



SAUDI ARABIA

SELECTED ISSUES

August 2018

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SELECTED ISSUES

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Approved By
Aasim M. Husain

Prepared by Nabil Ben Ltaifa and Anta Ndoye, (both MCD), Abdullah Al-Hussan (WHD), Ali Al-Sadiq (FIN), Michal Andrle (RES), Olivier Basdevant and Alberto Soler (both FAD), Tehmina Shaukat Khan (World Bank), Reem AlJaber and Walid Alzahrani (both SAMA), and Kusay Alkhunaizi (Ministry of Economy and Planning), with input from Ahmad Alabadi (SAMA), Muhammad Almuzaini (CMA), and Abdulrahman Binaqeel (Ministry of Finance). Diana Kargbo-Sical, Jared Bebee, and Tucker Stone provided editorial assistance and research support.

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FISCAL FRAMEWORKS AND FISCAL ANCHORS: THE EXPERIENCES IN COMMODITY EXPORTING COUNTRIES AND IMPLICATIONS FOR SAUDI ARABIA¹

The implementation of fiscal policy in Saudi Arabia is undergoing significant change, but there is a need to further deepen reforms and ingrain fiscal consolidation into a framework that reduces the reliance of fiscal policy on volatile oil revenues and sets clearer medium-term fiscal objectives. An important question is whether the introduction of a fiscal rule as in some other resource-rich countries could help in fiscal management in Saudi Arabia. This paper suggests that while the government should continue to work on clearly defining its fiscal policy objectives, at this stage the focus of reforms should be to continue to strengthen the fiscal framework rather than on introducing a formal fiscal rule. A fiscal rule is only as good as the institutions that support it. Moreover, resource rich countries' experiences with fiscal rules have been mixed as it has proven difficult to formulate rules which are simple, flexible, and robust that can withstand large commodity prices swings.

A. Introduction

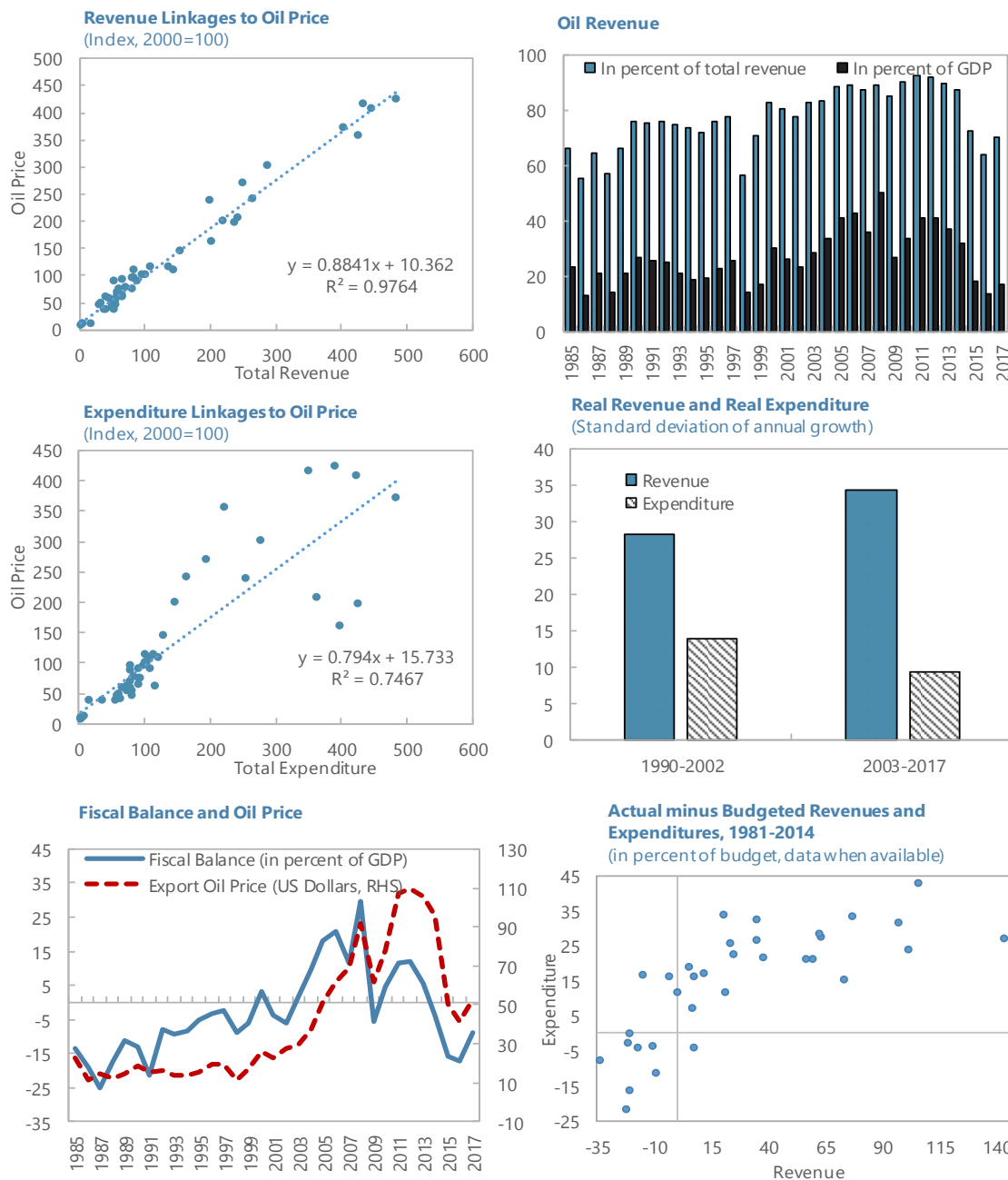
1. Fiscal policy in Saudi Arabia, like in most resource rich countries (RRCs), plays a significant role in macroeconomic policy management. Traditionally, it focuses on three main objectives: macroeconomic stabilization, development, and intergenerational equity. The stabilization role typically aims at minimizing the impact of oil price volatility (and other shocks) on the economy by delinking government spending—the main driver of economic activity—from swings in oil revenues. The development role is manifested through spending on human capital and infrastructure, while the objective of saving for intergenerational equity is driven by the need to take into consideration the interests of future generations when using oil resources, given their non-renewable nature.

2. Fiscal developments in Saudi Arabia have been dominated by oil price developments over the last decades.

- Government revenues and spending are highly correlated with the oil price (Figure 1). Oil revenues averaged 77 percent of total budget revenues and 27 percent of GDP since 1985. They declined to near 55 percent of total revenues when oil prices were low and reached over 93 percent during periods of high oil prices.

¹ Prepared by a team led by Nabil Ben Ltaifa (MCD), and comprising, Kusay Alkhunaizi (Ministry of Economy and Planning), Olivier Basdevant (FAD), and Alberto Soler (FAD), with input from Ahmad Alabadi (SAMA) and Abdulrahman Binaqeel (Ministry of Finance). Tucker Stone and Diana Kargbo-Sical (both MCD) provided research support and editorial assistance, respectively. The authors are grateful to participants at the seminars at SAMA and the IMF for their helpful comments.

Figure 1. Oil Price, Revenues, and Expenditures



Sources: Country authorities; and IMF staff calculations.

- The volatility of oil revenues has translated into volatility of government spending, albeit to a lesser degree (Figure 1). The lower volatility of spending reflected in part constraints on reducing non-discretionary spending during periods of oil price slumps and increasing it during booms because of either absorption capacity or government policy to strengthen fiscal buffers. Government spending has also reflected the tendency to set annual budgets on the basis of conservative oil prices during oil booms—actual revenues have been on average much higher than budgeted revenues—and then overspend when prices turned out to be higher than

budgeted. During the oil boom (2003–14), expenditure accelerated to an average yearly growth of 12.3 percent compared with an average growth of -0.7 percent during the low oil price period 1991–2002. The fiscal balance oscillated between large surpluses and deficits, ranging from a deficit of 25 percent of GDP in 1987 to a surplus of 30 percent of GDP in 2008.

3. Fiscal policy in Saudi Arabia has been generally procyclical compared to non-resource rich peers. Real GDP growth was higher (2003–17) when real government spending growth was also higher, driven by higher oil revenues and oil prices (Table 1). Further, the volatility of real GDP growth was higher in Saudi Arabia than in the G20 and was associated with larger volatility of real government spending growth—the latter largely driven by higher volatility of oil prices and their impact on the government budget. However, non-oil GDP growth volatility was lower in Saudi Arabia than in other oil and primary product exporters, reflecting the respective lower volatility of the growth rate of its real government spending. The decline of the latter in recent years may be reflecting relative improvement in its fiscal management. Moreover, Saudi Arabia has been more successful in controlling inflation. This, if anything, appears to highlight the importance of the currency peg, which has been the main nominal anchor for the Saudi economy.²

4. To counter oil price volatility and the high reliance of the government budget on oil, Saudi Arabia has embarked since 2015 on a bold and comprehensive fiscal reform agenda. This has been based on a series of reforms to boost non-oil revenues, reduce energy subsidies, and rationalize spending which has fallen significantly from its peak in 2014. The government has set a target of balancing the budget by 2023 and of not having central government debt exceed 30 percent of GDP. It has also started to focus on strengthening the budget process and expenditure management.

5. Against this background, this paper looks at the potential role that fiscal rules could play in strengthening fiscal management in Saudi Arabia. Its main conclusion is that while the government should continue to work on clearly defining its fiscal objectives, at this stage, the focus should be on reforms to strengthen the fiscal framework (strengthening fiscal strategy planning, enhancing fiscal reporting and monitoring, and strengthening budget execution) rather than on introducing a formal fiscal rule. The paper is organized as follows. Section B discusses resource rich countries' experiences with fiscal rules. Section C discusses ongoing public financial management (PFM) reforms and the strengthening of fiscal institutions in Saudi Arabia. Section D reviews options and challenges for designing a fiscal rule for Saudi Arabia, drawing on lessons from RRCs' experiences, and Section E concludes.

² Based on both intertemporal and cross-sectional comparisons, Alkhareif et al. (2017) confirmed that the dollar peg has served Saudi Arabia well.

Table 1. Output, Government Spending, and Inflation
(Annual growth in percent)

	Average		Standard Deviation			
	1990-2002	2003-2017	1990-2017	1990-2002	2003-2017	1990-2017
Real Non-oil GDP						
Saudi Arabia	3.1	6.0	4.7	1.2	2.9	2.7
Oil Exporters 1/	3.4	5.9	4.7	6.0	5.4	6.0
Real GDP						
Saudi Arabia	2.9	4.4	3.7	6.0	3.7	4.9
Oil Exporters	2.8	4.3	4.1	5.6	4.5	6.5
G20	2.6	2.4	2.4	2.1	2.0	2.1
Primary Product Exporters 2/	2.3	4.2	3.5	4.5	3.0	4.6
Real Government Spending						
Saudi Arabia	3.6	6.2	5.1	14.0	9.5	11.5
Oil Exporters	1.1	6.0	3.4	17.7	19.4	18.9
G20	2.0	1.6	2.0	7.0	4.1	6.7
Primary Product Exporters	1.8	6.3	6.2	13.7	13.6	14.7
CPI Inflation						
Saudi Arabia	0.4	2.5	1.5	2.1	1.9	2.2
Oil Exporters	6.3	5.1	6.5	9.0	3.5	8.2
G20	4.7	2.5	3.3	2.5	1.2	2.7
Primary Product Exporters	12.2	6.1	11.3	8.9	3.5	8.2

Sources: Country authorities; and IMF staff calculations

Note: Figures shown are the medians across country groups.

1/ Oil Exporters includes the following countries: Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Brunei Darussalam, Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Oman, Qatar, South Sudan, Democratic Republic of Timor-Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela, and Yemen.

2/ Primary product exporters are emerging markets and developing economies where 50 percent or more of the value of their total exports were a primary commodity (SITC codes, 0,1,2,4 or 68) on average between 2012 and 2016.

B. Resource Rich Countries' Experiences with Fiscal Rules

6. In general, fiscal rules should be simple, flexible, and consistent with the ultimate goals (Kopits and Symansky, 1998). However, defining a rule entails striking a balance among several desirable objectives:

- **Simplicity and flexibility:** a rule could be based on cyclically adjusted variables allowing room for automatic stabilizers to operate. However, this is challenging in countries like Saudi Arabia, as it would require identifying the position of the economy in its cycle, when the economic cycle is not well-established because of the dependency on oil revenue/prices.
- **Macroeconomic stability:** stabilizing macroeconomic fluctuations, by preventing fiscal policy from following a boom-bust cycle, as oil prices rise and fall, or as production volumes change.
- **Resilience:** by promoting the accumulation of fiscal buffers when commodity prices are high, to support a gradual approach to any required adjustment when commodity prices fall.
- **Robustness:** the rule can withstand resource and other shocks, including through use of buffers or temporary implementation of a well-defined escape clause for large shocks; and
- **Sustainability:** the rule ensures the preservation of (or gradual progress toward) sustainable deficit and debt levels in the face of gradual resource (revenue) depletion.

7. Successful implementation of fiscal rules is generally preceded by a period of fiscal consolidation (IMF, 2009, Debrun and Kumar, 2007). Although the introduction of fiscal rules has usually concurred with improved fiscal performance, the causality is not clearly established (IMF 2005, OECD 2001). International evidence suggests that the key to successful fiscal policy lies in factors that change the political climate in favor of fiscal sustainability. The prevalence of national fiscal rules is found to be positively associated with the extent to which fiscal targets were met (IMF, 2005, 2009, 2010).

8. Fiscal rules in RRCs have the potential to prevent excessive deficits, smooth shocks, and address intergenerational equity challenges, particularly when supported by strong institutions. RRCs face a difficult challenge as commodity prices experience large and persistent shocks, which can hamper fiscal planning through large, and sometimes unpredictable, fluctuations in their resource-related revenue. To cope with these challenges, resource-rich countries have tried to strengthen their fiscal framework including by using different types of fiscal rules (see Annex 1).

9. Experience with fiscal rules in RRCs has been mixed, however, owing to flawed design and weak institutional arrangements (IMF, 2015). The application of fiscal rules has been complicated by weak PFM and lack of comprehensive and consistent frameworks (rules, buffers, escape clauses). The large fall in commodity prices in 2014 led all RRCs with large financial assets to use them to smooth the adjustment regardless of fiscal rules when those were present. In particular, experiences have shown that:

- **Fiscal rules need to be supported by strong institutions, which are not always in place.** This includes adequate budget planning and monitoring, strong public financial management, and broad political and social support (IMF, 2012, 2015). Strong fiscal institutions and frameworks are critical to the extent they would provide operational guidance on how to deal with volatile resource revenues—translating long-term objectives into annual budgets and then holding policymakers accountable for meeting them. Such systems include developing a medium term fiscal framework, a more risk-based approach to fiscal policy to enhance management of fiscal risks, and strengthening fiscal transparency, which would enable informed understanding and scrutiny, and thus enhanced accountability (for example, Chile and Norway).
- **Many RRCs have had a history of short-lived rules, and/or prolonged periods of suspension of their applications.** Some countries had to either change their rules or strengthen them in the aftermath of the global financial crisis (Ecuador, Russia, CEMAC). Some abandoned the application of their rules after the commodity price collapse of 2014, and many have a mixed track record in adhering to them.
- **Price smoothing rules have not coped well with large and persistent commodity price shocks.** Some RRCs set up price smoothing rules where commodity prices used for budget purposes are a moving average of past (and future) prices (Mexico and Russia). These rules, while attractive for their ability to reduce the effects of short-term price volatility on the budget, did not work well when commodity price shocks were persistent/not mean reverting (IMF, 2015).

- **Structural balance rules have been effective for less resource-dependent countries, although they have some vulnerability to large shocks.** They have been used by countries including Chile and Colombia, and provide a similar guidance as price-smoothing rules, but are more comprehensive as they encompass the whole budget framework and not just revenue. Well-designed structural rules can withstand large shocks much better than price smoothing rules. However, the challenge is how to calibrate them to achieve large buffers during booms. Countries that have been successful implementing these rules tended to have strong fiscal institutions (Chile) and more diversified economic structures which are less dependent on resource revenue.
- **Non-resource primary balance rules can offer a possible framework, but their use by RRCs has not been always effective.** Countries that target the non-resource (primary) balance (Botswana, Ecuador, Equatorial, Guinea, Norway, Russia, Timor-Leste), have, in principle, a framework to formulate a medium-term fiscal policy. These rules have been sometimes accompanied (or later supplemented) by a ceiling on expenditure to strengthen the budget rule and further avoid procyclical policies (Botswana, Ecuador, Russia). However, these rules have not always been effective to guard against large shocks because of shortcoming in escape clauses or limited buffers.
- **Sovereign Wealth Funds (SWFs) have been effective stabilization instruments, but ad-hoc uses can hamper their investment-for-future-generations function.**³ While not necessarily part of fiscal rules per say, SWFs have been used as a mechanism to save part of oil revenues. However, problems can arise if the accumulation and withdrawal rules from the SWF are too rigid and disconnected from overall fiscal targets. In the aftermath of the oil price collapse, commodity exporters that had buffers in their SWFs used them to smooth the adjustment and avoid exchange rate pressures, but this use was not always governed by a clear fiscal rule (Algeria, Azerbaijan, Iran, Kazakhstan, Kuwait, Qatar, and UAE). This led in some cases to conflicts between the stabilization need and the intended investment for future generations. In Saudi Arabia, government deposits at the central bank played this buffering role, as they were used to smooth the fiscal adjustment. Another typical problem with SWF is that some countries accumulate assets with low returns while they borrow expensively to finance fiscal deficits. SWFs are, however, best used when they are set up as financing instruments funding the budget either for stabilization or long-term financing purposes (IMF, 2015), and have no spending authorities (to avoid the creation of extra-budgetary funds that would perform quasi-fiscal operations without proper oversight from fiscal authorities).

10. International experiences highlight some key lessons that influence considerations of how an effective fiscal rule could be introduced in Saudi Arabia:

- **A strong institutional environment will be critical.** Fiscal rules would need to be supported by a strong medium-term fiscal framework, a robust public financial management system,

³ Many RRCs set up SWFs to achieve objectives in terms of stabilization (Mexico), investment for future generations (Botswana, Iran, Norway), or both (Qatar, UAE and Russia). In Saudi Arabia, the Public Investment Fund (PIF) has started recently to act as a SWF.

broad enough coverage of the government sector, and transparency and independent oversight. Ultimately, the underlying fiscal framework needs to ensure that the government can deliver on its fiscal objectives—if the PFM system, for example, is not robust enough to deliver close to the government’s intended budget, it will be very difficult to implement a credible fiscal rule.

- **A rules-based framework can be used to guide the government’s savings objectives.** The fiscal rule(s) would primarily be designed to provide buffers to guard against shocks and potentially achieve a longer-term goal of saving for future generations.
- **Buffers and escape clauses are crucial, as the likelihood of triggering them is much higher than for non-RRCs.** Buffers are needed to insure against risks (including to some degree large oil price shocks) and avoid abrupt adjustment that could otherwise be unnecessarily disruptive. Most escape clauses are primarily about triggers that would warrant the suspension of the rules in cases of tail risks, and the process to return to their application after the commodity price shock.

C. Institutional Considerations: What is Required Versus What Is There?

11. A strong institutional framework for fiscal policy is key to successfully implement a fiscal rule (Box 1). Saudi Arabia could therefore gain from further deepening reforms underway to strengthen its fiscal framework and PFM practices before considering the adoption of a fiscal rule. Reforms would focus on having its fiscal strategy within a medium-term fiscal framework, improving the budget process and fiscal institutions, enhancing spending execution, and improving transparency and accountability. These reforms, while crucial on their own merits, are prerequisites for successful implementation of a fiscal rule (IMF 2009, 2015).

Strengthening Fiscal Strategic Planning in Saudi Arabia

12. The budgetary process in Saudi Arabia has traditionally followed a bottom-up process. This started with a circular from the Ministry of Finance (MoF) to line ministries referring them to the Budget Preparation Manual which contained instructions to submit spending proposals for the next year. The circular was accompanied by an aggregate expenditure target that guided the process, without specifying a ceiling by entity. Ministries’ spending proposals contained information on financial costs, but not on their objectives, making the process for prioritizing expenditures at the aggregate level more difficult. Negotiations on current spending were informed by past costs, while the assessment of new capital projects was guided by the five-year development plans, with limited or no guidance on expenditure ceilings. In sum, decision-making focused on the inputs of the programs and followed an incremental approach (Joharji and Willoughby, 2014).

Box 1. Fiscal Strategic Planning

The first step to strengthen PFM is to shift to a strategic planning approach in the conduct of fiscal policy. This involves projecting fiscal variables over the medium-term while combining different fiscal policy objectives. Given a set of macroeconomic forecasts, revenue and spending levels (as well as their composition) are determined, striking a balance between sustainability, short-run stabilization of real activity, and efficiency in resource allocation.

The outcome of this process is a set of short and medium-term fiscal objectives. These are operationalized through a medium-term budget, and delivered through the annual budget process. This results in a cascading decision-making process by which fiscal objectives combined with medium-term fiscal forecasts determine aggregate expenditure envelopes or ceilings. These are then allocated among policies and sectors through the budget process, most effectively over a medium-term horizon (Ljungman, 2009). This top-down approach ensures that budget allocations are kept in line with the fiscal and macroeconomic objectives. In contrast, a bottom-up approach to budgeting is likely to fail in delivering the government's fiscal objectives as it is based on expenditure plans/demands of ministries, which usually produce incremental trends without consideration of government priorities and fiscal sustainability.

A medium-term perspective to fiscal planning is particularly important in resource rich countries. Fiscal planning over a medium-term horizon helps prevent volatile annual revenues from translating into expenditure fluctuations that may destabilize the economy and reduce the quality of government spending. During upturns, these frameworks can help governments resist the pressure to increase spending when revenues and surpluses are high and to protect priority expenditures and maintain the strategic focus of fiscal policy in downturns. Setting and adhering to medium-term spending plans increases the chances that short-term spending pressures do not jeopardize long-term strategic fiscal objectives.

This approach entails a broader framework for fiscal policy and budgeting, comprising:

- A medium term fiscal framework (MTFF) which lays out the overall quantitative fiscal objectives in terms of the fiscal balance, the debt level or net worth, for 3–5 years, and demonstrates the consistency of the government's policies with those objectives given projected macroeconomic variables, oil prices, and demographics.
- A fiscal policy strategy (document) which translates the MTFF into a statement on medium fiscal policy priorities.
- A medium-term budget framework (MTBF) setting out the government's expenditure plans and objectives in multi-year perspective.
- The annual budget, which remains the basis for legal appropriations of expenditure but should be consistent with all of the above.

MTFFs are mechanisms to formulate multi-year fiscal objectives and ensure that the government will target them in budget preparation, approval, and execution. They contain commitment, reporting, and accountability requirements for the medium-term aggregate fiscal objectives, such as debt ceilings, fiscal balance targets (surplus/deficit), or broad expenditure ceilings. They are formally based on a set of medium-term macroeconomic and highly aggregated revenue and expenditure projections, which represent the core of the top-down process. The aggregate expenditure ceilings reflected in the MTFF will be the starting point of the multi-year allocation process between sectors, programs, or administrative units.

MTBFs translate MTFFs into medium-term revenue projections and disaggregated expenditure limits. The fiscal strategy provides very broad direction and targets for fiscal policy. The MTBF fleshes out the fiscal strategy by providing disaggregated quantitative projections of how the government will achieve its fiscal objectives. Expenditure allocation can be binding for a limited number of years within the projection horizon (and indicative for the rest). MTBFs pursue the sustainability of public finances, the effectiveness of resource allocation among sectors, and a more efficient use of resources by budget managers (Harris et al. 2013).

The conversion of the MTFF aggregates into MTBF binding medium-term expenditures will require reconciling top-down and bottom-up approaches. Aggregate expenditure ceilings are determined using deficit objectives and revenue projections in the MTFF. These ceilings are compared to MTBF forward estimates (aggregate medium-term ministerial, sectoral, of program expenditure projections) at current policies. The gap between the expenditure ceiling and forward projections, together with policy priorities, guides the allocation of the expenditure ceiling between ministries or entities in charge of programs. This (iterative) allocation process is conducted through discussions between the Ministry of Finance and budget entities which provide bottom-up expenditure proposals and savings options taking into account ceilings by entity.

13. Vision 2030 kicked off the transition towards a top-down approach in budget preparation. The Fiscal Balance Program (FBP) fostered a modern and more strategic culture of budget planning, and provided a medium-term fiscal anchor. The FBP committed to reducing the budget's reliance on oil revenues and the responsiveness of public spending to oil prices, including controlling its growth during booms. To underpin this commitment, the Bureau of Capital and Operational Spending Rationalization (BSR) was created and flesh out specific savings targets for operational and capital expenditures until 2020. Government ministries and entities have also set key performance indicators (KPIs), and a national performance monitoring agency (Aada) was established to monitor their progress.

14. The new fiscal framework required important organizational changes in MoF, and in the coordination mechanisms with line ministries. The MoF adopted a Strategic Plan in early 2017, encompassing the main organizational and procedural reforms to the budget process to effectively implement a top-down approach. The Fiscal Balance Program Office (FBPO) took the lead in preparing the initial medium-term fiscal strategy. During 2017, the FBPO worked closely with the Macro Fiscal Policy Unit (MFPU), and collaborated with other relevant departments in MoF, updating the medium term fiscal strategy through 2023. This framework was used as the basis for preparing the 2018 budget.

15. The MFPU plays an important role, working closely with the FBPO, in the preparation of the fiscal strategy update and the medium-term budget framework (MTBF). Macroeconomic forecasts are provided by the MFPU and are discussed with other stakeholders (including the Ministry of Economy and Planning (MEP) and SAMA) in benchmarking exercises based on common assumptions. The MFPU also provides revenue projections linked to its macroeconomic forecast, while the non-oil revenue department delivers revenue estimates for the non-oil revenue measures in collaboration with revenue collection agencies. Projections are then reconciled and a single revenue forecast is used as a basis for the new budget and medium-term projections (MTFF & MTBF). The agreed fiscal objectives and expenditure ceilings are used by the MFPU in a second iteration to align macroeconomic forecasts with the fiscal policy path. The medium term fiscal strategy currently covers 3 years (2018–20), although MOF has revenue and expenditure projections through 2023.

16. The government is also developing a financing strategy. Past fiscal surpluses explain the lack of a financing strategy in Saudi Arabia before 2014. A borrowing plan to finance the fiscal deficits is designed and managed by the Debt Management Office (DMO) and approved by the Ministry of Finance. This plan includes the distribution of financing between new net issuance of public debt (target) and the drawdown of government deposits at SAMA. However, the MTFF should be based on a broader asset-liability management framework that is consistent with the macroeconomic policy objectives under Vision 2030.

17. Going forward, reforms should include:

- **Using more effectively macroeconomic projections to better inform the setting of aggregate and entity expenditure ceilings.** While expenditure ceilings were set for the first time in 2018, a full reconciliation with the bottom up estimates of line ministries was not

possible. For 2019, the budget process started early in the year with the Budget Deputyship using expenditure ceilings set in 2018 budget by economic classification. Guidance ceilings were provided to entities around late January, informed by previous entity allocations and the new expenditure ceiling. The determination of the final ceilings for the 2019 budget will for the first time reflect discussions that take account of MoF provided guidance ceilings, possible savings (discussed in workshops with experts), and the contribution to Vision Realization Initiative programs. Once final ceilings (plus or minus ten percent of guidance ceilings) are agreed, a consolidated budget draft should be prepared before July.

- **Developing forward estimates and costing methodologies to further enhance the credibility of the MTBF.** Forward estimates are crucial for expenditure forecasts at current policies, while costing methodologies are used to assess the cost of new programs and projects. Without these, the determination of expenditure ceilings is likely to be more arbitrary and may result in either insufficient or excessive budgetary allocations. Moreover, the lack of these methodologies increases the risk of discretion by line ministries in their bottom-up estimates and reduces the assessment capacity of MoF. Therefore, the development of these methodologies is crucial to help mitigate the informational asymmetry, which would improve the credibility of the MTBF and strengthen the quality of resource allocation among ministries.
- **Introducing preventive mechanisms to ensure compliance with the MTBF.** The following could be considered:
 - ✓ Designing, together with the baseline MTBF, alternative paths supported by contingent revenue and expenditure measures to gradually return to medium-term fiscal objectives if deviations are impossible to avoid;
 - ✓ Maintaining a regular update of the medium-term macroeconomic and fiscal projections;
 - ✓ Building contingent reserves calibrated by historical deviations of expenditure or the volatility of relevant macroeconomic variables;
 - ✓ Leaving room under the ceilings (at the entity levels) to accommodate expected (but not yet included) expenditure commitments.
 - ✓ Limiting expenditure carryovers between consecutive years;
- **Improving the MTBF with a better risk analysis.** Saudi Arabia has traditionally incorporated a contingent reserve in its budget, but its size was not informed by a risk analysis or study of past macro-fiscal forecasting errors. The 2018 Budget Statement included for the first time a qualitative risk statement, pointing to most likely factors that might cause deviations from forecasts. Embedding this type of risk analysis in the MTF and MTBF will help with the adoption of mitigation measures that would improve compliance. Information on, and systematic monitoring of, macro-fiscal SOE-related risks and other contingent liabilities are indispensable to complement the top-down approach.

Fiscal Reporting and Monitoring

18. Fiscal Strategy Reports (FSR) and updates are key instruments to lay out changes in the fiscal strategy and strengthen transparency and accountability. During the first half of the year, the government needs to produce, and ideally publish, a strategy update that highlights the changes with respect to the previous strategy and revisions to the way forward. This document defines the MTF, including expenditure ceilings. An end-of-year report (EYR)—which usually precedes the strategy update (SU)—assesses the final consolidated fiscal accounts of the previous year, including detailed assessment of the compliance with the fiscal strategy. In most countries, the EYR and the SU are released to the public in the first half of the year.

19. Saudi Arabia has made good progress in improving fiscal monitoring and reporting. An internal strategy update was produced for the first time in 2017 in the form of a similar document to a Pre-Budget Statement (PBS) in other countries. The strategy update was produced and distributed internally in October. It included a description of the new fiscal strategy of the government and a basic MTBF, with an economic classification of revenue and expenditures at three digits according to GFS 2014. The MFPU also prepared in-year execution reports for the government starting in 2017. With inputs from the Non-Oil Revenue, the General Budget Department, and the DMO, the MFPU produced two reports: a monthly Fiscal Monitoring Report (FMP) and a Quarterly Budget Performance Report (QBPR); the latter being published. The fiscal strategy update 2019–21 will help fine-tune the expenditure ceilings for Budget 2019. Most countries try to align as much as possible the update of their annual strategy with the start of the budget preparation for the following year to maximize the reliability of expenditure ceilings.

20. Further reforms could include:

- ***Strengthening the analysis within the Pre-Budget Statement (PBS) and FSR, including:***
 - ✓ A discussion of alternative fiscal paths and their characteristics (currently there are only two scenarios: the baseline scenario which includes the reforms and an alternative scenario of no reforms);
 - ✓ A clear analysis of the contribution of next year’s fiscal objectives to the medium-term fiscal strategy objectives, with emphasis on debt accumulation drivers; and
 - ✓ An across-year analysis explaining the reasons of the differences between the previous year’s and the updated strategy.
- ***Considering the adoption of a Fiscal Responsibility Law (FRL).*** FRLs are used by some countries to reinforce the credibility of fiscal frameworks. They are limited-scope laws that elaborate on rules and procedures relating to three budget principles: accountability, transparency and stability (Lienert, 2010). A significant number of countries have adopted FRL (Australia, New Zealand, UK, Peru, Chile, Norway, Spain, India, Brazil, Ecuador, Argentina).

Reforms to Strengthen the Budget Execution Framework

21. Implementing a credible budget execution requires a concerted effort in a wide range of areas, from the budget planning phase through its ex-post evaluations. This includes:

providing (programs with) sufficient budget appropriations; developing a reliable cash-flow forecasting and management system; implementing commitment controls; preparing frequent in-year execution analytical fiscal reports (above); and, ensuring a transparent application of internationally standardized accounting practices.

22. Saudi Arabia has made important progress towards meeting these best practices, but more reforms could be considered, including to:

- **Strengthen expenditure commitment controls.** Weaknesses in this area contributed to the buildup of arrears in the last few years as the government tightened budget execution to reduce spending in line with the required fiscal adjustment. To better control spending starting with the commitment stage, the MoF has recently introduced new initiatives including an electronic portal, Etimad, for managing project contracts.
- **Treasury single account (TSA).** The MOF has among its strategic objectives the implementation of a TSA. This will help in quantifying (and pool) cash availabilities to implement budgeted policies and improve cash forecasting. It will also strengthen the control over budget appropriations and improve execution data quality.
- **Tighten rules for approving and offsetting supplementary appropriations.** Saudi Arabia uses a number of control mechanisms on supplementary appropriations (see Johari and Willoughby, 2014 and Eid, 2015). Reforms to strengthen the application of these controls should include imposing more stringent restrictions on requests to increase appropriations mid-year, including ruling out the adoption of new programs or expansion in the coverage of existing ones, and not permitting requests for large changes in cost driving parameters in programs. Equally important, increases in appropriations of discretionary spending should be capped or required to be offset by reductions in other expenditures, keeping total deficit unchanged.
- **The government is gradually adopting GFSM 2014, but its coverage should be expanded beyond the budgetary central government.** Data for the budgetary central government has been published in GFSM2014 format and the authorities envisage a gradual transition to broader government coverage to be completed in 2020. The current coverage leaves out important spending units such as the Public Investment Fund, Aramco, the pension funds and the specialized credit institutions that carry out fiscal functions and could have risk implications for the government's balance sheet. Similarly, subsidized agencies and SOEs might also become a source of fiscal risks.

D. Thinking About a Fiscal Rule in Saudi Arabia

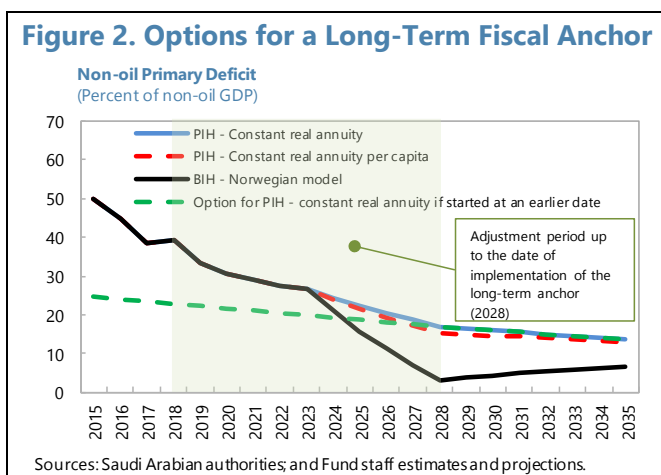
Outlining a Fiscal Anchor for Saudi Arabia

23. The first and fundamental question before the government when deciding on a fiscal anchor is defining the long-term objective this anchor would aim to achieve. The government has already set the objective to achieve fiscal balance by 2023. While this is a crucial and necessary step to reduce fiscal risks and restore long-term sustainability, it does not guide policy making beyond 2023. Further, the government objective to achieve fiscal balance by 2023 will be importantly influenced by oil price developments in coming years, and thus could be easily achieved or challenged, depending on the direction and magnitude of oil price changes. Therefore, there is merit in thinking of longer term fiscal objectives which exclude oil revenues from the fiscal target.

24. If the government objective is to save some of the exhaustible oil resources for future generations, a long-term fiscal anchor could be defined around a framework that ensures such savings. Such frameworks could range from an approach that allows spending only from the return on actual financial wealth (the “Bird-in-the-Hand” or “Norwegian” model)—

which implies considerable savings upfront, to more flexible use of oil revenues for current spending (e.g., front loading spending)—which exposes the government budget to higher risks (especially uncertainty of oil prices) (Annex 1).⁴ If the former were employed after 2023, it would entail a very large upfront adjustment and would

constrain the fiscal space available to support the diversification efforts and structural transformation. Assuming a 5-year adjustment period before the rule is implemented (i.e. rule starts in 2028), the non-oil primary deficit would need to be reduced to around 3 percent of non-oil GDP by 2028, as only the return from the actual financial wealth would be used for budget financing. Once the economy has adjusted to the much lower deficit level compatible with the bird-in-hand, the non-oil primary deficit starts to increase as returns increase with the accumulation of financial assets (leveling at an average of about 6 percent of non-oil GDP in the following 12 years through 2040) (Figure 2). In contrast, a strategy to gradually converge to a long-term norm based on the permanent income hypothesis (PIH) would entail a more gradual continuing adjustment after 2023 to a non-oil primary fiscal deficit of about 17 percent of non-oil GDP by 2028, and an average of 14 percent of non-oil GDP during 2028–40 (Figure 2).⁵



⁴ These options are discussed in more detail in IMF (2015).

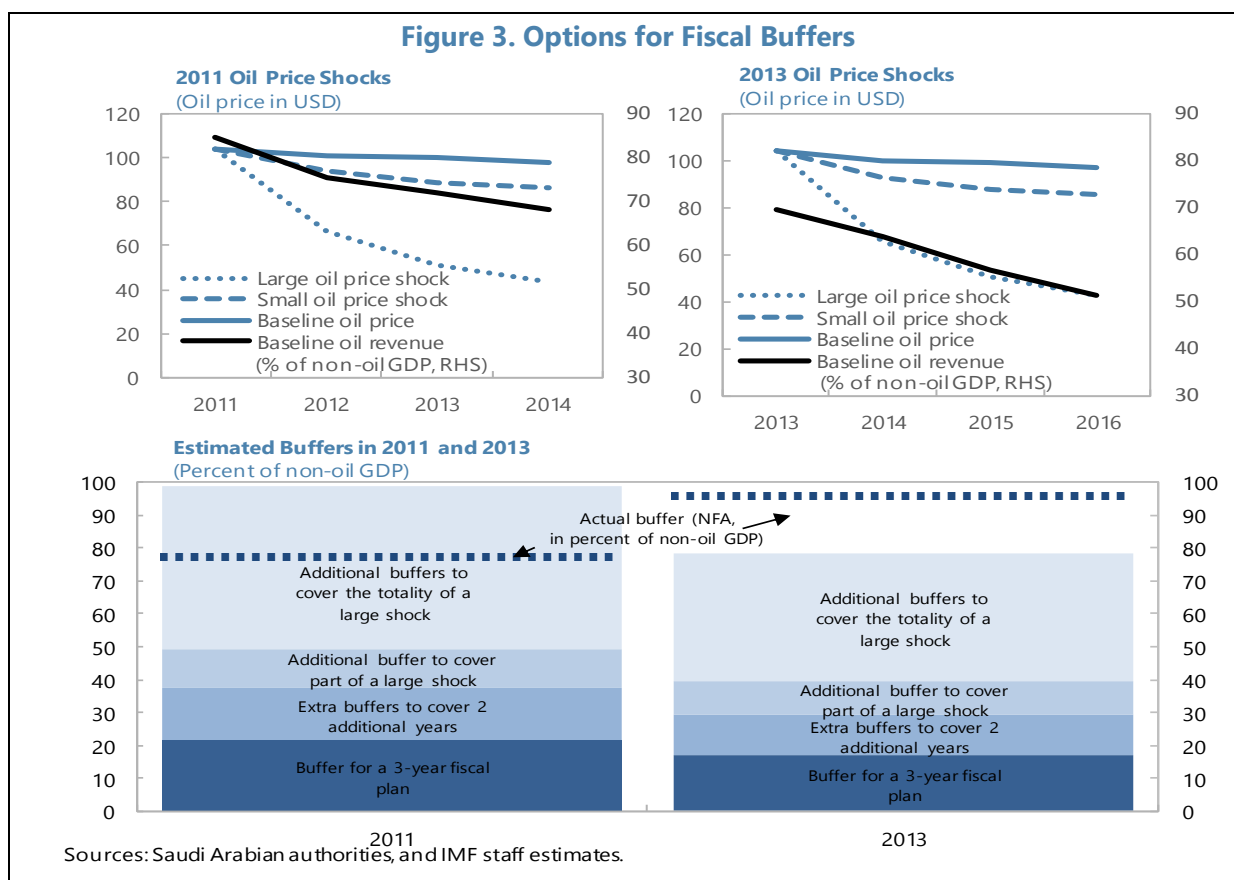
⁵ This assumes an oil price constant in real terms beyond the WEO forecast horizon and a rate of return on financial assets that is higher than non-oil real GDP growth (see Annex II for more details on assumptions). The PIH annuity could be defined as constant in real or in real per capita terms. The results between the annuity in constant terms in

25. If the authorities are concerned about insulating fiscal policy against oil price swings, the focus will be more on establishing buffers that provide sufficient insurance against possible price drops. Given the uncertainty of oil prices dynamics,⁶ the required policy buffer could be assessed along the following lines:

- Empirical analysis of oil price forecast errors (deviation from projections) up to 3 years ahead over the past 20 years shows that (using WEO oil price forecast), on average, about 60 percent of one-year-ahead forecast errors of oil prices are relatively small (around $\pm 5\frac{1}{2}$ percent), while the remaining forecast errors are much higher, with deviations from the initial forecast of ± 40 percent.
- Such errors (deviation from projections) have significant implications for Saudi Arabia given the large share of oil revenues in total budget revenues. Saudi Arabia would need buffers to: (i) absorb small shocks (a deviation of prices of about $5\frac{1}{2}$ percent represents, based on 2017 oil revenues, a shock of about $1\frac{1}{4}$ percent of non-oil GDP), and (ii) smooth, to the extent possible, the impact of large shocks (a deviation of 40 percent represents a shock of about 9.5 percent of non-oil GDP). In this regard, smoothing the adjustment to large shocks is particularly important to avoid/minimize disruption to economic activity, for example, by stopping investment projects (which has been a source of low efficiency of public spending, IMF, 2015).
- The size of the needed buffer (proxied by the expected oil revenue loss over a given period due to an oil price shock) would depend on the degree of risk aversion and the extent of the insurance the government would want to have against such shocks. For example, a simulation based on WEO oil price forecast errors at end-2011 and end-2013—using the cumulative deviation of oil revenues under a (three-year) shock scenario from projected baseline oil revenues for Saudi Arabia based on WEO prices—shows that a buffer of about 50 percent of non-oil GDP in 2011 (about 40 percent of non-oil GDP in 2013) would be needed to cover: (i) small shocks that would extend over a three-year period (the assumed horizon of the medium-term fiscal framework); plus, (ii) potential small shocks beyond the medium-term horizon (an extra two years in this example) in case all buffers for the medium-term would have been used, and (iii) a partial cover (up to 50 percent) of a large shock. However, double the above buffers—100 percent of non-oil GDP in 2011 (about 80 percent of non-oil GDP in 2013)—would have been needed to cover the totality of a large shock (Figure 3). These scenarios assume no adjustment in government spending from its pre-shock level.
- Actual data shows that Saudi Arabia's net financial position (GNFA) at end-2011 would not have been sufficient to cover the above simulated large 2011 shock, while its GNFA at end-2013 would have been more than sufficient to cover the end-2013 one (Figure 3). The government buffer measured by its actual net financial position (GNFA) at those respective dates, was 77 percent of non-oil GDP and 96 percent of non-oil GDP, respectively.

level or per capita terms are very close owing to the assumption the population being roughly constant over the long term. See IMF (2012) for a more detailed discussion of PIH options.

⁶ Empirical literature points at inconclusive evidence of oil prices being either mean reverting (i.e., exhibiting well-defined cyclical properties, see Lee, List and Strazicich, 2006) or random walks (thus limiting the relevance of smoothing shocks around a cycle, see Gronwald, 2012). Overall, a key stylized fact is the existence of temporary explosive dynamics (Gronwald, 2016), with long-lasting impacts.



Translating Policy Objectives into Operational Fiscal Rules

26. If the government is interested in reducing the volatility of government spending and the tendency that expenditure increases/decreases with oil revenues, then a non-oil primary deficit rule or an expenditure rule may help. The advantages and disadvantages of these rules are outlined in Table 2.

	Non-oil primary balance rule	Expenditure rule
Advantages	Sets a cap on the maximum deficit allowed in any given year. Set in line with long-term sustainability benchmarks.	Sets limit on growth of government spending. Useful to limit procyclicality of fiscal policy. Easier to implement as fits well with budget and medium-term frameworks.
Costs	Tend to be procyclical.	Risk of not adjusting when shocks treated as temporary when they are structural.

27. A non-oil primary deficit rule would set a cap on the maximum deficit allowed. This rule excludes oil revenues from the fiscal policy target, and as such, it provides a more accurate measure of the fiscal stance (i.e., whether the fiscal stance is expansionary or contractionary). It also helps set fiscal policy into a longer-term horizon to the extent that the magnitude of the non-oil primary deficit highlights the risks stemming from current policies on long-term fiscal sustainability, particularly in case of a sudden drop in oil prices (oil revenues). In this manner, the non-oil primary balance helps ensure a sustainable fiscal policy framework and is most useful to control the expansion in government spending—if not matched by an increase in non-oil revenues—during periods of increasing oil prices. Russia used a non-oil deficit rule in 2008, but suspended it at the time of the financial crisis as the rule was deemed too constraining (Annex 1). Figure 4 considers how a slightly dynamic (more flexible) non-oil deficit cap could have worked in Saudi Arabia during 2004–14. Specifically, the increase in the non-oil primary deficit is capped under the rule at the previous year’s deficit plus the nominal equivalent of 2 percent of non-oil GDP. Given that oil prices were rising during that period, the rule would have reduced the volatility of fiscal policy by limiting the increase in the non-oil primary fiscal deficit in several years, and over the whole-time period, would have generated cumulative savings of about 18 percent of non-oil GDP. A different specification of the rule could have resulted in larger or smaller cumulative savings while maintaining the benefits of reduced volatility. A different non-oil deficit rule could support fiscal consolidation efforts, and subsequently the achievement of a long-term anchor such as the PIH, but the difficulty of calibrating a rule that is robust to different economic environments is clearly evident in this discussion.

28. An expenditure rule would limit the procyclicality of fiscal policy during oil price booms by setting a cap on expenditure growth. A rule capping the annual growth of government spending easily aligns with the budget process and medium-term fiscal planning. A simple form of such a rule (where expenditure growth is set not exceed non-mineral growth) is used in Mongolia in combination with a budget balance rule and a debt ceiling rule (Annex 1).⁷ While the deficit rule has the advantage of adhering well to the long-term anchor, positive oil price shocks can trigger a boom in the non-oil sector, enabling the deficit rule to be met even if spending increases strongly. This risk would likely be higher in the future in the case of Saudi Arabia given recent reforms to boost non-oil revenue. In the illustrative example below, the growth rate of government spending is limited to nominal non-oil GDP plus ½ percent. Under this rule, the path of spending would have been much smoother during 2004–14 (Figure 5). The additional cumulative saving under this rule are virtually the same as with the non-oil deficit rule, with cumulated savings of 17 percent of non-oil GDP (Figure 5). Given the difficulties of forecasting non-oil GDP in Saudi Arabia, more practically the spending cap could be linked to last year’s GDP or a longer-term average.

⁷ Russia used a rather more complex expenditure rule in 2013 which set expenditure equal to the sum of oil revenue (measured at the benchmark oil price), plus non-oil revenues, plus a net borrowing limit of 1 percent of GDP (Annex 1).

Figure 4. An Illustration of a Non-Oil Deficit Rule

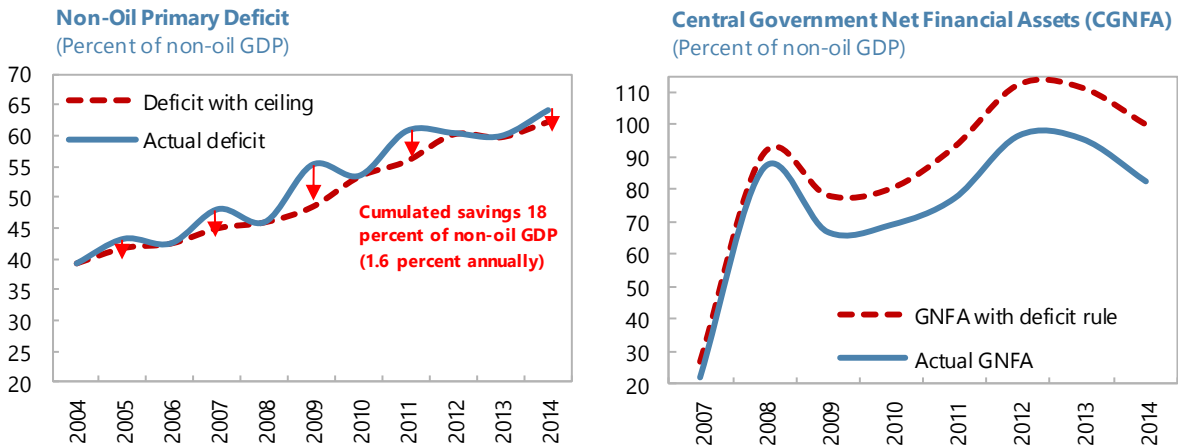
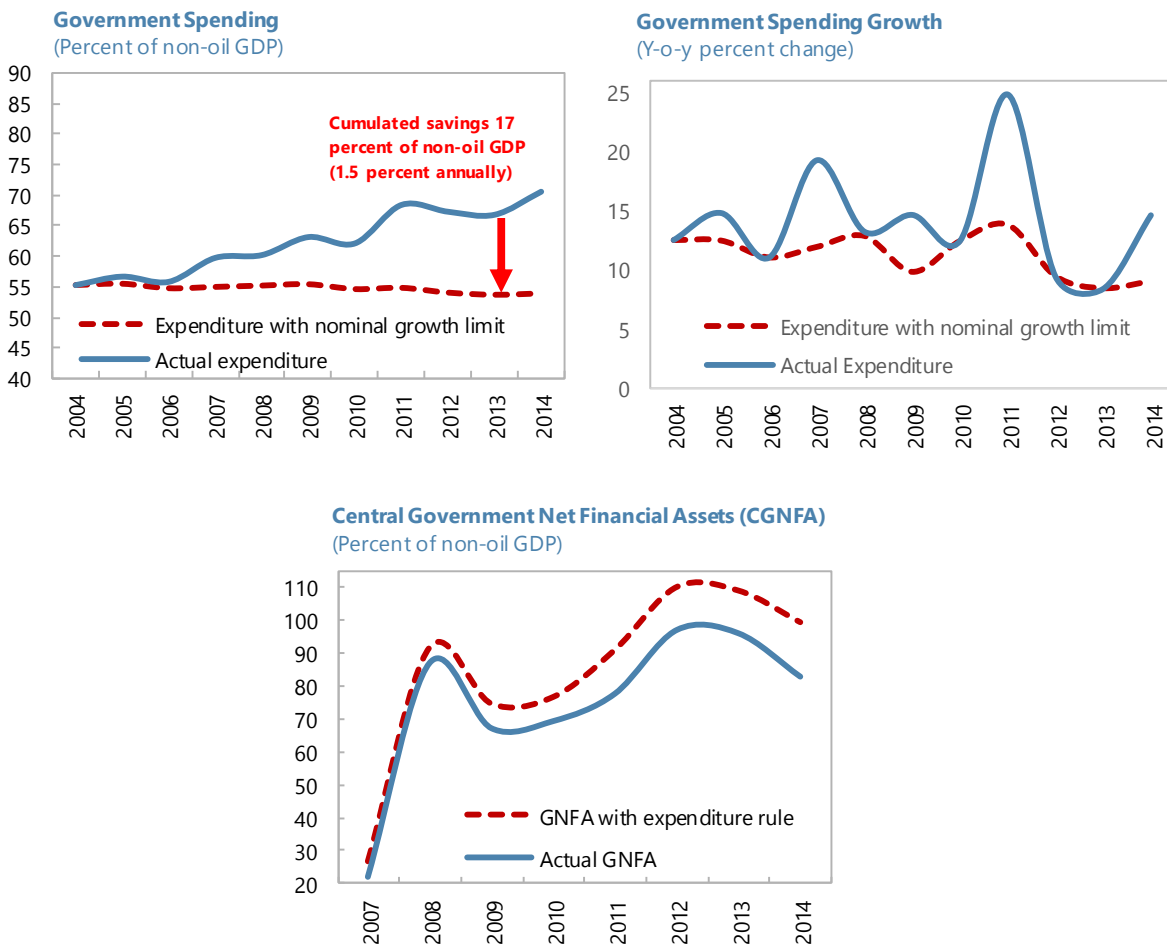


Figure 5. An Illustration of an Expenditure Rule



29. Another approach to limit the procyclicality of fiscal policy is a structural balance rule.

This rule calibrates government spending according to the long-term trend in oil prices. Structural spending is set to equal structural revenue, with the latter being equal to the structural oil revenue plus the non-oil revenue (where the structural oil revenue is calculated on the basis of a moving average of oil prices over an extended period). The structural balance is then measured by the difference between the structural revenue and actual revenue. Two versions of this approach were applied in the 2017 Article IV.⁸ The first one was based on a five-year backward looking moving average of oil prices, and the second on a backward-forward eight-year moving average of oil prices (using the four preceding years, the current year, and the forthcoming three years). The (counterfactual) simulation showed that the rule could be very useful in reducing the cyclical behavior of government spending in response to short term swings in oil prices. However, it does not enable a clear assessment of the pace of fiscal consolidation, as the outcome of the rule depends on the type and time span of the moving average oil prices being used.

30. Strengthening a fiscal rule with a debt brake—central government net financial asset (CGNFA) break in the case of Saudi Arabia—to protect sustainability during downturns could also be considered. As discussed before, any fiscal rule would be challenged by negative and large shocks to oil prices. Some instruments such as debt breaks (or the equivalent of debt-brakes) can provide adequate flexibility, while also taking into consideration fiscal sustainability. This would fully incorporate policy buffer considerations in the fiscal rule. The equivalent of a debt brake could, for example, set a floor on net financial assets of the central government (CGNFA), so that when they fall below a threshold, automatic adjustment measures kick in to reduce spending and increase GNFA.

E. Conclusion**31. The implementation of fiscal policy in Saudi Arabia is undergoing significant changes.**

The government has introduced policies to reduce the large fiscal deficit, strengthen the budget process and the fiscal framework, and increase transparency. To guide its fiscal adjustment, it has set itself a target of balancing the budget by 2023 and of not having central government debt exceed 30 percent of GDP. The steps being taken are an important start, and now there is need to deepen reforms and ingrain the gains of fiscal consolidation into a framework that increases resilience to oil price shocks.

32. One key question before the government is to define its long-term fiscal policy objectives beyond 2023. This will help determine how it may want to anchor fiscal policy. While a target for the overall balance, as announced in the FBP, is a reasonable objective for the next 5 years, such a target may not deliver the longer-term fiscal goals of the government. It is also subject to swings in oil prices—it may not be achievable if oil prices decline significantly, but if oil prices were to increase substantially, the target could be achieved even if spending were to increase to such a level that increases future fiscal vulnerabilities. Therefore, it would be better to formulate fiscal policy objectives in terms of the primary non-oil balance rather than the overall balance. The debt-to-GDP target also needs to be consistent with the fiscal balance target and with an appropriate financing mix. While the government can drawdown assets, it will likely be able to keep

⁸ IMF 2017—Country Report 17/317

debt below 30 percent of GDP, but it is not clear this is optimal without a detailed asset-liability framework in place. Setting a target level for net financial assets consistent with the fiscal balance target would be a better objective.

33. The eventual introduction of a fiscal rule could potentially help the government achieve its fiscal policy goals, but the focus should be first on strengthening fiscal processes and fiscal institutions. The international experience with fiscal rules has been mixed in resource rich countries. While there have been successes, it has proven difficult to formulate rules that are simple, flexible, and robust, particularly in periods of large swings in commodity prices. For this reason, at this stage it would be better for Saudi Arabia to focus first on continuing to strengthen its fiscal planning and implementation framework to help it deliver on its planned fiscal objectives rather than introducing a formal rule which may be difficult to implement. A fiscal rule is only as good as the institutions that support it.

34. Greater focus needs to be given to strengthening budget execution. Having both a MTFP and MTBF are crucial for developing an informed and long-term vision for efficient fiscal policy implementation. However, their usefulness will be limited in the absence of well informed and disciplined budget execution. Thus, the importance of developing the required tools for budgetary implementation and monitoring, including commitments control, the TSA, and other rules governing expenditure reallocation, reporting, and audit.

35. In thinking about its fiscal policy objectives and a possible fiscal rule, the government will have to balance short-term macro-management, medium-term development, and longer-term saving goals.

- If, recognizing the exhaustible nature of its oil resources, the government wants to increase saving of the revenues from oil resources for future generations, then it will want to pursue larger fiscal surpluses in the future.
- If it's primarily focus is to insure fiscal policy against oil price shocks, then it will want to rebuild sufficient fiscal buffers to be able to smooth fiscal policy adjustment following shocks over the short-to-medium term and mitigate its adverse effects on growth and employment. This objective would imply rebuilding over the medium-term the fiscal buffers used during the past several years, and thus the need to return after 2023 to fiscal surpluses, although these could be smaller than under the intergenerational equity option.
- Fiscal policy also plays an important demand management role in the economy, and reducing volatility is an important objective. A non-oil primary balance or an expenditure growth rule could help reduce the volatility of fiscal policy and strengthen macroeconomic stability as well as long-term fiscal and external sustainability.
- It is important to recognize, however, that pursuing these goals will have costs and benefits and there will be trade-offs among the ambition of the target, the longer-term benefits, and the potential short-term costs.

Annex I. Fiscal Anchors and Rules in Selected Resource Rich Countries¹

1. Norway. Norway established a fiscal framework to manage its oil revenues in 2001. The fiscal rule ties the non-oil fiscal deficit to the investment income of the sovereign wealth fund (SWF). Net cash flows from oil and gas are transferred to the SWF to accumulate financial assets and the government can use only the yield from these assets for spending. The rule sets a ceiling on the non-oil primary deficit not to exceed 4 percent of the accumulated financial wealth, which corresponds to the expected long-run real rate of return of its sovereign wealth fund. In 2017, the government tightened its fiscal policy by reducing from 4 to 3 percent the estimated real rate of return on the SWF assets, which caps the annual transfer from the SWF to the budget. However, the transfer from the SWF could be higher during downturns for the purpose of countercyclical stabilization and expenditure smoothing. This model helps Norway produce the necessary savings to prepare for the rising costs of the pension system as the population ages. While this approach might be appropriate for countries in an advanced stage of development and with short resource horizon, it is less appropriate for those that need to invest in physical and human capital.

2. Chile. A structural balance rule was introduced in 2001 and revised in 2005, and a Fiscal Responsibility Law was enacted in 2006. Under the initial structural balance rule, government expenditures were budgeted in line with a structural balance target and structural revenues, i.e., revenues that would be achieved if: (i) the economy were operating at full potential; and (ii) the prices of copper and molybdenum were at their long-term levels. The implementation of the rule has changed over time—from 2001–07, a constant target for the structural balance (a surplus of 1 percent of GDP was defined to help eliminate debt and accumulate assets for the future); in 2008, the target was changed to 0.5 percent of GDP; and in 2009, the target was set at zero, and an escape clause was introduced to accommodate countercyclical measures—which helped Chile weather the global financial crisis. A fiscal council started operating in 2013. The council oversees two existing independent committees—on potential GDP and the long-run copper price—to set these key parameters in the computation of the structural balance. The reference (10-year ahead forecast) copper price and potential GDP are used in the structural budget calculation. Starting from 2015 budget, the government no longer adjusts revenues based on long-term prices of molybdenum.

3. Russia. Russia introduced a fiscal rule in 2008. Its first fiscal rule, which targeted a long-term non-oil deficit of 4.7 percent of GDP to be achieved by 2011, was suspended in 2009 to allow for a fiscal package to stimulate the economy during the global financial crisis. The rule was abolished in 2012 and replaced with a redesigned fiscal rule beginning in 2013. The new rule sets a ceiling on expenditures equivalent to the sum of oil revenue (measured at the benchmark oil price), plus non-oil revenues, plus a net borrowing limit of 1 percent of GDP. Benchmark oil revenues are calculated according to a 10-year backward looking oil price rule (a 5-year average was used in 2013, to be gradually increased to 10-years by 2018). Oil revenues above the “benchmark” oil price need to be saved in the Reserve Fund until it reaches 7 percent of GDP (though there are some

¹ This Annex draws heavily on IMF (2012, 2015) and the staff reports for the Article IV of the countries under consideration.

allowable exceptions to the rule under the law). Once the Reserve Fund reaches this threshold, at least half of excess oil revenues should go to the National Wealth Fund, while the remaining resources would be channeled to the budget to finance infrastructure and other priority projects. When oil prices are below the benchmark, the Reserve Fund could be tapped to maintain expenditures. In case of a prolonged decline in oil prices, the benchmark oil price formula is reset to equal the three-year backward average. However, after the 2014 oil shock, the rule did not allow a fast-enough adjustment of the benchmark oil price, which led to its suspension in 2015 (as its continued implementation would have led to unwarrantedly large non-oil fiscal deficits as the three-year moving average resulted in a benchmark oil price per barrel of about \$85 versus an actual oil price per barrel of about \$42 in 2016). In 2018, the authorities started the implementation of a modified fiscal rule, based on a legislation passed in 2017, and initially targeted for implementation in 2019. The new rule targets a non-oil primary deficit of 1 percent of GDP in 2018 (and zero for 2019 and beyond)—at a fixed benchmark oil price per barrel of \$40 (in real 2017-dollar terms) with a proposed annual adjustment by the US CPI inflation.

4. Mexico. A fiscal responsibility law (FRL), introduced in 2006, established a fiscal zero-balance target on a cash basis, with an escape clause to be triggered during downturns. The rule applies to the federal public sector (central government, social security, and key public enterprise, including the oil company, PEMEX, and electricity company CFE). It includes a reference oil price (set by a formula) and a system of four stabilization funds, including an oil stabilization fund. The rule was revised in 2008 and then 2009 to exclude PEMEX investment and change the target from zero-balance to a deficit of 2 percent of GDP, to boost investment in oil projects, and include all PEMEX's investments in the budget. The escape clause, which establishes that if non-oil revenues are below their potential due to a negative output gap, there can be a deficit equivalent to the shortfall, was used in 2010, 2011 and 2012. The amendment to the FRL in 2013 provides for a cap on structural current spending (SCS) defined as current primary expenditure including transfers to state and local governments for capital, but excluding those outlays governed by automatic rules (pensions, subsidies for electricity and sub-national revenue-sharing). In 2014 the FRL was amended to include a target for the broader public sector borrowing requirement (PSBR) and a cap on the real rate of growth of SCS (set initially at 2 percent) to equal potential output growth starting from 2017.

5. Mongolia. Mongolia introduced a fiscal stability law (FSL) in 2010, with implementation starting in 2013. The fiscal stability law combines three rules: (i) Expenditure rule, where expenditure growth cannot exceed non-mineral GDP growth; (ii) Budget balance rule, where the structural fiscal deficit cannot exceed 2 percent of GDP, and the structural balance is defined as the difference between structural revenues and overall expenditures (structural revenues are defined as revenues that would be received if the prices of major minerals were at benchmark price, defined as a twenty-four-year—20 previous years, the current year, and three future years—moving average of mineral prices, and price forecasts are based on the IMF and internationally reputable financial institutions; and (iii) a debt ceiling, where government debt in NPV terms cannot exceed 60 percent of GDP. The FSL was amended 11 times during 2011–17, and a new Debt Law was enacted: (i) the structural deficit was temporarily raised to 9.5 percent of GDP in 2018 and set to decline gradually to 2 percent of GDP in 2023 and beyond; (ii) Development Bank of Mongolia spending was brought onto the

budget and included in the structural fiscal deficit; and (iii) debt limits are temporarily raised to 85 percent of GDP in 2017 and targeted to gradually decline to 60 percent of GDP in 2021 and beyond, while the definition of debt is narrowed from public to (general) government. This framework is supported by a stabilization fund: when mineral revenues exceed structural mineral revenues, the difference is placed in the stabilization fund, and when they fall short, the fund can be used to finance the deficit.

6. Timor-Leste. Timor-Leste set a floor on the non-oil deficit in line with an estimated sustainable income based on PIH, but subsequently deviated from it to scale up public investment. The PIH ties the fiscal deficit to financial wealth plus the NPV of oil revenues. Current wealth and the net present value of future oil revenues are used to finance either a constant flow of expenditure in real or in real per capita terms. The path of the non-oil primary fiscal deficit consistent with the PIH model is then calculated.

Annex II. Assumptions for Computing the Long-Term Fiscal Anchors

Assumptions	
(Percent, unless otherwise indicated)	
Oil sector	
Recovery rate	100.0
Oil production growth until 2030	1.0
Oil production growth from 2031	-1.0
Oil prices annual percentage increase beyond 2023	2.0
Interest rates and inflation	
Return on SAMA's NFA	5.5
GDP deflator (percent change)	2.1
Real interest rate	3.3
Real sector	
Real GDP growth	2.3
Real non-oil GDP growth	3.2
Population growth	0.5
Increase in domestic consumption of oil	1.0
Fiscal sector	
Share of oil revenues to budget	68.0
PIH parameters	
Time to reach PIH post WEO projections (years)	5
Source: IMF staff.	

References

- Alkhareif, R. M., W. A. Barnett, and J. H. Qualls. 2017. "Has the Dollar Peg Served the Saudi Economy Well?" *International Finance and Banking*, 4(1), p.145.
- Eid, Ashraf G. 2015. *Budgetary Institutions, Fiscal Policy and Economic Growth: The Case of Saudi Arabia*. The Economic Research Forum, working paper no. 967.
- Debrun, X., and M. Kumar. 2007. "The Discipline-Enhancing Role of Fiscal Institutions: Theory and Empirical Evidence," IMF Working Papers 07/171 (Washington: International Monetary Fund).
- Gronwald, M. 2012. "A Characterization of Oil Price Behavior – Evidence from Jump Models," *Energy Economics*, vol. 34(5), pp. 1310–1317. <https://doi.org/10.1016/j.eneco.2012.06.006>
- Gronwald, M. 2016. "Explosive Oil Prices," *Energy Economics*, vol. 60(November), pp. 1–5. <https://doi.org/10.1016/j.eneco.2016.09.012>
- Harris, J., R. Hughes, G. Ljungman, C. Sateriale. 2013. *Medium-Term Budget Frameworks in Advanced Economies: Object, Design and Performance*. In *Public Financial Management and its Emerging Architecture*, edited by Marco Cangiano, Teresa Curristine and Michel Lazare, IMF, 2013.
- International Monetary Fund (IMF). 2005. *Fiscal Responsibility Laws*, Washington, DC.
- _____. 2009. *Fiscal Rules—Anchoring Expectations for Sustainable Public Finances*, Washington, DC. www.imf.org/external/np/pp/eng/2009/121609.pdf
- _____. 2010. *Strategies for Fiscal Consolidation in the Post-Crisis World*, Washington, DC. www.imf.org/external/np/pp/eng/2010/020410a.pdf
- _____. 2012. *Macroeconomic Policy Framework for Resource-Rich Developing Countries*, Washington, DC. <https://www.imf.org/external/np/pp/eng/2012/082412.pdf>
- _____. 2015. *The Commodities Roller Coaster: a Fiscal Framework for Uncertain Times*, Washington, DC. <https://www.imf.org/external/np/pp/eng/2012/082412.pdf>
- _____. 2017, *Saudi Arabia—Selected Issues: Fiscal Adjustment—Scope and Pace*, pp. 3-17 Washington DC.
- Joharji, G., and J. Willoughby. 2014. *The Saudi Arabian Budgeting System: An Institutional Assessment*. *Public Administration and Development* 34, pp. 63–80.
- Kopits, G., and S. Symansky. 1998. *Fiscal Policy Rules*, IMF Occasional Paper No. 162 (Washington: International Monetary Fund).
- Lee, J., J. List, and M. Strazicich. 2006. "Non-renewable resource prices: Deterministic or stochastic trends?," *Journal of Environmental Economics and Management*, vol. 51(3), pp. 354–370. <https://doi.org/10.1016/j.jeem.2005.09.005>.
- Lienert, I. 2010. *Should Advance Countries Adopt a Fiscal Responsibility Law?* IMF WP 10/254

Ljungman, G. 2009. *Top-down Approach—An Instrument to Strengthen Budget Management*. IMF WP 09/243.

Mauro, P. 2011. *Chipping Away at the Public Debt—Sources of Failure and Keys to Success in Fiscal Adjustment* (Hoboken: N.J.: John Wiley and Sons).

Ministry of Finance of Saudi Arabia, 2017. *Budget Statement 2018*.

OECD, 2001. *Managing Public Expenditure*. A Reference Book for Transition Countries. Edited by Richard Allen and Daniel Tommasi.

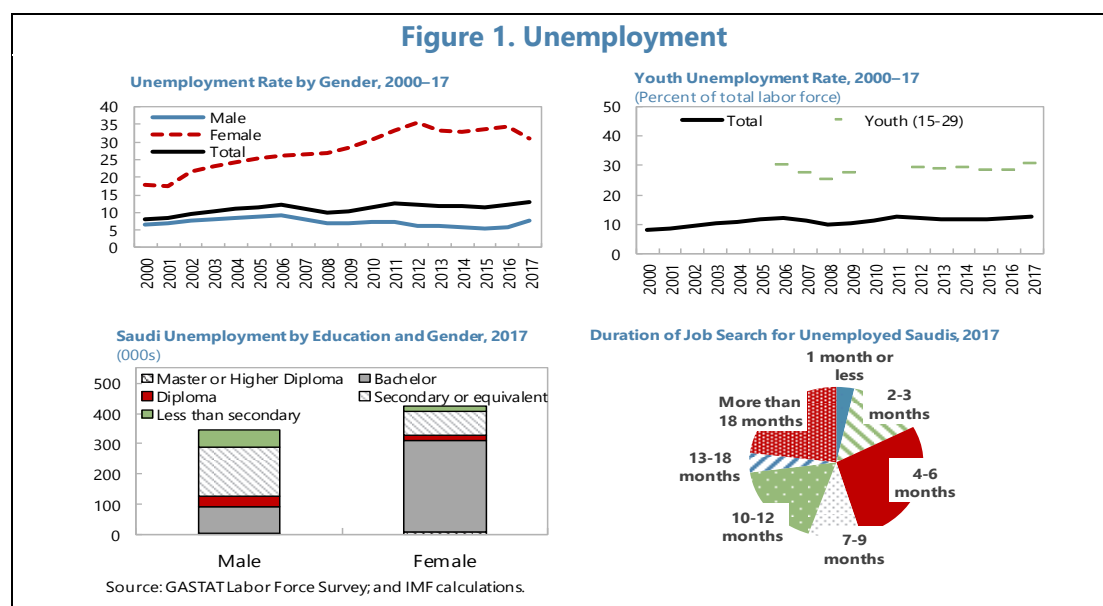
Soto, M., B. Shang, and D. Coady. 2012. "New Projections of Public Health Spending, 2010–50," in *The Economics of Public Health Care Reform in Advanced and Emerging Economies*, ed. by Clements, B., Coady, D., and S., Gupta (Washington: International Monetary Fund).

THE ECONOMIC IMPACT OF POLICIES TO BOOST THE EMPLOYMENT OF SAUDI NATIONALS¹

Saudi Arabia's labor market is characterized by a persistently high unemployment rate, low private employment ratio, and a low labor participation rate for nationals. The authorities are undertaking a wide range of labor market interventions to address these issues. The analysis in this paper shows that these interventions are helping to reduce distortions in the labor market, including by boosting female labor force participation and reducing the wage gap between expatriates and nationals in the private sector, but the impact on the rest of the economy is not always positive as firms adjust to the higher cost of labor. Reforms should therefore be gradual to minimize their impact on growth. A comprehensive set of policies is also needed to foster job creation for nationals. Measures should include policies toward levelling the playing field between national and expatriate workers so that employers have less of a preference for employing expatriates, setting clear expectations about the limited prospects for public sector employment, boosting female labor force participation, and strengthening education and training to support increased productivity of nationals.

A. Background

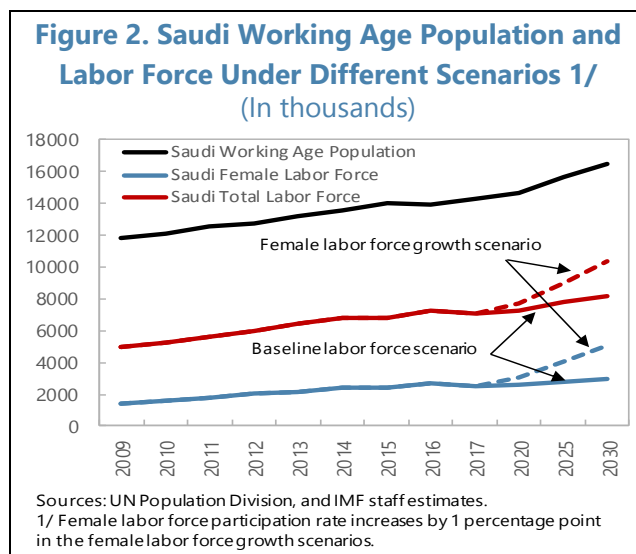
1. Unemployment rates for Saudi nationals are high (Figure 1). The Saudi unemployment rate increased from 10 percent in 2008 to 12.8 percent in 2017. This increase mainly reflects higher female and youth unemployment. Most of the unemployed have some level of education; 52 percent have a bachelor's degree. Women with tertiary education constitute the vast majority of the college-educated unemployed. Long-term unemployment is also high; about 43 percent of the unemployed had been looking for a job for over 10 months as of December 2017.



¹ Prepared by Anta Ndoye and Michal Andrle (both IMF), and Tehmina Shaukat Khan (World Bank). Research support was provided by Tucker Stone and Jared Bebee and editorial support by Diana Kargbo-Sical. The authors are grateful to the authorities and participants at the seminars at SAMA and the IMF for their helpful comments.

2. Saudi Arabia’s key challenge is to create enough jobs for its growing labor force and reduce existing unemployment.

At current low labor force participation rates, Saudi Arabia would need to create 0.5 million jobs by 2023 to absorb new entrants to the labor force. If female participation rises by 1 percentage point every year, then this figure could rise to 1.4 million (Figure 2). Almost twice as many jobs as those created in the last five years would be needed to absorb these new entrants. Saudi employment growth was 5.1 percent in the years 2010–14 and slowed to 2.2 percent in 2015–17 following the oil price shock. Most of the employment growth has come from the public sector.



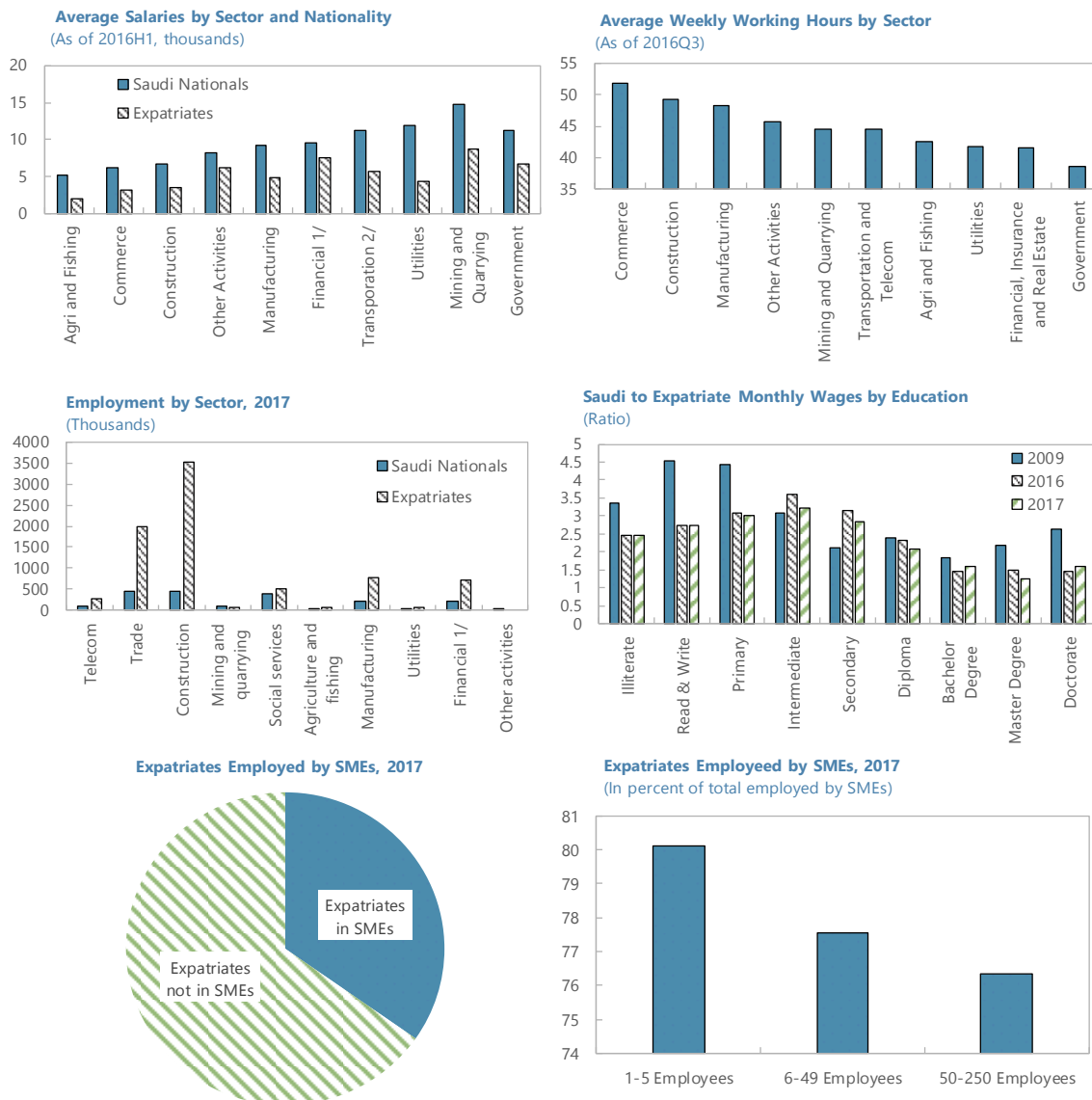
3. As set out in “Vision 2030”, the authorities are committed to reducing the unemployment of nationals. They have announced ambitious goals to lower the unemployment rate to 7 percent and increase the female labor force participation rate to 30 percent by 2030. The authorities intend to achieve those targets by increasing the size of the private sector, with a particular focus on SMEs, and overhauling the education system to equip young people with the skills they need to be productively employed in the private sector. They are also undertaking a wide range of labor market interventions based around the Nitaqat program of employment quotas, excluding expatriates from working in specific retail sectors, increasing fees on expatriate workers and their dependents, implementing a range of wage subsidies for nationals, and introducing measures to boost female employment.

4. This paper proceeds in the following manner. Section B illustrates the key characteristics of the Saudi labor market. Section C focuses on labor market interventions implemented by the authorities in recent years. Section D assesses the impact of selected labor market interventions on the economy. Section E concludes with some policy recommendations.

B. Structure of the Labor Market

5. There are several key features of the labor market in Saudi Arabia:

- **Saudi employment is concentrated in the public sector while the private sector is heavily dependent on expatriate labor.** Saudi workers are better educated on average than non-Saudi workers (IMF, 2013), and are primarily employed in the public sector, where they are generally paid higher wages, enjoy more comprehensive benefits, and have greater job security and shorter work week hours than they would in the private sector (Figure 3). On the other hand, expatriate workers make up 80 percent of the private sector workforce. A majority of expatriate workers are employed in small and medium sized firms (SMEs) —26 percent work in firms with less than 6 employees. Expatriate employment is concentrated in sectors such as construction and trade (Figure 3).

Figure 3. Employment and Wages

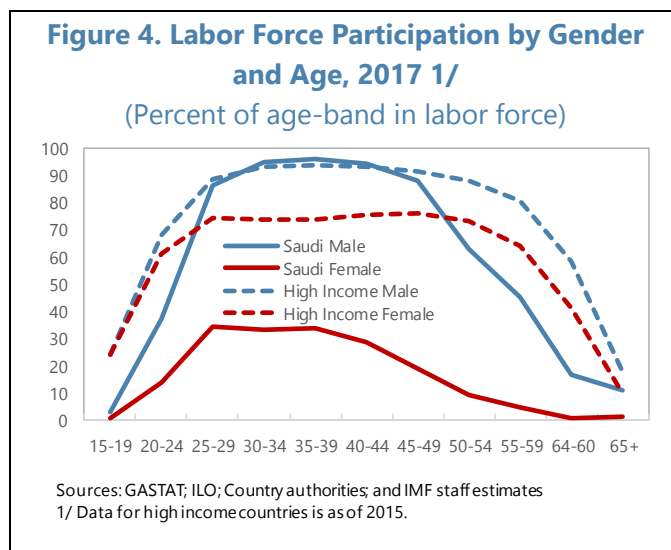
Sources: GASTAT Labor Force Survey; Country authorities; GOSI; Saudi Arabia SME Survey; and IMF staff calculations.

1/ Includes financial, insurance, real estate and business services.

2/ Includes transportation and telecommunications.

- **Significant wage gaps skew the demand for labor in the private sector toward expatriates and the supply of Saudi labor toward the public sector.** Saudi entrants to the job market largely seek employment in the public sector and have reservation wages that are well above those of similarly qualified expatriate workers in the private sector (Hertog, 2013). The de-facto minimum wage for Saudis is SAR 3,000 per month, versus SAR 1,500 per month for a comparably-skilled expatriate worker. Wage gaps between expatriates and nationals are significant. Easy access to low-wage expatriate labor has meant that the private sector has not significantly contributed to Saudi employment.

- Saudi's participation in the labor market is low, especially for females.** Only 40 percent of Saudis participate in the labor force compared to the world average of 62.8 percent. Despite recent increases, female labor force participation is particularly low at 18 percent, well below most other countries. Women are most likely to participate between 25 and 34 years of age and they then drop out of the labor force. Men drop out of the labor force at 50 years old, which reflects the early retirement age and could affect the long-term sustainability of pension funds. Women tend to work mainly in the education sector (70 percent) and health and social sectors (13 percent) where gender segregation is easier.



- There is evidence of skill mismatches in the labor market.** Saudi workers may not be equipped for the needs of employers, not only in cases where they lack education, but also, when they do not possess the skills that employers need. In Saudi Arabia, university graduates typically complete degrees in education, humanities and arts, which do not necessarily cater to the demands of the private sector as evidenced by the large share of unemployed with degrees in education, humanities and arts (Figure 5).
- While educational enrollment has increased significantly over the past 20 years, learning outcomes remain below many other countries.** The share of adults without education has been dropping for both men and women and Saudi Arabia is close to attaining universal literacy. Tertiary education enrollment has increased significantly since 2000, especially for females (Figure 6). This was achieved through significant public investment in tertiary education, including the establishment of numerous universities and generous scholarship programs – such as the King Abdullah Scholarship Program which provides Saudi students scholarships to study abroad. However, available data on education outcomes shows that Saudi Arabia scores relatively low on standardized cross-country math and sciences and reading tests relative to countries with similar income, with girls tending to outperform boys (TIMSS 2015 and PIRLS 2016).²

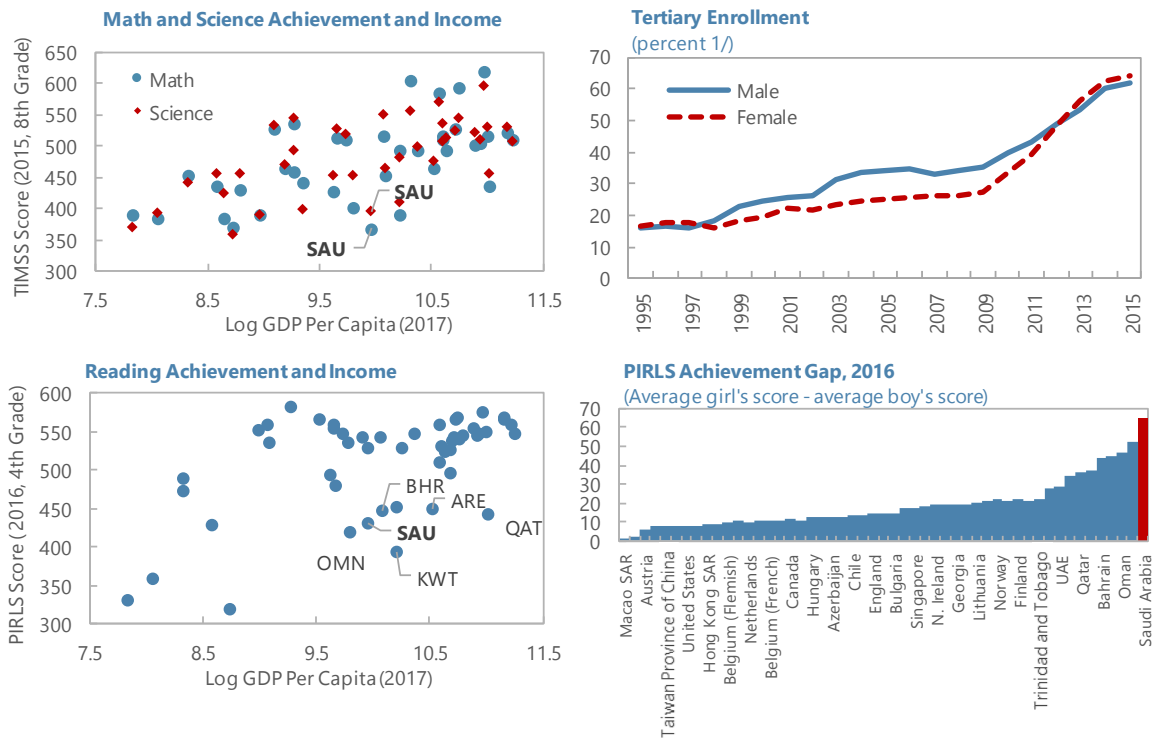
² TIMSS is an international assessment of the mathematics and science knowledge, conducted by the International Association for the Evaluation of Educational Achievement (IEA) every 4 years since 1995. In TIMSS 2015, nationally representative samples of students in 57 countries participated in the 4th-grade assessment, the 8th-grade assessment, or both. PIRLS is also an internationally comparative assessment that measures student learning in reading, and is produced by the IEA every four years since 2001. 50 countries participated in the 2016 PIRLS for students in the grade that represents 4 years of schooling.

Figure 5. Skills Mismatches



Sources: GASTAT, Labor Force Survey; Ministry of Education; and IMF staff calculations.
 1/ Other includes Social Science, Business, and Law Programs; Programs of Natural Sciences, Mathematics, and Computer Science; Engineering, Industries, and Construction; Program Agriculture and Veterinary; Health and Social Services Programs; and Services Programs.

Figure 6. Education and Outcomes



Sources: TIMSS 2015, PIRLS 2016, World Development Indicators; and IMF staff calculations.
 1/ Ratio of total enrollment to the population of the age group that officially corresponds to tertiary schooling.

C. Recent Labor Market Policies

6. Labor market policies have been introduced in recent years to increase employment of Saudis in the private sector. These policies have sought to increase the attractiveness of Saudi workers to private sectors firms by reducing the cost/wage differential between nationals and

expatriates (e.g. expatriate levy, wage subsidies), training programs, through employment quotas (Saudization programs), and targeted measures to boost female employment.

7. The introduction of an “expat levy” has raised the cost of hiring expatriate workers for private sector firms. The levy, which first came into force in 2012, imposed a monthly levy of SAR 200 (\$53) per worker on firms with a majority of expatriate workers. In January 2018, as set out in the Fiscal Balance Program (FBP), the authorities raised the monthly levy to SAR 300 (\$80) and SAR400 (\$107) per worker and rising to SAR 700–800 (\$213) by 2020, depending on the percentage of Saudis in their workforce. These levies will amount to about 20 percent of the current average wage gap between Saudis and expatriates by 2020 when fully implemented. Monthly fees of SAR 100 (\$27) for each dependent of expatriate workers were also introduced in July 2017. Other schemes have included fees on expatriate labor visas that effectively increases the cost of expatriate workers above their wage. At the same time, regulations strengthening the rights of expatriate workers have also been tightened, including by increasing fines for violations of workers’ rights.³

8. Wage subsidies for Saudi nationals working in the private sector have been introduced. Various training and wage-subsidy programs have been introduced to improve the skills of Saudi workers and reduce their hiring costs, mostly targeted at women and young job-seekers. Most programs subsidize wages and training for Saudis for up two years. However, it is not clear whether Saudis remain competitive employees after the wage subsidies are phased out (Hertog, 2013). Sectoral programs such as the Women’s Employment in the Retail Sector and the Support Women’s Jobs in Factories also provided incentives via wage subsidies for training and hiring Saudi women in the retail and manufacturing sectors. However, these programs required a fundamental restructuring of the firm (due to mandated segregation) and it is unclear whether these subsidies cover the lump sum costs associated with participation in these programs (Evidence for Policy Design, 2013).

9. Current unemployment assistance programs aim to facilitate job matching. The two main unemployment assistance programs are Hafiz and Sanid and provide job seekers with monthly temporary income with which to finance both job search costs and living expenses. The introduction of these schemes are important steps in strengthening the social safety net in Saudi Arabia and are partly aimed at providing some income security to those working in the private sector who have greater risk of job loss than in the public sector. Under both programs, financial assistance is made conditional on participation in training and job search efforts.

10. Saudization efforts have accelerated in recent years. A revamped Saudization (*Nitaqat*) program with sector- and firm-size based employment quotas to require firms to hire Saudis was introduced in 2011. Under *Nitaqat*, quotas for hiring nationals in private sector firms were introduced, with penalties or benefits depending on the degree of firms’ compliance with the nationalization targets. Amendments to *Nitaqat* were introduced in mid-2017 increasing the mandatory employment ratio of nationals to expatriate employees. Other measures were introduced between 2016 and 2018 to ban the employment of expatriate workers in some retail sectors (e.g. gold and jewelry, mobile phone and electrical shops).

³ <https://mlsd.gov.sa/en/%D8%A3%D8%AE%D8%A8%D8%A7%D8%B1/minister-labor-and-social-development-approves-changes-violation-table>.

11. Evidence suggests mixed success for Nitaqat thus far. At the time of its introduction, the Nitaqat program covered all firms in the private sector with 10 or more employees, and affected approximately 6.3 million national and expatriate workers. While the employment of nationals initially increased, there are indications that Nitaqat has taken a toll on firm profitability due to the costs of training Saudis and the higher wages they received relative to expatriate workers. This may have resulted in the closure of substantial numbers of firms and a decrease in overall and Saudi employment in the private sector over time (Peck, 2017, Koyame-Marsh, 2016). Other studies have pointed to the potential for reduced productivity from Nitaqat as well as reduced investment by foreign firms that find the costs associated with quota-based employment too onerous (Ramady, 2013).

12. The authorities are implementing several measures to increase female labor force participation. To reduce some of the constraints to women entering the workforce, the authorities are subsidizing transportation and childcare costs, expanding the availability of childcare facilities, and encouraging greater use of teleworking. With women now allowed to drive, this should help ease transportation constraints for women looking to enter the job market. Since February 2018, women no longer need the consent of a male guardian to start a business and have access to certain jobs in the military.

13. Policies are focusing on education sector reforms and vocational training. As part of Vision 2030 and National Transformation Program, major education sector reforms are planned, encompassing curriculum reform, early childhood education and teacher training. Strengthening vocational training is also a centerpiece of these reforms to better align the skills of nationals with those demanded by private sector firms.

D. Assessing the Impact of Labor Market Policies on the Economy

14. A model-based approach is employed to assess the impact of labor market reforms on the Saudi economy over the medium-term. The potential impact of the expat levy, higher female labor-force participation, and Saudization of the retail sector are analyzed. Whereas the impact of the levy may negatively affect growth, the opposite is true for increasing female labor force participation. The impact of Saudization of the retail sector depends on the productivity differential between expatriates and nationals and the impact on overall employment.

15. The G20MOD module of the IMF's Flexible System of Global Models (FSGM) is used in the analysis (Annex 1). G20MOD is a multi-country structural model that has individual blocks for each of the G20 countries and four other blocks to complete the rest of the world. The model has a complete set of stock-flow accounting relationships that complement the behavioral relationships driving the model dynamics. The behavior of households and firms is forward-looking, reacting to economic shocks and policies. The setup of the model reflects key stylized facts of each of the economies as well as the specifics of monetary and fiscal policy regimes.⁴ G20MOD also features a complete set of bilateral migration and remittance flows. In relevant countries and regions, the labor

⁴ In the model, the authorities use government consumption, government investment, and fiscal transfers on the expenditure side and labor income taxes, consumption taxes, capital income taxes, and royalties on commodities to manage the government budget, with a set goal for long-term debt-to-GDP ratio.

force distinguishes between the “domestic” and “expatriate” labor force. The wage differential between the two groups is used as a proxy for their relative productivity, a crucial assumption in the model. The expatriate workers are assumed to be liquidity constrained, consuming all their after-tax income that they do not remit to their home country. In contrast, only a share of nationals are liquidity constrained with the rest smoothing consumption through saving.

Impact of the Expat Levy

16. Two scenarios of the levy implementation are considered. In the first scenario, the levy is fully paid by expatriate workers. In the second scenario, private firms bear the cost of the levy. In line with the schedule set out in the FBP, the levy gradually increases over three years and is projected to raise roughly 2 percent of GDP in additional revenue by 2020. In both cases, the impact on real GDP is negative, i.e. real GDP is lower than in the baseline where there is no change in the expat levy. It is important to recognize that the scenario is not implying that growth will be negative.

17. The impact of the levy depends on several key assumptions. In addition to whether the burden of the levy falls on firms or workers, it also depends on how the collected revenue is spent. It is assumed here that a portion of the revenues (0.5 percent of GDP) are used to finance a temporary labor subsidy, provided for two years to Saudi nationals, while the remainder is used to improve the fiscal balance and thus the net government asset position is permanently improved.

Impact of the Levy when Expatriates Bear the Burden

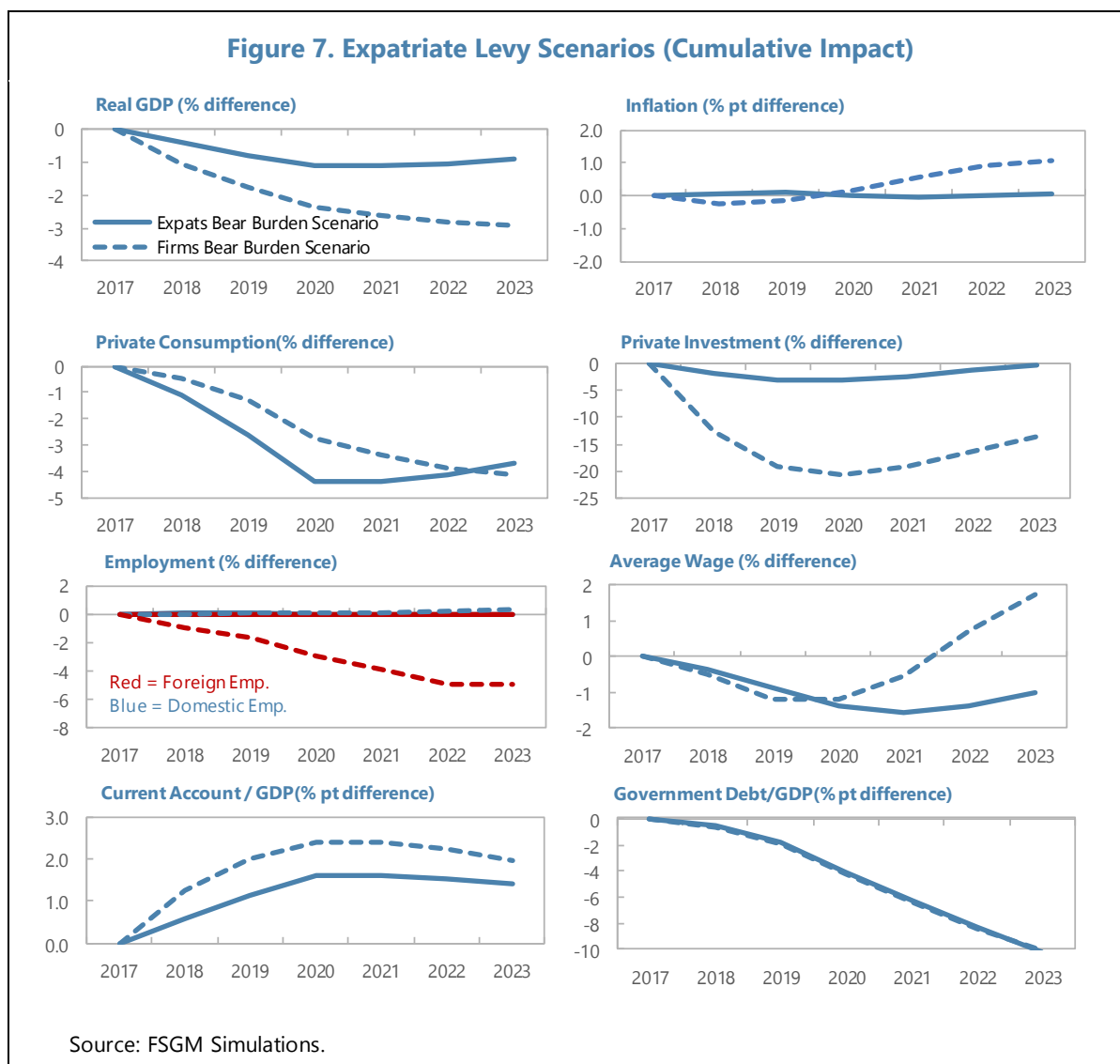
18. When the levy is borne by the expatriate workers, employment of nationals and expatriate workers remain broadly unchanged. This assumes that expatriates’ new after-levy wage is still higher than their reservation wage. The net disposable income of expatriate workers declines by the full amount of the levy and thus their consumption of goods and services in the domestic economy permanently declines (according to the 2013 Household Survey, about 20 percent of consumption is accounted for by expatriate households). Expatriate workers are assumed to remit a constant fraction of their after-tax disposable income to their country of origin. With lower disposable income, remittance outflows are also lower.⁵

19. Given the permanent decline in domestic private consumption, private investment declines and the economy transitions to a new, lower long-run level for the capital stock and output (Figure 7). Given the important share of migrant workers in the domestic economy, both actual and potential output permanently fall owing to their lower consumption. The temporary wage subsidy mitigates slightly the decline in output for two years. With less capital, the marginal product of labor declines leading to a fall in real wages. Lower real wages also lead to a marginal decline in the domestic labor force.

20. The external and fiscal balances improve. With lower consumption and private investment, the volume of imported goods and services declines along with remittance outflows. Because the economy is importing less, the real effective exchange rate appreciates to maintain

⁵ Should the expatriate workers desire to keep the nominal value of their remittances unchanged, and thus effectively increase the share of remittances in their lower income, the negative impact on the Saudi economy would be larger.

external balance. However, with the proceeds of the levy fully saved by the authorities after the first two years, national savings rises and this is reflected in a permanent increase in the current account balance. The net government asset position gradually improves towards its new permanently higher level. In the long run, as the income from net government asset increases, the fiscal position further improves.



Impact of the Levy when Firms Bear the Burden

21. When firms bear the burden of the levy, the growth impact is more negative than when expatriate workers bear the burden. The levy reduces the after-tax return on capital, inducing firms with no economic rents to reduce investment.⁶ With a lower capital stock, the marginal product of labor declines, and firms reduce the real wages of both Saudi and non-Saudi employees. This in turn leads all households to reduce consumption and Saudi households to reduce

⁶ Economic rent is defined as a payment to an owner of a factor of production beyond the marginal cost of the factor. Economic rents are associated with imperfect competition in product and factor markets.

labor supply. A lower capital stock combined with lower employment leads to a drop in potential output. The lower real wages of expatriates also result in a reduction in remittances. On the other hand, if the levy falls on firms with sufficient economic rents, the impact would be less negative as the desired level for the capital stock and the marginal product of capital would not change and both domestic and expatriate workers' incomes would be essentially unchanged.

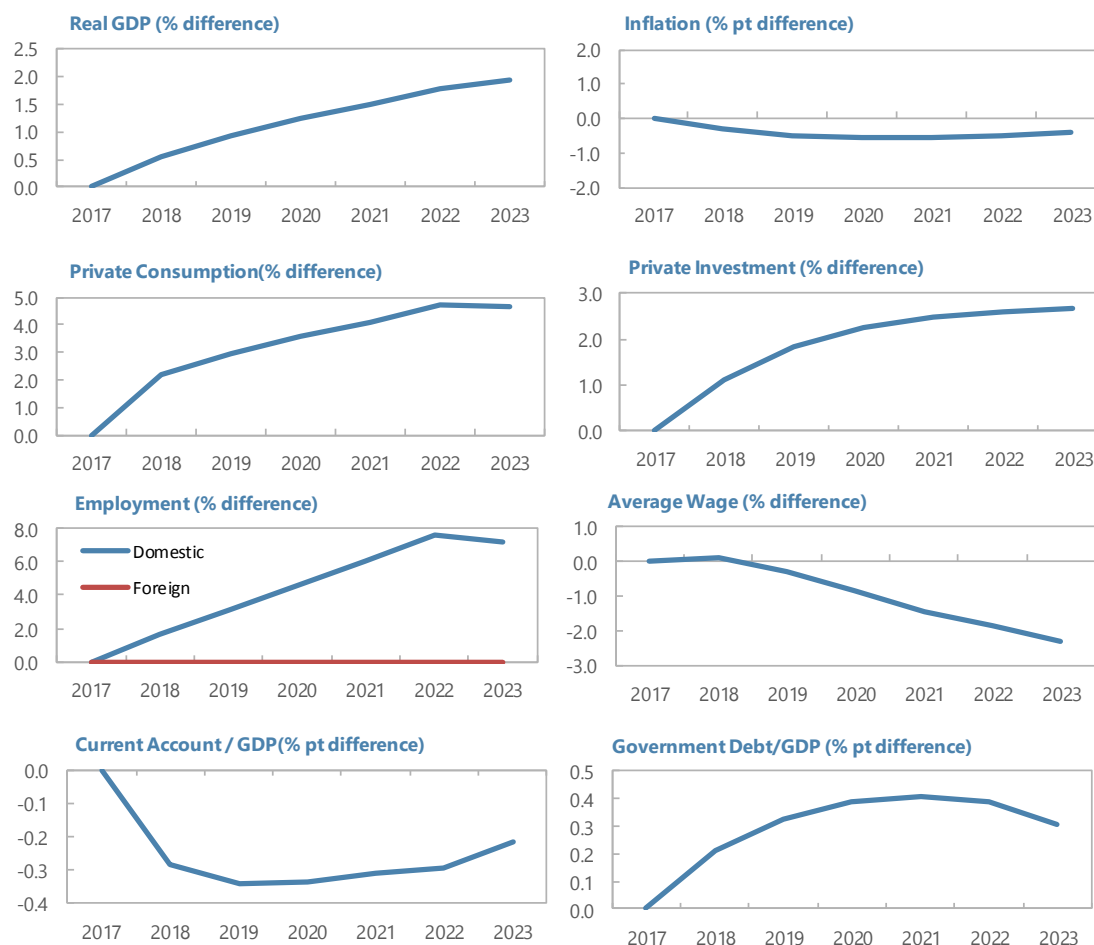
22. It is assumed that higher labor costs for expatriate workers lead firms to dismiss expatriate workers, further exacerbating the negative impact on the economy. The reaction of firms will depend on the share of expatriate workers they employ and on the wage and productivity differential between expatriate and Saudi workers (it is assumed that the relative wage differential between the two groups reflects their relative productivity, with Saudi workers being more productive than expatriates). If it is assumed that 1 percent of expatriate workers leave the country each year, either through closure of firms or through firms dismissing some expatriate workers as their cost of employment increases, this further lowers real GDP in the long run relative to the baseline.

Increased Female Labor Force Participation

23. This scenario assumes an increase in female labor force participation, in line with the objectives of Vision 2030 and owing to the policies implemented by the authorities. The female participation rate is assumed to increase by 1 percentage point a year for the next five years, increasing the female labor force by roughly 30 percent. The increase is assumed to be exogenous in the sense that current constraints to women's engagement with the labor market are gradually removed and women entering in the labor force are prepared to work at the current wage rate of nationals.

24. The increased labor force participation of women delivers strong positive effects on the economy (Figure 8). The share of Saudi nationals in the labor market rises, with domestic employment increasing by more than 6 percent. Output, consumption, and private investment all increase as a result of the higher labor supply. After five years, real output increases by about 2 percent relative to baseline. Given the structure of the model, as the economy adjusts to the higher labor force participation and the associated higher capital stock, potential output increases marginally faster than the actual output. This results in a small decline in consumer prices and nominal wage inflation relative to baseline, with real wages remaining largely unchanged.

25. The increased potential output of the economy leads to a moderate depreciation of the real effective exchange rate and adjustment in the external balance. Saudi households have higher income and increase their consumption of both domestic and foreign goods. Since it is assumed that the increase in female employment is economy wide, no change in the relative price of Saudi tradable goods takes place. The real exchange rate needs to depreciate to maintain external balance. Due to the exchange rate pegged to the US dollar, the real depreciation requires temporarily lower domestic inflation. The current account balance returns to baseline in the long term.

Figure 8. Increased Female Labor Force Participation Scenario

Source: FSGM Simulations.

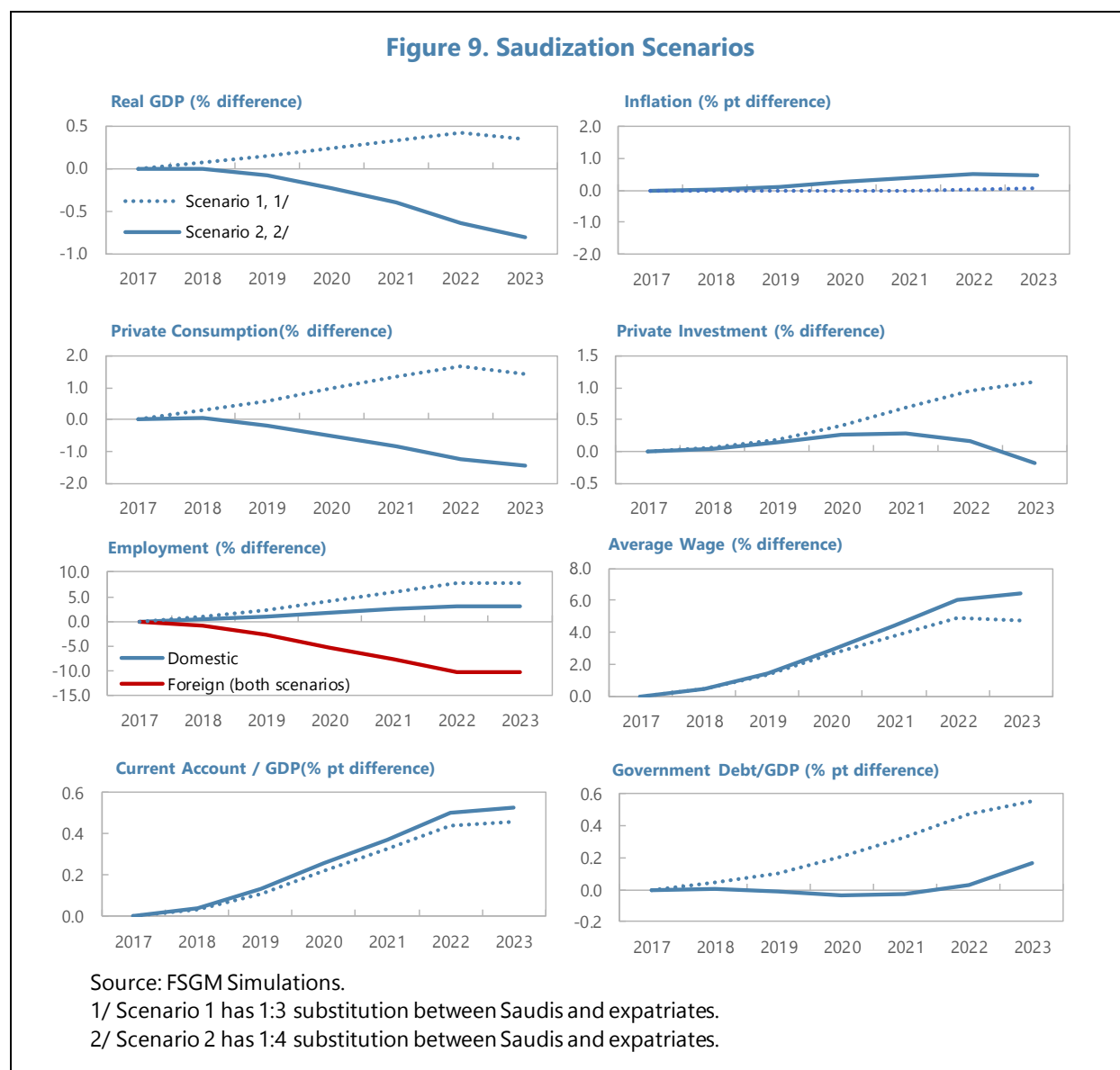
Saudization in the Retail Sector

26. This scenario assumes a gradual increase in the employment of Saudi nationals and a decrease in the number of expatriate workers in the retail sector. The retail sector currently employs 1.2 million expatriate workers and 400,000 Saudi workers. Specifically, the scenario models the implications of a partial ban on expatriate employees in the retail sector that results in a reduction in expatriate employment of 980,000 by 2023 and increase in Saudi employment of 326,000 in a first scenario and 245,000 in a second scenario.

27. The impact of the Saudization measures on output depends on the productivity differential between nationals and expatriates and labor substitution. If it is assumed that the wage differential between nationals and expatriates reflects the productivity differential, and if one Saudi replaces three expatriate workers, the impact on output is slightly positive after five years (Figure 9, Scenario 1). This positive impact is driven by higher consumption, which in turns encourages firms to invest more. Specifically, unlike expatriate workers, Saudi nationals do not use

part of their income for remittances and consume more in the domestic economy. If, however, one national replaces four expatriate workers (Figure 9, Scenario 2), real output would decline by 0.8 percent relative to the baseline after five years. This could be because there are insufficient Saudi nationals with the skills to replace the expatriates at the offered wage rate, for example.

28. Additionally, if the real wage differential between nationals and expatriates does not reflect productivity differences, the impact on growth will be even more adverse. If firms are forced to pay higher wages to hire nationals, but the productivity of these workers is not commensurate with the wages paid, unit labor costs will increase. The impact will depend on whether firms can pass these higher costs on to consumers, or have to absorb them in their profit margins. Inflation will likely go up if markets are not competitive and costs are passed on, while if markets are competitive and it is more difficult to pass costs on, some firms will exit the market. In either case, the impact on growth relative to baseline would be more negative.



E. Conclusion and Policy Recommendations

29. Current policy shifts are first steps in mitigating major distortions visible in the Saudi labor market. Labor market policies can contribute to economic growth by facilitating a more efficient use of the country's labor resources, most notably women who are heavily underutilized.

30. However, model simulations suggest that the impact of labor market reforms on the economy is not always positive. While the expat levy increases fiscal revenues, model simulations indicate losses in output no matter who bears the burden of the levy and no employment gains as the wage gap remains large. If Saudization policies are to avoid having a negative impact on growth, two pre-conditions are needed: (i) that high-productivity national workers replace lower productivity expatriate workers; and that, (ii) a sufficient number of nationals are willing to work to replace the expatriate workers who leave, at a wage rate that reflects their productivity. Otherwise, outcomes for the economy could be negative, and even more so if unit labor costs increase and firms are forced to exit or prices rise.

31. These results and the analysis in previous sections point to the need for gradual implementation of labor reforms to minimize the impact on growth and for a comprehensive set of measures to ensure positive employment outcomes. The labor market reforms will involve a difficult adjustment for some companies, particularly those that are very reliant on expatriate labor. This calls for a gradual approach to implementing such reforms. A comprehensive and multi-pronged approach will also need to be implemented across different ministries and stakeholders to ensure positive employment outcomes, and the recently created Labor Market Policy Committee is well-placed to lead this work.

- **Reform expatriate labor policies.** Reforms that allow greater internal mobility of expatriate workers could reduce the wage differential between expatriates and nationals. This will require further reform of the expatriate labor policies, including of the sponsorship system (which have been liberalized in Oman, Bahrain and UAE) and residency rights (World Bank, 2018). Additional reforms to the visa system could seek to gradually reduce the number of visas available and target them more to higher skilled workers. This could be achieved by auctioning visas which would encourage the employment of expatriate workers in higher productivity jobs.
- **Change the role of the public sector.** The skills and reservation wages of Saudis are tilted towards public sector employment, particularly at lower skill levels. In this regard, the government needs to set clear expectations about the limited prospects for future public-sector employment to incentivize nationals to take private sector jobs, while also reviewing the structure of, and limiting the rate of growth of, public sector wages.
- **Remove remaining barriers to female employment.** The authorities are implementing several measures that will help increase female employment. More needs to be done, including by providing firms with sufficient financial help in defraying the cost of workplace reconfiguration to meet regulatory requirements and social norms.

- **Increase the efficiency of public spending on education to reduce skills mismatches.** Ongoing efforts to improve training for teachers, update and modify curriculum, bring the private sector into running some schools through pilot programs, and strengthen vocational training are all welcome reforms. The effectiveness of spending on education could also be improved. The evidence available shows that spending on education has not translated into high quality education. A diagnosis of the cost-benefit of education spending could be carried out for example through a public expenditure review. A dual-education system, which combines industry apprenticeships with formal vocational schooling, could be effective in addressing the skills mismatch.⁷ Fostering public–private partnerships for curriculum design and apprenticeships could also help align worker skills with private sector needs.
- **Review the effectiveness of wage subsidies.** Wage subsidies can offset the bias against first-time job seekers and reduce the cost of hiring nationals to private sector firms while the new employee is trained and learning on the job. International evidence (Almeida et al., 2014) suggests that the success of these programmes depends to a large extent on the specificities of the design (including the amount of the subsidy, the target group, and any attached conditions for employers). Further analysis is needed to determine whether wage subsidies have been appropriately designed to support a permanent increase in Saudi employment. On female employment, it is important to know whether subsidies have encouraged firms to make lump sum investments for hiring women.
- **Support private sector development.** The private sector can be the main engine of job creation if constraints to doing business, such as regulatory and administrative burden and lack of access to finance, particularly for SMEs are addressed.

⁷ The dual-education system is practiced in Germany, where it has helped match training with employers' needs and enabled low unemployment and success in high-end manufacturing (Rojewski, 2004).

Annex I. G20MOD

This annex provides a broad summary of G20MOD, a module of the IMF's Flexible System of Global Models (FSGM). The model is presented in greater detail in Andrle and others (2015).

1. **G20MOD is an annual, multi-economy, forward-looking, model of the global economy combining both micro-founded and reduced-form formulations of economic sectors.** G20MOD contains individual blocks for the G-20 countries, and 5 additional regions to cover the remaining countries in the world. The key features of a typical G20MOD country model are outlined below, noting any special circumstances that are applied for Saudi Arabia.
2. **Consumption and investment have microeconomic foundations.** Specifically, consumption features overlapping-generations households that can save and smooth consumption, and liquidity-constrained households that must consume all of their current income every period. Firms' investment is determined by a Tobin's Q model. Firms are net borrowers and their risk premia rise during periods of excess capacity, when the output gap is negative, and fall during booms, when the output gap is positive.
3. **Trade is pinned down by reduced-form equations.** They are a function of a competitiveness indicator and domestic or foreign demand. The competitiveness indicator improves one-for-one with domestic prices—there is no local-market pricing. For Saudi Arabia, most exports are oil, so competitiveness changes play a small role in the model.
4. **Potential output is endogenous.** It is modeled by a Cobb-Douglas production function with exogenous trend total factor productivity (TFP), but endogenous capital and equilibrium employed labor. The equilibrium labor is determined by equilibrium rate of unemployment of the labor force. For Saudi Arabia, potential output also moves one-for-one with the long-run average production of oil (but not cyclical swings in oil production).
5. **Consumer price and wage inflation are modeled by semi-structural forward-looking Phillips' curves.** They include weights on a lag and a lead of inflation and a weight on the output gap. Consumer price inflation also has a weight on the real effective exchange rate and second-round effects from food and oil prices. Given that energy prices in Saudi Arabia do not respond to global oil price developments, there is no feed-through from oil price changes to CPI inflation in the Saudi Arabia bloc.
6. **Monetary policy is governed by an interest rate reaction function.** For most countries, it is an inflation-forecast-based rule working to achieve a long-run inflation target. For Saudi Arabia, the monetary reaction function defends its fixed nominal exchange rate against the U.S. dollar. This means in tandem with the risk-adjusted uncovered interest rate parity condition, Saudi Arabia must, in the face of shocks, set its monetary policy interest rate equal to that of the United States to defend its peg.

7. G20MOD captures a complete set of bilateral migration and remittance flows. The population, labor force, and employment distinguish between “domestic” and “foreign” households. The wage differential between the two groups is used as a proxy for the relative productivity of the two groups. The relative productivity of both types of labor are reflected in the potential output of the economy. Expatriate workers are assumed to remit a fraction of their disposable income to their countries of their origin. All expatriate workers are assumed to be liquidity constrained, consuming all their disposable income left after sending the remittances.

8. There are three commodities in the model—oil, metals, and food. This allows for a distinction between headline and core consumer price inflation, and provides richer analysis of the macroeconomic differences between commodity-exporting and importing regions. The demand for commodities is driven by the world demand and is relatively price inelastic in the short run due to limited substitutability of the commodity classes considered. The supply of commodities is also price inelastic in the short run. Countries can trade in commodities, and households consume food and oil explicitly, allowing for the distinction between headline and core CPI inflation. All have global real prices determined by a global output gap (only a short-run effect), the overall level of global demand, and global production of the commodity in question.

9. In Saudi Arabia, oil is the main commodity that is produced and exported, and is a dominant feature of the model. Exports of oil respond largely to Saudi production decisions. A share of oil revenues are assumed to accrue to the government, the remainder to Aramco, the state oil company. This means that oil price fluctuations affect government revenues, but have little effect on household wealth as households have no direct ownership stake in the oil sector. Oil prices also have little effect on households’ and firms’ decisions, as oil prices are held fixed domestically. The government, which has a large stock of financial assets, is assumed to set long-run fiscal policy with the aim of maintaining this asset stock, although in the short-run fiscal policy can result in significant deviations away from this target.

10. Countries are largely distinguished from one another in G20MOD by their unique parameterizations. Each economy in the model is structurally identical (except for commodities), but with different key steady-state ratios and different behavioral parameters. As noted above, the parameterization of Saudi Arabia is strongly determined by the fact that its economy is dominated by oil.

References

- Almeida, R., Orr, L. and Robalino, D. 2014, "Wage subsidies in developing countries as a tool to build human capital: Design and implementation issues," *IZA Journal of Labor Policy*, Vol. 3, No. 1, p. 12.
- Andrle, M. and others, 2015. *The Flexible System of Global Models – FSGM*, IMF Working Paper No. 15/64 (Washington: International Monetary Fund).
- Caliendo, M., Künn, S., Schmidl, R. 2011. "Fighting youth unemployment: The effects of active labor market policies", *IZA Discussion Paper No. 6222* (Bonn).
- Card, D., Khluve, J. and Weber A. 2010. "Active labor market policy evaluations: A meta-analysis" *The Economic Journal*, Vol. 120, No. 548, pp. F452–77.
- Hertog, S. 2010. "Benchmarking SME policies in the GCC: A Survey of Challenges and Opportunities." Brussels: Eurochambers and FGCCC.
- _____, 2013. "The Private Sector and Reform in the Gulf Cooperation Council." Kuwait Programme on Development, Governance and Globalization in the Gulf States. The London School of Economics and Political Science
- International Monetary Fund, 2013. "Labor Market Policies for Addressing Saudi Unemployment", IMF Country Report No. 13/230, Washington, DC: International Monetary Fund.
- Khandker, S.R., Koolwal, G.B., Samad, H.A. 2009. *Handbook on Impact evaluation: quantitative methods and practices* (English). Washington, DC: World Bank.
- Koyame-Marsh, R.O. 2016. "Saudization and the Nitaqat programs: overview and performance." *Journal of Accounting, Finance and Economics* 6, 36–48.
- Ramady, M. 2013. "Gulf unemployment and government policies: prospects for the Saudi labour quota or Nitaqat system," *International Journal of Economics and Business Research*, Inderscience Enterprises Ltd, vol. 5(4), pages 476-498.
- Rojewski, J. W., (Ed.) 2004. "International Perspectives on Workforce Education and Development", (Greenwich, Connecticut: Information Age Publishing).
- Peck, J. 2017. "Can Hiring Quotas Work? The Effect of the Nitaqat Program on the Saudi Private Sector." *American Economic Journal: Economic Policy*, May 2017: 9(2)
- World Bank, 2013. *World Development Report 2013: Jobs*. Washington, DC: World Bank. DOI: 10.1596/978-0-8213-9575-2, Washington D.C: World Bank.
- _____, 2015. *Jobs or Privileges: Unleashing the Employment Potential of the Middle East and North Africa. MENA Development Report*. Washington, DC: World Bank.
- _____, 2018. "Deepening Reforms" *Gulf Economic Monitor Issue 2*. Washington, DC: World Bank.

HOW DEVELOPED AND INCLUSIVE IS THE FINANCIAL SECTOR IN SAUDI ARABIA?¹

Continuing to foster financial development and inclusion is a key objective under Vision 2030 to promote economic growth and to increase the resilience of the economy to shocks and in Saudi Arabia. Using a benchmarking exercise, this paper finds that the banking sector is relatively well developed in terms of depth and efficiency. In terms of financial access, however, Saudi Arabia appears to be behind peers, especially for SMEs and women. To promote greater financial development and inclusion, policies should continue to focus on underserved segments such as women and SMEs, as has been set out in the authorities' recent Financial Sector Development Program (FSDP). The authorities should continue to maintain their strong focus on financial stability while pursuing their financial development and inclusion objectives.

A. Background

1. **Saudi Arabia is continuing to develop its financial sector to boost growth and contribute to greater economic diversification.** The Financial Sector Development Program (FSDP), which was adopted in May 2018, aims at developing a diversified and effective financial sector to support the development and diversification of the economy, and stimulate savings, finance, and investment.
2. **A growing body of theoretical and empirical evidence shows that financial development and inclusion exert a powerful positive influence on long-run economic growth.** Countries with well-developed financial systems tend to grow faster over the long-term (Levine 2005, and Demirgüç-Kunt and Levine 2008). A well-developed financial system can efficiently mobilize domestic and foreign savings for investment and effectively allocate resources to the most productive sectors, foster sharing of information, and better diversify financial risks. Most types of financial inclusion also help increase economic growth (Sahay and al, 2016). On the other hand, a shallow financial system hampers macroeconomic policy transmission, poses challenges for macroeconomic stability, and does not help promote inclusive growth (Dwight and Radzewicz-Bak, 2012).
3. **The objective of this paper is to assess Saudi Arabia's level of financial development and inclusion and to recommend policies to address identified gaps.** The paper is organized as follows: Section B provides an overview of the financial system. Section C benchmarks Saudi Arabia on financial development and inclusion, based on cross-country comparisons and relative to its economic and structural fundamentals. Section D discusses government initiatives to promote financial inclusion and development. Section E provides policy considerations.

¹ Prepared by Abdullah Al-Hassan (WHD), Ali Al-Sadiq (FIN) Anta Ndoye (MCD), Reem alJaber and Walid Alzahrani (SAMA) with inputs from Muhammad Almuzaini (CMA). Research and editorial support was provided by Tucker Stone and Diana Kargbo-Sical. The authors are grateful to the participants at the seminars at SAMA and the IMF for their helpful comments.

B. Structure of the Financial System

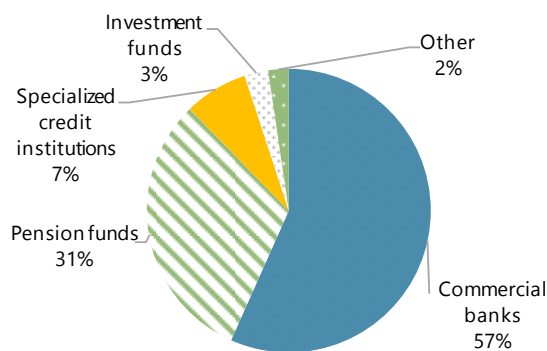
4. The financial system in Saudi Arabia is fairly diversified (Figure 1). With assets of about \$1.1 trillion (159 percent of GDP) at end-2017, the financial sector includes 24 commercial banks (57 percent of the total); pension funds (31 percent); four government specialized (non deposit-taking) credit institutions (SCIs) (7 percent), investment funds (3 percent); and other financial institutions, including insurance and finance companies (2 percent).

5. The banking sector dominates the financial system. The commercial banks include 12 domestic banks (four of which have large public-sector ownership) and 12 foreign banks (1 percent of total assets), with the four largest banks representing 55 percent of banking system assets.² Bank cross-border exposures in funding and lending are limited and regionally diversified, with the latter representing less than 15 percent of system assets (FSSA, 2017).

6. Banking sector assets have remained broadly unchanged as a share of GDP and non-oil GDP over the past decade (Figure 2). Banks' business model is to intermediate private sector deposits (75 percent of total liabilities; end-2017), with demand deposits accounting for 59 percent of total deposits, for lending (62 percent of total). One third of the assets are in investments, cash and reserves, and only a small proportion from fixed and other assets (Figure 3). Lending to corporates accounts for 34 percent and lending to households for 20 percent of total assets, respectively. Among the latter, mortgage loans comprise only about one-fourth of the total while the remainder is consumer and credit card loans. Direct exposure to the government is limited (6 percent of total assets) while credit to government and public enterprises was 10.6 percent of GDP in 2016.

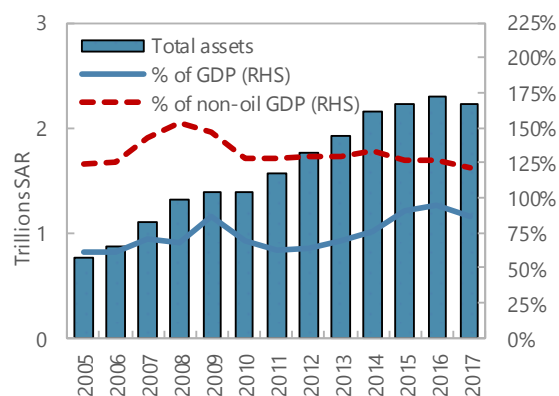
7. Specialized Credit Institutions (SCIs) provide credit to the private sector. SCIs offer medium to long-term loans to sectors requiring further development; are mostly funded by direct budgetary support; and have no leverage, as balance sheets consist entirely of government equity (Box 1). As of end-2017, SCIs' total assets were 11 percent of GDP (17 percent of non-oil GDP) compared to 10 percent in 2009 (16 percent of non-oil GDP).

Figure 1. Financial System Structure, 2017 1/
(In percent of total)



Source: SAMA
1/ Total assets of US\$ 1.1 trillion (about 159 percent of GDP)

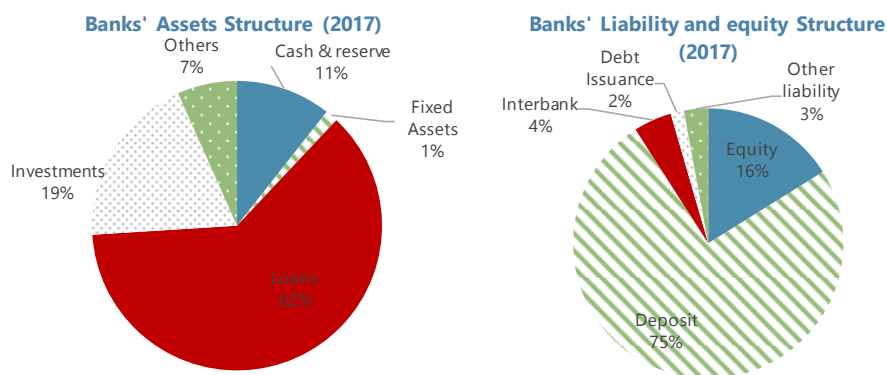
Figure 2. Banking Sector Assets



Source: SAMA.

² Saudi British Bank (SABB) and Alawwal Bank struck a preliminary agreement to merge in May 2018. This merger would create Saudi Arabia's third-largest bank.

Figure 3. Banks' Assets and Liabilities



Sources: Banks' financial statements; and SAMA calculations.

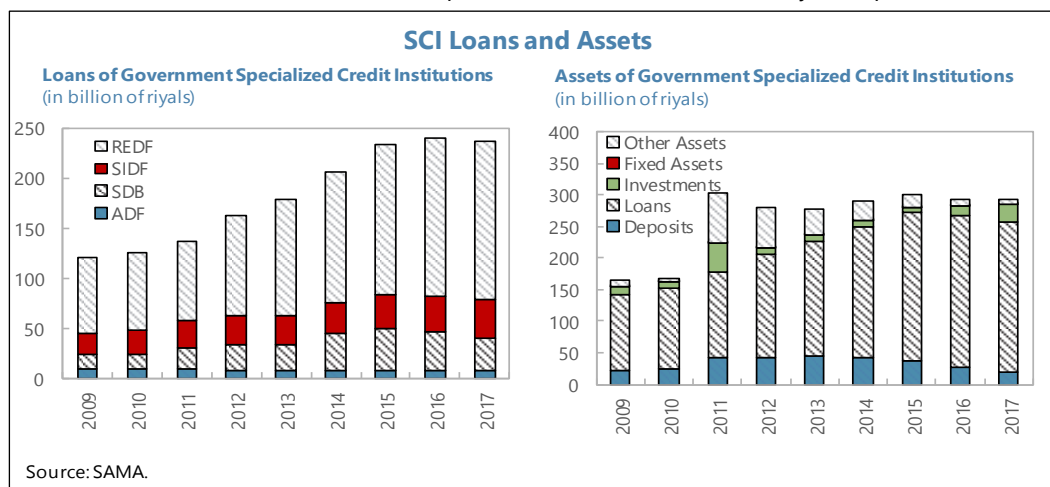
Box 1. Specialized Credit Institutions in Saudi Arabia

Specialized credit institutions (SCIs) play an important role in providing credit in Saudi Arabia.

SCIs were established to direct credit to targeted areas of the economy including housing, industrial projects, and small and medium-sized enterprises (SMEs). In particular, the Saudi Industrial Development Fund (SIDF) finances industrial projects; the Real Estate Development Fund (REDF) finances individuals and corporate residential and commercial real estate; the Social Development Bank (SDB) provides interest-free loans for small and emerging businesses and professions as well as low-income citizens; the Saudi Agricultural Development Fund (SADF) finances farmers and agricultural projects;

Until 2015, SCIs were supervised and organizationally linked to the Ministry of Finance which, along with their respective Boards of Directors, was responsible for overseeing their operations. However, the government decided to align SCIs with the relevant line ministries, and as a result: (i) REDF reports to the Ministry of Housing; (ii) the SADF to the Ministry of Environment, Water and Agriculture; (iii) the SDB reports to the Ministry of Labor and Social Affairs, and (iv) the SIDF to the Ministry of Energy, Industry and Mineral Resources.

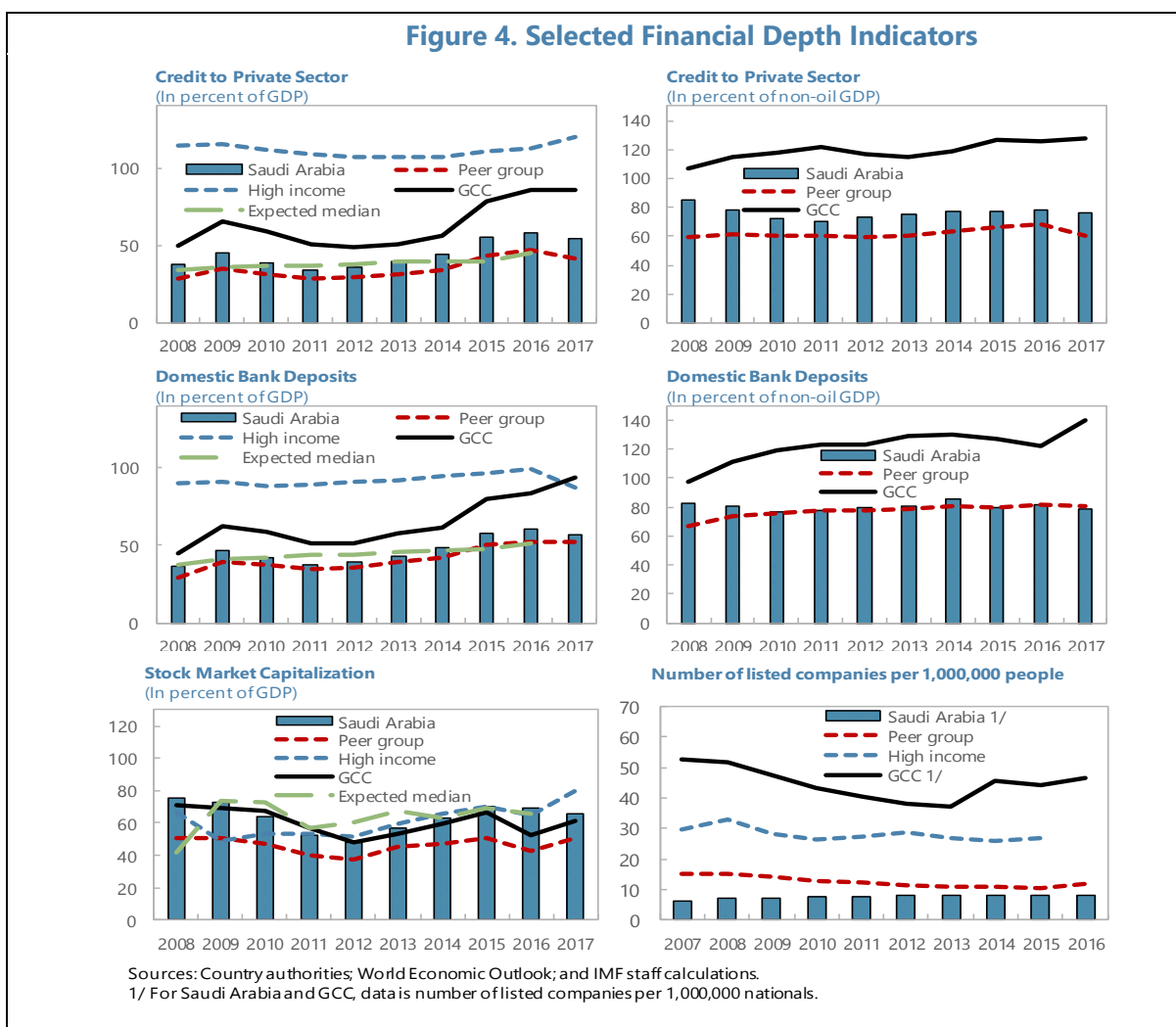
SCIs are non-deposit taking entities that rely on direct budgetary support and, at the margin, internally generated cash to fund credit activities. A significant amount of credit to the private sector in Saudi Arabia – equivalent to around 18 percent of banking sector credit– is provided by SCIs. However, the financial condition and performance of SCIs are not very transparent (FSAP, 2017).



C. Benchmarking Saudi Arabia's Level of Financial Development and Inclusion

8. Saudi Arabia's financial depth and bank profitability are benchmarked relative to its economic and structural fundamentals and a group of peer countries. The benchmarks are: (i) a peer group of oil exporting countries; (ii) other GCC countries; (iii) high income countries; and (iv) statistical benchmarks (expected medians) derived from a regression framework following the World Bank's FinStats 2017 (Feyen, Kibuuka, and Sourrouille, 2016). Statistical benchmarks are estimated based on structural and economic non-policy fundamentals. By excluding policy-driven factors, the benchmarks determine the level at which Saudi Arabia would be expected to perform in a policy-neutral environment (see Annex 1 for further details).

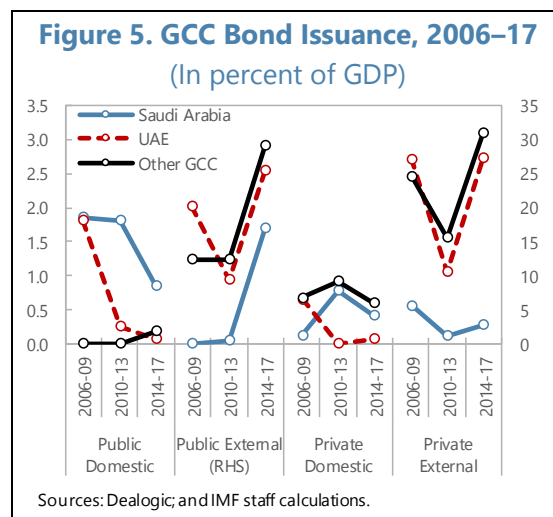
9. Indicators of financial depth generally suggest the banking system is well developed (Figure 4). Specifically, bank private credit and deposits to GDP are in line with the peer group and the statistical benchmark (expected median), although lower than high-income countries and the average of other GCC countries.³ The results are indifferent to the use of GDP or non-oil GDP.



³ Credit to private sector is higher if SCIs credit is added.

10. Indicators of capital market development offer a mixed picture (Figure 5). Stock market capitalization to GDP is comparable to peers and the statistical benchmark, but the number of listed companies per 1 million people is very low.

Furthermore, stock market capitalization (as a percent of non-oil GDP) has declined over the last decade, from around 107 percent in 2008 to 92 percent in 2017. The 10 largest companies represent 60 percent of the total market capitalization (Annex 1). The investor base remains undiversified and dominated by Autonomous Government Institutions (AGIs) while foreign ownership is small, despite the recent increase as restrictions on foreign investors have been eased. Debt markets are underdeveloped, with a benchmark yield curve lacking, no local rating agency, and a limited secondary market. The domestic corporate bond market is small at less than 1 percent of GDP as most companies rely on equity or bank loans for finance (Figure 5).



11. When compared to peer groups, the financial system in Saudi Arabia is profitable (Figure 6). The banking system has a lower cost-to-income ratio and a higher return on assets compared to peers. Net interest margins (NIMs) are higher compared to high-income countries and in line with the GCC average and statistical benchmarks. NIMs have been relatively stable due to large proportions of deposits not receiving interest (for compliance with Islamic principles) and a high share of variable-rate loans, which allow changes in banks' funding costs to be swiftly passed on to customers (FSAP, 2017).⁴

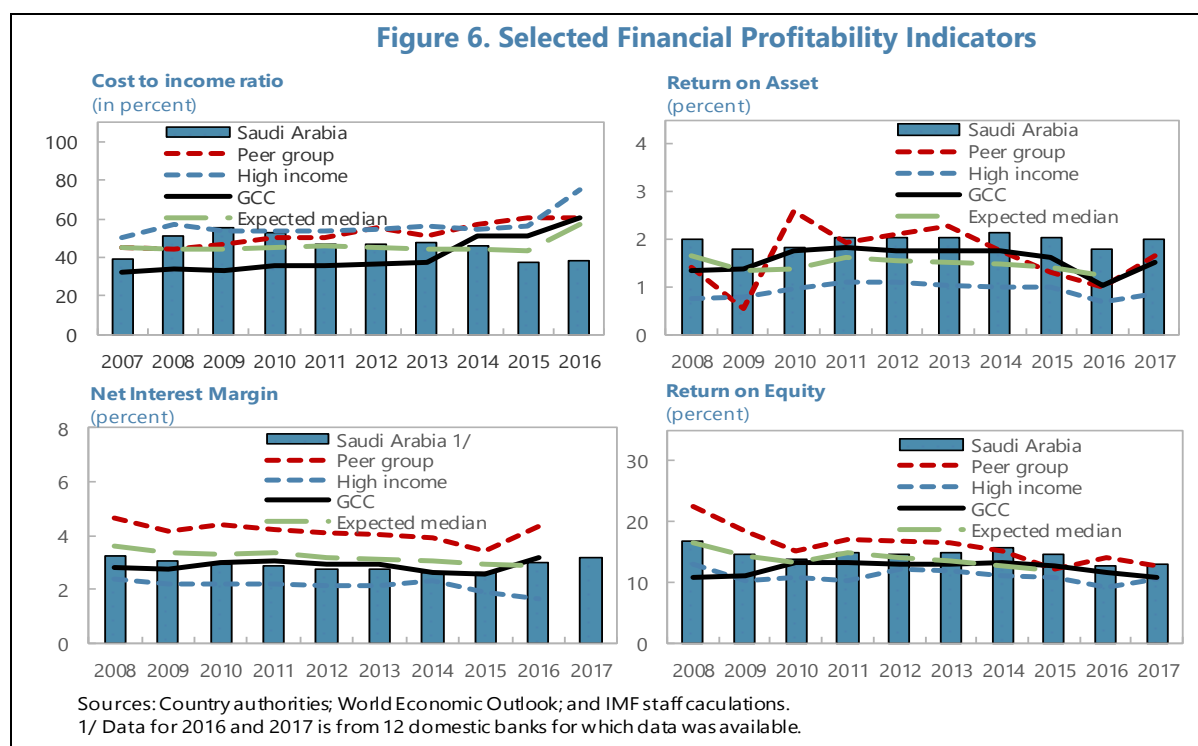
12. Financial access and inclusion in Saudi Arabia is below that of other peers in the region and high-income countries (Figure 7). Saudi Arabia appears to have a less inclusive financial sector compared to countries of similar income per capita on some measures. (Figure 8, top right panel; see Annex 2 for further details).

- **Physical access has remained stagnant, but the share of population with access to formal financial institutions has increased.** Physical financial access (measured by commercial branches per 100,000 adults) has remained stagnant over the last decade and is lower than in high income countries and GCC averages, but the share of the population with accounts at formal financial institutions increased to 72 percent in 2017 relative to 46 percent in 2011.⁵ It is lower, however, than the high-income countries and GCC average (Figure 7).⁶

⁴ Out of 12 local banks in Saudi, four exclusively offer Shari'ah compliant products, with the rest offering a mix of Shari'ah compliant and conventional products.

⁵ The Hafiz program, started in 2011, aims to support unemployed citizens by helping them find a job and offering them a government allowance. It required enrollees to have a bank account and contributed to the increase in access to the financial sector, especially among females. Indeed, only 15 percent of females had a bank account in 2011, compared to 61 percent in 2014.

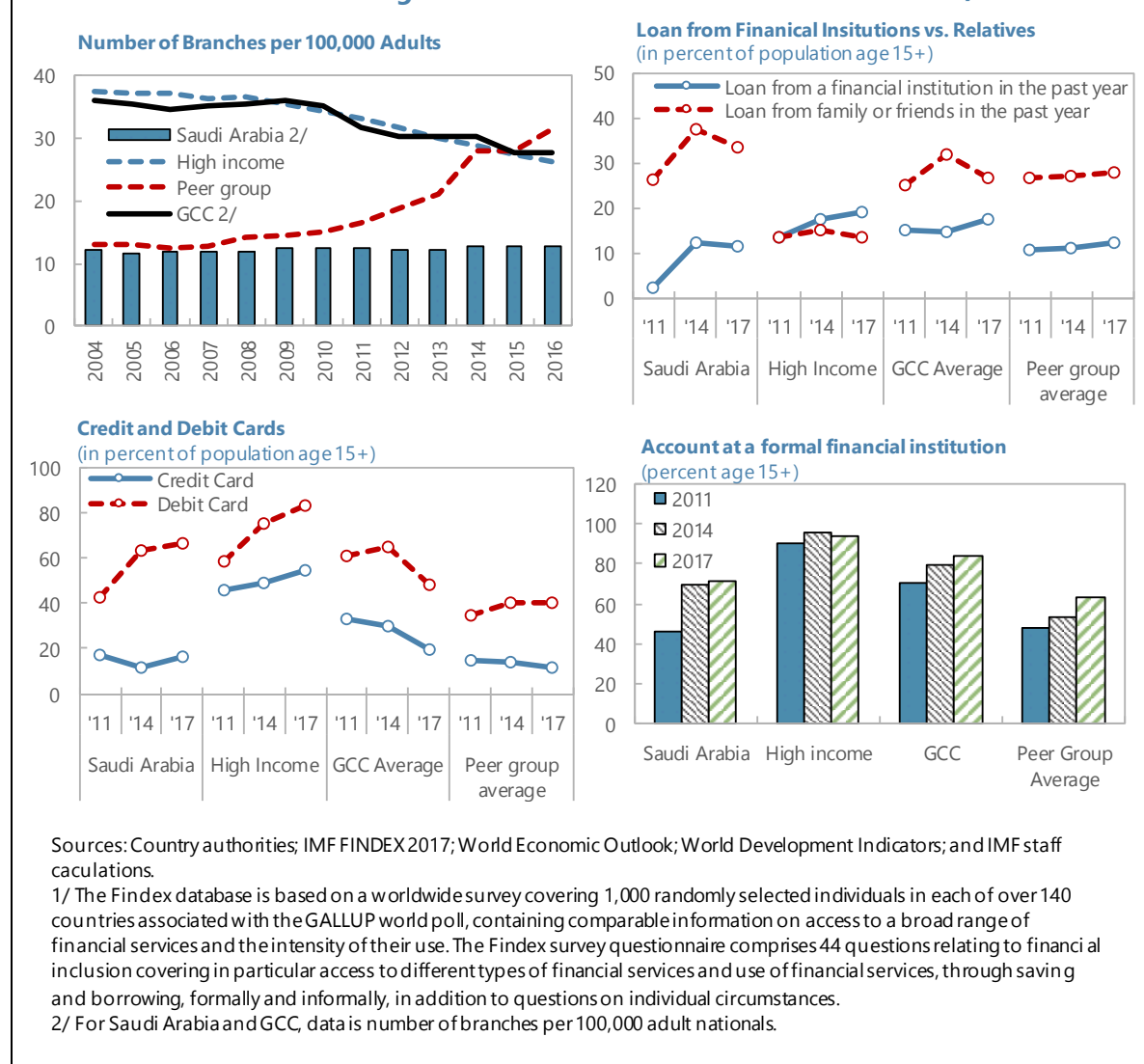
⁶ These numbers are based on the Global Findex Survey, which include Saudi nationals, Arab expatriates, and non-Arabs who were able to participate in the survey in Arabic or English. There is no available information on financial access by nationals only.



- Informal finance plays an important role in Saudi Arabia.** According to the Findex database, the usage of financial services is particularly low as the share of the population that borrowed from a financial institution was around 11 percent in 2017 (Figure 7). In contrast, about 33 percent of adults in Saudi Arabia reported having borrowed informally compared to 13 percent in high-income and 26 percent in GCC countries. Households rely on informal financing channels, where peer financing (whether inside the work place or within the family) remains the dominant source of financing, with bank loans being the residual.
- The usage of digital banking is also relatively low.** High mobile phone and internet penetration facilitate customer reach through digital banking (Box 2). However, the usage of digital banking is low compared to peers in the region, with only 25 percent of Saudi adults using mobile phones or the internet to access an account in 2017 compared to an average of 33 and 52 percent for GCC countries and high-income countries respectively (Figure 8).
- There is a gender gap in access to finance and it has increased.** About 80 percent of male adults had an account at a financial institution in 2017 (75 percent in 2014), compared to 58 percent of female adults (61 percent in 2014). The percent of credit card holders among female adults is around one third of that among males. The usage of loans and mortgages by males is also significantly higher than by females. There is also a large gender gap in e-banking usage (Figure 8). Gender inequality in financial inclusion explains a substantial share of overall inequality in financial inclusion.⁷ Low female employment and the fact that many households use a single account could be among the explanatory factors.

⁷ Aslan et al., 2018 derive Gini coefficients of inequality of financial access from the micro-level data in Global Findex, using the methodology for the computation of income Gini. The financial access Gini is then decomposed into various components to show the contribution of gender inequality to the Gini.

Figure 7. Selected Financial Access Indicators 1/

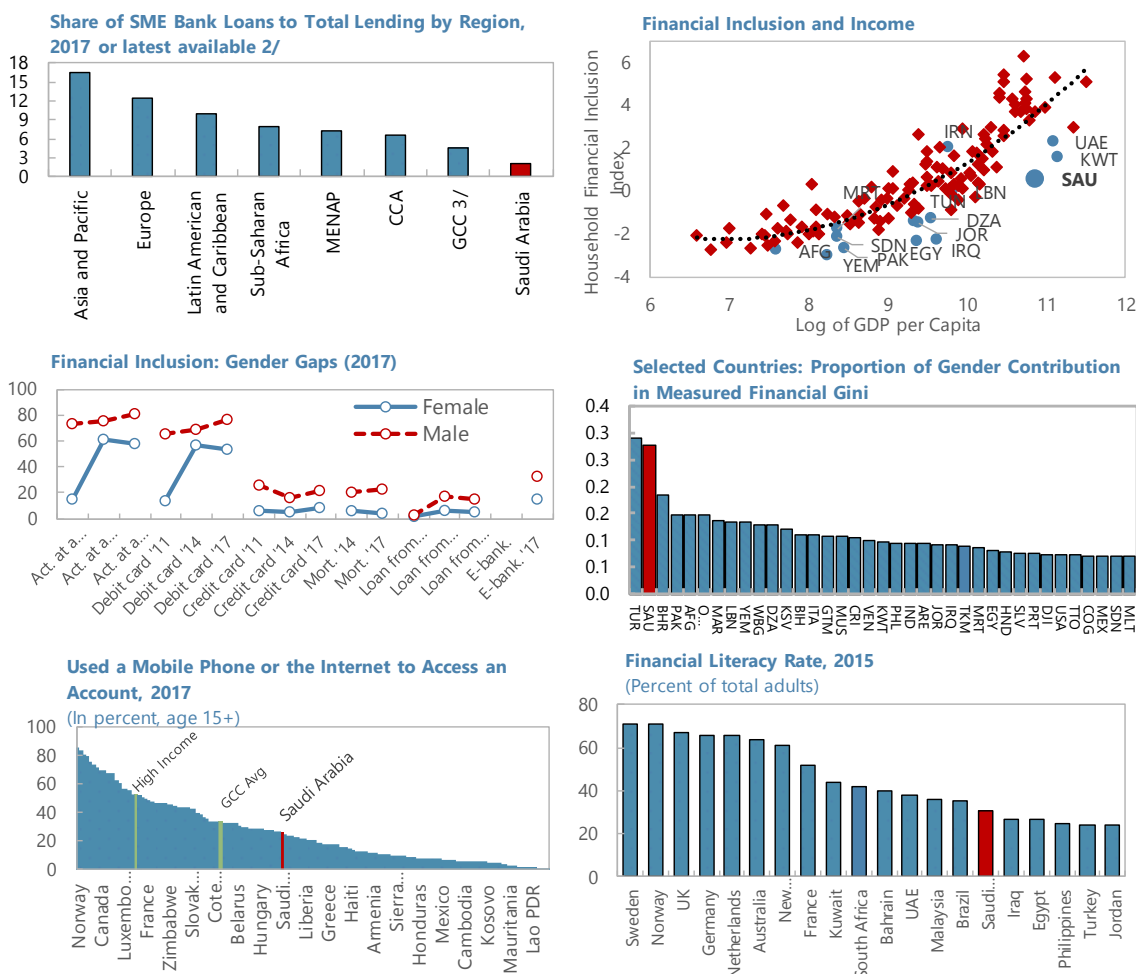


- **Financial literacy could be improved.** Levels of financial literacy among adults in Saudi Arabia are lower than in other GCC countries as well as many developed and developing countries (Figure 8). About 7 percent of adults cite religious reasons for their voluntary exclusion from the financial sector (Global Finindex, 2017).
- **Bank lending to SMEs is low.** SME borrowing from banks is very low, with an average of 2 percent of total loans, in line with the GCC average, but lower than the 7 percent average in the MENAP region, and other regions (Figure 8).^{8,9} Several institutional constraints explain low access to finance for SMEs (Box 3).

⁸ This is based on the previous definition from SAMA: an entity with revenue less than SAR 30 million is considered as small and an entity with revenues ranging from SAR 30 to 100 million is considered as medium. Based on the new SME classification, developed by the SME authority, SMEs are now defined as firms with 1-249 employees and/or revenues up to SAR 200 million and lending to SMEs may be higher.

⁹ Credit to SMEs could be higher if SCIs credit were available and added to bank credit.

Figure 8. Financial Inclusion 1/



Source: IMF FINDEX 2017; SAMA and staff calculations; GASTAT; World Bank; IMF Fund Financial Access Survey; and IMF staff calculations.

1/ The Findex database, compiled by the World Bank, is based on a worldwide survey covering 1,000 randomly selected individuals in each of over 140 countries associated with the GALLUP world poll, containing comparable information on access to a broad range of financial services and the intensity of their use. The Findex survey questionnaire comprises 44 questions relating to financial inclusion covering in particular access to different types of financial services and use of financial services, through saving and borrowing, formally and informally, in addition to questions on individual circumstances

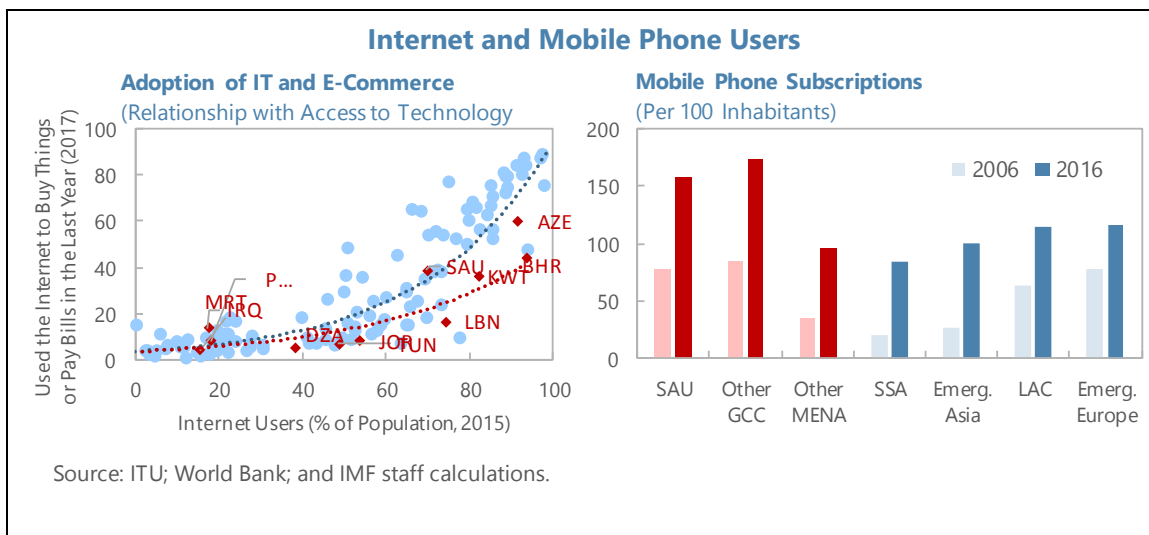
2/ SME lending is based on each country's own classification. This data is compiled from the IMF Financial Access Survey, World Bank, and country authorities.

3/ For GCC, data for Qatar and Bahrain is not available.

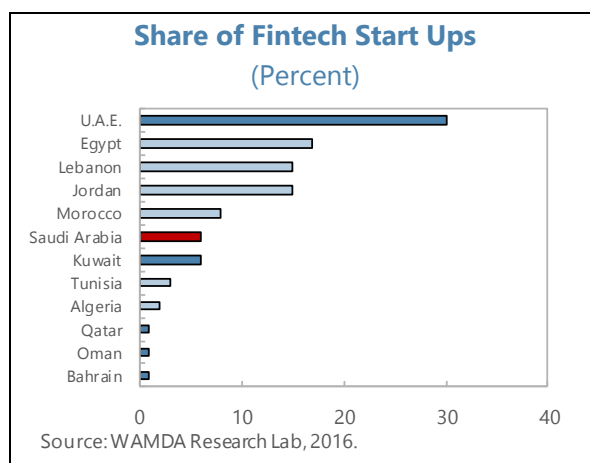
Box 2. Fintech in Saudi Arabia

Technology, in particular Fintech, can lower transaction costs related to access and usage of financial services. Fintech, including mobile banking, e-banking, and e-wallets has become a relatively inexpensive tool to help individuals use banking services and enter the financial market. It can also lower transactions costs for banks and governments by making credit history data and other information on customers readily available.

There is an untapped potential for greater adoption of Fintech. The high share of millennials provides a large pool of potential consumers and growing e-commerce creates demand for digital financial products, while the high mobile phone and internet penetration facilitate customer reach.



However, the fintech ecosystem is still in the developing stage in Saudi Arabia. The government aims to make Saudi Arabia a strong Fintech hub and increase the number of fintech companies. However, only a few Fintech-related startups have emerged compared to the rest of the region. The usage of e-banking is also low compared to peers in the region with only 25 percent of Saudi adults using e-banking in 2017.



Box 3. SME Development

The development of the SME sector is a key priority for the authorities. SMEs and young firms are generally a key contributor to employment and job creation.¹ In Saudi Arabia, SMEs, estimated at nearly 1 million, account for around 95 percent of registered businesses, 38 percent of jobs (of which 80 percent are expatriate workers) and 20 percent of GDP, according to the latest GASTAT survey. The majority of SMEs, about 70 percent, are concentrated in low-productivity sectors such as retail and trade, agriculture and fishing, accommodation and food. 88 percent of SMEs are micro firms, with up to 5 employees.

SMEs face several institutional constraints to access to finance. Since their introduction in 2004, the coverage of credit registries (as a percentage of the population) has increased over time. However, overall firm coverage to total population remains low. Borrower and lenders rights are also an issue. Saudi Arabia scores very low relative to its comparable groups on the strength of the legal rights index from the Doing Business Report which measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending, particularly for SMEs.¹ This leads banks to charge higher risk premia and impose strict collateral requirements. The poor quality of SME financial statements also leads banks to raise collateral requirements to levels that many SMEs cannot meet. Low levels of financial literacy may also be a factor affecting SME credit demand.

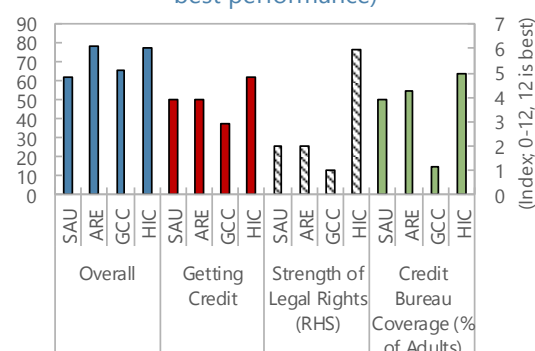
A number of other important challenges need to be tackled to support SME's development.

According to a survey conducted by GASTAT, 27 percent of SME managers see workforce issues as an important obstacle to their development and 32 percent see bureaucracy as a major obstacle to starting a business.

¹ Ayyagari, Demirgüç-Kunt, and Maksimovic (2011) report that formal SMEs account for about 50 percent of employees in developing countries. They also find that SMEs create a greater share of net jobs relative to large firms even after they account for job destruction. Empirical work by Haltiwanger, Jarmin, and Miranda (2010) suggests that start-ups and surviving young businesses are particularly critical for job creation.

² SMEs generally have limited sources of traditional collateral (e.g., real estate) and any use of collateral needs to be underpinned by an effective legal framework that supports creditor rights and facilitates the exercising of that collateral if necessary.

Doing Business Indicators 1/
(0-1 scale unless otherwise indicated, 100 is the best performance)



Source: Doing Business Indicators.

1/ These indicators should be interpreted with caution due to a limited number of respondents, a limited geographical coverage, and standardized assumptions on business constraints and information availability.

D. Government initiatives

13. Saudi Arabia is introducing reforms to achieve a more inclusive and developed financial sector.

The Financial Sector Development Program (FSDP) covers several key pillars including: improving SMEs' access to finance, supporting Fintech development, promoting financial literacy, increasing national savings, and promoting capital market development.

- **Increasing SME's access to finance:** The authorities aim to increase bank lending to SMEs from around 2 percent to 20 percent by 2030. In order to achieve this target, plans are underway to

increase the capital of the *Kafalah* Program, a partial credit guarantee scheme (Box 4), enable the credit bureaus (e.g., SIMAH and Bayan) to collect SME data, provide alternative SME funding options (e.g., private equity and venture capital, through the “Fund of Funds” and SME Investment Fund), and develop a program to improve the financial literacy of SMEs. The SME Authority was established in October 2015 to coordinate the government’s overall strategy for SMEs and is working on reviewing the regulations to remove barriers to access to finance for SMEs and improving the supply of creditworthy SME businesses. The SME Authority has developed a uniform SME definition, as different definitions of SMEs were previously applied which made it difficult to collect, compare, and consolidate data on SMEs. The recent passage of the bankruptcy law is an important reform that will strengthen borrower and creditor rights. The commercial pledge law was also recently updated, and the collateral registry now covers movable collateral which will allow businesses—particularly SMEs—to leverage their assets into capital for investment. The authorities also plan to build a national online factoring platform to develop factoring solutions for businesses, especially SMEs.

- **Programs are being developed to enhance financial literacy:** To increase the overall level of adult financial literacy to 50 percent by 2030, the government is putting in place a financial literacy entity. The entity will coordinate financial education programs to limit the overlaps in initiatives led by different providers, develop financial education content with the Ministry of Education, launch and run major awareness campaigns, and provide consumers with financial planning advice through platforms (e.g., call center, online platform).
- **Fintech initiatives:** SAMA signed a deal with U.S.-based Ripple to help banks settle payments using blockchain software. The pilot program supports banks with training to use Ripple’s software to instantly settle payments sent into and out of the country. SAMA is also working with the Central Bank of United Arab Emirates to issue a digital currency that would be accepted in cross-border transactions between the two countries. In January 2018, the Capital Market Authority (CMA) published guidance to enable qualifying applicants to test their FinTech solutions related to securities activities in a lighter touch regulatory framework (Fintech lab). SAMA is also developing its own regulatory sandbox.
- **Capital market reforms:** To develop the equity market, the CMA has eased restrictions on foreign investors, strengthened trading infrastructure, taken steps to improve corporate governance including strengthening protection for minority shareholders, and opened a secondary equity market for smaller companies.¹⁰ FTSE Russell and MSCI recently announced that Tadawul would be included in its EM indices from 2019. Measures are being taken by the Debt Management Office (DMO) to support the development of the debt market, including by establishing a primary dealer system, allowing some flexibility in the pricing of government debt issuances, developing a sukuk program, announcing a regular issuance program, and registering all government debt securities with the Tadawul. Trading of these securities started in April 2018 and secondary market liquidity should increase once primary dealers are operational. The DMO is also planning to issue shorter and longer-dated bonds to extend the yield curve. These

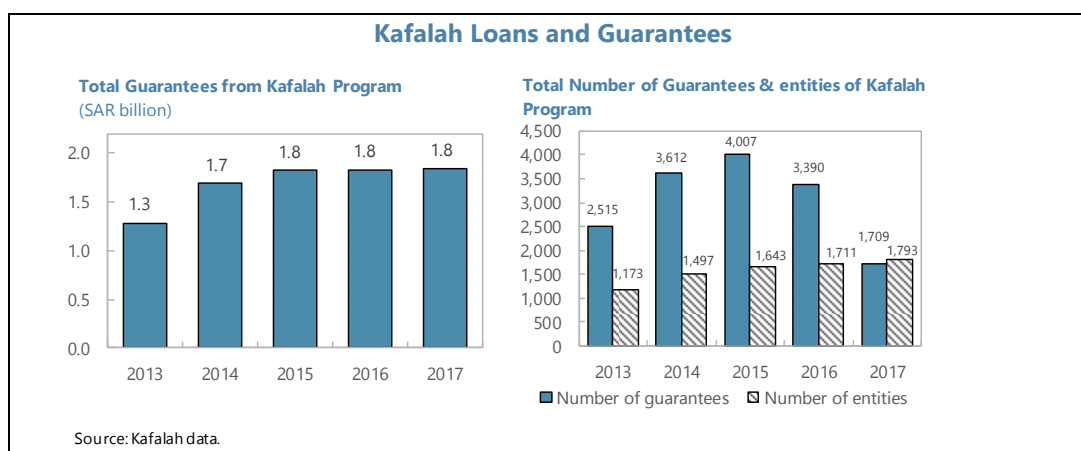
¹⁰ The Nomu market was launched on 26th February 2017. It is a parallel equity market with lighter listing requirements that serves as an alternative platform for companies to go public, and the investment in this market is restricted to Qualified Investors. It could function as an important vehicle for facilitating the listing of SMEs. One of the main objectives of establishing Nomu is to be an additional source of funding for smaller companies and to increased diversification and deepening of the capital market.

measures will help develop a government yield curve which in turn will support more private issuance. On private issuance, the ability to more easily set up special purpose entities will also help with the issuance of Sharia-compliant instruments. Disclosure requirements for large listed companies have been eased and medium-term note programs permitted.

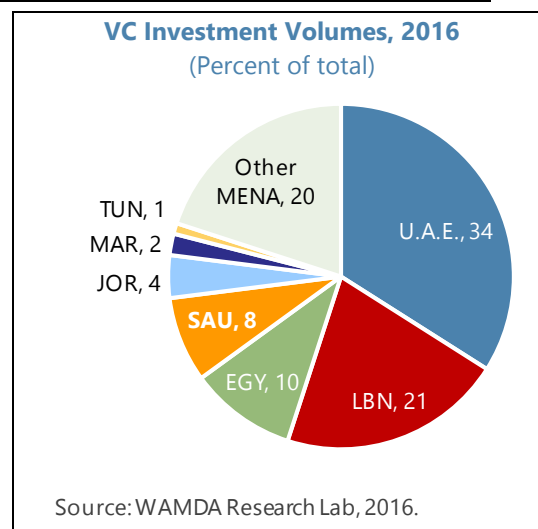
Box 4. Government Support to SMEs

SMEs play a vital role in the Saudi economy. The authorities' focus on enhancing the SME sector as one of the objectives of Vision 2030, aiming to increase the SMEs contribution to the economy from 20 percent of GDP to 35 percent of GDP by 2030. However, SMEs face various challenges, most notably government bureaucracy and limited access to financing from the banking sector (about 2 percent of total lending from banks). In order to solve this issue, the government has designed different programs that support SMEs, among them:

- Kafalah program:** Established in 2006, the partial guarantee scheme guarantees up to 80 percent of the loans to SMEs by banks in case of default. Since its inception, Kafalah has provided guarantees for bank loans to 10,583 SMEs, of which 80 percent are in the construction, trade and services sectors. Since inception, those guarantees have amounted to SAR 10.8 billion (0.4 percent of GDP) and covered on average 55 percent of total loans to SMEs. A royal decree has recently approved a SAR 800 million increase in the capital of Kafalah Program. The program is also being restructured to improve its focus on specific sectors (e.g. tourism) and regions as well as its operational efficiency.



- Fund of Funds:** established under the PIF with a capital of SAR 4 billion. It aims to invest in private equity and venture capital funds on a commercial basis in order to support and incentivize investments, including in SMEs. There is currently very little venture capital (VC) financing to start-ups in Saudi Arabia compared to the rest of the MENA region.
- Social Development Bank** provides loans for small and emerging businesses and professions as well as low income citizens.
- Saudi Industrial Development Fund** finances SMEs' industrial projects.



E. Policy Recommendations

14. The financial system in Saudi Arabia is generally well developed, although the use of equity and bond financing is quite limited and financial inclusion could be increased. The authorities are actively working to increase the development and inclusiveness of the financial sector to support their objectives of fostering the non-oil economy and achieving strong and inclusive growth. Many of the policies they are pursuing in the FSDP are aimed at addressing the gaps identified by the analysis in this paper. In addition to, or as part of, the policies being implemented, it will be important to:

- **Address institutional constraints to SME lending.** The authorities should continue to focus on improving legal credit infrastructures and ensuring that recently or soon to be introduced laws are effectively implemented. Further development of alternatives to bank finance, particularly expansion in leasing and factoring, private equity, and venture capital, could also help increase access to finance for SMEs and ease funding constraints. The SME authority should help companies fully understand the benefits of improved corporate governance practices, particularly in areas of risk management and audit. Broader efforts to improve the business environment would also help support SME development.
- **Foster financial inclusion through social programs and digital banking.** Tying social assistance programs to the opening of a bank account (as was done with Hafiz), while reducing administrative and institutional hurdles could help encourage financial inclusion. In this regard, the citizen's accounts (introduced in 2017) which provides compensation to Saudi families through the banking system, and the wage protection system (introduced in 2013), which requires most firms in the private sector to pay their employees through the banking system, will help increase financial access. Digital banking can foster financial inclusion by facilitating access to financial services by unbanked populations such as women and remotely-located population.
- **Adopt a targeted approach to financial education.** Financial education has a measurable impact if it reaches people during teachable moments, for instance, when they are starting a job or purchasing a major financial product (i.e., mortgage) (Global Financial Development Report, 2014). Leveraging social networks tends to enhance the impact of financial education and could be effective, given high mobile and internet penetration in Saudi Arabia (Barajas et al., 2017). Financial education targeted at Islamic products could be useful as a portion of voluntary financially excluded people cite religious reasons as a reason for their exclusion. Broad efforts to promote financial literacy and savings, and assure investor protection through greater transparency and better governance arrangements would help mobilize funds to the capital markets.
- **Continue to implement policies that will further develop the debt market.** The DMO is in a good position to facilitate the development of local debt markets by continuing to develop the sovereign yield curve. The existing regulatory framework for corporate bond and sukuk issuance could be improved by streamlining the public offering route. A clear and consistent treatment of zakat across financial instruments and financial institutions is needed.

- **Enhancing the production of financial services data and measurement.** Improved data on unbanked markets/customers is needed to underpin a sustainable expansion in access to finance. SAMA could partner with other institutions such as GASTAT and the SME authority to enhance data availability related to access, usage, and quality.
- **Address policy impediments to Fintech growth.** Countries where mobile banking services develop tend to have supportive regulatory frameworks such as legal recognition of electronic signatures and adequate consumer protection. Such regulation should also not impose restrictions on the development of mobile banking, such as limits on nonbanks to use e-money. A comprehensive consumer protection framework and data protection law that apply to financial and non-financial institutions involved in digital finance should also be developed. Continued use of regulatory sandboxes would allow fintech companies and traditional financial institutions to test innovations in a live environment while facilitate better understanding of fintech risks and ensure that regulations are appropriately designed. Developing private equity and venture capital industries would also be useful as these industries have underpinned growth of fintech in advanced economies. On the demand side, financial literacy and trust constitute major constraints to fintech development (WAMDA 2016; Lukonga ;2018).¹¹

15. A detailed analysis of the degree of competition in the financial sector would be useful as the authorities continue to develop their reform program. Assessing whether there are any unnecessary barriers to competition in the financial sector that may limit banks' willingness to penetrate higher-risk markets would be useful. A diverse and competitive financial sector—one that includes different types of financial providers and financial markets—is helpful in supplying the range of products and services necessary for financial inclusion and development (Love and Martínez Pería, 2012).

16. As they further their financial development and inclusion objectives, the authorities will need to maintain their strong focus on financial stability. Banks in Saudi Arabia are well regulated and supervised and remain liquid, resilient and sound (FSSA, 2017). This is very important, particularly given the reliance of the Saudi economy on volatile oil prices.

¹¹ The recent MENA survey of fintech start-ups (WAMDA,2016) identifies customer education as one of the main obstacles to Fintech development

Annex I. Benchmarking Exercise

1. We benchmark indicators of financial sector depth and efficiency in Saudi Arabia are benchmarked against (i) a peer group of oil exporting countries¹ (ii) the 5 others GCC; (iii) high income countries²; and (iv) statistical benchmarks (expected medians) derived from a regression framework following the World Bank’s FinStats 2017 (Feyen, Kibuuka, and Sourrouille, 2016). Statistical benchmarks are estimated based on structural and economic non-policy fundamentals. By excluding policy-driven factors, the benchmarks determine the level at which Saudi Arabia’s would be expected to be in a policy-neutral environment. The controls include a set of factors that can be viewed as external to policy, at least in the short run. The factors fall under these five types:

- Economic development factors —Economic development, as measured by GDP per capita, affects financial development, due both to demand effects (the volume and sophistication of financial activity increases with income) and to supply effects (larger, richer economies can achieve economies of scale and benefit from more competition and better infrastructure). To account for potential non-linearities linking economic and financial development, the square of GDP per capita is also included.
- Population factors — countries with larger populations can have deeper and more efficient financial systems (a scale effect). Financial services can also be provided at a lower cost in countries with higher population density (a network effect).
- Demographic factors — age dependency ratios, that is, the non-working young and old populations, respectively, as fractions of the labor force, are likely to affect savings and lending patterns.
- “Special circumstances” — oil exporters may have smaller financial sectors than other countries at similar levels of income, reflecting the fact that oil revenues can boost GDP out of proportion with the country’s overall level of economic and financial development. Offshore financial centers with intensive cross-border operations can also have disproportionately large financial sectors. Landlocked countries encounter structural challenges in accessing international markets, which will impact the composition and performance of the real economy, and, as a result, financial development.
- Time: global cycle —all available country-year observations are pooled.

2. Maximizing model fit was used as a criterion to select the final set of controls from the large pool of potential controlling factors. Since OLS is sensitive to outliers, median regressions are used instead.

¹ Peer group consists of Algeria, Angola, Azerbaijan, Brunei Darussalam, Bahrain, Equatorial Guinea, Gabon, Ecuador, Colombia, Iran, Iraq, Kazakhstan, Kuwait, Libya, Oman, Qatar, Russia, Trinidad and Tobago, United Arab Emirates, and Venezuela.

² High income countries are Advanced Economies as classified by the IMF.

Annex II. Financial Inclusion Index

1. The financial inclusion index is constructed as a composite indicator of the following indicators from the World Bank Global Financial Development Database

- Account at a formal financial institution (% age 15+)
- Loan from a financial institution in the past year (% age 15+)
- Saved at a financial institution in the past year (% age 15+)
- Saved any money in the past year (% age 15+)
- Credit card (% age 15+)
- Debit card (% age 15+)
- Branches of commercial banks per 100,000 adults
- Automated Teller Machines (ATMs) per 100,000 adults

2. **The Financial inclusion index reduces multidimensional data into a summary index using principal component analysis (PCA).** Principal component analysis groups together individual indicators which are collinear to form a composite indicator that captures as much as possible of the information common to individual indicators. The idea is to account for the highest possible variation in the indicator set using the smallest possible number of factors. As a result, the composite index no longer depends upon the dimensionality of the data set but rather is based on the statistical dimensions of the data. Given the wide-ranging nature of the exercise, the first principal component can be interpreted to summarize the latent information on the degree of financial inclusion. The combined information from these various financial indicators embodies around 70 percent of the variance in the data.

References

- Aslan, G., C. Deléchat, M. Newiak, and F. Yang. 2017. "Inequality in Financial Inclusion and Income Inequality," IMF Working Papers 17/236, Washington, DC: International Monetary Fund.
- Ayyagari, M., A. Demirguc-Kunt, and V. Maksimovic. 2011. "Small vs. young firms across the world: contribution to employment, job creation, and growth". Policy Research working paper; no. WPS 5631, Washington, DC: World Bank.
- Barajas, A., M. Cihak, and R. Sahay. 2017. "A Broader Reach," Finance and Development March 2017, Vol. 54, No. 1, Washington, DC: International Monetary Fund.
- Demirgüç-Kunt, A. and R. Levine. 2008. "Finance, Financial Sector Policies, and Long Run Growth", M. Spence Growth Commission Background Paper, No 11, Washington, DC: World Bank.
- Dwight, N. and B. Radzewicz-Bak. 2012. "Challenges Posed by Shallow Financial Systems", IMF Background Note, Washington, DC: International Monetary Fund.
- Feyen, K., and D. Sourrouille. 2016. "Fin Stats 2016: A ready-to-use tool to benchmark financial sectors across countries and over time. User's Guide and Benchmarking Methodology", Washington, DC: World Bank.
- Goyal, R., C. Mash, R. Narayanan, W. Shengzu, and S. Ahmed. 2011. "Financial Deepening and International Monetary System", IMF staff discussion note No. 11/16, Washington, DC: International Monetary Fund.
- Haltiwanger, J., R. S. Jarmin, and M. Javier. 2010. "Who Creates Jobs? Small vs. Large vs. Young". US Census Bureau Center for Economic Studies Paper No. CES-WP- 10-17.
- International Monetary Fund (IMF). 2012. "Enhancing Financial Sector Surveillance in Low Income Countries: Financial Deepening and Macro-Stability", Washington, DC: International Monetary Fund.
- _____. 2012a. "Enhancing Financial Sector Surveillance in Low Income Countries: Background Paper", Washington, DC: International Monetary Fund.
- _____. 2012b. "Enhancing Financial Sector Surveillance in Low Income Countries: Case Studies", Washington, DC: International Monetary Fund.
- International Monetary Fund (IMF). 2017. "Saudi Arabia: Financial System Stability Assessment", Washington, DC: International Monetary Fund.
- Jeddah Chamber of Commerce. 2016. "Small Medium Enterprises in Saudi Arabia Report", Jeddah.
- Levine, R. 2005. "Finance and Growth: Theory and Evidence", Handbook of Economic Growth, edition 1, volume 1.
- Love, I. and M. S. Martínez Pería. 2012. "How Bank Competition Affects Firms' Access to Finance." Policy Research Working Paper 6163, Washington, DC: World Bank.
- Lukonga, I. 2018. "Fintech, Inclusive Growth, and Cyber Risks: A Focus on the MENA and CCA." IMF Working Paper, Washington, DC: International Monetary Fund.

Sahay, R., M. Čihák, P. N'Diaye, A. Barajas, R. Bi, D. Ayala, Y. Gao, A. Kyobe, L. Nguyen, C. Saborowski, K. Sviryzdenka, and R. Y. Seyed. 2015. "Rethinking Financial Deepening: Stability and Growth in Emerging Markets." IMF Staff Discussion Note 15/08, Washington, DC: International Monetary Fund

Sahay, R., M. Čihák, P. N'Diaye, A. Barajas, S. Mitra, A. Kyobe, Y. Nian Mooi, and R. Y. Seyed. 2015. "Financial Inclusion - Can It Meet Multiple Macroeconomic Goals?" IMF Staff Discussion Note 15/17, Washington, DC: International Monetary Fund.

WAMDA. 2016. "State of Fintech in MENA: Unbundling the Financial Services Industry." Dubai.

World Bank. 2014. "Global Financial Development Report 2014: Financial Inclusion". Washington, DC: World Bank. doi:10.1596/978-0-8213-9985-9.