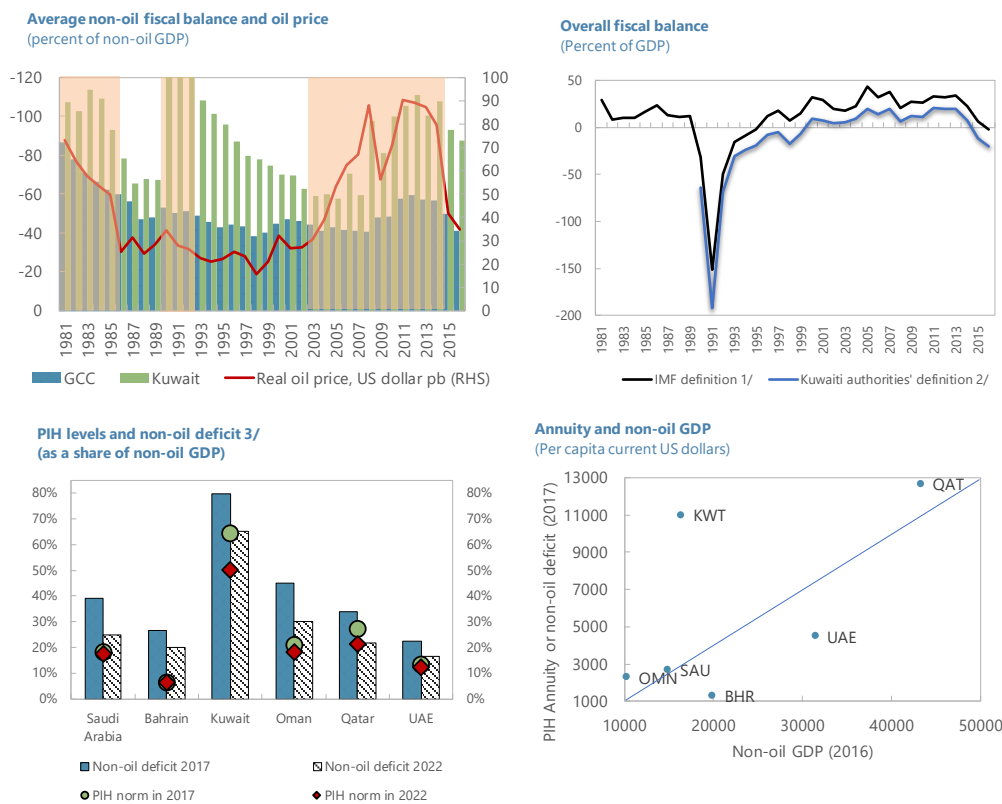
⁴ The oil price super cycles that were observed between 1980 and 2014 can be divided into three periods: *high oil prices of 1980–85*, *low oil prices of 1986–2002*, and the more recent *high oil price period of 2003–14* (IMF, 2016a).

adjustment of the non-oil deficit continued well after the economic activity was restored in 1993, lasting until 2007, when the non-oil deficit reduced to 60 percent of non-oil GDP.

- The third and latest fiscal consolidation episode coincides with the start of the recent low oil price cycle in mid-2014 and is still ongoing.

6. Fiscal adjustment during these episodes has relied primarily on expenditure cuts. Total nominal expenditure was slashed by 18 percent during the first episode and primarily concentrated on capital spending (Figure 3). On the other hand, the brunt of the fiscal consolidation in response to the Iraqi occupation was taken by current spending, as capital spending was sustained for reconstruction. In the latest and most recent episode of low oil prices, current spending was reduced during 2015–16, while nominal capital spending was slightly increased to shield projects in the Development Plan from fiscal austerity.

Figure 1. Dynamics of Fiscal Balances



Sources: Country authorities; and IMF staff calculations.

1/ IMF definition of fiscal deficit includes estimated investment income of KIA and 10 percent of total oil revenue transfers to FGF.
 2/ Excludes 10 percent transfer of total oil revenues and investment income of KIA, as per law.

3/ The intergenerational equity level of the non-oil primary fiscal deficit is derived from the permanent income hypothesis (PIH) which estimates a constant real per-capita annuity of the sum of discounted values of future oil revenue receipts and financial assets.

Figure 2. Components of Non-oil Primary Deficit
(Percent of non-oil GDP, unless otherwise specified)

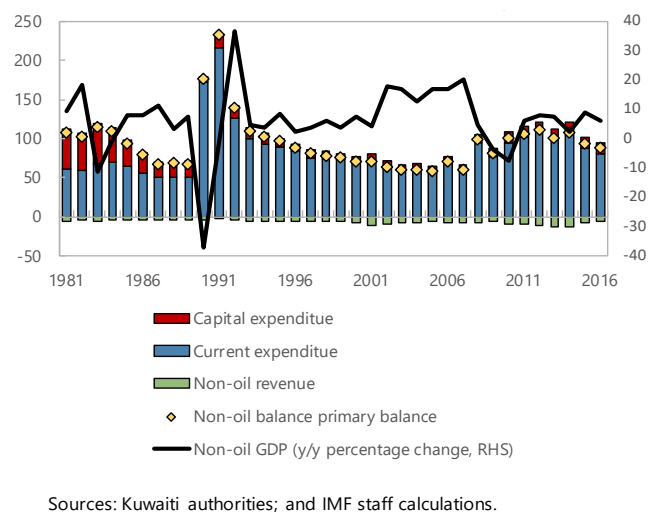
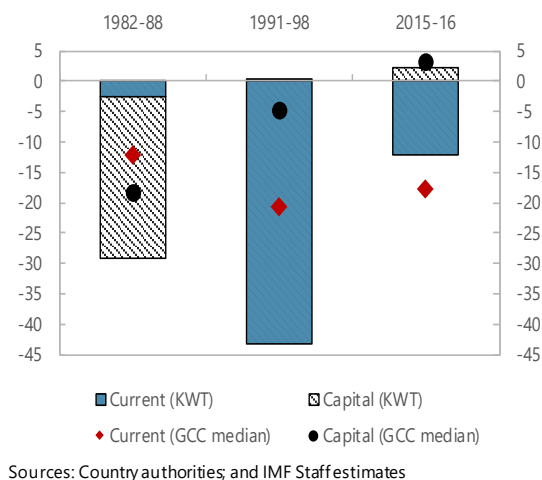


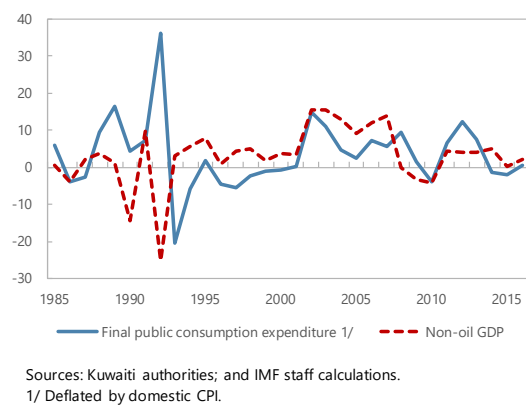
Figure 3. Expenditure Consolidation
(Percentage changes in the level of spending)



7. The lessons from previous fiscal adjustment helps us to guide current fiscal consolidation.

One important aspect of the previous fiscal consolidation has been the ability of the authorities to build a consensus in favor of sustained expenditure cuts. Another key lesson is the composition of expenditure cuts, which relied on capital spending in the first episode and on current spending in response to Iraq war. During the first episode, capital spending cuts may have been prudent as the public investment levels were already very high. However, as the rest of the paper shows, capital spending is currently low in Kuwait relative to the public infrastructure needs of the economy. Thus, it would be preferable to increase capital spending.

Figure 4. Economic Growth and Government Spending, 1985–2016
(Annual percentage change, constant prices)



8. Experience shows that the design of fiscal consolidation is crucial to limit the negative impact on economic growth.

Past episodes of fiscal consolidation have been found to reduce the rate of non-oil growth (Figure 4; Baltabaev, 2017). This underscores the importance of designing fiscal consolidation with limited impact on growth, which could be achieved by reducing spending on less efficient current spending, while expanding capital investment to boost growth. Indeed, previous studies (see for example Baltabaev, 2016) indicate that medium-term (three years) multipliers for current spending are low in countries similar to Kuwait, around 0.4 percent, while they

tend to be high for capital spending at about 1.4. Moreover, the pace of adjustment does not need to be abrupt in light of the significant fiscal space provided by the accumulated financial buffers and the low level of government debt.

C. Possible Areas for Expenditure Reform

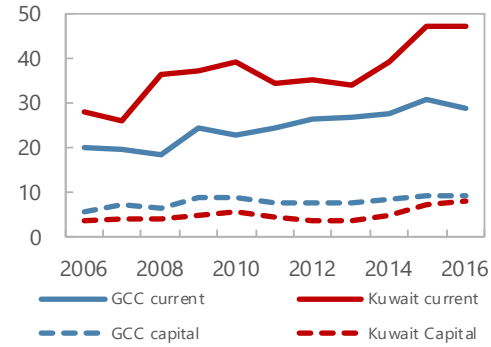
9. Kuwait has already taken steps to adjust to the permanently lower oil price environment. Even when excluding one-off expenditure,⁵ total expenditure was reduced by about 15 percent from FY2014/15 to FY2016/17, driven by a large reduction in energy subsidies and other current spending. While the bulk of the decline in energy subsidies was due to lower oil prices, the authorities also implemented subsidy reforms by increasing diesel and gasoline prices during 2015-16. Efforts were also made to limit the growth in other non-subsidy outlays (for example the wage bill). As a result, the non-oil primary deficit improved from 109 percent of non-oil GDP in 2014/15 to 81 percent in 2016/17. Further reforms were implemented in 2017 in these areas, including reducing electricity and water subsidies and streamlining public sector employment benefits.

10. Public spending, however, continues to remain high in Kuwait compared to peers and other EMs, highlighting the substantial room for further savings. In the GCC region, where public spending is already elevated by international standards, Kuwait registered the highest government spending bill in 2016, at about 56 percent of GDP (Figure 5), despite the efforts made to contain spending in recent years. This also compares unfavorably to average public spending in EMs and non-GCC oil exporting countries (32 and 25 percent of GDP, respectively). Public spending is also exceptionally high in Kuwait relative to the size of its population and the non-oil economy. This high level of government spending was largely the result of the biggest increase in spending as a share of GDP, particularly of current expenditure, during 2006–16 relative to other GCC countries, EMs and oil exporters. Moreover, the composition of total spending is dominated by current spending (Figure 6), with significantly higher shares of public compensation and subsidies in total spending.

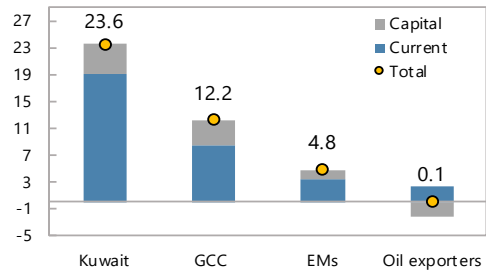
⁵ Excluded one-off items include in particular a 1-percent of GDP transfer to Egypt in FY2014/15.

Figure 5. Fiscal Expenditure Cross-Country Comparison

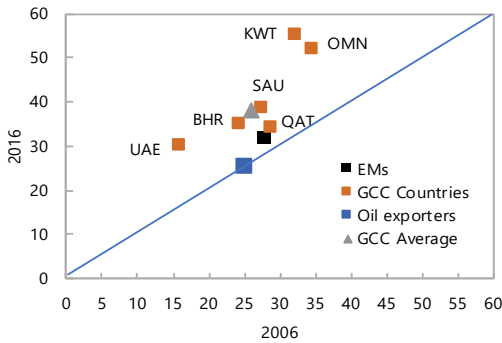
Kuwait: Fiscal Spending Dynamics
(in percent of GDP)



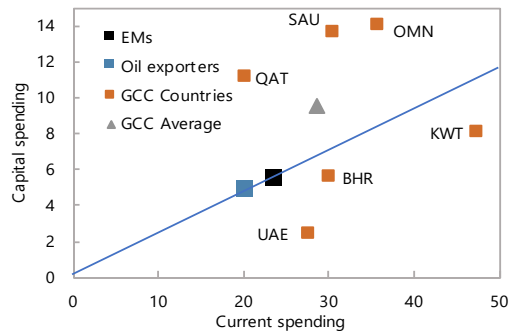
Change in Total Spending, 2006-2016
(in percent of GDP)



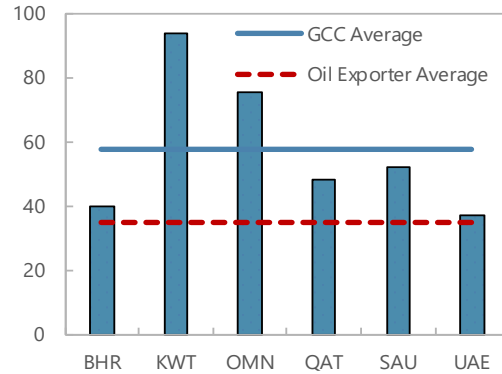
General Government Spending, 2006-2016
(in percent of GDP)



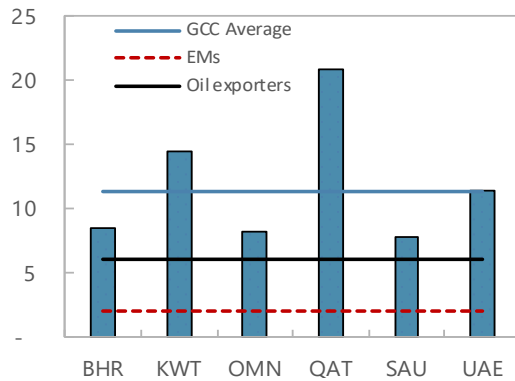
Current and Capital Spending, 2016
(in percent of GDP)



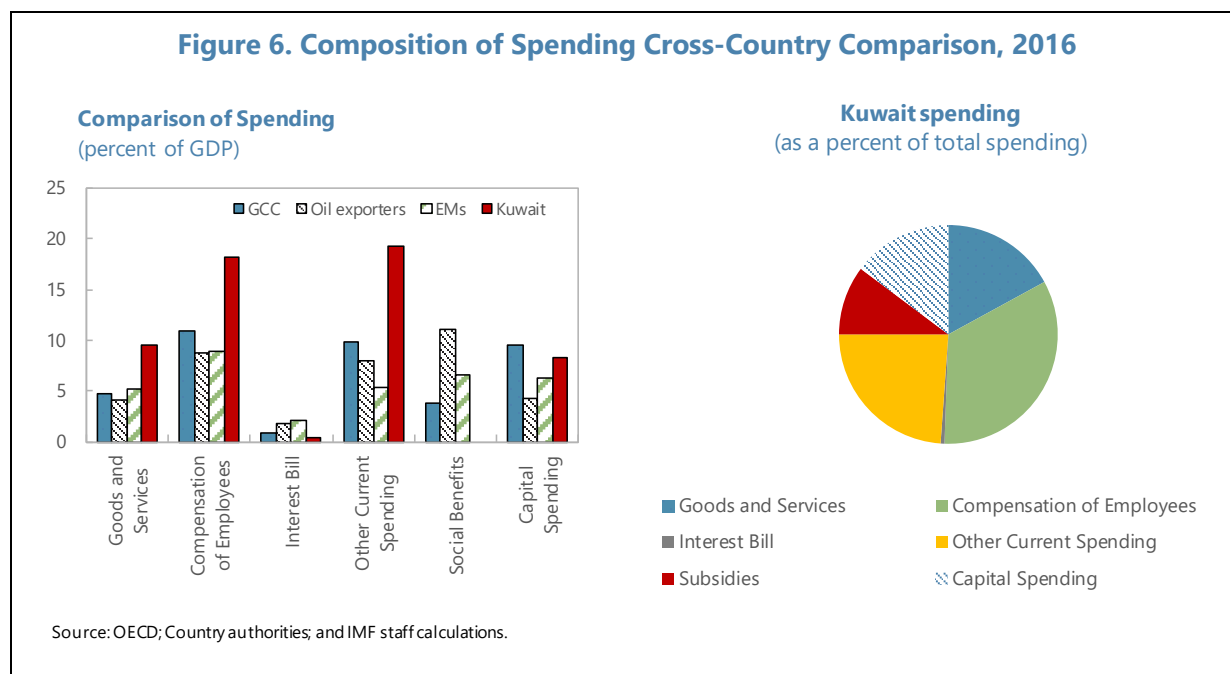
Total Expenditure, 2016
(as percent of non-oil GDP)



Total Expenditure per Capita, 2016
(thousands of USD)



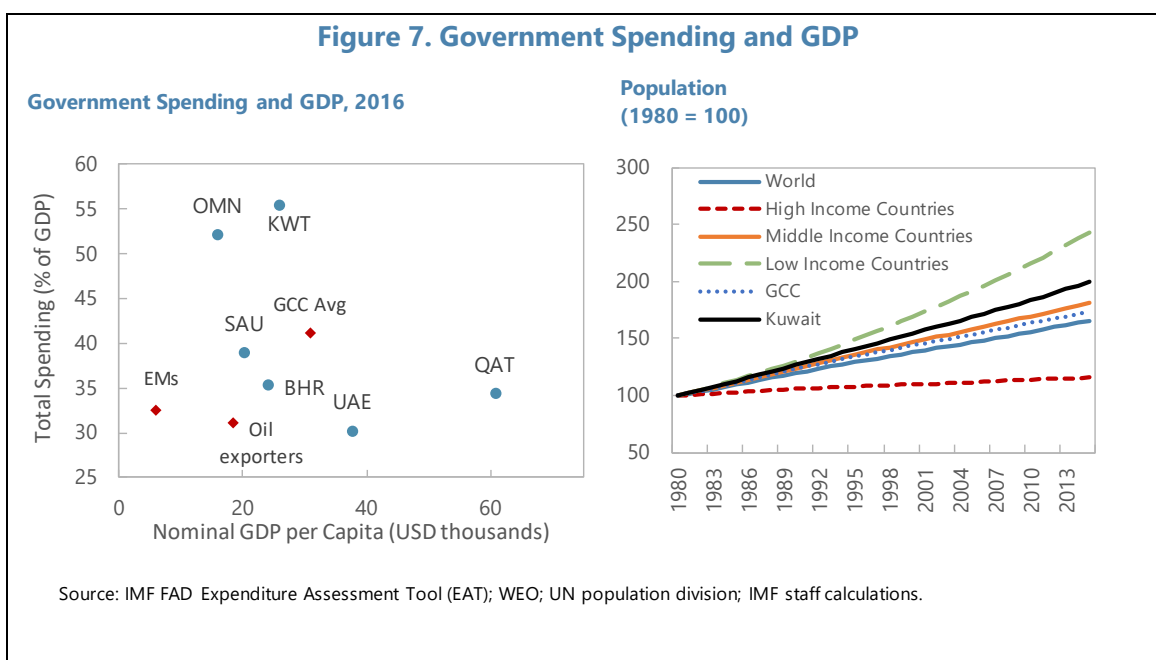
Source: IMF FAD Expenditure Assessment Tool (EAT), IMF staff calculations.



11. The following structural and institutional factors have contributed to these developments.

- The high correlation between expenditure and oil revenue.* As in other GCC countries, rising oil prices have fueled a large expansion of government expenditure in Kuwait since mid-2000s, backed by rising overall fiscal surpluses and the perception that high oil prices were permanent (Figure 5). This also reflects the lack of a solid medium-term fiscal framework in Kuwait during this period, which could have avoided procyclical spending from commodity price cycles.
- Increasing demand for and costs of government services.* Rising income levels traditionally lead to increases in both the demand for public goods and services (“Wagner’s law”) and the cost of providing them (“Baumol’s cost disease”) relative to other goods and services produced in an economy. This phenomenon may have been at play in Kuwait, leading to a rising proportion of government spending in total spending, hence higher public expenditure to GDP ratio. At the same time, government spending as a share of GDP in Kuwait is also much higher than in other countries at the comparable levels of income, which may also reflect inefficiencies in the delivery of public goods and services (Figure 7).
- Demographics and labor market structure.* The population of Kuwait has doubled since the 1980s, driven by rapid population growth of both Kuwaitis and expatriate workers (Figure 7). This is much higher than the population growth in GCC and other parts of the world and has amplified the pressure on infrastructure and demand for government services, leading to higher spending. Moreover, high population growth among Kuwaitis and their young population structure has implied a rising number of labor market entrants. With Kuwaitis predominantly seeking public sector jobs, this has swelled the government wage bill.

- *Large quasi-fiscal activities in the economy.* A number of government-owned entities have been persistently operating on losses and are dependent on government support through transfers. This includes the Public Pension Fund which has relied on regular recapitalizations to close actuarial gaps.
- *Generous social welfare systems.* Kuwait provides its citizens with a wide range of social benefits that span from free health and education and subsidized energy, to the provision of generous support for housing and employment in the private sector. This level of comprehensive support goes above and beyond that is provided in other countries and is not well targeted in the absence of means testing.



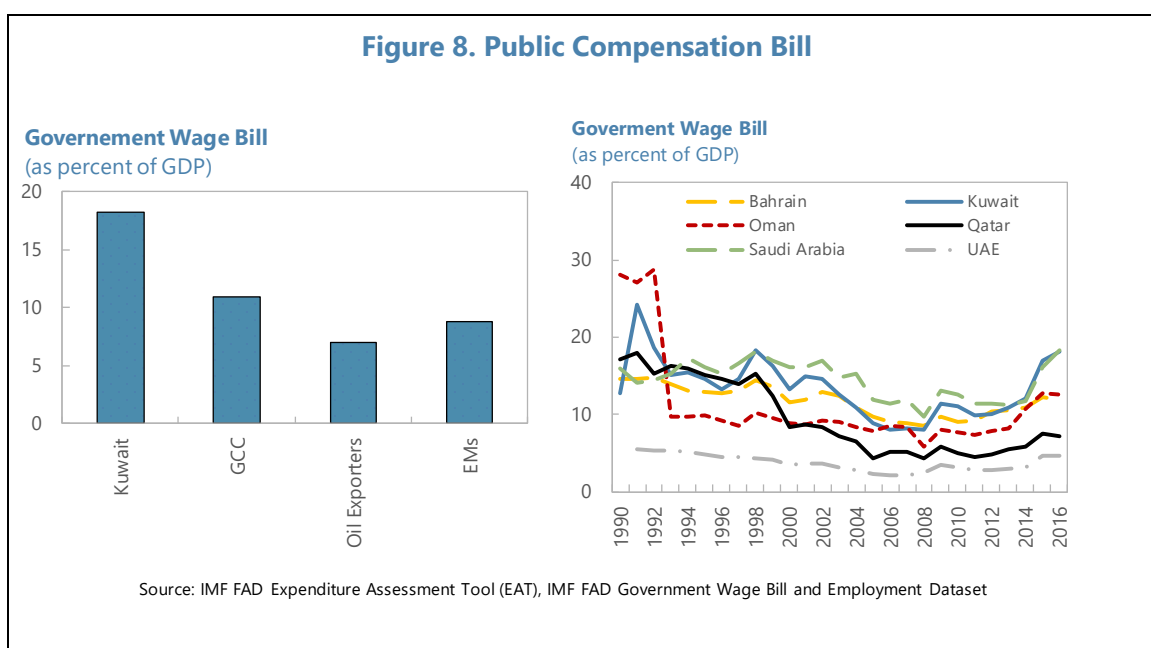
12. While the envisaged measures will help strengthen the fiscal position, more is needed to save sufficient resources for future generations. Notwithstanding ongoing efforts to limit the growth in spending, now underpinned by the introduction of three-year rolling expenditure ceilings, IMF staff's assessment is that more savings are necessary to bring the fiscal balance to a level consistent with inter-generational equity and reduce the fiscal financing needs substantially (Figure 1).

13. At the same time, there is scope to enhance the impact of government on growth and other socio-economic outcomes. One way forward is to rebalance expenditure towards growth-enhancing spending, but this also requires generating fiscal space by tackling current spending rigidities. The other complementary approach is to improve the effectiveness of government spending through public financial management reforms aimed at a better selection and implementation of projects conducted and services delivered by the government.

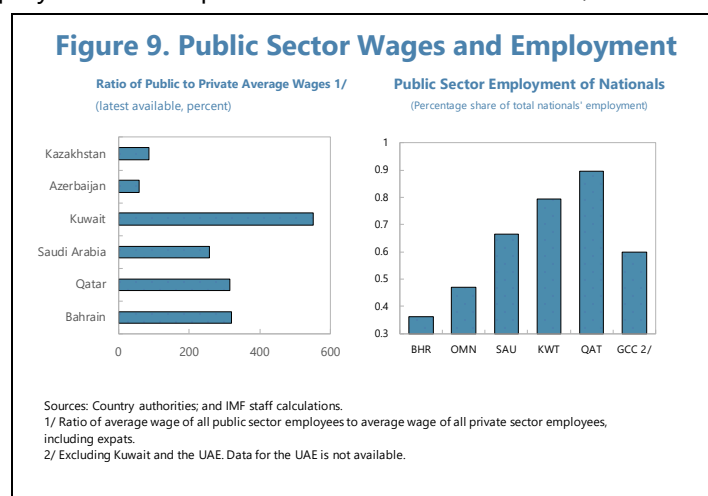
14. A comprehensive review of fiscal expenditures would help identify those specific spending areas that could be further curtailed while limiting the adverse impact on the quality of services, social outcomes, and growth. Recognizing this, the authorities have launched a review of spending programs which has already led to energy subsidy reforms, and the streamlining of other current spending by freezing the creation of new allowances, rationalizing employment benefits and tightening the eligibility requirements for social welfare benefits. Further savings are expected to be attained through establishing expenditure ceilings, merging public entities and optimizing procurement. There is scope to go beyond this. In some countries faced with large fiscal adjustment needs, the authorities undertook systematic reviews of all spending lines and programs, conducting detailed benchmarking exercises against peers, assessing their value and effectiveness in delivering desired socio-economic outcomes (Portugal, Ireland), so as to identify a menu of options for expenditure reforms. This has sometimes been done with the support of IMF Technical Assistance (Portugal, Slovenia and Brazil).

D. Compensation and Public Sector Employment

15. Kuwait has one of the highest public sector wage bills in the world. The authorities' policy goal to ensure low unemployment among Kuwaiti nationals through public sector jobs and pressure to increase wages during the oil price boom have inflated the wage bill considerably (Figure 8). The wage bill rose particularly rapidly after the Arab Spring, from under 10 percent of GDP in 2011 to over 18 percent of GDP in 2016, the steepest increase in the region. Compared to other GCC members, EMs and oil exporters, the high wage bill in Kuwait reflects both higher public sector employment as a percent of total national labor force as well as generous compensation. Unless new public hiring is reduced, pressure on the wage bill could increase in the coming years due to a young and growing national population.



16. Aside from their impact on public finances, public sector employment and compensation policies have also distorted the labor markets. The government has traditionally absorbed all Kuwaiti nationals seeking employment in the public sector. At the same time, Kuwait has the highest public sector wage premium among comparators (Figure 9), which provides strong incentives for citizens, especially the low skilled, to seek public sector employment rather than private sector jobs. There are also other benefits that make working for the public sector more attractive, such as fewer working hours, job security, and guaranteed pensions. This has resulted in about 80 percent of employed nationals working for the government (Figure 9). The private sector



predominantly employs low-skilled expatriate workers at much lower wages. Such labor market segmentation keeps the nationals' labor market rigid, discouraging the movement of Kuwaiti labor to the private sector, productivity gains, and risk-taking and entrepreneurship. High reservation wages from Kuwaiti nationals also contribute to higher wages in the private sector, with a negative impact on competitiveness. All in all, these policies have been significant impediments to private sector growth and diversification and have contributed to keeping the government wage bill high.

17. Wage bill reforms should aim at addressing these challenges. The authorities' planned initiatives to reduce the wage bill through streamlining allowances and rationalizing employment benefits are steps in the right direction, but there is scope for more ambitious policies in these areas. Reforms to compensation schemes—for example reducing and consolidating some allowances and bonuses into base pay—can also bring about benefits, such as improved wage bill management and oversight, simplified wage bargaining, improved employer-worker matching, and strengthened transparency and fairness. However, they also require adequate administrative capacity and time for planning, hence early preparation is key. As a first step, the eligibility for allowances could be tightened and their number and size reduced gradually over time to mitigate the social impact of these measures. Moreover, as staff compensation increases are primarily based on the length of service, rising public sector employment could significantly increase labor costs. To ease the sharp rises in the wage bill, performance-based remuneration measures that incorporate effective incentives and accountability frameworks in the public sector can be implemented. Some of these reforms are gradually being implemented.

18. The authorities' planned wage reform is intended to simplify and harmonize the wage structure and centralize wage policy decisions. In view of the already high total government wage bill—including in comparison with peers—it will be important to design the reform so as to ensure that the overall wage bill does not rise further. In this context, arrangements should be made to minimize initial costs of moving to the new wage grid, including through offsetting savings in

allowances and bonuses. Designing the reform so as to allow for significant flexibility in setting wage increases and better control in future wage growth would also be important. Over time, this would help reduce the wage gap with the private sector and nationals' reservation wages, enhance private sector competitiveness, and facilitate economic diversification. Limiting employment growth going forward will be important and this will require communicating early on about the government's objectives to help adjust expectations, while enhancing efforts to promote private sector job creation for nationals.

Energy Subsidies

19. Notwithstanding significant reform efforts over the past couple of years, energy subsidies have remained high in Kuwait. Before the collapse of oil prices in 2014, Kuwait's energy subsidies on fuel and electricity were estimated at around 11 percent of GDP. The subsidies continue to remain high even after oil price declines and subsidy reforms undertaken by the authorities during 2015–16, reaching close to 8 percent of GDP in 2016. On average, subsidies in Kuwait are larger than other oil exporters, due to remaining gaps between market and domestic prices (IMF, 2015b).

20. Budgetary subsidies crowd out more productive spending and benefit the well-off. Most of the energy subsidies in Kuwait are in the form of transfers to utility companies to compensate for the difference between production cost and the low domestic selling price. These subsidies diminish fiscal resources available to potentially more productive expenditures including productive infrastructure spending or social spending (health and education). For example, the level of Kuwait's energy subsidies was comparable to that of capital spending in 2016. While governments generally justify subsidies as they provide domestic consumers and business with cheap energy, there are substantial side effects:

- The high level of subsidies, a by-product of low domestic energy prices, leads to excessive consumption with consequences on the environment;
- There exists considerable evidence that the wealthy benefit from subsidies disproportionately because their consumption of subsidized energy products is much higher;

Table 1. Prices for Energy Products
(August 2017 or latest available)

	Gasoline	Diesel	Electricity
	<i>(U.S. dollars per liter)</i>		<i>(U.S. dollars per KWh)</i>
Bahrain	0.38	0.37	0.04
Kuwait 1/	0.31	0.36	0.02
Oman	0.50	0.53	0.04
Qatar	0.45	0.44	0.05
Saudi Arabia	0.22	0.10	0.10
UAE	0.50	0.53	0.12
GCC average (excl. Kuwait)	0.41	0.39	0.07
GCC maximum	0.42	0.43	0.12
U.S. Prices	0.55	0.52	0.10

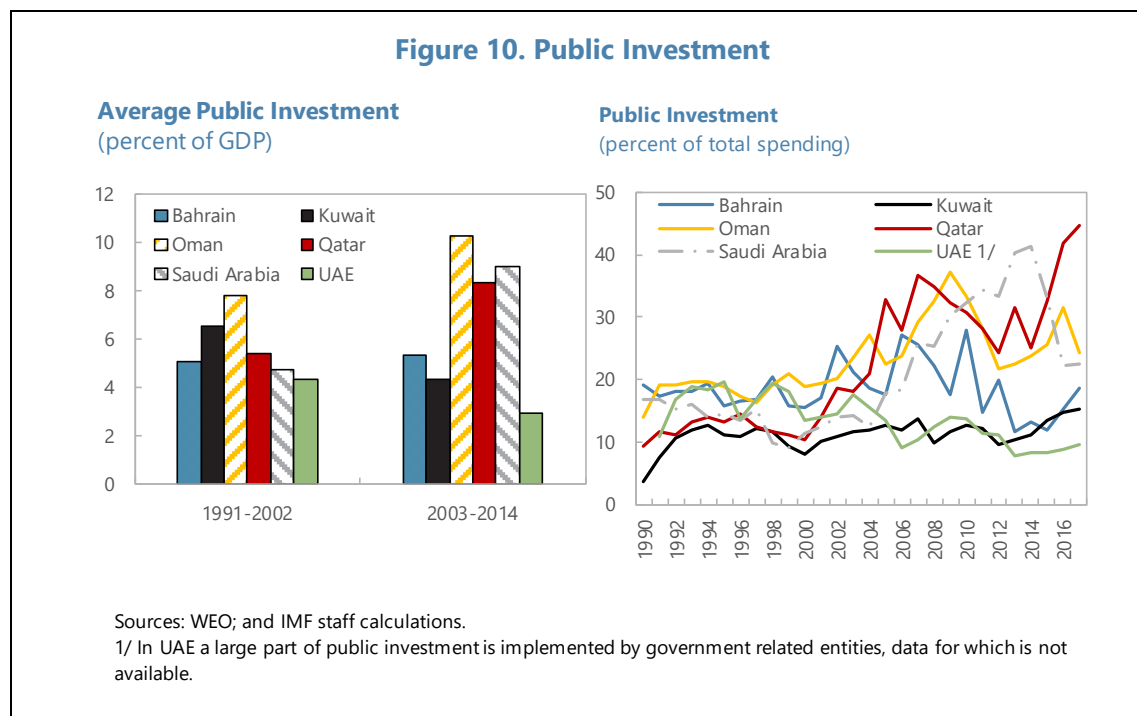
Sources: Prices for GCC countries come from country authorities and are averages for 90 and 95 octane gasoline. U.S. gasoline (average for mid and high grade) and diesel prices come from the U.S. Energy Information Agency (EIA) and are adjusted for taxes. Electricity tariffs for the United States include taxes and come from EIA.

1/ For Kuwait, nationals were exempt from the August 2017 electricity price increases. The overall price is a weighted average of differentiated prices across different sectors.

- Energy subsidies discourage investment by producers and distributors, affecting the ability to produce energy more efficiently;
- They also encourage investment in energy intensive activities that create relatively few jobs.

21. The authorities have initiated several measures to reduce subsidies, but more is needed. In 2015–16, the authorities substantially increased diesel and gasoline prices (Table 1). Legislation was passed in 2016 that envisages significant adjustment of electricity and water prices in 2017, although the actual price increases were lower than planned and residential properties (used mainly by Kuwaiti nationals) were exempted. Despite these efforts in the right direction, the energy price gaps remain high and electricity and water prices are much lower than the cost-recovery levels.

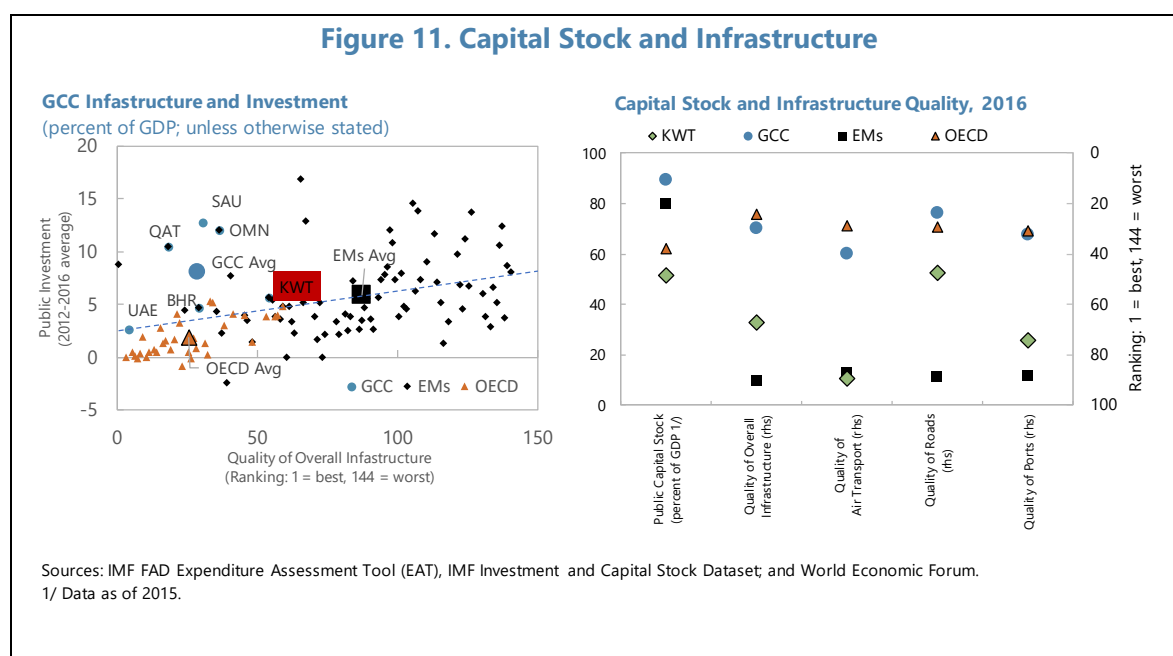
22. Key further measures to consider include automatic pricing mechanisms or a complete liberalization of energy prices. Automatic price adjustment mechanisms help depoliticize the reform process, prevent reform reversal, and enable the transition to a fully liberalized pricing system (IMF, 2017b). Moreover, to prevent backtracking, it is important to conduct enhanced communication with the broader public about the costs and benefits of reforms in energy subsidies, while designing appropriate compensation mechanisms for the most vulnerable. These reforms can be introduced in a gradual manner to make them more permanent.



E. Capital Expenditure in Cross-Country Comparison

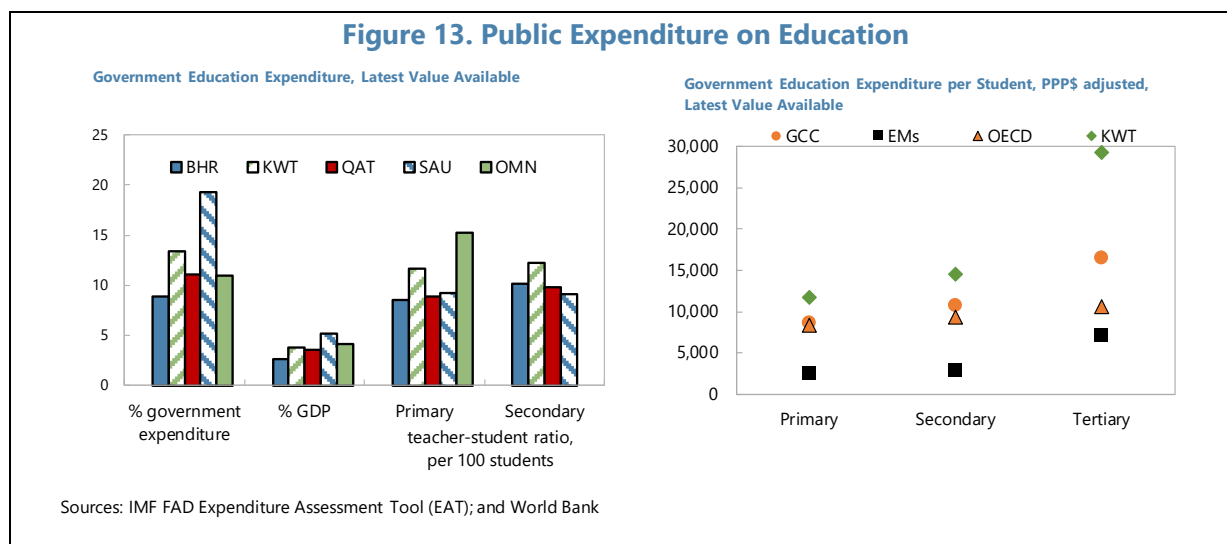
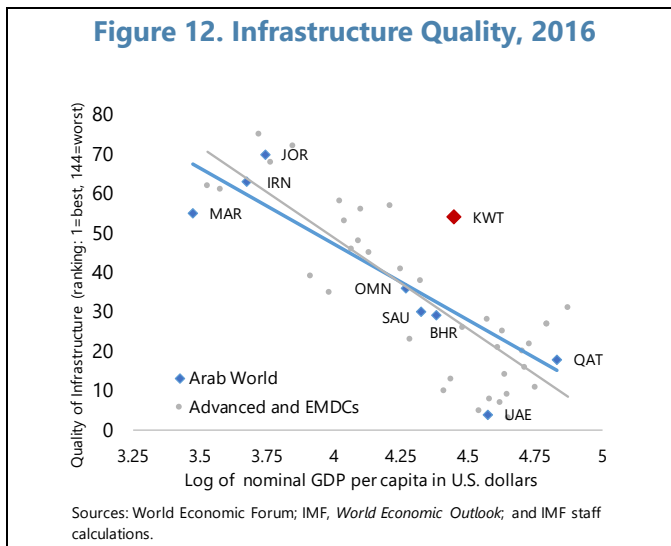
23. Capital spending in Kuwait has lagged that of other GCC countries, leading to a lower accumulated stock of public capital. Compared to peers in the GCC, Kuwait spends relatively less on government capital outlays, as the large share of public spending is concentrated on current expenditures (Figures 4 and 10). The average capital spending was around 4.3 percent of GDP during 2003–14, much lower than 6.5 percent of GDP recorded during 1991–2002. The capital stock relative to GDP is also the lowest among the comparators, indicating room to ramp up public investment (Figure 11).

24. Based on surveys, the quality of public infrastructure is also falling behind other GCC countries. Despite being one of the richest GCC members, the quality of infrastructure is the lowest in Kuwait among the peers and compared to OECD countries, especially for air transportation (Figure 11 and 12).



25. Public investment management reforms should be an important component of the fiscal adjustment in Kuwait. Scaling up public investment from the currently low levels in Kuwait will improve the quality of infrastructure and help smooth the negative impact from current expenditure adjustment, due to higher capital expenditure multipliers (IMF, 2016a). Kuwait can also improve the efficiency of the current capital spending to gain extra growth dividends. For instance, Albino-War et al. (2014) report that there is substantial room to improve public investment efficiency in MENA oil exporters, including in the GCC region. Another IMF study (2016a) finds that high growth in Kuwait, as in other GCC countries, has been the result of factor accumulation, both labor and capital, rather than improvements in productivity. The economic dividends from closing the “efficiency gap” could be substantial. Most efficient countries get twice the growth dividend from the same level of investment compared to the least efficient ones. Reforms to improve public

investment management usually include (i) improving the planning of sustainable levels of investment—including by factoring into medium-term fiscal frameworks maintenance and other recurrent costs from a higher domestic capital stock; (ii) enhancing the evaluation and selection of projects to focus on those with the highest impact on growth; and (iii) developing processes aimed at implementing projects on time and in a cost-effective way, including through sound procurement and monitoring systems (IMF, 2015c)

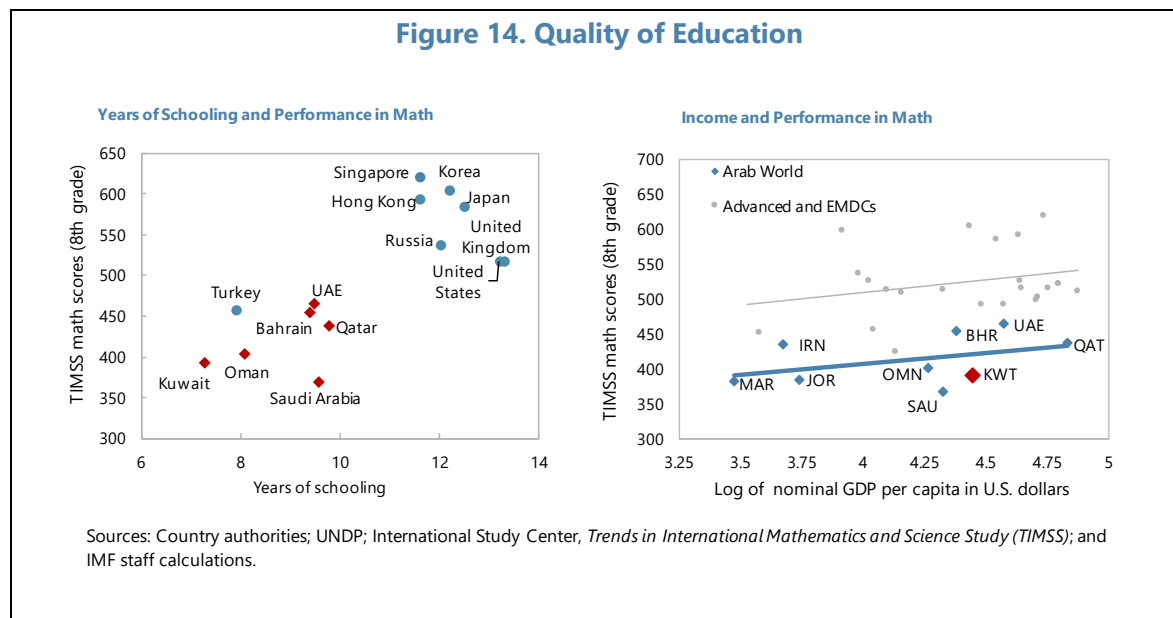


F. Other Supporting Reforms

Education Sector Reforms

26. Different indicators of education inputs and outputs indicate there is scope to enhance education spending efficiency. Kuwait spends more per student than peers and other EMs (Figure 13). However, education outcomes point to lower quality of education in certain areas, and there are indications of mismatches between existing curricula and the skills required in the private sector. Kuwait’s average math score in TIMSS is lower than that of many peer countries, despite a higher level of education spending (Figure 13). Kuwait also underperforms in math tests among countries with similar levels of income, highlighting the lower quality of sciences and math education. Many private sector representatives stress the importance of better aligning education curricula with the needs of the private sector. To address part of the problem, the authorities are working with the World Bank to improve the quality of general education under the Integrated

Education Reform Program (IERP). The IERP aims to foster improved curriculum development, effective teaching, school effectiveness, system accountability and decision-making.



27. Excessive staff may be an important factor explaining the relatively high per-student expenditure in Kuwait. The Teacher -to-Student-Ratio (TSR) for Kuwait is around 12 per 100 students, much higher than the GCC average, while in OECD and in EM countries the ratio is around 7 and 6, respectively. Moreover, a high nonteaching staff to teaching staff ratio and high growth in total staff compensation and allowances may explain the relatively high costs. To increase the efficiency of education spending, the teacher and non-teaching staff headcount can be reduced in Kuwait. The freed savings from the headcount reduction could be redirected towards programs that improve teacher performance and quality of educational materials and other learning resources while maintaining the TSR close to the levels observed in OECD countries.

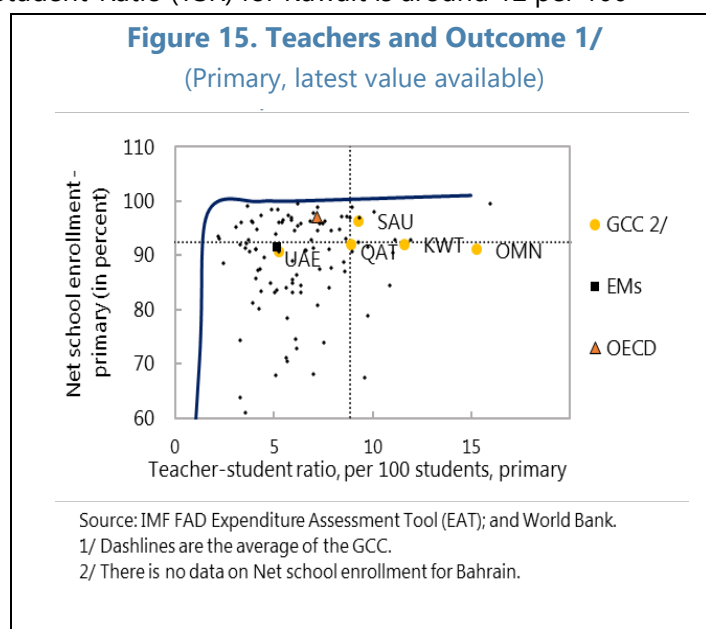
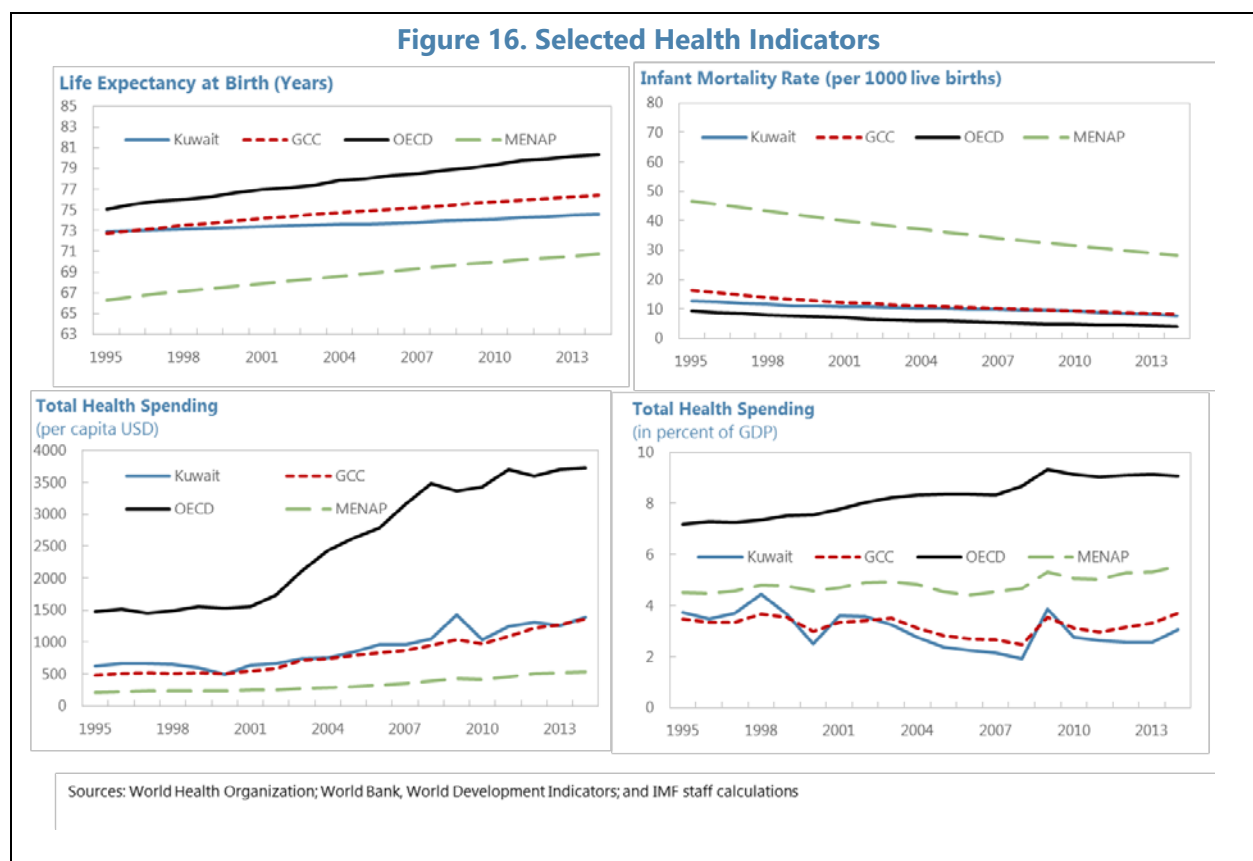


Figure 16. Selected Health Indicators

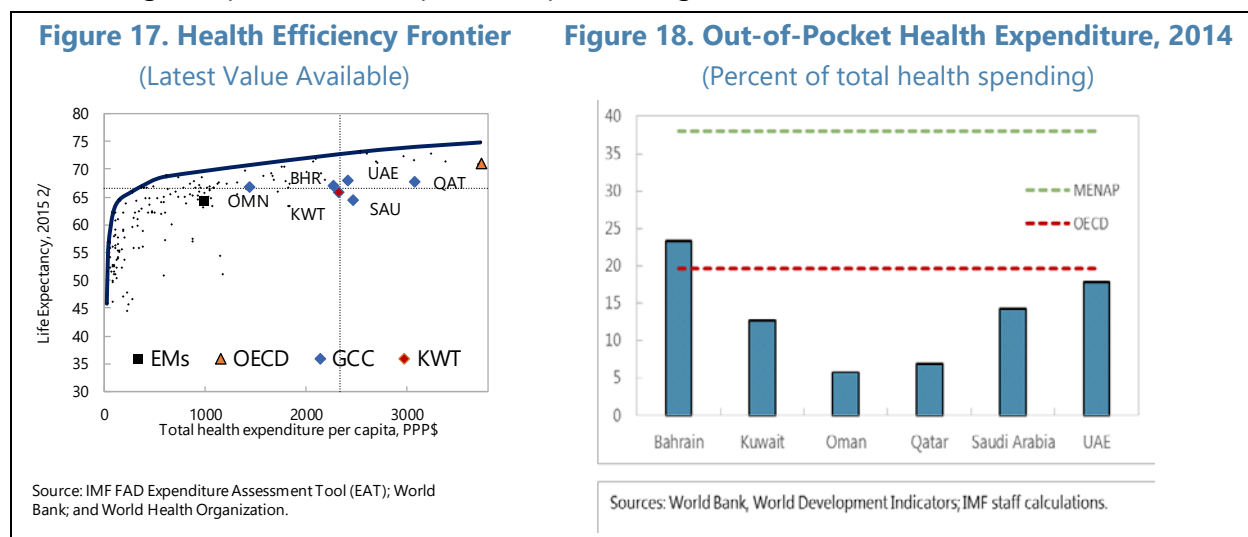


Health Sector Reforms

28. Improvements in major health outcomes were accompanied by increased health spending (Figure 16). Kuwait experienced improvements in health outcomes over the past 20 years, particularly in extending life expectancy and reducing infant mortality, albeit at a smaller extent than peers. These gains were achieved by devoting significant resources to the sector. Per capita health spending has been on an upward trend, although total health spending remains substantially below the OECD averages, due possibly to the young demographic structure and the large size of the expatriate population which usually do not benefit from some of the health services provided by the government.

29. However, there are significant health spending inefficiencies. The distance to the efficiency frontier suggests potential for generating savings without compromising health outcomes (Figure 17). The average healthy life expectancy in Kuwait is close to 67 years, marginally above the average for the emerging markets and below the level for the OECD countries. Total per capita health spending (in PPP adjusted terms) in Kuwait is about US\$ 2300, more than the double the EM level, suggesting the health spending inefficiencies relative to EMs.

30. The health care system is dominated by the public sector and provides strong financial protection for Kuwaitis (Figure 18). The out-of-pocket health spending accounts on average for 13 percent of total health spending. This is much lower than both emerging market and OECD averages as well as below the range of 15–20 percent that some studies have suggested as a threshold in terms of excessive financial burden on households (WHO 2010). Savings could be generated by increasing out-of-pocket health expenditures, raising prices for public sector health services, and increasing private health providers. The authorities are already planning some of these reforms (e.g., the privatization of public hospital management).



G. Conclusions

31. Kuwait needs to implement fiscal consolidation to adjust to durably lower oil prices.

The collapse in oil prices has resulted in substantial deterioration of both external and fiscal positions, leading to large fiscal financing needs. To preserve the fiscal buffers and provide equitable consumption of future generations, Kuwait needs to consolidate its fiscal position. While the planned tax reforms and repricing of government services are steps in the right direction, fiscal consolidation also needs to rely heavily on streamlining expenditures.

32. A sustained consolidation of government spending requires a comprehensive review of various expenditure lines. Notwithstanding the streamlining in spending already achieved over the past two years, expenditure in Kuwait remains high by both regional and international standards. Significant steps can be taken to reduce current spending in the following areas while making room for additional capital and other growth-enhancing spending:

- Kuwait's government wage bill is one of the highest in the world and can be reduced by tightening eligibility for allowances and gradually reducing their number and size over time. This could be complemented by performance-based remuneration measures that incorporate effective incentives and accountability frameworks in the public sector. Any wage grid reform should be done at minimum cost and give the government flexibility to set wage growth below inflation to reduce the premium between public and private sector compensation.

- Kuwait can also sustain recent progress on energy reforms by further closing the gap between international and domestic prices of fuel and electricity and move to automatic adjustment mechanisms. The costs and benefits of the subsidy reform should be clearly communicated to the public, while compensation mechanisms should be focused on the most vulnerable.
- The government should continue to streamline non-essential and less effective current transfers, benefits, and goods and services outlays.
- The savings generated from these reforms should not only be large enough to achieve the desired consolidation, but should also create space to increase the level of capital spending to improve the quality of infrastructure, and mitigate the impact of current spending cuts on growth.
- Finally, reforms to increase the effectiveness of government spending, including in the education and health sectors, will be key. For example, public investment management framework reforms aimed at improving planning, selection, and execution of investment projects will generate greater bang for the government's buck.

References

Baltabaev, B., 2017, "Enhancing Kuwait's Growth Prospects in a Low Oil Price Environment" Kuwait: Selected Issues, IMF Country Report No. 17/16, International Monetary Fund.

International Monetary Fund, 2015a, "Fiscal Policy and Long-term Growth", IMF Policy Paper, (Washington: International Monetary Fund).

_____, 2015b, "Energy Price Reform in the GCC—What Can Be Learned from International Experience?" Annual GCC Meeting of Ministers of Finance and Central Bank Governors, (Washington: International Monetary Fund).

_____, 2015c, "Making Public Investment More Efficient," IMF Policy Paper, (Washington: International Monetary Fund).

_____, 2016a. "More Bang for the Buck in the GCC: Structural Reform Priorities to Power Growth in a Low Oil Price Environment". Paper presented at the Annual Meeting of GCC Ministers of Finance and Central Bank Governors. Riyadh, October 27.

_____, 2017a. "How Can Growth-Friendlier Expenditure-Based Fiscal Adjustment be Achieved in the GCC?"

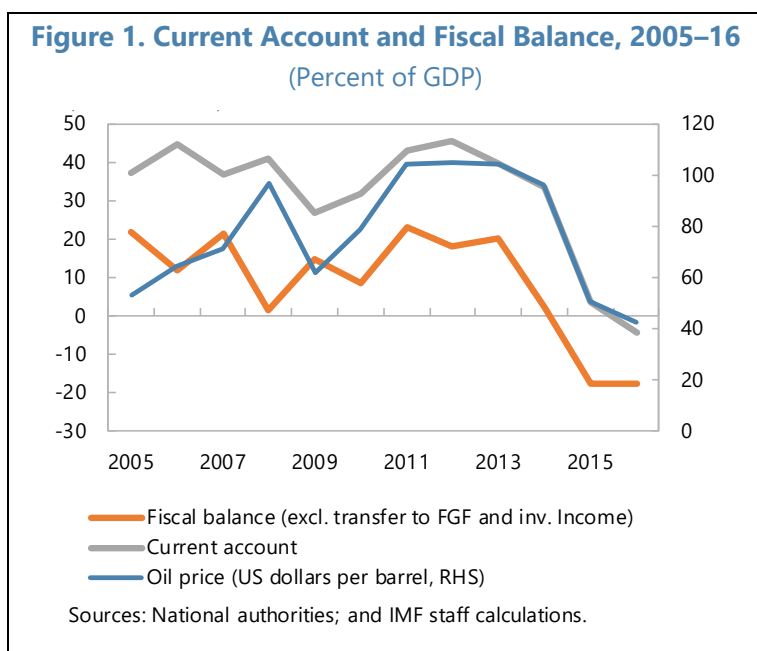
_____, 2017b, "If Not Now, When? Energy Price Reform in Arab Countries", Annual Meeting of Arab Ministers of Finance, Rabat, April 18–19, (Washington: International Monetary Fund).

World Health Organization (WHO), 2010, "Exploring the thresholds of health expenditure for protection against financial risk," 2010 World Health Report Background Paper, No 19.

LIQUIDITY CONDITIONS, REGULATION, AND THE CENTRAL BANK LIQUIDITY MANAGEMENT FRAMEWORK¹

A. Introduction and Motivation

1. In the decade to mid-2014, GCC central banks, including Kuwait, faced abundant liquidity conditions and their consequences. Oil prices above \$100 per barrel resulted in large inflows of hydrocarbon revenues in the region (Figure 1). This, in turn, led to large fiscal and external surpluses and rapid increases in deposits by governments, corporates, and individuals into the banking system, contributing to ample liquidity and credit and asset price booms in some countries. During this period, central banks in the region largely concentrated their attention on liquidity absorption. At the same time, they developed macroprudential tools to address mounting financial stability risks. In this environment, there was little activity in interbank markets as few banks needed to borrow. The absence of government borrowing also limited the development of domestic debt markets and the availability of collateral for interbank transactions.



2. Lower oil prices have put liquidity management at the center of monetary policy discussions for the opposite reasons. The recent oil price decline has eroded hydrocarbon revenues to the extent that Kuwait's 2016 fiscal deficit (excluding transfers to the Future Generation Fund and investment income) reached some 17½ percent of GDP and the current account balance turned into a deficit of 4½ percent of GDP. The government has responded to higher fiscal financing needs by stepping up domestic and external securities issuance and drawing down external liquid assets held in the General Reserve Fund. In this environment, deposit growth has slowed, leading to declines in excess liquidity.

¹ Prepared by Phil de Imus, drawing on "Strengthening Liquidity Management Frameworks in Support of Stability and Growth in the GCC", a forthcoming IMF 2017 Background GCC Paper. It also benefits from the helpful insights and comments provided by the staff of the Central Bank of Kuwait.

3. Increases in U.S. policy rates have also contributed to the renewed attention to liquidity issues. Against the backdrop of pegged exchange rate regimes, the ongoing monetary policy normalization cycle in the U.S. has already pushed policy rates up in most GCC countries (Figure 2).

4. Central banks in the GCC have been keen on upgrading their liquidity management frameworks to effectively address the changing liquidity environment.

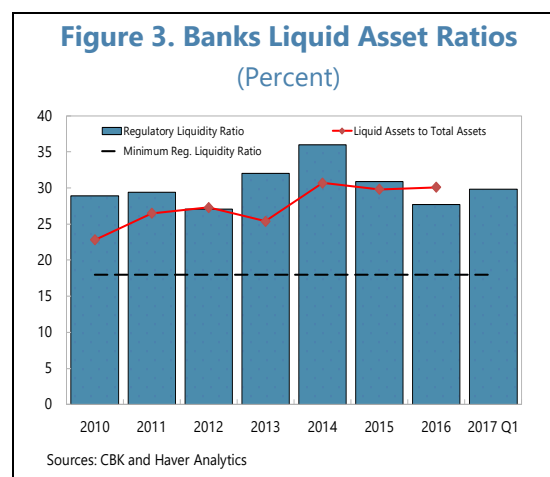
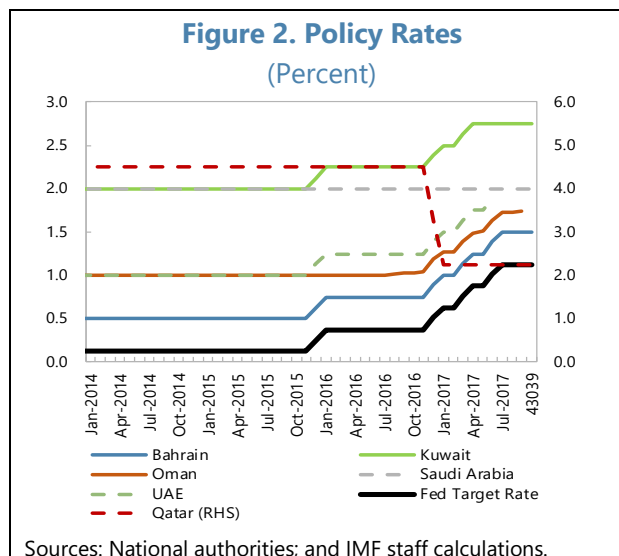
With oil prices expected to remain low for an extended period and fiscal adjustment likely to proceed gradually, there is likely to be less surplus in liquidity as in the past. At the same time, with individual banks in different liquidity positions, the interbank markets should become a more effective medium for channeling liquidity from surplus to deficit institutions.

5. This paper examines the current state of systemic liquidity in Kuwait, how liquidity flows through the economy, the framework for monetary operations, and bank liquidity regulations. It will also make policy recommendations in possible areas for enhancing the system. This includes a recommendation on a framework for forecasting liquidity.

B. Liquidity Conditions

6. There are different ways to assess liquidity conditions in the country. First, one can look at how well banks can face a potential liquidity shock, which can be measured one way by examining how well banks meet regulatory liquidity requirements. Second, the state of system liquidity can be assessed. In this paper, we define “liquidity” as the subset of central bank domestic currency liabilities vis-à-vis commercial banks that is readily available for payment purposes. This is complemented by looking at how money market interest rates have behaved. Finally, the paper also assesses how liquidity imbalances are affecting macro-financial stability through credit conditions.

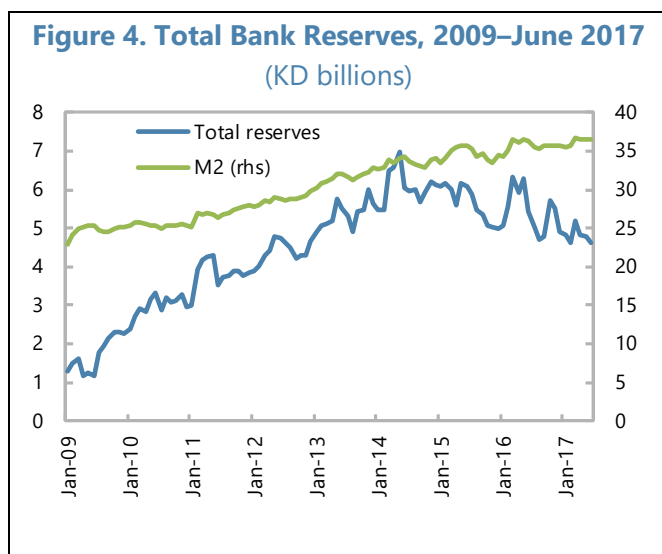
7. Banks maintain healthy liquidity ratios. Local banks are required to maintain five different regulatory ratios related to liquidity (discussed below). On all accounts, banks can do so without difficulty. For example, banks have recorded regulatory liquidity ratios (RLRs) significantly above the 18 percent required minimum, despite falling from a high of 36 percent in 2014 (Figure 3). As of



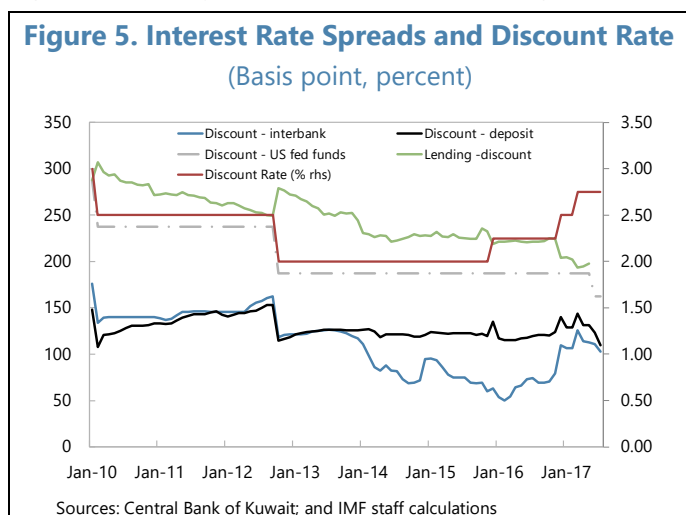
Q1 2017, the RLR stood at 29.8 percent, about 2 percentage points higher than at end-2016. Liquid assets to total assets have remained at about 30 percent since 2014. The central bank of Kuwait (CBK) has also been monitoring banks' liquidity coverage ratios (LCRs) since 2015, and the regulatory minimum LCRs are on a schedule to increase from 70 percent in 2016 to 100 percent in 2019. LCRs have remained above 100 percent for conventional banks and 150 percent for Islamic banks from Q4 2015 to Q4 2016.

8. Bank reserves at the CBK have been falling, but remain high.

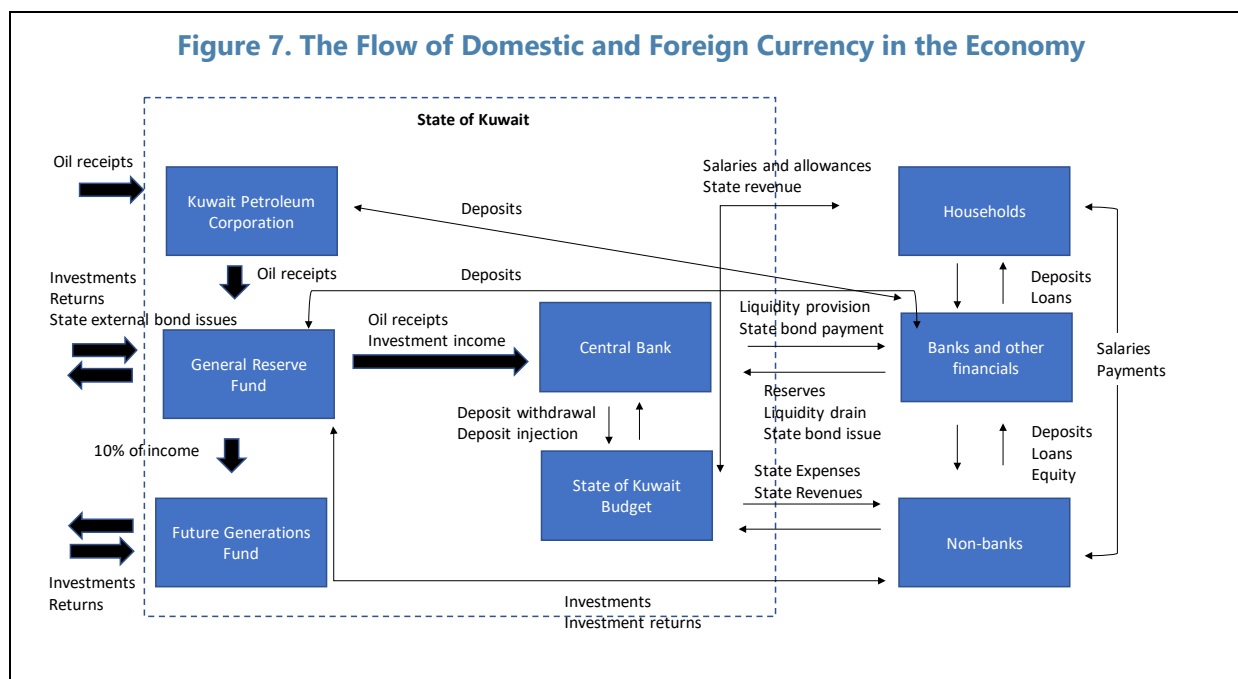
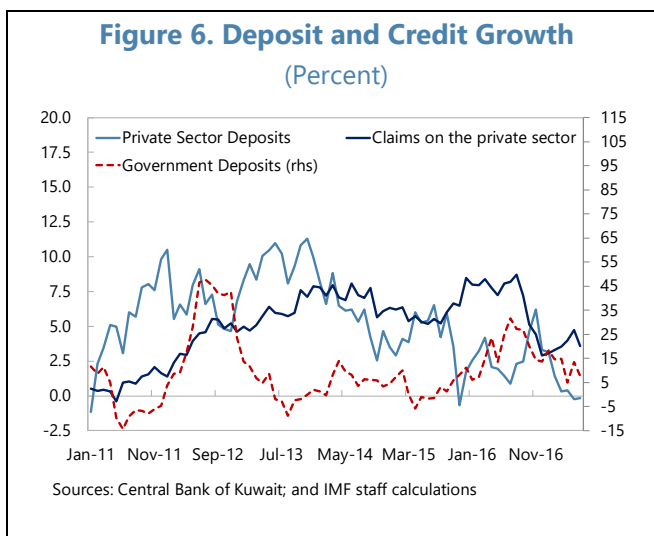
Bank reserves, which includes banks holdings of CBK deposits and instruments, rose steadily from about KD 1 billion in 2009 to over KD 6 billion in early 2014 (Figure 4). They have since fallen to KD 4.6 billion as of mid-2017. The composition of reserves has also shifted as banks' deposits at the CBK have declined dramatically, while their holding of CBK bonds has increased. Additionally, banks shifted some of their liquidity portfolios to government bonds as the State stepped up issuance domestically. Treasury bonds also represent high quality liquid assets for the banks, while not being central bank instruments.



9. Interbank rates suggest somewhat tighter liquidity conditions. After reaching a historic low of about 50 bps in early 2016, the spread between the discount rate, the policy rate, and the 3-month interbank offer rate has increased to about 100 bps, closer to the levels seen in 2014 (Figure 5). 3-month customer deposit rates have been much steadier. Except for the June and December 2017 FOMC meetings, the discount rate has recently been following the increases in the U.S. federal funds rate. While the spread between average lending rates and the discount rate had remained steady between 2014 and 2016, more recently the spread has narrowed modestly, indicating the interest rate increases are not fully passing through to lending rates.



10. Overall bank deposit growth has slackened since end-2013, which has in part led to slower credit growth. In 2013 and early 2014, private sector deposit growth averaged about 9 percent each month on an annualized basis, but has declined since then and has hovered around zero growth most recently (Figure 6). The decline was partially offset by the significant increase in the growth of government entities deposits in 2016. In this environment, private sector credit growth has also started to slow in the latter part of 2016. A study by Bawazir (2017) confirms a linkage between the oil prices shock, tighter liquidity conditions, and slowdown in bank lending in GCC banks.² A possible explanation of the slowdown may be the tighter supply of deposits that finance lending. The analysis indicates that banks with lower liquid asset ratios before the oil price shock have tended to exhibit larger slowdown in loan growth after the oil price shock.



² The empirical study examines balance sheet data from 69 GCC banks, representing 94 percent of GCC banking assets.

C. How Liquidity Flows and the Money Market

11. A stylized diagram depicts how liquidity flows through the economy (Figure 7).

Consider how oil exports sales, the country's most important source of export receipts and government revenues, are transmitted through the system. The Kuwait Petroleum Corporation sells oil in the international market, and the dollar receipts go to the State's General Reserve Fund (left side of diagram). The GRF is managed by the Kuwait Investment Authority. The GRF also earns returns from its investments both locally and abroad. By law, a minimum of ten percent of total government revenues are transferred to the Future Generations Fund (FGF) every year. The FGF makes investments outside of Kuwait.

12. The government plays an important role in the liquidity system. It calls on the GRF through the budget process and with parliamentary approval for funds to pay for its expenditures (center of the diagram). If these funds are in foreign currency (FC) then the FC must be converted into dinars at the central bank (CBK). It can then place some of the dinars in its account at the CBK and uses these for payments to non-bank firms for goods and services and to households for salaries and social benefits, hence generating liquidity for the banking system. The state also issues FC and dinar-denominated bonds, and a similar situation arises in terms of FC conversion and use of the state's CBK account. Banks have claims on the government and government entities through bonds and loans.

13. The CBK is the central entity that has operations and tools to regulate and manage system liquidity. It is the main entity that converts FC to dinars, given the pegged exchange rate regime. It manages accounts for the government and for banks (via reserves). It also has instruments and operations that can significantly influence the supply of liquidity and the price of liquidity (i.e. short-term interest rates). The CBK also regulates and supervises banks, including their liquidity requirements.

14. Banks are the main private intermediaries for liquidity. They collect deposits from and provide loans to households, non-bank firms, and other banks. They also lend to the government and government entities. They can raise liquidity through bond issuance. They invest in government bonds and even equity of private firms.

15. Strong communication and coordination among the different counterparties are important for the smooth functioning of the system. Within the CBK, there is frequent communication between the monetary operations and supervisory functions, so that monetary operations include the regulatory liquidity ratios in its assessment of systemic and bank-level liquidity conditions. The CBK also interacts frequently with private banks both from the monetary operations and supervisory perspective. These interactions help the CBK to assess the daily state of the money market and inform the size and price of CBK monetary operations. The Kuwait Investment Authority informs the CBK about upcoming transactions, which will have an impact on liquidity conditions. The CBK has also established working relationships with the Ministry of Finance and the Capital Market Authority.

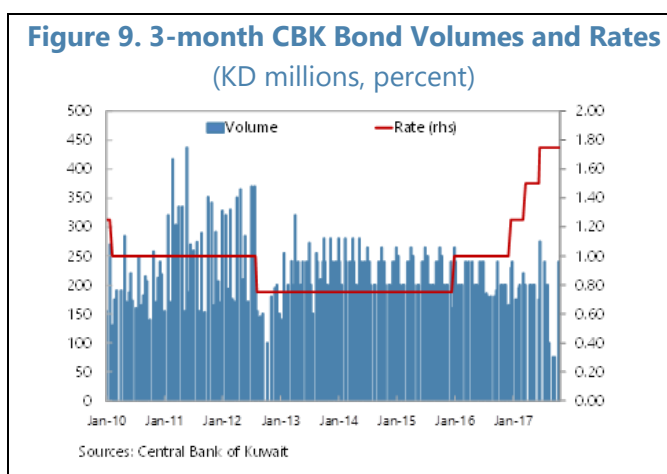
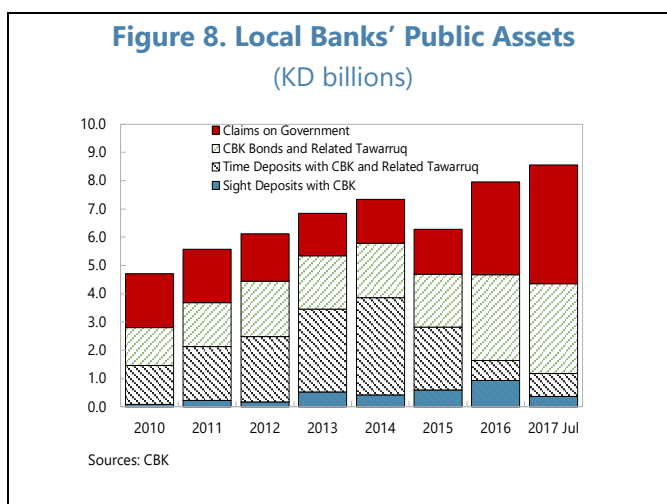
D. Framework for Monetary Operations

16. While the fixed exchange rate regime has provided a nominal anchor for inflation, it has also meant limited monetary policy independence. Since 2007 the CBK has maintained an exchange rate peg versus an undisclosed basket of currencies, reflecting Kuwait's major trading and financial partners. Previously, between January 2003 and May 2007, it the peg was exclusively to the U.S. dollar. The current peg is still tilted towards the U.S. dollar. The CBK notes that the currency basket is related to the country's trade and financial relationships. There are no restrictions on capital flows.

17. The discount rate is the main policy rate which sets the maximum rate for dinar lending. In addition to the discount rate CBK determines the rates of its operations to manage day-to-day liquidity in the banking system as well as to influence domestic money market rates. There is no minimum deposit rate (Al-Sabati 2015). The interest rates and the amounts of central bank daily operations is determined by the CBK's assessment of daily liquidity conditions.

18. The CBK has a suite of tools to manage system liquidity. It issues CBK bonds and has standing deposit and lending facilities. It can also engage in repurchase and foreign exchange swap operations, but these are not frequently used. The CBK does not have a reserve requirement for banks, but the 18 percent required liquidity ratio (see below) in practice acts in a similar nature and reduces the free liquidity that banks can lend. Prior to the fall in oil prices in 2014, the CBK drained liquidity from the domestic banking system primarily via deposits and CBK bonds. Since then the reliance on deposits has declined and CBK bonds have become the most significant tool (Figure 8). This in part reflects banks' purchases of Treasury bonds in 2016 and so far, this year, as the government has increased its issuance.

19. CBK bonds are tendered with the amounts, rate and price determined by the CBK. The tenders are conducted when necessary. A time series of 3-month tenders suggest that the auction amounts were relatively consistent between 2013 and early 2016 at about KD 200 to 240 million in volume per tender with little to no change in rates (Figure 9). More recently, the amounts have



varied and declined in some of the auctions, potentially reflecting the reduction in excess liquidity and less certainty about interest rates. The demand for CBK bonds might also be affected by the increased issuance of government domestic debt as banks have increased choices in where to invest their cash.

20. The debt management and issuance strategy is determined through a consultative process involving relevant stakeholders. Close coordination helps to ensure the issuance of CBK bonds and Treasury bonds are consistent with market demand (Gray and Pongsaparn 2015). The CBK acts as the financial agent of the Ministry of Finance and provides the front office function for issuing domestic government bonds. As the State has increased its bond issuance, the CBK, the MoF (including a new debt management office) and the KIA have convened regularly in the context of a Debt Management Committee which develops the government's debt management strategy and coordinates plans for government bond issuance, both domestic and international. While separate issuance calendars are maintained for CBK bonds and for Treasury bonds, the CBK's operations department conducts the tenders for both instruments. In addition, policymakers have chosen to issue domestic government bonds at 1- to 10-years in maturity and to stop issuing Treasury bills. CBK bonds are offered at 3- and 6-month maturities. Thus, a yield curve of domestic public sector securities has been developed with the CBK bonds at the very short-end and Treasury bonds filling out the longer-end of the maturity spectrum for the primary buyers of these securities, local commercial banks. Secondary market trading is allowed in these securities, but has remained infrequent. Efforts are still being made to list them on Boursa Kuwait.

21. The CBK tenders bonds for different maturities, but at pre-determined rates. With this method, the CBK loses the market price discovery that comes from auction-based mechanisms, which may provide better signals about market participants views about money market/liquidity conditions (Rule 2011). Auctions also tend to be more transparent and effective in allocating liquidity to encourage money market development. It should be noted, however, that the choice for this tender method reflects the market structure of the banking industry, which has a couple of large banks that could dominate auctions.

22. The development of the Tawarruq instrument has increased the available liquidity instruments for Islamic banks. These instruments are based on the commodity Murabahah concept. Previously, Islamic banks relied on CBK deposits as their main source of liquid assets. The introduction of Tawarruq provided Islamic banks with another type of high-quality liquid asset. The authorities are currently working towards the development of a market for Sukuk market, the Sharia-compliant complement of treasury bonds. Introducing government Sukuks would be a very important development for the State, and would add more longer-term high quality liquid assets that could be consistent with the new Net Stable Funding Ratio (NSFR) regulations.

23. The CBK also has tools to provide liquidity. It could and does conduct repurchase operations. However, these are infrequent given that the system has typically maintained a liquidity surplus. There is also an overnight lending facility at a punitive rate of 10 percent.

24. The CBK has the authority to provide emergency liquidity assistance, but its ELA framework could be enhanced. ELA can be provided in emergency cases for a period that does not exceed six months, and this can be extended another six months. Other aspects of the assistance can be better defined such as under what market conditions can ELA be provided and what pre-conditions must a bank satisfy to qualify for ELA. It would be helpful to attach the provision of ELA to the preservation of financial stability. Banks should have to show through some process that they are illiquid and not insolvent, i.e. that they are viable concern with sufficient capital and collateral. A transparent framework which specifies the terms of an ELA operation can be better specified. Such a framework should include consideration of foreign banks operating in Kuwait, and how foreign entities of Kuwaiti banks would be treated. The authorities also have a full guarantee on bank deposits.

E. Liquidity Regulations

25. The CBK maintains a set of regulatory standards to govern the different aspects of liquidity risk in banks. These rules apply to conventional, Islamic banks, and branches of foreign banks, and banks are currently complying with all the regulations. Most recently, the Basle III Liquidity Coverage Ratio (LCR) has been adopted. This standard is to ensure that a bank has an adequate stock of unencumbered high quality liquid assets (HQLA) to meet liquidity needs for a 30-day liquidity stress scenario.³ Banks have not faced difficulties in adjusting to the new Basle liquidity requirements.

26. The CBK plans to implement a NSFR rule following the Basle calendar, which calls for implementation by January 1 2018. The NSFR is defined as the amount of available stable funding relative to the amount of required stable funding, with a minimum of a 100 percent ratio maintained on an ongoing basis. The idea is to have reliable capital and liabilities to fund the portion of assets and off-balance sheet exposures on an ongoing basis over one-year. Kuwaiti banks appear to be ready for full implementation of the NSFR and are currently already meeting the standard.

27. The CBK has kept its limits on the regulatory liquidity ratio (RLR), maturity mismatches, lending ratio, and open foreign exchange net positions. The RLR requires banks to maintain 18 percent of their dinar customer deposits in the form of balances with the CBK, Treasury bills or bonds, or any other financial instrument issued by the CBK. This ratio is like a required reserve ratio, which helps to ensure that a bank can meet a call on its deposit liabilities. It is strictly required of banks on an on-going basis. Local banks are also required to maintain a maximum limit of aggregate negative contractual maturity gaps between assets and liabilities on the whole balance sheet as well as on each representative foreign currency based on a maturity ladder approach. The Maturity Ladder Approach allocates future cash inflows to future cash outflows over a series of specified time bands from a starting point, usually beginning with the immediate maturities of liabilities and assets matured but not paid. The rule applies to both overall balances and foreign

³ See Central Bank of Kuwait (2015) Box 2.1 for an explanation of CBK's implementation of the LCR and NSFR.

currencies. Moreover, local banks are required to comply with limits on lending to liabilities, which helps to prevent banks from taking on too much leverage for a given set of assets.

28. With the Basle III liquidity standards still relatively new, the CBK's prudent policy to maintain its existing five liquidity requirements is welcome. Some bank managers have suggested the possibility of overlaps with some of the regulations. They cite some potential overlap between the Basle liquidity standards and the Maturity Ladder Approach. However, given that the Basle III liquidity standards are relatively new from both a Kuwaiti and cross-country perspective, it seems prudent to maintain these different regulations. Periodic reassessments would however be useful to maintain an appropriate balance between sound regulation and compliance costs as the CBK gains more experience with the Basle regulations.

F. Liquidity Forecasting Framework

29. The evolving liquidity challenges in the region have put a premium on monetary authorities' ability to assess and anticipate liquidity developments. With liquidity conditions in Kuwait having tightened somewhat in 2016 and become less certain since the mid-2014 oil price shock, more active liquidity management is called for. At the same time, effective liquidity management requires a strong understanding of banks' liquidity positions and behaviors as well as those of other important institutions in the liquidity system such as State entities. The CBK works hard to accurately anticipate demand for liquidity by banks, to adjust supply through open market operations to smooth out fluctuations in short-term liquidity and interest rates. A formal forecasting exercise would allow it to better determine the scope, suitable size, and appropriate timing of its operations.

30. Liquidity forecasting is based on a forecast of the central bank balance sheet dynamics. The demand for—and supply of—liquidity can be illustrated using the simplified central bank balance sheet presented in Table 1. The liquidity available to banks is displayed under “Current account holdings”. The other items can be classified in two broad categories, namely monetary policy instrument (“Open market operations” and “Standing facilities”) and autonomous factors (“Net foreign assets”, “Currency in circulation”, “Liabilities to general government”, and “Other autonomous factors”). When the projected changes to the autonomous factors are such that liquidity available to banks is lower (higher) than desired, the central banks need to stand ready to inject (mop up) liquidity into (from) the banking system through open market operations and the SFs. Central bank need to identify and quantify all flows that impact the autonomous factors. This is a data-intensive task that relies in some cases on forecasting models and requires a high level of inter-agency cooperation. Such cooperation would help to improve the quality of the information that would go into the model.

Table 1. Simplified Balance Sheet of a Central Bank	
Assets	Liabilities
A. Open market operations	
1. Repo	2. Central Bank Paper (CBK bonds and related Tawarruq)
B. Standing facilities	
3. Lending facility	4. Deposit facility
C. Autonomous factors	
5. Net foreign assets	6. Currency in circulation
	7. Net liabilities to general government
	8. Other autonomous factors
D. Current accounts	
	9. Current account holdings - Reserves

31. Central banks need to forecast the dynamics in supply factors—i.e. the autonomous factors—which are not under their direct control.⁴ The main determinants underlying these factors that need to be taken into consideration for liquidity forecasting are:

- *Net foreign assets (NFA; C.5. in Table 1).* The net foreign asset positions are determined by central banks' foreign exchange sales and purchases with economic operators. In Kuwait, the state is the main supplier of foreign exchange. Through KIA, it sells to the central bank part of its foreign-currency-denominated oil export revenues and income generated by the investments of the GRF.⁵ Imports and remittance payments constitute the main sources of demand for foreign currency. Private cross-border capital flows also play an important role in determining the accumulation of NFA.
- *Net liabilities to the general government (C.7.).* These are essentially deposits of government entities which vary depending on their cash flows. Changes in these deposits can alter liquidity significantly.
- *Currency in circulation (C.6.).* In most countries, supply of cash is equal to demand, as it is issued when needed and central banks take it back from banks in case of surplus. In the long run, currency in circulation is generally growing with the value of transactions in the economy (e.g. proportionally to nominal GDP), although payment system innovations can affect the stability of

⁴ Central banks can in practice forecast the changes to the balance sheet items relevant to liquidity changes or the levels. Both approaches have merits depending on the circumstances (Gray 2008).

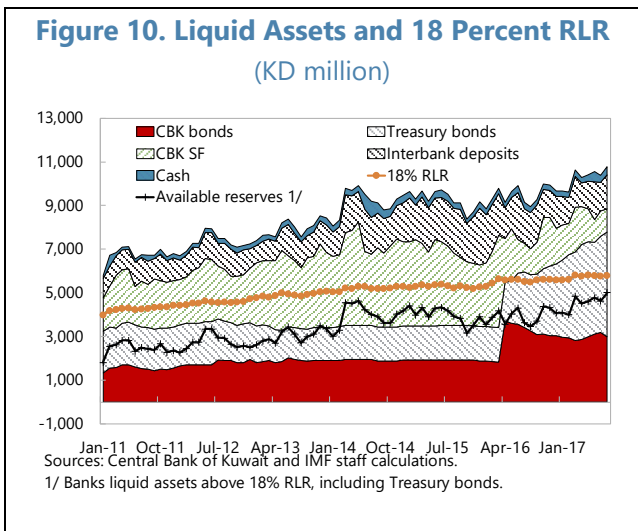
⁵ In countries where large parts of oil revenues are transferred to sovereign wealth funds rather than the central bank (e.g. Kuwait, Qatar, the U.A.E.), central banks' balance sheets only feature a small part of the broader government NFA. In countries where the central bank manages a large part of the oil wealth (e.g. Saudi Arabia), central banks NFA find a large counterpart in liabilities to the government (see Table 1 for a comparison of GCC central banks' balance sheets).

this link (i.e. the money velocity). In the shorter term, currency in circulation is subject to strong seasonality factors—e.g. Hajj in Saudi Arabia and Ramadan.

- *Other autonomous factors (C.8).* Depending on their size and volatility, other autonomous factors can also have an impact on liquidity.⁶

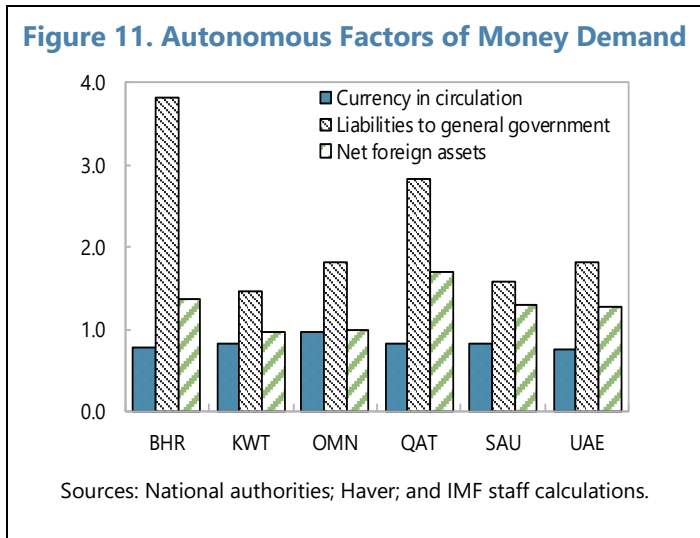
32. Central banks also need to understand the dynamics shaping the demand for bank reserves (“Current Account Holdings”, D.9). Part of available reserves are held voluntarily—to

maintain precautionary buffers or for payment systems liquidity. The remainder may be held if banks do not perceive there to be investment options that meet their risk-reward assessments. Assessing the level of reserves that banks want to hold voluntarily is key to better anticipate when they may seek to get rid of too abundant liquidity or to avoid a shortfall, with potential implications for money, foreign exchange, and financial markets. For example, one can estimate the amount of available reserves by looking at the banking system’s liquid assets, the sum of its holdings of CBK bonds, CBK deposits, Treasury bonds, cash, and then subtracting the amount needed to meet the regulatory liquidity requirement (Figure 10). This estimate suggests that after available reserves reached an elevated-oil-price record of KD 4.6 billion on May 2014, they fell to about KD 3.2 billion on October 2015. More recently, they have climbed again to reach KD 5.0 billion as of August 2017.



33. Identifying accurate and timely information sources and organizing inter-agency cooperation is key to the success of liquidity forecasting frameworks.

Central banks’ ability to forecast liquidity largely depends on the availability and quality of the time-series data on the liquidity supply and demand factors, as previous patterns are typically used to predict future movements. Forecasts are usually done daily, with a horizon matching at least the term of the most active liquidity instruments. This means relevant balance sheet data would in principle need to be available daily. Given the central



⁶ For example, CBK’s liability side of the balance sheet contains an “other liabilities” position, which can fluctuate notably from over 10 percent of liabilities to just 3 percent based on 2017 data up to August.

role of the oil and state sectors in shaping liquidity supply factors, the CBK needs detailed cash flow information in these areas. Figure 11 shows the components of autonomous factors in GCC countries, with the liabilities to the general government being the largest in every country including Kuwait. It highlights the need for formal arrangements between the State via the KIA, MoF, and the CBK that would provide the CBK with the information it needs to accurately assess liquidity conditions.

34. There are a number of key principles behind effective liquidity forecasting. It requires a deep and timely understanding of all the balance sheet positions and their impact on the liquidity situation of the financial sector. The relevant balance sheet data should be available daily and in good quality. This should be complemented by on demand communications with the main money market players. Such a system would buttress against potential intra-day liquidity issues that may affect systemically important players. Typically, liquidity management and forecasting is performed with a short-time horizon in mind. This will depend on the monetary operation cycle chosen by the CBK.

35. The CBK assesses systemic liquidity needs daily. The assessment is done to inform potential CBK operations at the end of the business day. The authorities noted that they make a holistic assessment based on banks current balances/reserves, the prevailing money market interest rates such as KIBOR, and individual banks' compliance to regulatory liquidity requirements especially the 18 percent RLR. A bank's liquidity condition on any given day is compared to its historical pattern in some manner. The assessment can inform about systemic liquidity conditions on a daily to weekly period. The CBK coordinates internally with the supervision area to gauge banks' compliance and has contacts with the KIA, particularly when large transactions are upcoming possibly a week in advance.

36. Producing a rough forecast of systemic liquidity conditions further out would be helpful. This could be particularly useful given the maturity of the CBK bonds of 3- to 6 months (Gray 2008). The longer-term forecast would act as a helpful check against the short-term projection and to assess whether the right assumptions about the drivers of liquidity are being used. Additionally, given that banks remain the primary buyers of domestic treasury bonds, the forecasting exercise will help in gauging the potential demand for government paper and help with formulating the state's issuance planning. A further useful exercise would be a research exercise to forecast possible systemic liquidity conditions out several years given the likelihood of lower-for-longer oil prices that could have a longer-term impact on the structure of systemic liquidity.

G. Conclusions

37. Liquidity conditions in the Kuwaiti financial system remains ample. The episode of tighter liquidity conditions in 2016, continued lower oil prices than pre-2014 levels, tighter fiscal policy, and higher U.S. interest rates have made the tracking of liquidity conditions and the preparedness for potential shifts in it more urgent. The CBK should take advantage of this ample liquidity period to further enhance their liquidity risk management framework. It has already been active in adopting the Basle III regulatory liquidity standards to improve banks' abilities to withstand

liquidity stress. Further enhancements should include a liquidity forecasting framework that goes beyond the current assessment of near-term liquidity conditions. The framework would improve the understanding of liquidity conditions over a longer horizon, which would enhance the planning of central bank operations and concurrently support treasury debt management operations. This will require great cooperation among the various agencies that regulate entities that affect systemic liquidity, especially the MoF and KIA. While the agencies already cooperate to some extent, more formal agreements may be needed to ensure the CBK has the necessary data it needs to improve its assessment of liquidity conditions. Further financial market development could also help increase the availability of high quality liquid assets, particularly the development of the government sukuk market. Moreover, adopting auction-based methods in the tender of CBK bonds would improve the signal-content about money market conditions and the efficiency of bond allocation. The chosen auction method would have to account for the structure of the banking market to reduce the chances of the largest players monopolizing the auctions.

References

- Al-Sabti, Abeer A. (November 2015) "Background Paper on Monetary Policy: The State of Kuwait". AMF-BIS Party Meeting on Monetary Policy in the Arab Region. Abu Dhabi, United Arab Emirates.
- Bawazir, Hana (2017) "The Impact of the Oil Price Shock on Bank Lending in the Gulf Cooperation Council." IMF Working Paper (forthcoming). Washington D.C., U.S.
- Central Bank of Kuwait (2015) "Box 2.1. Basle III Liquidity Standards." Financial Stability Report 2015. Kuwait.
- Gray, Simon and Pongsaparn, Runchana (2015) "Issuance of Central Bank Securities: International Experiences and Guidelines". IMF Working Paper 15/106. Washington D.C., U.S.
- Gray, Simon (2008) "Liquidity Forecasting". Centre for Central Banking Studies Handbook No. 27. Bank of England. London, U.K.
- Rule, Garreth (2011) "Issuing central bank securities". Centre for Central Banking Studies Handbook No. 30. Bank of England. London, U.K.