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# Saudi Arabia: Financial System Stability Assessment—Update

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SAUDI ARABIA

**Financial System Stability Assessment Update**

Prepared by the Monetary and Capital Markets and Middle East and Central Asia Departments

Approved by José Viñals and Masood Ahmed

June 30, 2011

This Financial System Stability Assessment is based primarily on the work of a mission that visited Riyadh, during April 16–30, 2011, as part of the Financial Sector Assessment Program (FSAP) Update. The FSAP Update findings were discussed further with the authorities during the Article IV consultation mission in May 2011. The mission focused on potential threats to financial system stability, particularly in banking and capital markets, and the effectiveness of the regulatory and supervisory framework and the financial safety net. The key findings and recommendations are:

- Saudi Arabia has confronted the global financial crisis from a position of strength, and took decisive steps to manage the impact of the crisis. As a result, the financial system has weathered the crisis relatively well.
- The authorities have made progress implementing the recommendations of the 2004 FSAP. Many improvements have been made to bank and securities supervision.
- The banking sector as a whole is well capitalized and appears able to withstand severe temporary shocks, but could be vulnerable to a large and prolonged oil price decline.
- Steps to further strengthen the bank resolution regime, macroprudential policies, and the independence of bank supervision would be desirable.
- Recent measures to improve access to housing finance are welcome, but need to be accompanied by strong prudential oversight to limit future financial stability risks.

The Fund team comprised Karl Habermeier (mission chief), Åke Lönnberg, Étienne Yèhoué, Tahsin Saadi Sedik, and Niklas Westelius; and Peter Hayward and Martin Kinsky (external experts). The assessment was conducted jointly with a World Bank team comprising Roberto Rocha (mission chief), Cédric Mousset, Massimo Cirasino, Subkika Farazi, Olivier Hassler, Jonathan Katz, and Rodney Lester. The main authors of this report are Karl Habermeier and Åke Lönnberg with contributions from the other members of the FSAP team.

*FSAP assessments are designed to assess the stability of the financial system as a whole and not that of individual institutions. They have been developed to help countries identify and remedy weaknesses in their financial sector structure, thereby enhancing their resilience to macroeconomic shocks and cross-border contagion. FSAP assessments do not cover risks that are specific to individual institutions such as asset quality, operational or legal risks, or fraud.*

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## GLOSSARY

| | |
|---|---|
| BCL | Banking Control Law |
| CAR | Capital adequacy ratio |
| CMA | Capital Market Authority |
| CML | Capital Market Law |
| ELA | Emergency liquidity assistance |
| ETF | Exchange traded fund |
| FATF | Financial Action Task Force |
| FSAP | Financial Sector Assessment Program |
| GCC | Gulf Cooperation Council |
| GOSI | General Organization for Social Insurance |
| IFRS | International Financial Reporting Standards |
| LTD | Loan-to-deposit |
| LTV | Loan-to-value |
| MENA | Middle East and North Africa |
| MOCI | Ministry of Commerce and Industry |
| MOF | Ministry of Finance |
| MOU | Memorandum of Understanding |
| NBFI | Nonbank financial institutions |
| NPL | Nonperforming loan |
| OECD | Organization for Economic Cooperation and Development |
| PIF | Public Investment Fund |
| PPA | Public Pension Agency |
| RBA | Risk-based approach |
| REDF | Real Estate Development Fund |
| ROA | Return on assets |
| SAMA | Saudi Arabian Monetary Agency |
| SCI | Specialized Credit Institutions |
| SCSB | Saudi Credit & Saving Bank |
| SIDF | Saudi Industrial Development Fund |
| SME | Small- and medium-scale enterprise |
| SR | Saudi Arabian riyal |

## EXECUTIVE SUMMARY

### Findings

**Saudi Arabia confronted the global financial crisis from a position of strength.** In the years before the crisis, the authorities strengthened the balance sheet of the government and enhanced the financial sector's resilience. The available fiscal space allowed the authorities to substantially reduce the impact of the crisis. The initial effect of the recent political instability in the region has also been contained.

**The authorities have made progress in implementing the 2004 FSAP recommendations.** In particular, they have taken numerous and substantial steps to strengthen the regulation and supervision of banks and securities activities.

**The banking sector as a whole is well capitalized and appears able to withstand severe temporary shocks, but could be vulnerable to a large and prolonged oil price decline.** The aggregate solvency ratio remains above 8 percent for almost all of the individual shocks considered. However, the system could be vulnerable to a prolonged and deep oil price decline, especially if it were accompanied by a slowdown in domestic economic activity. Although this would leave the banking system insolvent, the cost of recapitalization would be modest in macroeconomic terms.

**The assessments of standards and codes show that compliance is generally high.** There have been improvements in banking regulation and supervision since the 2004 FSAP. In particular, the Saudi Arabian Monetary Agency (SAMA) introduced Basel II, and used Pillar 2 requirements to foster improvements in banks' risk management and capital planning. In supervision, risk-based approaches (RBAs) have been introduced. SAMA has also been active in introducing the new Basel III requirements. The Capital Market Authority (CMA) has developed a strong regulatory program in a short period of time that fully implements most international standards. Many critical aspects related to the payment and securities settlement systems are covered in the existing legal framework, although there still is no comprehensive payment systems law.

**Substantial reform is underway to promote mortgage and small- and medium-scale enterprise (SME) lending.** The objective is to expand mortgage and SME lending to meet key housing and employment challenges, while maintaining financial stability.

### Recommendations

**While bank supervision and regulation are highly effective, the legal framework is not fully up to date.** Revisions to the Banking Control Law (BCL) are needed, mainly to provide bank supervisors in SAMA with the formal independence envisaged in international standards. However, in practice, the existing law has not been an impediment to effective supervision. The authorities considered that in their institutional context, amending the law would be difficult, and they might prefer to issue new regulations to clarify and further solidify the independent exercise of regulatory and supervisory powers by SAMA. A further concern that needs to be addressed is bank lending to the large corporate groups that

are prominent in the Saudi economy. This calls for stronger regulation and supervision of large exposures and related party lending.

**Stress testing of the financial system and macroprudential policies should be further strengthened.** SAMA is already taking steps to increase staff with the technical background needed for stress testing. This will allow stress testing exercises to consider a wider range of shocks, including liquidity shocks. Stress tests should be conducted on a regular basis, with a mechanism to incorporate lessons into prudential rules and supervisory actions. Drawing on work in international fora, it would be desirable to develop a more formal and transparent macroprudential policy framework, notably with respect to the definition of objectives, the elaboration of analytical methods, and the policy toolkit.

**Systemic liquidity management, financial safety nets, and resolution frameworks have worked promptly and effectively in the past, but should be formalized and strengthened to enhance market discipline.** A formal legal framework for bank resolution should be established. Moreover, liquidity forecasting should be introduced, and steps should be taken to develop a robust yield curve.

**Progress is being made to expand housing finance and SME lending, but care must be taken to ensure sound and fair lending practices.** Recommendations in the housing field include prudent mortgage lending regulations, a housing market observatory that includes a housing price index, consumer protection norms, steps to improve loan origination and loan recovery in mortgages provided by public agencies, and sound long-term funding arrangements. Strong supervision of SME lending will be crucial.

**Strengthening the institutional investor base would contribute to the further development of capital markets.** Provided that effective prudential regulations are in place, foreign institutional investors could make important contributions to price discovery and market development. The role of the two large pension funds in capital market development could be enhanced through further disclosure of their investment policies. Moreover, a case can be made for additional outsourcing of portfolio management to efficient private investment managers operating with clear mandates. To ensure the sound development of the insurance sector, the seven functional regulations that have been drafted by SAMA should be enacted as soon as possible.

**Most of the recommendations in this report could be implemented over a horizon of a year or two.** Some, notably those that require the amendment of a law may take longer. The development of a more formal macroprudential framework may also require more time, as the understanding of these issues is still evolving. It will be crucial to maintain the ability of SAMA to play its role in ensuring the sound and efficient operation of the financial system.

## Table 1. Saudi Arabia: Key Recommendations

| Bank and securities regulation |
|---|
| • Update the BCL and remove need for ministerial approval of certain SAMA decisions. |
| • No longer allow large exposures up to 50 percent of banks' own funds. |
| • Broaden the definition of related parties in bank lending. |
| • Strengthen the CMA's regulatory transparency by fully disclosing all enforcement actions, interpretations, and funding rules. |
| **Systemic stability** |
| • Introduce a formal liquidity forecasting framework. |
| • Enhance data on cross-border financial activities of banks and corporates. |
| • Maintain a stable stock of government securities and regular issues to help anchor a robust yield curve. |
| • Introduce a payment systems law. |
| • Conduct stress tests with a wider range of shocks, including liquidity shocks, on a regular basis and incorporate lessons into supervision. |
| • Establish a formal early warning system for the banking sector. |
| • Develop a more formal and transparent macroprudential policy framework, drawing on work in international fora. |
| • Strengthen the legal framework for bank resolution. |
| **Expanding access to finance and preserving financial stability** |
| • As housing finance expands in the future, ensure loan soundness through strong prudential measures, notably lowering permissible loan-to-value and debt service ratios. |
| • Contract banks to manage both the existing and the new Real Estate Development Fund (REDF) portfolios. |
| • Complement mortgage reform by establishing a housing market observatory, developing consumer guidance options, and strengthening the developer industry. |
| • Prepare long-term funding solutions for mortgage finance, starting with a refinance facility. |
| • Create a modern, electronic, and unified registry for movable collateral. |
| • Enact and implement the draft Enforcement Law that introduces specialized enforcement courts operating with strict time-bound procedures. |
| • Closely supervise the quality of SME units in the banks, including the robustness of their internal rating systems and automated procedures. |
| **Insurance, institutional investors, and capital markets** |
| • Finalize and issue the outstanding functional regulations for insurance. |
| • Improve enforcement of mandatory motor third party liability insurance. |
| • Disclose the investment policies, portfolios, and portfolio performance of the Public Pension Agency (PPA) and General Organization for Social Insurance (GOSI) |
| • Further outsource the management of the portfolios of the PPA and GOSI. |
| • Permit foreign institutional investors to invest directly in domestic equities. |

## Table 2. Saudi Arabia: Risk Assessment Matrix

| Nature/Source of Main Threats | Likelihood of Realization in the Next Three Years | Expected Impact on Financial Stability if Risk is Realized |
|---|---|---|
| **A large and prolonged decline in the oil price** | ***Staff assessment: Low***<br><br>• The Saudi economy remains heavily dependent on the hydrocarbons sector, which is both the main wealth generator and a key source of volatility. A softening of global growth and an increasing global use of alternative energy sources could lower the global demand for oil with a negative impact on oil prices. Moreover, oil prices have been volatile historically. | ***Staff assessment: High***<br><br>• Will lead to a cut in public expenditures, with negative spillover effects on non-oil growth, and hence on the corporate and banking sectors.<br>• Will depress potential output and lower growth, with negative spillover effects on banks' asset quality (increase in nonperforming loans, NPLs) and earnings outlook.<br>• Could lead to bank insolvencies. |
| **A slowdown in non-oil GDP growth** | ***Staff assessment: Medium***<br><br>• A slowdown in non-oil GDP growth has occurred in the past, and would likely accompany sustained lower oil prices. | ***Staff assessment: Medium***<br><br>• Slower GDP growth would reduce credit demand and net interest margins, and possibly reduce fee and trading income.<br>• A weaker economy would dampen corporate and small business profits and employment, and undermine loan quality.<br>• Low financial profits would make it more difficult for banks to rebuild capital buffers. |
| **Deposit run** | ***Staff assessment: Low***<br><br>• Demand and short-term time deposits represent a large share of Saudi banks' funding base. For example, in August 1990, after the Iraqi invasion of Kuwait, the banking system lost 11 percent of customer deposits in one week. | ***Staff assessment: Medium***<br><br>• Fire sale of assets with negative impacts on banks' balance sheets.<br>• SAMA liquidity injections.<br>• Foreign reserves losses due to an increase in demand for foreign currency consequent to liquidity injections. |
| **Regulatory uncertainty** | ***Staff assessment: Medium***<br><br>• Regulatory reform, for example in the area of housing and SME finance, or capital markets, might proceed more slowly than expected.<br>• Regulatory measures across different sectors might not be adequately coordinated. | ***Staff assessment: Medium***<br><br>• Delays in regulatory reform could slow needed lending or give rise to stability risks.<br>• Lack of regulatory coordination across sectors could push financial activities into new (less well managed) channels, contributing to stability risks. |

# I. Macroeconomic Developments and Policies

## A. Response to the Global Financial Crisis

1. **Saudi Arabia confronted the global financial crisis from a position of strength.** In the years before the crisis, the authorities strengthened the balance sheet of the government and enhanced the financial sector's resilience. Public debt declined from 104 percent of GDP in 1999 to about 13 percent in 2008. The net foreign asset position strengthened from 23 percent of GDP to 92 percent during the same period, providing the fiscal space to respond forcefully to the crisis. During the oil boom, provisions for loan losses averaged 165 percent of NPLs and capital adequacy ratios (CARs) averaged 19 percent.[1]

2. **The operations of SAMA sought to shore up confidence in the financial system.** Within the context of the peg to the U.S. dollar, the authorities injected liquidity both in Saudi Arabian riyals (SR) and in dollars, lowered policy rates and reserve requirements, and announced that they continued to ensure the safety of local banks and bank deposits. As confidence returned, the authorities unwound most of the extraordinary liquidity support (Box 1).

3. **The strong policy response moderated the macroeconomic impact of the crisis.** The authorities front-loaded a large fiscal stimulus package in 2009. As a result, non-oil growth held up well in 2009, at 3.5 percent (Table 3). The direct effects of the crisis were felt through tighter global financing conditions and weaker investor confidence, putting downward pressure on local equity markets. The indirect impact was transmitted through a sharp reduction in oil prices in 2009 (36 percent) and cuts in oil production (8.7 percent). Inflation, after peaking at 11.1 percent in July 2008, decelerated to 4.2 percent by end-2009. The economy recovered in 2010, with continued support from an expansionary fiscal stance and an increase in global oil demand. Overall, real GDP increased from 0.1 percent in 2009 to 4.1 percent in 2010. Non-oil GDP growth reached 4.9 percent. Both the fiscal and external accounts improved in 2010, reflecting an increase in oil revenue. Inflation increased to 4.8 percent in April 2011.

4. **The crisis also had only a modest impact on the Saudi financial system.** At the onset of the crisis, banks' exposure to mortgage backed securities and other securitized assets amounted to only 3 percent of total assets. Nonetheless, global liquidity shortages did transmit to the Saudi interbank market, causing the spread between the Saudi interbank offered rate and the reverse repo rate to increase to over 200 basis points in October 2008. However, swift action by SAMA soon restored confidence in the market. The main impact on the financial system came through the banking sector's exposure to the defaults of two family conglomerates. Although banks absorbed these losses without signs of significant

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[1] The statutory minimum level of capital is 8 percent.

impairment to their balance sheets, the episode highlighted the need for more transparency and disclosure by conglomerates and stricter accountability for auditors.[2]

5. **Furthermore, despite increased economic integration among Gulf Cooperation Council (GCC) countries in recent years, spillovers from the Dubai World event in November 2009 were negligible.** The exposure of the Saudi banking sector was small—estimated at 0.2 percent of total assets—and the impact on equity prices and certificates of deposit spreads proved temporary as investors quickly differentiated Dubai from other GCC countries.

**Box 1. Saudi Arabia: Measures in Response to Global Crisis**

**Interest rate cuts and reduction in reserve requirements**

- ***Repo rate*:** The repo rate was cut by a cumulative 350 bps to 2 percent between October 2008 and January 2009.
- ***Reverse repo rate*:** The reverse repo rate was cut by a cumulative 175 bps to 0.25 percent between December 2008 and June 2009.
- ***Reserve requirements*:** Reserve requirements on demand deposits were cut by a cumulative 600 bps in October and November 2008.

**Liquidity injections/withdrawals**

- ***Liquidity injection*:** Beginning in late 2008, $3 billion in local and foreign currency were placed in banks, and about $4 billion in swaps. Government agencies injected $4.8 billion in long-term time deposits.
- ***Liquidity withdrawal*:** SAMA withdrew its time deposits and government entities' deposits with domestic banks, mostly by mid-2009.

**Safety of bank deposits**

- ***Statement on bank soundness:*** The authorities announced that they continued to ensure the safety of local banks and bank deposits. However, they indicated that the statement should not be interpreted as an open-ended blanket guarantee for deposits in banks.

## B. Recent Developments and Outlook

6. **Large fiscal packages were announced on February 23, 2011 and March 18, 2011, with substantial short- and medium-term implications.** The packages include public sector wage increases, expansion in public employment, unemployment benefits, and measures to improve access to housing. The packages are estimated to total about SR 400 billion or $110 billion (19 percent of 2011 GDP). Of this, an estimated SR 117 billion or $31 billion (5.5 percent of GDP) would likely be spent in 2011. Capital

[2] Nonlisted corporations, including the two conglomerates that defaulted, are estimated to receive about 50 percent of corporate credit. No data is publicly available for nonlisted corporations.

expenditures, particularly those related to housing, are expected to pick up slowly and be spread over several years.

7. **Despite the strong near-term outlook, the recent fiscal packages have increased vulnerabilities to a dip in the oil price, while raising long-term fiscal sustainability concerns.** Surging oil revenues are likely to improve fiscal and external balances, despite a massive fiscal expansion and heightened uncertainties in the oil market. The non-oil primary deficit has steadily increased from 40 percent of non-oil GDP in 2004 to 71 percent in 2010, and is projected to reach 81 percent in 2011, which will increase Saudi Arabia's dependency on oil and its vulnerability to protracted oil price shocks. The break-even oil price for 2011 is estimated to have risen to $80/barrel (higher if oil production is below the 9.3 million barrels per day projected), rising to $98/barrel by 2016.

8. **Inflation risks have risen due to both external and domestic factors.** Global food prices have continued to rise and are expected to increase by 22 percent in 2011. U.S. monetary policy remains accommodative, creating—given the exchange rate peg—a low interest rate environment in Saudi Arabia. Housing prices continue to rise due to the existing supply shortages and high pent up demand from the growing population. At the same time, the recent cash transfers—two month salary bonuses for public servants, subsequently matched by some private sector enterprises—injected significant additional liquidity into the domestic economy, which has been reflected in a sharp decline in the loan-to-deposit (LTD) ratio and the continued high level of deposits (particularly demand deposits) held by commercial banks at SAMA.

# Table 3. Saudi Arabia: Selected Economic Indicators, 2005–11

| | 2005 | 2006 | 2007 | 2008 | 2009 | Prel. 2010 | Proj. 2011 |
|---|---|---|---|---|---|---|---|
| | (Percent changes; unless otherwise indicated) | | | | | | |
| National income and prices | | | | | | | |
| Crude oil production (million of barrels per day) 1/ | 9.4 | 9.2 | 8.8 | 9.2 | 8.4 | 8.4 | 9.3 |
| Average oil export price (in U.S. dollars per barrel) 2/ | 50.9 | 61.4 | 68.0 | 93.0 | 59.2 | 75.8 | 101.9 |
| Nominal GDP (in billions of Saudi riyals) | 1,182.5 | 1,335.6 | 1,442.6 | 1,786.1 | 1,412.6 | 1,679.1 | 2,137.9 |
| Nominal GDP (in billions of U.S. dollars) | 315.8 | 356.6 | 385.2 | 476.9 | 377.2 | 448.4 | 570.9 |
| Nominal GDP per capita (in U.S. dollars) | 13,658.0 | 14,784.4 | 15,444.4 | 18,495.4 | 14,148.3 | 16,266.7 | 20,266.0 |
| Real GDP | 5.6 | 3.2 | 2.0 | 4.2 | 0.1 | 4.1 | 6.5 |
| Oil | 6.2 | -0.8 | -3.6 | 4.2 | -7.8 | 2.2 | 9.4 |
| Non-oil | 5.2 | 5.1 | 4.7 | 4.3 | 3.5 | 4.9 | 5.4 |
| Real GDP—Public Sector | 4.0 | 3.1 | 3.0 | 3.7 | 5.2 | 6.3 | 6.5 |
| Real GDP—Private Sector | 5.8 | 6.1 | 5.5 | 4.6 | 2.7 | 4.2 | 4.8 |
| Implicit GDP deflator 3/ | 19.3 | 9.5 | 5.9 | 18.8 | -21.0 | 14.1 | 19.6 |
| Oil | 37.2 | 17.5 | 13.6 | 31.6 | -33.6 | 24.5 | 30.2 |
| Non-oil | 4.1 | 3.7 | 1.6 | 3.1 | 3.3 | 5.0 | 5.4 |
| Consumer price index (all cities index) | 0.6 | 2.3 | 4.1 | 9.9 | 5.1 | 5.4 | 6.0 |
| External sector | | | | | | | |
| Exports f.o.b. | 43.3 | 16.9 | 10.5 | 34.4 | -38.7 | 30.6 | 34.9 |
| Oil | 45.9 | 16.5 | 9.1 | 36.9 | -42.0 | 32.0 | 39.0 |
| Non-oil | 24.6 | 20.0 | 22.1 | 16.5 | -9.9 | 22.8 | 10.2 |
| Imports f.o.b. | 32.8 | 17.0 | 29.3 | 22.9 | -14.2 | 11.9 | 24.7 |
| Current account balance (in percent of GDP) | 28.5 | 27.8 | 24.3 | 27.8 | 5.6 | 14.9 | 20.1 |
| Export volume | 11.3 | 2.4 | 1.3 | 10.4 | -13.7 | 12.1 | 18.5 |
| Import volume | 28.0 | 7.1 | 19.2 | 13.6 | -6.0 | 4.4 | 13.7 |
| Terms of trade | 31.7 | 8.6 | 1.6 | 22.8 | -26.4 | 16.7 | 19.6 |
| FDI (in billions of U.S. dollars) | 12.1 | 18.3 | 24.4 | 38.3 | 36.5 | 21.6 | 22.8 |
| Money and credit | | | | | | | |
| Net foreign assets | 59.0 | 52.5 | 30.1 | 43.8 | -3.1 | 7.3 | 20.8 |
| Domestic assets (net) | -8.4 | -16.8 | -16.0 | -130.9 | -77.0 | 4.3 | 634.8 |
| Claims on government (net) | -389.7 | 87.7 | 69.0 | 127.7 | -7.4 | 6.0 | 26.8 |
| Claims on private sector | 38.9 | 9.2 | 21.4 | 27.1 | 0.0 | 5.7 | 12.7 |
| Bank claims on state enterprises | 8.7 | 10.4 | 7.1 | -14.3 | -12.3 | 14.7 | 21.9 |
| Money and quasi-money (M3) | 11.6 | 19.3 | 19.6 | 17.6 | 10.7 | 5.0 | 11.6 |
| Deposit interest rate (in percent) 4/ | 3.8 | 5.0 | 4.9 | 3.3 | 0.9 | 0.7 | 0.9 |
| | (In percent of GDP) | | | | | | |
| Central government finances | | | | | | | |
| Revenue | 48.0 | 50.8 | 44.6 | 61.6 | 36.1 | 44.2 | 47.3 |
| *Of which: oil* | 42.7 | 45.3 | 39.0 | 55.1 | 30.8 | 39.9 | 43.6 |
| Expenditure | 29.6 | 29.8 | 32.3 | 29.1 | 42.2 | 38.9 | 38.0 |
| Current expenditure | 24.4 | 24.5 | 24.1 | 21.8 | 29.5 | 27.1 | 27.3 |
| Wage bill 5/ | 12.4 | 12.1 | 12.8 | 10.6 | 14.8 | 14.8 | 12.1 |
| Interest payments | 2.2 | 2.1 | 1.5 | 1.0 | 1.0 | 0.7 | 0.4 |
| Capital expenditure | 5.3 | 5.3 | 8.3 | 7.3 | 12.7 | 11.8 | 10.7 |
| Overall fiscal balance | 18.4 | 21.0 | 12.2 | 32.5 | -6.1 | 5.2 | 9.3 |
| Excluding oil revenue | -24.3 | -24.3 | -26.7 | -22.5 | -36.9 | -34.7 | -34.3 |
| Non-oil primary deficit/Non-oil GDP | -46.2 | -48.2 | -55.8 | -57.7 | -67.6 | -70.8 | -80.7 |
| Central government's gross domestic debt | 38.9 | 27.3 | 18.5 | 13.2 | 15.9 | 9.9 | 7.0 |
| General government fiscal balance | 21.9 | 24.6 | 15.8 | 33.5 | -5.1 | 5.9 | … |
| | (In percent of GDP) | | | | | | |
| Resource balance | | | | | | | |
| Gross investment 6/ | 18.2 | 18.7 | 20.5 | 22.8 | 25.2 | 22.9 | 20.0 |
| Government | 4.6 | 4.4 | 5.8 | 6.2 | 7.9 | 7.2 | 6.5 |
| Private | 11.9 | 13.1 | 14.7 | 13.3 | 15.8 | 13.5 | 11.7 |
| National saving | 46.7 | 46.4 | 44.8 | 50.5 | 30.7 | 37.8 | 40.0 |
| Government | 23.7 | 26.3 | 20.5 | 39.9 | 6.6 | 17.1 | 20.0 |
| Private | 23.1 | 20.1 | 24.3 | 10.6 | 24.1 | 20.7 | 20.1 |
| | (In billions of U.S. dollars; unless otherwise indicated) | | | | | | |
| Memorandum items: | | | | | | | |
| SAMA's total net foreign assets | 150.5 | 221.4 | 301.3 | 438.5 | 405.9 | 441.0 | 535.4 |
| In months of imports of goods and services 7/ | 15.7 | 18.1 | 20.1 | 31.9 | 27.5 | 25.1 | 27.3 |
| Total external debt 8/ | 29.8 | 42.6 | 75.9 | 83.4 | 89.7 | 90.1 | … |
| *Of which: short-term debt 8/* | 13.6 | 11.9 | 28.5 | 32.2 | 35.5 | 41.2 | … |
| Imports Goods & Services/GDP | 27.8 | 31.8 | 37.7 | 37.1 | 42.6 | 38.9 | 36.9 |
| Imports G&S/Total domestic absorption | 42.6 | 47.3 | 51.8 | 56.2 | 48.7 | 49.7 | 50.1 |
| Real effective exchange rate (2000=100) | 100.0 | 98.7 | 94.9 | 95.9 | 103.5 | 104.9 | … |
| Average exchange rate Saudi riyal/U.S. dollar | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | … |
| Population (millions) | 23.1 | 24.1 | 24.9 | 25.8 | 26.7 | 27.6 | 28.2 |
| All-Shares Price Index (TASI) | 167,126.4 | 7,933.3 | 11,176.0 | 4,803.0 | 6,121.8 | 6,620.8 | … |

Sources: Saudi Arabian authorities; and Fund staff estimates and projections.

1/ Includes production from the Neutral Zone and condensate.
2/ Includes refined products.
3/ Includes all mining, manufacturing, construction, and other activities of the oil sector.
4/ Three-month Saudi Arabian riyal deposits.
5/ Includes a 13-month salary in 2010, 2013, and 2016 linked to the lunar calendar.
6/ Includes changes in inventories.
7/ Next 12 months.
8/ BIS-IMF-OECD-World Bank external debt database. Starting in 2004, coverage of bilateral loans and trade credit is less comprehensive.

# II. Financial System Overview

## A. Commercial Banks

9. **Commercial banks are the largest sector of the financial system.** As of December 2010, there were 23 licensed banks, of which 20 were active (Table 4). Of these, 12 are Saudi incorporated banks whose assets account for 98 percent of banking system assets, or more than half of total financial system assets and 85 percent of GDP. As a percentage of GDP, bank assets and credit are comparable to those in other countries with similar characteristics. As in other GCC countries, loan portfolios are concentrated, reflecting limited lending to sectors such as SMEs and housing. Credit concentration risk has been mitigated by high capital requirements, but the small volumes of SME and housing finance may have adverse implications for economic growth and the welfare of the population. Sharia-compliant products are offered by commercial banks based on a single license for commercial banks. While all banks provide Sharia-compliant products, some banks provide only these products. SAMA considers the two types of banks as one system with different products.

10. **The banking sector is fairly concentrated.** The three largest banks together have a share of asssets and deposits of about 45 percent, and each of the next four has a share exceeding 5 percent. The dominant shareholders of the three largest banks are state entities, the fourth largest is linked to a family business group, and the next three have ties to major international banks. All banks with state participations appear to be run on a commercial basis. In addition, all banks but the largest (state-owned) are listed. This reflects a policy designed to ensure arm's-length relationships between banks and the large family-owned groups and to promote investments in banks by Saudi nationals. The market shares of the long established institutions have not been significantly affected by the entry of new banks in recent years. SAMA licensed two domestic banks in the mid-2000s, as well as several branches of foreign banks. The two new banks account for only 3 percent of banking assets; and foreign branches remain niche players with a 2 percent market share.

## B. Nonbank Financial Institutions and Capital Markets

11. **The five public specialized credit institutions (SCIs) still play a significant role.**[3] The SCIs are owned by the Ministry of Finance (MOF) and supervised neither by SAMA nor the CMA. The SCIs were designed to complement bank lending, and they provide medium- to long-term subsidized loans to industry, SMEs, housing, and agriculture. One SCI also has substantive equity participations in many state and private companies. The share of

[3] The SCIs are: the Saudi Industrial Development Fund (SIDF), which finances industrial projects; the Public Investment Fund (PIF), which finances large scale government and private industrial projects; the Real Estate Development Fund (REDF), which finances individuals and corporate residential and commercial real estate; the Saudi Credit & Saving Bank (SCSB), which provides interest-free loans for small and emerging businesses and professions and; the Agricultural Development Fund (SADF), which finances farmers and agricultural projects. SCIs are not deposit-taking institutions.

SCI credit in total credit has decreased significantly over time, but this trend was reversed during the crisis, as banks became reluctant to lend and SCIs stepped up their lending activity. Assets of the five SCIs account for 14 percent of total financial system assets, and their loan portfolios represent 24 percent of bank credit to the private sector. The government injected SR 10 billion in one SCI in 2010 and, more recently, announced an additional SR 70 billion injection into two SCIs, amounting to close to 20 percent of total SCI assets. Therefore, the share of SCIs in total credit is expected to increase temporarily.

12. **Two public pension funds are sizable institutional investors, with combined assets of 46 percent of GDP.** PPA, the larger of the two, manages the scheme for public workers, while GOSI manages the scheme for private workers. The two schemes operate defined-benefit plans financed primarily on a pay-as-you-go basis, but partially pre-fund their future liabilities and have accumulated large assets owing to the young demographic profile of participants. Total pension assets should grow further in the current decade as the two schemes are still running surpluses, especially GOSI. Asset growth is expected to taper off in the following decade, as the schemes mature.

13. **The assets of the other nonbank financial institutions (NBFI) remain very small.** The insurance sector is growing rapidly but is still small, with premia and assets of 1 percent and 1.5 percent of GDP in 2010, respectively. The life sector is very small, although it has been growing at faster rates in recent years. Mutual funds have grown in number, but their combined assets are only 6 percent of GDP, 60 percent of which are money market funds. Equity funds account for most of the remainder, and fixed income funds are negligible. The leasing sector also remains very small.

14. **There are 146 listed companies with a market capitalization of about 80 percent of GDP as of end-2010.** Market capitalization is dominated by financial companies (27.6 percent), petrochemicals (36.6 percent), and telecoms (9.9 percent). The equity market lacks a solid private domestic institutional investor base. Rather, the investor base consists primarily of retail investors and large state investors. The presence of foreign investors is very limited, as they are allowed only through equity swap arrangements, and participations in mutual funds or exchange traded funds (ETFs).

15. **Fixed income markets remain undeveloped.** The government debt market did not develop during the past decade, in part reflecting the decline in the stock of debt outstanding to a low level (10 percent of GDP in 2010). The redemption of public debt may make it more difficult to develop a robust benchmark yield curve. There have been some large but sporadic issues of corporate bonds and sukuks by a few large companies. Other fixed income instruments, such as covered bonds and mortgage backed securities, have not developed, but the still pending mortgage finance package is expected to provide the needed legal basis.

## Table 4. Saudi Arabia: Financial System Structure, 2007–10

| | 2007 | | | 2008 | | | 2009 | | | 2010 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Total Assets (In percent) | GDP (In percent) | Number | Total Assets (In percent) | GDP (In percent) | Number | Total Assets (In percent) | GDP (In percent) | Number | Total Assets (In percent) | GDP (In percent) |
| **Banks** | 17 | 48.2 | 74.4 | 20 | 54.8 | 72.6 | 20 | 53.8 | 96.3 | 20 | 52.4 | 84.9 |
| Domestic | 11 | 46.6 | 71.9 | 12 | 53.2 | 70.6 | 12 | 52.5 | 93.9 | 12 | 51.2 | 83.0 |
| Foreign | 6 | 1.6 | 2.5 | 8 | 1.6 | 2.1 | 8 | 1.4 | 2.4 | 8 | 1.2 | 1.9 |
| **Specialized Credit Institutions**[1/] | 5 | 13.7 | 21.2 | 5 | 14.0 | 18.6 | 5 | 13.6 | 24.4 | 5 | 14.3 | 23.1 |
| Saudi Real Estate Development Fund[1/] | | 4.1 | 6.3 | | 4.1 | 5.4 | | 4.1 | 7.4 | | 4.4 | 7.1 |
| Saudi Industrial Development Fund | | 0.8 | 1.2 | | 0.8 | 1.1 | | 0.9 | 1.6 | | 1.1 | 1.7 |
| Public Investment Fund | | 7.5 | 11.6 | | 7.5 | 10.0 | | 7.1 | 12.7 | | 7.3 | 11.8 |
| Saudi Credit & Saving Bank | | 0.4 | 0.6 | | 0.7 | 1.0 | | 0.7 | 1.2 | | 0.6 | 1.0 |
| Agriculture Development Fund | | 0.9 | 1.4 | | 0.9 | 1.1 | | 0.8 | 1.4 | | 0.7 | 1.2 |
| **Institutional Investors** | | 37.6 | 58.0 | | 30.6 | 40.6 | | 31.9 | 57.0 | | 32.7 | 53.1 |
| Insurance Companies | … | … | … | … | 0.6 | 0.9 | … | 1.0 | 1.7 | … | 1.1 | 1.7 |
| Life | … | … | … | … | 0.1 | 0.1 | … | 0.2 | 0.4 | … | 0.3 | 0.5 |
| Nonlife | … | … | … | … | 0.5 | 0.7 | … | 0.7 | 1.2 | … | 0.7 | 1.1 |
| Health | … | … | … | … | 0.0 | 0.0 | … | 0.1 | 0.1 | … | 0.1 | 0.1 |
| Mutual Funds | 233 | 4.7 | 7.3 | 262 | 3.2 | 4.2 | 266 | 3.6 | 6.4 | 267 | 3.5 | 5.7 |
| Money Market Funds | 49 | 1.5 | 2.3 | 57 | 1.8 | 2.4 | 61 | 2.2 | 3.9 | 56 | 2.2 | 3.5 |
| Public Pension Funds | 2 | 32.9 | 50.7 | 2 | 26.8 | 35.5 | 2 | 27.4 | 49.0 | 2 | 28.2 | 45.7 |
| GOSI[1/] | | 14.2 | 21.9 | | 11.9 | 15.8 | | 12.0 | 21.5 | | 12.4 | 20.1 |
| RPA[1/] | | 18.7 | 28.8 | | 14.9 | 19.8 | | 15.3 | 27.4 | | 15.8 | 25.6 |
| **Other Nonbank Financial Institutions** | | 0.4 | 0.7 | | 0.6 | 0.8 | | 0.6 | 1.1 | | 0.6 | 1.0 |
| Leasing Companies | … | … | … | … | … | … | … | … | … | … | … | … |
| Securities Firms | 80 | 0.4 | 0.7 | 110 | 0.6 | 0.8 | 110 | 0.6 | 1.1 | 97 | 0.6 | 1.0 |
| **Total Financial System** | | 100.0 | 154.0 | | 100.0 | 133.0 | | 100.0 | 179.0 | | 100.0 | 162.0 |
| **Memorandum Items** | | | | | | | | | | | | |
| Equity Market Capitalization | | | 134.9 | | | 51.8 | | | 84.8 | | | 79.8 |
| Outstanding Government Bonds | 83 | | 18.5 | 74 | | 13.3 | 62 | | 16.0 | 46 | | 10.0 |
| Outstanding Corporate Bonds | | | 1.1 | | | 1.2 | | | 2.0 | | | 2.2 |
| **Assets** (in millions of Saudi riyals) | | 2225772 | | | 2368365 | | | 2520066 | | | 2694371 | |
| **GDP** (in millions of Saudi riyals) | | | 1442572 | | | 1786143 | | | 1409124 | | | 1661624 |

1/ IMF staff estimates for end-2010.

### C. International Linkages

16. **Saudi Arabia is an open economy with a broadly liberalized financial account.** A notable exception are restrictions on foreign participation in the equity market. Foreign assets of the financial system (including SAMA) amount to over 130 percent of GDP. Trade and payments related to the petroleum sector are significant, as are the remittances of the large number of foreign workers.

17. **Detailed data on cross-border financial linkages are not available.** Foreign liabilities—almost exclusively in the banking system—remain relatively small at 6 percent of GDP. In recent years, domestic commercial banks have expanded their branch network to other countries, and foreign banks have increased their presence in Saudi Arabia. However, available information suggests that these cross-border linkages remain small and do not yet constitute a major channel for financial spillovers. By contrast, foreign assets and liabilities of the private nonfinancial sector, including nonlisted corporates, are likely to be significant, but data are not available. Developing better data on cross-border financial linkages should be a priority.[4]

18. **SAMA manages most foreign assets of the central government, and there are no sovereign wealth funds.** In all, SAMA effectively oversees more than 90 percent of total foreign financial assets of the central government, including of the two pension funds and the five SCIs. The finances of Saudi Aramco, the state petroleum company, are not publicly disclosed.

## III. Banking Sector Stability

### A. Performance and Risk

19. **The banking sector overall is well capitalized (Table 5).** The solvency ratio for the sector as a whole was above 17 percent in December 2010, having declined from about 21 percent in December 2007, partly due to the adoption of Basel II, but it was up from 16 percent in December 2008, during the financial crisis. The Tier 1 capital ratio is about 15 percent, well above the 4 percent required by Basel II and the 4.5 percent required by Basel III, and providing a significant cushion. All banks have a CAR above the regulatory 8 percent minimum. In practice, SAMA targets a CAR of 12 percent.

20. **After a credit squeeze in 2009, credit growth picked up in 2010, thus far without any deterioration in asset quality.** Credit declined by 1 percent over the 12 months to December 2009, but increased by 5 percent in the following 12 months. The NPL ratio has remained broadly constant at 3 percent, with provisions covering about 116 percent of NPLs

[4] A survey of cross-border financial linkages has been developed with the Arab Monetary Fund and is in the process of being implemented.

in December 2010, based on the authorities' statistical definition.[5] Credit growth is expected to pick up further, but thus far remains in single digits in 2011.

21. **Loans are the largest bank asset class.** They accounted for 54 percent of banks' aggregate balance sheet at end-2010, while government bonds and treasury bills accounted for about 14 percent. Regarding sectoral exposures, "other" (consisting mainly of consumer loans) is the largest, with 31 percent of the total (Figure 1). The general commerce sector accounts for 19 percent, and manufacturing for 12 percent, with a rising share of the latter.

22. **The aggregate LTD ratio appears to be within prudent bounds.** It stood at about 71 percent in December 2010 (Figure 2). SAMA currently requires banks to maintain their LTD below 85 percent (this limit was increased from 60 percent in September 2006). All banks but one meet the requirement.[6]

[5] Raw data received from SAMA shows a provisioning ratio of 90 percent.

[6] The exception is a new bank, which has yet to develop its deposit base.

## Table 5. Saudi Arabia: Indicators of Banking Soundness, 2007–10

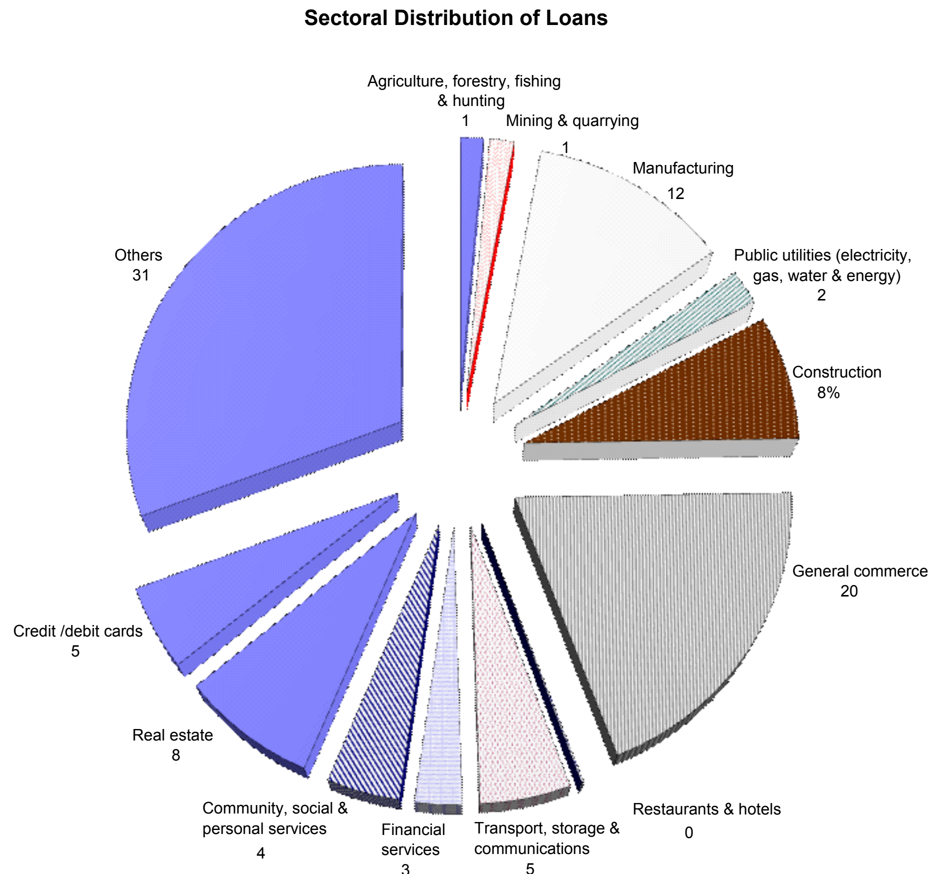
(In percent; end of period)

| | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| *Capital Adequacy* | | | | |
| Regulatory capital to risk-weighted assets | 20.6 | 16.0 | 16.5 | 17.7 |
| Regulatory Tier 1 capital to risk-weighted assets | 15.9 | 14.1 | 14.9 | 15.3 |
| Capital (net worth) to assets | 12.6 | 13.3 | 14.0 | 14.5 |
| *Asset quality and composition* | | | | |
| NPLs to gross loans | 2.0 | 1.3 | 3.2 | 3.0 |
| NPLs net of provisions to capital | -3.7 | -3.8 | 1.4 | -2.7 |
| Spread between highest and lowest interbank rate | 2.2 | 2.2 | 1.4 | 0.8 |
| Sectoral distribution of loans | | | | |
| Manufacturing | 9.5 | 12.0 | 11.0 | 12.1 |
| Trade and Services | 25.6 | 27.0 | 28.8 | 27.8 |
| Energy and Minerals | 1.6 | 2.0 | 2.6 | 3.3 |
| Agriculture | 1.4 | 1.0 | 1.0 | 1.3 |
| Construction and Property | 7.2 | 7.0 | 6.6 | 7.2 |
| Households | 33.4 | 37.0 | 36.9 | 30.7 |
| Government | 6.4 | 4.0 | 3.9 | 4.2 |
| Other | 14.9 | 10.0 | 9.2 | 8.4 |
| Foreign exchange loans to total loans | 11.4 | 13.5 | 14.0 | 13.3 |
| *Earnings and Profitability* | | | | |
| Return on assets | 2.8 | 2.7 | 1.9 | 2.0 |
| Return on equity | 22.3 | 20.5 | 13.7 | 13.6 |
| Interest margin to gross income | 36.1 | 57.0 | 73.0 | 70.3 |
| Noninterest expenses to gross income | 26.6 | 31.0 | 31.0 | 33.0 |
| Personnel expenses to noninterest expenses | 47.0 | 38.0 | 34.3 | 36.8 |
| Trading and fee income to total income | 22.7 | 22.7 | 20.1 | 20.5 |
| Spread between reference loan and deposit rates | 2.0 | 2.6 | 2.5 | 2.7 |
| *Liquidity* | | | | |
| Liquid assets to total assets | 21.7 | 22.8 | 25.3 | 24.7 |
| Liquid assets to short term liabilities | 41.4 | 41.6 | 40.0 | 52.0 |
| Customer deposits to total (noninterbank) loans | 124.4 | 121.0 | 128.6 | 136.0 |
| Foreign exchange liabilities to total liabilities | 22.8 | 22.0 | 24.3 | 21.7 |
| *Sensitivity to market risk* | | | | |
| Duration of assets | 354.0 | 346.0 | 358.0 | 428.0 |
| Duration of liabilities | 98.0 | 209.0 | 207.0 | 204.0 |
| Net open positions in Foreign exchange to capital | 3.1 | 4.5 | 8.6 | 10.2 |
| Net open positions in equities to capital | 6.7 | 6.0 | 9.0 | 9.4 |

Source: Saudi Arabian Monetary Agency, and staff calculations.

Figure 1. Saudi Arabia: Sectoral Distribution of Loans

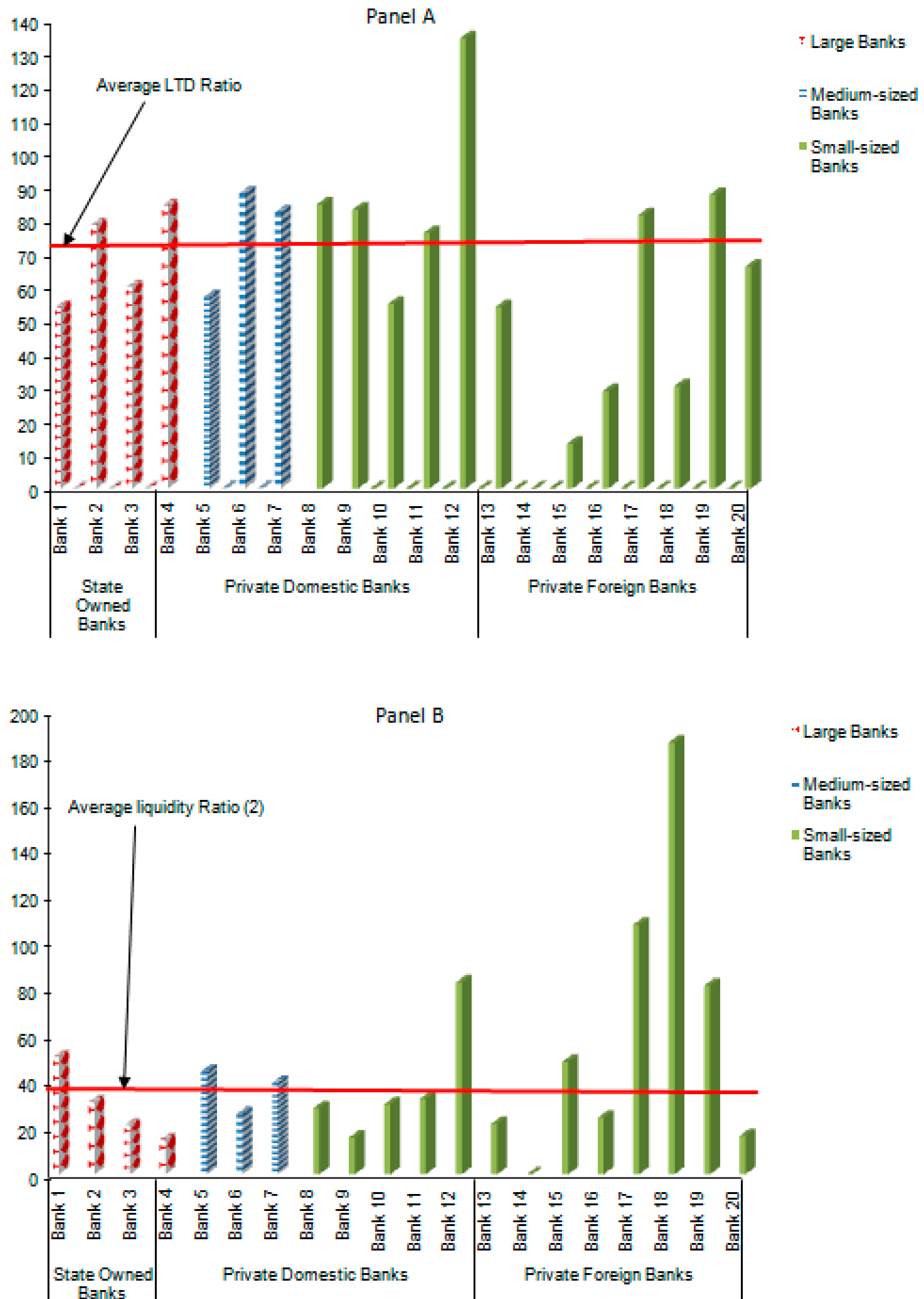
(In percent)




Sources: Saudi Arabian Monetary Agency and Fund staff calculations.

Figure 2. Saudi Arabia: Loan-to-Deposit Ratio and Liquidity Ratio[1/]

(In percent)




Source: Based on data from Saudi Arabian Monetary Agency.

1/ The ratio could not be calculated for Bank 14 because of data availability, but it is a small bank and this will not alter the analysis.

23. **Profitability weakened during the crisis, but appears to be recovering in 2010.** Return on assets (ROA) was 2 percent and return on equity 13.6 percent in December 2010, compared with 2.8 percent and 22.3 percent in December 2007.

24. **Banks appear to be sufficiently liquid.** For the banking sector as a whole, the ratio of liquid assets to short-term liabilities—LR(1)—was 52 percent as of December 2010; while the ratio of liquid assets to deposit liabilities—LR(2)—the ratio used by SAMA, stood at 33 percent. The minimum requirement for LR(2) is 20 percent, but some foreign banks in particular have much higher ratios (Figure 2).[7] The authorities consider that banks will be able to comply with the Basel III liquidity metrics going forward.

## B. Regulation and Supervision[8]

25. **The Basel Core Principles assessment shows improvements in banking regulation and supervision since the 2004 FSAP.** SAMA has introduced Basel II, and used the Pillar 2 requirements to foster improvements in banks' risk management and capital planning. In supervision, RBAs have been introduced and large resources allocated to supervision, with overall staffing now around 200 people (a doubling over the past five years). SAMA has also actively initiated the introduction of Basel III requirements.

26. **The legal framework needs to be updated, mainly to formalize the independence and powers that SAMA already has in practice.** In particular, the law would need to be revised to remove the requirement for government approval to license banks and impose sanctions, issue regulations, and conduct inspections. Provisions could also be added to provide legal protection to supervisors, require SAMA's approval in case of transfer of significant ownership, create a bank resolution framework, provide a clear mandate to exercise consolidated supervision, and lift confidentiality requirements when necessary (for example, to share information for supervisory purposes). However, in practice, the existing law has not been an impediment to effective supervision. The authorities considered that in their institutional context, amending the law would be difficult, and they might prefer to issue new regulations to clarify and further solidify the independent exercise of regulatory and supervisory powers by SAMA.

27. **SAMA's prudent licensing approach could benefit from a legal definition of its objectives and improved disclosure of its expectations for new banks.** Only two banks

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[7] These foreign branches have very little deposit base, but hold a large capital buffer, and their asset portfolios contain a significant portion of liquid assets.

[8] The FSAP Update did not include a separate evaluation of compliance with the FATF 40+9 recommendations on anti-money laundering and combating the financing of terrorism, reflecting the completion of a full mutual assessment by the MENAFATF in 2010.

have been licensed in the last decade. To make clear that the market is contestable, SAMA should publish its detailed criteria for licensing new banks, fully align them with objectives focused on safety and soundness, and withdraw the requirement that new licensees should "add value."

28. **Saudi Arabia should complement recent strides in banks' risk management by an improved regime for large exposures and connected parties.** A framework circular should be issued bringing all aspects of risk management into one document, and updating requirements on market risk and internal controls to reflect developments in the last decade. The widespread bank losses caused by the 2009 failure of two large well-established family groups suggest that there may have been weaknesses in credit risk management.[9] SAMA proactively responded to these defaults, including by ensuring that losses were fully provisioned and by spearheading dialogue with the banking industry to identify relevant lessons. In a system characterized by high single-name concentration, attention to individual large exposures should be intensified, in particular during on-site inspections. The possibility for SAMA to allow large exposures of as much as 50 percent of capital, which was recently used (one large exposure stands at 38 percent of capital), should also be removed (with large exposures capped at, for example, 25 percent of capital). The definition of related parties needs to be strengthened to ensure that close family relationships are taken into account.

29. **SAMA has made good progress in implementing RBA and should complete this transition.** In recent years, the introduction of RBA triggered a welcome intensification of contacts with banks as part of off-site supervision. SAMA adequately retains an intrusive on-site process, which relies primarily on full-scope examinations and to a growing extent on focused ones. However, the schedule for full-scope examinations should be better defined to avoid crowding effects, examinations should focus more on actual risks and banks' ability to manage them, and increased attention should be paid to branches of foreign banks. More systematic on-site verification of off-site reporting may also be needed.

30. **SAMA has long encouraged banks to build prudent capital and provisioning buffers, based on solid financial statements.** Such buffers proved extremely useful in recent years when the impact of the global crisis and the default of two large groups could be absorbed without threatening any bank. Capital buffers are now defined as part of the internal capital adequacy assessment process. Provisioning buffers result from pragmatic decisions and might be more formalized. SAMA has successfully introduced international accounting and auditing standards (International Financial Reporting Standards and International Standards on Auditing) for banks and their auditors. It also introduced Pillar 3 disclosure requirements in 2008 as part of the implementation of Basel II.

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[9] Both Saudi and foreign banks, including large international banks, were significantly exposed to these groups.

31. **While SAMA's exercise of its consolidated supervision authority has been effective, some banks are beginning to aggressively expand across border, and this could prove a challenge to group managements and boards, and thus, to supervisors.** SAMA has good contacts with the CMA and with foreign supervisors. The draft memorandum of understanding (MOU) with the CMA should be finalized and exchange of inspection reports and common on-site work initiated. SAMA should also develop written understandings with foreign supervisors, in particular to facilitate the exchange of supervisory information and provide for on-site inspections across jurisdictions.

## C. Stress Tests

32. **Top-down stress tests were used to assess the resilience of the banking sector.** The tests focus on the 12 Saudi incorporated banks, representing 98 percent of the banking sector's total assets. They were grouped into three categories: (i) four large banks with assets ranging from more than SR 170 billion to less than SR 300 billion; (ii) three medium-sized banks, with assets above SR 100 billion, but less than SR 130 billion; and (iii) five small banks with assets less than SR 60 billion. Large banks represent 59 percent of total assets, medium-sized banks 26 percent, and small banks 13 percent. A macro-financial model was used to derive Saudi-specific elasticities linking macroeconomic variables, especially oil prices, to NPL ratios.[10]

33. **Reflecting its high capitalization, the banking sector appears able to withstand severe shocks (Tables 6 and 7, and Figure 3).** The aggregate solvency ratio remains above 8 percent for almost all of the individual shocks. In addition, all banks would remain above the 8 percent minimum CAR for standard shocks such as uniform NPL increases, default by their largest debtors, a decline in non-oil growth, and a short-term decline in oil prices (although the CAR of one bank could decline below the 8 percent minimum if the oil price decline is very deep).

[10] For solvency tests, the horizons for the shocks are one year, unless otherwise noted. For liquidity shocks, the horizon is one month. It is assumed that there are no dividend distributions during the stress periods. All data used for the stress tests were provided by SAMA.

## Table 6. Saudi Arabia: Stress Test Results

| | All banks (12) | # | Large banks (4) | # | Medium-sized banks(3) | # | Small banks (5) | # | State-Owned (3) | # | Domestic Private banks (9) | # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Classification Based on Size | | | | | | Classification Based on Ownership | | | |
| **Minimum reglementary CAR : 8 percent 1/** | **Number of banks with CAR falling below the minimum in parentheses** | | | | | | | | | | | |
| | **Solvency Ratio Before Shocks (in percent)** | | | | | | | | | | | |
| | **17.8** | (0) | **17.6** | (0) | **15.1** | (0) | **24.0** | (0) | **16.7** | (0) | **18.7** | (0) |
| **Shocks : Credit and single macro shocks 2/** | **Solvency Ratio After Shocks (in percent)** | | | | | | | | | | | |
| 1a- Uniform 50 percent increase in NPLs | 16.8 | (0) | 16.7 | (0) | 14.3 | (0) | 22.2 | (0) | 15.7 | (0) | 17.6 | (0) |
| 1b- Uniform 100 percent increase in NPLs based on SAMA | 15.8 | (0) | 15.8 | (0) | 13.5 | (0) | 20.2 | (0) | 14.8 | (0) | 16.6 | (0) |
| 1c- NPLs "category shift" (10 percent from "pass"to "doubtful and loss") | 16.5 | (0) | 16.6 | (0) | 14.1 | (0) | 21.3 | (0) | 15.6 | (0) | 17.3 | (0) |
| 2a - Single biggest corporate obligor default | 15.2 | (0) | 15.0 | (0) | 12.9 | (0) | 21.1 | (0) | 13.8 | (0) | 16.4 | (0) |
| 2b - Five biggest corporate obligors shift from "pass" to "NPL" | 13.8 | (0) | 13.9 | (0) | 11.2 | (0) | 18.3 | (0) | 12.9 | (0) | 14.5 | (0) |
| 3a - 3 percent decline in non-oil growth | 17.2 | (0) | 17.0 | (0) | 14.6 | (0) | 22.9 | (0) | 16.1 | (0) | 18.0 | (0) |
| 3b- Oil prices decline by one standard ($25) deviation with a GDP growth rate of 1.5 percent | 17.5 | (0) | 17.3 | (0) | 14.9 | (0) | 23.5 | (0) | 16.4 | (0) | 18.4 | (0) |
| 3c-Oil prices decline to historical average of $40 with a GDP growth of 0 percent | 16.2 | (0) | 16.2 | (0) | 13.9 | (0) | 21.1 | (0) | 15.2 | (0) | 17.0 | (0) |
| 3d-The shock in (3c) is permanent over 4 year horizon | 5.2 | (8) | 6.6 | (2) | 5.6 | (2) | -3.6 | (4) | 4.9 | (2) | 5.4 | (6) |
| Capital gap to bring the CAR to 8 percent as a percentage of GDP | 3.5 | | 1.3 | | 0.6 | | 1.6 | | 1.3 | | 2.3 | |
| 3e-The shock in (3c) is permanent over 5 year horizon | -1.9 | (9) | 0.7 | (3) | 0.6 | (2) | -24.3 | (4) | -1.6 | (2) | -2.3 | (7) |
| Capital gap to bring the CAR to 8 percent as a percentage of GDP | 6.6 | | 2.6 | | 1.3 | | 2.7 | | 2.6 | | 4.0 | |
| 3f- Oil prices decline $17 with GDP growth rate of - 0.7 percent | 14.6 | (1) | 14.8 | (0) | 12.6 | (0) | 17.9 | (1) | 13.7 | (0) | 15.3 | (1) |
| 3g-The shock in (3d) is permanent over 2 year horizon | 5.1 | (8) | 6.6 | (2) | 5.6 | (2) | -3.3 | (4) | 4.9 | (2) | 5.3 | (6) |
| Capital gap to bring the CAR to 8 percent as a percentage of GDP | 3.6 | | 1.3 | | 0.6 | | 1.7 | | 1.3 | | 2.3 | |
| 4a - Others or Consumer loans sector: Threshold default for systemic solvency risk (58 percent) | 7.9 | (5) | 6.8 | (2) | 4.7 | (2) | 18.1 | (1) | 12.0 | (1) | 4.2 | (4) |
| 4b-General commerce sector: Threshold default for systemic solvency risk (77 percent) | 7.9 | (5) | 7.2 | (1) | 5.8 | (2) | 15.0 | (2) | 15.0 | (1) | 17.1 | (4) |
| 5a- 200 basis point upward parallel shift of yield curve | 19.1 | (0) | 19.3 | (0) | 15.9 | (0) | 24.8 | (0) | 18.2 | (0) | 19.8 | (0) |
| 5b- 200 basis point downward parallel shift of yield curve | 17.7 | (0) | 17.6 | (0) | 15.1 | (0) | 23.8 | (0) | 16.7 | (0) | 18.6 | (0) |
| 5c- 400 basis point downward parallel shift of yield curve | 17.2 | (0) | 16.8 | (0) | 14.8 | (0) | 23.4 | (0) | 15.8 | (0) | 18.2 | (0) |

1/De facto SAMA targets 12 percent.

2/Provisioning rate 100 percent.

# Table 7. Saudi Arabia: Stress Test Results

| | | | Classification Based on Size | | | | | | Classification Based on Ownership | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All banks (12) | # | Large banks (4) | # | Medium-sized banks(3) | # | Small banks (5) | # | State-Owned (3) | # | Domestic Private banks (9) | # |
| **Liquidity, market, and combined macro shocks** | | | | | | | | | | | | |
| **Initial Liquidity Ratios (in percent) 3/** | **Number of banks with liquidity ratio falling below the minimum required in parentheses** | | | | | | | | | | | |
| **LR(1)** | **55.0** | | **50.6** | | **65.0** | | **60.7** | | **68.3** | | **44.5** | |
| **LR(2) minimum required 20 percent** | **33.5** | **(2)** | **32.9** | **(0)** | **36.5** | **(1)** | **30.1** | **(1)** | **38.0** | **(0)** | **29.3** | **(2)** |
| Liquidity Ratio after shock (in percent): | | | | | | | | | | | | |
| 6a - General deposit run threshold for systemic risk: 17 percent. LR(1) | 37.6 | | 33.2 | | 49.8 | | 40.2 | | 54.4 | | 25.2 | |
| LR(2) | 19.9 | (8) | 19.2 | (3) | 23.5 | (1) | 15.8 | (4) | 25.3 | (2) | 14.8 | (6) |
| [LR(2)]: Liquidity gap requiring SAMA's liquidity injection (millions SR) | 63,282.0 | | 46,405.6 | | 7,053.7 | | 9,822.6 | | 19,567.1 | | 43,714.9 | |
| [LR(2)]: Depletion of SAMA's net foreign exchange reserves due to increase foreign exchange demand resulting from the deposit run (millions) | $24,139.4 | | $14,905.6 | | $6,149.9 | | $3,083.9 | | $11,662.8 | | $12,476.6 | |
| 6b - General deposit run of 25 percent LR(1) | 23.7 | | 19.8 | | 36.9 | | 20.7 | | 42.4 | | 10.5 | |
| LR(2) | 11.3 | (9) | 10.6 | (3) | 15.3 | (2) | 6.8 | (4) | 17.3 | (2) | 5.7 | (7) |
| [LR(2)]: Liquidity gap requiring SAMA's liquidity injection (millions SR) | 104,204.0 | | 72,908.60 | | 13,422.4 | | 17,873.0 | | 36,914.0 | | 67,290.0 | |
| [LR(2)]: Depletion of SAMA's net foreign exchange reserves due to increase foreign exchange demand resulting from the deposit run (millions) | $35,499.2 | | $21,920.0 | | $9,044.0 | | $4,535.1 | | $17,151.2 | | $18,347.9 | |
| 6c - Short-term deposit run of 40 percent LR(1) | 29.8 | | 21.4 | | 45.0 | | 45.9 | | 49.5 | | 14.9 | |
| LR(2) | 14.9 | (7) | 11.5 | (3) | 20.2 | (1) | 19.2 | (3) | 21.7 | (2) | 8.3 | (5) |
| [LR(2)]: Liquidity gap requiring SAMA's liquidity injection (millions SR) | 87,368.6 | | 71,855.4 | | 9,189.8 | | 6,323.3 | | 22,584.7 | | 64,783.9 | |
| [LR(2)]: Depletion of SAMA's net foreign exchange reserves due to increase foreign exchange demand resulting from the deposit run (millions) | $31,037.7 | | $21,207.7 | | $7,376.6 | | $2,453.4 | | $14,226.2 | | $16,811.5 | |
| **Initial ROA** | **2.0** | | **2.3** | | **1.8** | | **0.7** | | **1.9** | | **2.0** | |
| ROA after shock: | | | | | | | | | | | | |
| 5a- 200 basis point upward parallel shift of yield curve | 3.1 | | 3.8 | | 2.5 | | 1.4 | | 3.2 | | 3.1 | |
| 5b- 200 basis point downward parallel shift of yield curve | 0.8 | | 0.9 | | 1.1 | | 0.1 | | 0.6 | | 1.0 | |
| 5c- 400 basis point downward parallel shift of yield curve | -0.3 | | -0.6 | | 0.5 | | -0.6 | | -0.7 | | 0.0 | |
| 7- Foreign exchange trading income declines by 100 percent | 1.6 | | 1.9 | | 1.4 | | 0.4 | | 1.5 | | 1.6 | |
| **Initial return on equity** | **13.6** | | **16.9** | | **13.9** | | **3.6** | | **14.8** | | **12.7** | |
| Return on equity after shock: | | | | | | | | | | | | |
| 5a- 200 basis point upward parallel shift of yield curve | 21.5 | | 27.5 | | 19.0 | | 6.7 | | 24.9 | | 19.1 | |
| 5b- 200 basis point downward parallel shift of yield curve | 5.7 | | 6.2 | | 8.7 | | 0.4 | | 4.7 | | 6.4 | |
| 5c- 400 basis point downward parallel shift of yield curve | -2.2 | | -4.5 | | 3.5 | | -2.7 | | -5.4 | | 0.0 | |
| 7- Foreign exchange trading income declines by 100 percent | 10.7 | | 13.8 | | 10.4 | | 1.8 | | 11.8 | | 9.9 | |
| **Scenarios:** | **Number of banks with CAR falling below the minimum in parentheses** | | | | | | | | | | | |
| CAR after macro scenario A (combination of shocks 3d, 6a, and 5a) | 15.9 | (1) | 16.5 | (0) | 13.4 | (0) | 18.7 | (1) | 15.2 | (0) | 16.5 | (1) |
| CAR after macro scenario B (combination of shocks 3e, 6a, and 5a) | 6.4 | (8) | 8.3 | (2) | 6.3 | (2) | -2.6 | (4) | 6.5 | (2) | 6.4 | (6) |

3/ LR(1) is calculated as liquid assets/Short term liabilities;

LR(2) is calculated as Liquid assets/Deposit liabilities, minimum required is 20 percent.

34. **However, the banking sector could be vulnerable to severe and prolonged oil price declines.** Such an event has a low probability and is difficult to predict, but would have a high impact not just on the financial sector, but on the economy as a whole. Two scenarios, with one variation, were considered:

- If the 1999 shock (average oil price at $17, GDP contraction by 0.7 percent) were to last for two years, the aggregate solvency ratio is seen to decline to 5.1 percent, well below the 8 percent minimum. In particular, the CAR for eight banks—covering a wide range in terms of size and ownership—would decline below 8 percent. This said, small banks appear to be the most vulnerable.

- If a decline of oil prices to $40 (their average in real terms between 1960 and 2010) with stagnant GDP were to last four years, the aggregate CAR is seen to decline to 5.2 percent; and the capital needed to bring the CAR back to 8 percent represents about 3.5 percent of GDP. If this shock were to last five years, the banking sector would become insolvent, with the aggregate CAR declining to -1.9 percent (Figure 3), requiring new capital equivalent to about 6.6 percent of GDP to reestablish the 8 percent minimum. These recapitalization costs should be manageable if macroeconomic policies are otherwise sound. Small banks and domestic private banks are the most vulnerable.

35. **For sectoral risk concentration, the default threshold for a risk to become systemic is analyzed for the most important lending sectors**: **"other" (mainly consumer) loans, and general commerce loans.** Only when more than 58 percent of "other" loans become nonperforming does the aggregate solvency ratio decline below the 8 percent minimum. For the second largest lending sector, general commerce, this threshold stands at 77 percent. Shocks of these magnitudes appear highly improbable.

36. **Liquidity stress tests suggest resilience to shocks** (**Table 7).** Only when 17 percent of general deposits are withdrawn does the regulatory liquidity ratio (liquid assets to deposit liabilities) drop below the 20 percent minimum, making a decline of this magnitude the threshold for systemic risk. For short-term deposits, this threshold is 31 percent.[11] The threshold of 17 percent is higher than the benchmark historical event, namely the deposit withdrawal in August 1990, when after the Iraqi invasion of Kuwait, the banking sector lost 11 percent of total customer deposits in one week.

37. **An estimate was made of the liquidity that SAMA might need to inject in response to a shock, and of the subsequent possible depletion of foreign exchange reserves.** A 25 percent run on overall deposits would reduce the liquidity ratio to about

[11] Notice that these thresholds are sensitive to liquid asset and liability composition.

11 percent and require a liquidity injection from SAMA of about SR 104.2 billion. Assuming that 50 percent of the deposits withdrawn are converted into foreign exchange, SAMA's net foreign assets would decline by about 8 percent (or $35.5 billion). A 40 percent run on short term deposits (only) would reduce the liquidity ratio to about 15 percent. The corresponding decline in SAMA's net foreign assets would be 7 percent (or $31 billion). Thus, the combination of banks' own adequate liquidity and SAMA's large foreign assets should allow the system to withstand even large liquidity shocks.

38. **Resilience to market risk was tested using a range of single factor shocks:**

- A 200 basis point upward parallel shift in the yield curve increases the banking sector's net income and reinforces the sector's capital through retained earnings or general reserves. A 200 basis point downward parallel shift in the yield curve decreases net income, but is not enough to generate overall net losses that would require provisions from capital, except for two small banks. It thus has no significant impact on the aggregate solvency ratio.

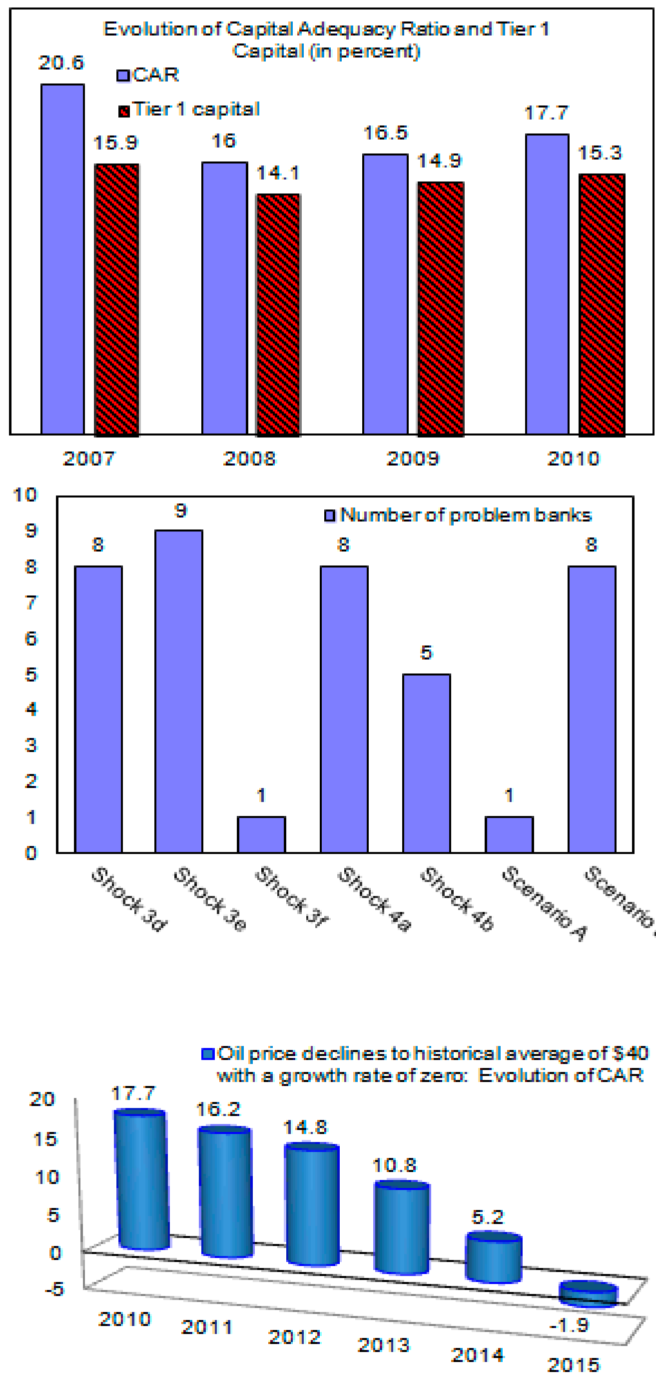
- Foreign exchange operations are a source of income, but the impact of even a 100 percent decline in foreign exchange income is not large enough to generate overall net losses sufficient to affect the aggregate solvency ratio, since it has a moderate impact on current year ROA or return on equity. The exchange rate peg (at SR 3.75 per dollar since 1986) is underpinned by vast foreign assets and oil revenues. An exchange rate depreciation would have a positive effect on the banking sector owing to its long combined open FX position. An exchange rate appreciation of 20 percent would reduce banks' net income but would not significantly affect solvency.

## IV. Key Policies Affecting Systemic Stability

### A. Liquidity Management

39. **Reflecting system-wide excess liquidity, commercial banks rely heavily on operations with SAMA.** Activity in the interbank market, which includes foreign exchange spot and swap transactions, as well as unsecured deposit trading, is limited. Furthermore, owing to the tendency of financial institutions to hold public debt to maturity, and the ongoing repayment of longer-dated government securities, a primary dealer system has not developed, there is virtually no secondary market in government securities, and there is no private repo market. Banks predominantly manage their liquidity through global money

Figure 3. Saudi Arabia: Capital Adequacy Ratio, Problem Banks, and Resilience to Shocks




Source: Based on data from Saudi Arabian Monetary Agency.

markets and SAMA's repo and reverse repo facilities. Central bank bills have been a key instrument in recent years in absorbing liquidity.[12]

40. **SAMA remains strongly committed to the fixed exchange rate while monitoring banking system liquidity on a day-to-day basis.**[13] Under the peg, SAMA has little room for changes in domestic policy interest rates owing to international arbitrage opportunities that could trigger large cross-border flows. Moreover, SAMA accommodates banks' excess supply or demand for liquidity on a day-to-day basis, and does not have liquidity targets or a formal liquidity forecasting framework.

41. **While the overnight repo and reverse repo facilities have over time been the primary operational tools, SAMA has of late significantly increased its issuance of central bank bills**, **at various maturities of up to 52 weeks**. SAMA has also actively adjusted the required reserve ratio on bank deposits, increasing it in November 2007 to reduce inflationary pressure and lowering it in October and November 2008 following the global financial crisis. In addition to these instruments, SAMA occasionally uses foreign exchange swaps and deposit placements to manage liquidity. SAMA's instruments have proven sufficient, even in periods of stress. For example, during the financial turmoil of 2008–09, SAMA was able to respond effectively (see Box 1), and it also has the authority and capacity to quickly deploy additional instruments, including unconventional instruments if these were to be needed.

42. **Going forward, the development of a deeper interbank market and a formal liquidity forecasting framework would be beneficial.** Development of a private interbank repo market would be helped by the availability of sufficient government securities, although high quality private securities (such as covered bonds) could also serve well in this role. Coordination of debt management with the MOF may be helpful in maintaining a stable and adequate stock of government securities for this purpose, and also to help anchor a robust yield curve. Furthermore, a liquidity forecasting system could strengthen SAMA's ability to conduct more active liquidity management over short horizons and smooth short-term market rates. To this end, and given the role of SAMA as banker to the government, it would be helpful for the MOF to provide SAMA with timely and comprehensive cash flow projections.

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[12] Commonly referred to as "treasury bills," these are issued by SAMA and are shown as a liability on its balance sheet.

[13] According to Article 1 of SAMA's Charter, SAMA's objectives are to (a) issue and strengthen the Saudi currency and to stabilize its internal and external value, (b) deal with the banking affairs of the government, and (c) regulate commercial banks and exchange dealers.

## B. Payment and Settlement Systems

43. **The national payment system in Saudi Arabia efficiently serves the needs of a broad set of users, and the Core Principles for Systemically Important Payment Systems assessment shows a high level of compliance.** In particular, SAMA has implemented a comprehensive and robust infrastructure to support the provision of payment services and products by commercial banks. The infrastructure is primarily concentrated on payments in riyals, with the Saudi Arabian Riyal Interbank Express real time gross settlement system at its core.

44. **Many critical aspects relating to payments and settlements are covered in the existing legal framework, but there is no comprehensive law.** The power of SAMA to oversee the payment systems is found in the central bank and banking laws. However, the powers of the central bank to operate, regulate, and oversee payment, settlement, and clearing systems are not detailed in law. These observations suggest the desirability of enacting a comprehensive payment systems law. The law could also provide an explicit legal basis for emergency liquidity assistance to financial market infrastructures.

## C. Early Warning System, Stress Tests, and Macroprudential Policies

45. **Supervisory or regulatory agencies do not have in place formal early warning systems.** In lieu of such systems, SAMA and the CMA currently rely mainly on frequent dialogue with banks and market participants to identify emerging trends and potential risks.

46. **Building on its current approach, SAMA should take the initiative to establish a formal early warning system for the banking system.** Such a system will need to assemble information from multiple sources to identify and respond to financial vulnerabilities. Accounting, auditing, and controlling financial information collected through the offsite supervisory process will need to be more fully utilized to provide early indications of emerging financial problems. SAMA has already strengthened techniques for detecting deviations among key indicators. Moreover, several banks have in place sophisticated systems designed to promptly draw attention to unusual quantitative trends. Some of these methods could also be incorporated in a new SAMA-led early warning system. With SAMA as the initiator and coordinator, the banking sector could discuss how to further collaborate to enhance existing arrangements.

47. **With respect to stress testing, it is recommended that SAMA:** (i) more closely monitor the risk management practices of banks; (ii) take appropriate measures to address emerging risks, especially developing a contingency plan to face an eventual prolonged decline in oil prices; (iii) conduct stress test exercises with a wider range of shocks on a regular basis and incorporate lessons into its prudential rules and supervision; and (iv) add staff with the technical background needed for stress testing.

48. **Macroprudential policies have a long history in Saudi Arabia.** SAMA has, over the years, taken a large number of measures of a macroprudential nature to ensure the stability of the financial system. These include regulations on personal loans for stock purchases, debt service to income ratios, the LTD ratio, and reserve requirements. SAMA's actions have helped to rein in credit booms and equity bubbles and mitigate their negative effects on financial and macroeconomic stability.

49. **Even so, it would be desirable for SAMA to further elaborate its macroprudential policy framework, drawing on new practices currently being developed in international fora,** and covering the definition of objectives, the elaboration of analytical methods, the policy toolkit, and transparency. For example, SAMA could establish a more transparent and structured process for setting capital and provisioning buffers. It will be similarly important to refine already good coordination with other key agencies (such as MOF and the CMA), but without impinging on SAMA's independence. In line with the practice of many other central banks and drawing on their experience, SAMA should also consider establishing a financial stability department and regularly publishing financial stability reports.

## D. Safety Net Arrangements

50. **The approach to financial safety nets in Saudi Arabia has traditionally entailed an implicit, but strong, commitment to the safety of deposits combined with a rigorous prevention of bank failures by SAMA.** As in the case of some other GCC countries, Saudi Arabia does not have an explicit deposit insurance scheme nor formal and specific bank resolution rules. The authorities have favored strong preventive measures to maintain the safety of deposits, backed by virtually unlimited powers of intervention and the forceful prevention of bank failures. This framework, which has been vigorously applied in the very few recorded cases of bank distress, has ensured that no bank has ever failed, and no bank depositors and creditors have suffered losses.

51. **During the global financial crisis, this traditional approach to deposit insurance was made more explicit by the official announcement that deposits would be safe.** The authorities consider that this announcement, which was incorrectly interpreted by some segments of the public as a blanket guarantee, contributed to the stability of the Saudi financial system during the crisis. They also consider that strong prudential policies can be viewed as a form of depositor protection, in addition to helping maintain stability more generally. Against this background, the introduction of an explicit deposit insurance scheme combined with formal resolution rules is not under consideration.

52. **While the current approach to financial safety nets and bank resolution has preserved the stability of the financial system, it has also reduced the incentives for private monitoring of banks and has increased the burden on supervision.** The current approach tends to weaken market discipline as neither depositors nor bank creditors have much incentive to monitor banks, which in turn may dilute the role of Pillar 3 in the Basel II

architecture of bank supervision. Market discipline remains an important component of the architecture that needs to be reinforced when possible. This would call for a review of the approach to safety nets and bank resolution in the medium run (see also the next section).

53. **There has been no need to provide emergency liquidity assistance (ELA) to any bank since 2002.** The conditions in which SAMA would provide ELA are determined on a case-by-case basis, as are the terms on which such ELA would be provided. While it is desirable to avoid stating precisely under which conditions ELA would be extended, some of the terms might be specified in advance, along with the legal aspects of ELA operations. Consideration might be given, in particular, to clarifying that ELA would normally only be advanced to banks deemed to be solvent, and against adequate collateral. This policy, which should further help to limit moral hazard, would be communicated to the public.

## E. Bank Resolution

54. **No specialized legal framework for bank resolution exists in Saudi Arabia.** By law, SAMA has strong supervisory powers to prevent bank failures, but more limited powers to deal with actual failures. In particular, general corporate bankruptcy provisions apply to failed banks, implying that SAMA would not be in the lead in the resolution of a bank that has been declared insolvent. This lack of formal powers has likely been one factor motivating SAMA to adopt a forceful preventive approach, as noted above.

55. **The authorities underscored that the current approach rests on clear principles that are well understood by markets.** In particular, insolvent banks are speedily resolved (normally through acquisition by other banks), there are no bailouts for owners or managers of failed banks, and depositors are protected. The authorities noted that these principles provide a high degree of predictability and market discipline.

56. **Even so, a formal bank resolution framework would further improve incentives.** The lack of an imminent threat to financial stability provides a favorable environment to start introducing a formal resolution framework without risking misinterpretations by the public. In this regard, the Saudi authorities could initiate the preparation of a specific resolution framework for banks in line with international initiatives (including those currently in train at the Financial Stability Board). Such a regime would empower the authorities to (i) continue temporarily the core operations of an institution; (ii) have shareholders absorb losses, pay off senior creditors only at estimated recovery value, and change management so as to minimize moral hazard; and (iii) provide the conservator with adequate flexibility to minimize the damage to the economy and costs to taxpayers. A complementary measure in this connection would be the introduction of an explicit deposit insurance scheme with limited coverage.

## V. Financial Development and Soundness

57. **Saudi Arabia faces the challenge of generating housing and employment for its young and growing population, a challenge that cannot be met only through specialized public credit institutions.** Support to housing finance has been traditionally provided by the REDF, while the SIDF and the SCSB have been engaged in SME development (which is essential for more employment generation). However, these institutions do not have the resources or operational capacity to meet the large demands in these two areas, even though the government has provided the REDF with SR 40 billion in additional capital in early 2011. The government and SAMA are aware of these limitations, and they expect the banking system to play a much larger role in the current decade and beyond. A key challenge will be to ensure efficiency and financial soundness in housing and SME finance as it expands.

### A. Housing Finance

58. **Despite recent growth, housing finance portfolios remain small.** The REDF has historically been the main provider of housing finance, with a portfolio of SR 78 billion, stable in recent years. It facilitated access to housing, but is unable to meet a growing demand (with waits up to 18 years) and has adversely affected the development of commercial housing finance (for example, interest free loans for nationals). In recent years, banks and other lenders such as mortgage finance companies rapidly grew their portfolios (at an annual rate of 22 percent from 2008 to 2010). Nonetheless, housing demand is not satisfied, with annual needs estimated at around 250,000 units over the medium term, compared to 80,000 permits delivered on a commercial basis. Housing demand will only increase further, reflecting the young and growing population and declining household size.

59. **The five draft laws in the mortgage package that are expected to be approved in 2011 would improve the housing finance framework.** Besides laying the foundation for an efficient mortgage system, the new laws will create a consumer protection framework, empower SAMA to regulate and supervise nondepository lenders, and establish a framework for the development of funding instruments (mortgage refinance facility, securitization, covered bonds).

60. **In view of the risks that are inherent to residential real estate lending, additional measures are needed to ensure the sound development of the market.** These include (i) new prudential norms (capital, provisioning) to support stronger creditor rights; (ii) setting up of a housing market observatory, including a price index; (iii) consumer protection norms; and (iv) regulatory facilitation of new products, including notably steps to strengthen the developer industry.

61. **The new policy governing the REDF needs to keep a strong focus on financial soundness**. The REDF has been plagued by high delinquencies (half of the portfolio). The

new policy aims to broaden the range of eligible projects, better target the lower income population, and otherwise set prioritization criteria. In order to maximize the impact of budgetary resources and ensure sound lending, the following measures could be considered: (i) outsource the servicing of the REDF old and new loans to banks to improve recovery rates and the quality of loan origination; (ii) combine public resources with new bank lending under suitable risk-sharing arrangements and; (iii) explore ways to provide banks with long term funding matching the maturity of the new housing loans, a more efficient solution than the contemplated guarantees. Asset and liability mismatches should be closely monitored, and new funding instruments established to facilitate adequate risk management. To support success, the authorities should consider a cooperative structure and avoid creating the kind of distorted incentives that led to problems in, for example, Fannie Mae in the United States.[14]

## B. Finance to Small- and Medium-Scale Enterprises

62. **Banks have been slow to develop SME lending, leading to new government initiatives.** SME loans account for only 2 percent of total bank loans. One factor has been a gap in the collateral regime. In 2010, the government introduced a package of measures to stimulate SME lending. Notably, it increased the resources of the SIDF by SR 10 billion, and also made regulatory changes to make SME lending more attractive to banks.

63. **Some further policy steps will be important to maintain financial soundness in SME lending.** SAMA should supervise the quality of banks' new SME units and the robustness of the rating models adopted, especially in the institutions that plan to adopt automated loan processing. Financial infrastructure should be further strengthened, especially by developing a registry for movable collateral. Another key element will be the Enforcement Law (one of the five draft laws in the mortgage package), which will also improve substantially the effectiveness of enforcement procedures for all types of collateral, not just in housing but also in SME lending. The law will allow the creation of special enforcement courts in all the major cities and will introduce time bound procedures for the foreclosure of collateral.

## C. Securities Markets

64. **Regulation of securities markets by the CMA fully or broadly implements most of the IOSCO Principles.** The Capital Markets Law (CML) provides the CMA with comprehensive regulatory authority. CMA independence can be strengthened by amending the CML to specify that CMA board members can be removed only for good cause.

[14] One possibility might be cooperative arrangements between the REDF and banks. These could involve some form of co-financing, or the provision by the REDF of (subsidized) long-term loans to banks.

65. **Some further improvements in the regulatory framework may be worth considering.** The CMA should aim for greater transparency. It should publish a detailed annual report and financial statement, describing how the agency funds its operations (and how it sets fees). All CMA regulatory actions, interpretive guidance, and advisory statements should be made public on its website, and disciplinary actions should be public information. The CMA should have no discretion to retain money fines that it imposes to fund its operations, as the discretion to impose substantial fines and retain the funds creates the appearance of a significant conflict of interest. The Company Act and the CML should be amended to establish a single set of standards for listed companies under the authority of the CMA. Finally, IFRS should be adopted as a single national accounting standard for listed companies.

66. **More developed capital markets would help to underpin financial stability, and their development will require a broader institutional investor base.** At present, individual investors are the largest group by numbers, while state institutional investors are the largest domestic investors, along with GOSI, PPA, and PIF. Private institutional investors such as mutual funds, insurance companies, private pension funds, and brokers are too small to play a meaningful role in the market. Limits on foreign investment are a key impediment to the further development of the private institutional investor base. Most foreigners may only invest in Saudi mutual funds, in the two listed ETFs, or purchase an equity swap from a Saudi broker. It would be helpful for the CMA to adopt a rule that would permit large qualified foreign institutional investors to register as direct investors. There is also still considerable scope to develop sukuk issues and corporate debt markets, but this would require additional infrastructural and regulatory initiatives.

## D. Insurance and Pensions

67. **The insurance sector is small and poses no obvious financial stability risks.** The regulatory and supervisory framework has improved significantly in recent years. The 2003 Law and 2004 Implementing Regulations provide broad powers, and SAMA has established an effective supervisory function. Five important functional regulations (including risk management, reinsurance, and market conduct) have been issued since 2008. Four key regulations (including investments, intermediaries, and outsourcing) are in the consultation stage and three (actuarial services, governance, and audit committee) are being drafted and should be issued as soon as possible. Poor compliance with mandatory insurance requirements has constrained the growth of the nonlife sector, and enforcement needs to be stepped up.

68. **The two large public pension funds have implemented adequate governance structures, operating procedures, and investment policies**. At the same time, there is still room for further enhancements to underpin stability and good governance. The two funds should disclose their investment policies, total assets, portfolio composition, and returns to their members and the public at large. Investment committees would benefit from a larger

number of independent and expert members, especially in the case of the PPA. Although portfolios are reasonably diversified, the share of short-term domestic assets may be excessive (10 percent and 15 percent in PPA and GOSI, respectively). The management of domestic portfolios should be further outsourced, especially in the case of GOSI. The exercise of ownership rights in bank equity holdings should entail the appointment of independent experts in bank boards. Finally, the government should consider introducing private defined contribution pension funds for expatriates.

## APPENDIX I. THE 2004 FINANCIAL SECTOR ASSESSMENT PROGRAM AND IMPLEMENTATION OF RECOMMENDATIONS

69. **The 2004 FSAP found the banking sector to be sound, with substantial capital, reserves, and liquidity buffers providing resilience to a range of simulated shocks.**[15] This resilience, in turn, was seen to reflect most banks' conservative banking portfolios and large capital cushions. Stability was underpinned by an effective regulatory and supervisory structure that proactively contains risk-taking. The sector was supported by a modern and efficient payment and settlement infrastructure, although some possible improvements in governance were identified.

70. **The authorities have made progress in implementing the 2004 FSAP recommendations, and, in particular, have taken steps to strengthen regulation and supervision.** They have issued circulars enhancing connected lending regulations, consolidated supervision, and country and transfer risks. Other initiatives include improving risk management practices through bank stress tests as part of Basel II implementation, and implementing RBA. SAMA has also updated the anti-money laundering and combating the financing of terrorism manuals for banking and insurance.

### Table 8. Saudi Arabia: Implementation of the 2004 Financial Sector Assessment Program Recommendations

| *Recommendations* | *Status of Implementation* |
|---|---|
| **I. Bank Regulation and Supervision** | |
| Update the BCL of 1966 to limit the influence of the MOF, including to grant exceptions from its provisions, clarify confidentiality provisions and take into account modern prudential practice. | The BCL has not been amended. SAMA has in practice introduced modern practices in the field of banking regulation (including in recent years, detailed Basel II requirements or compensation standards) and supervision (including risk-based and consolidated supervision). There is in practice no sign of interference from the MOF and no exception to the provision of the BCL has been granted. SAMA regularly exchanges information with domestic and foreign supervisors. |
| Enhance disclosure and loan classification arrangements that underpin capital measures. | SAMA introduced detailed Basel II requirements and Saudi banks started implementing Basel II standardized approaches in 2008. |
| Consider formalizing coordination with foreign supervisors. | Cooperation with other domestic and foreign counterparts takes place. MOUs with foreign supervisors are being considered. |

[15] Despite aggregate resilience, one systemically important bank underperformed in the stress tests.

| ***Recommendations*** | ***Status of Implementation*** |
|---|---|
| **II. Market Infrastructure** | |
| Reconsider the pricing of SAMA's repos and reverse repos to stimulate trading of government securities and contribute to building a benchmark yield curve. | In recent years, government securities trading was hindered by the redemption of government bonds, rather than by the pricing of SAMA's repos and reverse repos. |
| Develop specialized dispute resolution mechanisms and introduce a framework for secured transactions, mortgages, pledges, and assignments. | A comprehensive mortgage package is being finalized and is expected to dramatically improve secured lending and the enforcement of collateral. |
| **III. Capital Markets** | |
| Establish clear and transparent coordination arrangements between the CMA, SAMA, and the Ministry of Commerce and Industry (MOCI). | An MOU with the MOCI was signed and another is being negotiated with SAMA. The MOCI MOU should be made public to clarify responsibility for corporate governance regulation. The CMA closely coordinates with both SAMA and the MOCI when needed. |
| Update the Company Law and remove caps on corporate bond issuance. | The Company Law has not been amended. Currently, there is no plan to amend the cap on corporate bond issuance. |
| Consider developing a domestic credit rating infrastructure. | The CMA has authority to license and regulate rating agencies and is working on a framework (no set timeframe for completion). |
| Promote in-depth securities research and advice. | Many securities firms now provide in-depth research services. |
| Build CMA's capacity and demonstrate regulatory enforcement (particularly against insider trading). | The CMA significantly strengthened its capacity in recent years and regularly takes enforcement actions (22 in 2010). |
| Ensure that investor and professional education remains abreast of capital market development. | The CMA has an active investor education program. |
| Consider organizing mutual funds into separate legal entities. | Mutual funds are not required to be separate legal entities, but are structured as contractual investments and managers are required to fully segregate fund assets. |
| Develop a long-term government bond yield curve. | The government has been actively redeeming government bonds. There is no yield curve. |
| Consider introducing a primary dealer system for government securities and allowing them to take short positions. | In an environment of active redemption of government bonds, no primary dealer framework has yet been introduced. |
| **IV. SCIs** | |
| Consider instituting greater transparency and disclosure in the operations of SCIs. | The balance sheets of the SCIs are disclosed in SAMA's quarterly bulletin, but there is still insufficient disclosure of their operations, strategies, and investment policies. |

| ***Recommendations*** | ***Status of Implementation*** |
|---|---|
| Develop a strategy for the PIF's exit from mature investments. | The PIF has listed several companies via initial public offerings in recent years. |
| Price the SIDF products and services close to market rates. | The SIDF still provides lending at concessional rates, but charges fees that cover the costs for the strict monitoring of its portfolio. SIDF follow-up and monitoring is considered to be more intrusive and stricter than for commercial banks, and the agency does not report NPLs. |
| **V. NBFI** | |
| The National Company for Cooperative Insurance should ensure a smooth transition from a largely informal domestic marketplace to one that operates within a sound prudential framework. | The government and SAMA have improved the legal and regulatory framework. SAMA has introduced strict licensing requirements for insurance companies.<br>The industry successfully consolidated and most insurers are now licensed. An effective supervisory structure was established and capacity continues to be enhanced. Key regulations have been issued and main supporting regulations have been published for comment or are at drafting stage. |
| Executive regulations should specify circuit breakers in the event of distress (for example, separation of international reinsurance, prudent relationships between life and nonlife products). | Circuit breakers are required under the enabling regulations (2004) and the reinsurance regulation (2008) and are closely policed by SAMA. |
| The MOF could authorize PPA and GOSI to diversify its asset classes and expand the outsourcing of fund management to entities other than SAMA. | The portfolios of the two public funds are reasonably diversified. SAMA manages the foreign portfolios of both funds, but outsources asset management to several private asset managers. PPA also outsources the management of its domestic equity portfolio. However, GOSI still manages its domestic portfolio in-house. |
| Insurance regulators should apply/adapt the Organization for Economic Cooeration and Development (OECD) Guidelines on Corporate Governance to insurance companies. | All insurance companies are listed and have to comply with corporate governance rules that are in line with the OECD's Guidelines. Moreover, SAMA has drafted regulations on corporate governance that are more specific and stricter than the OECD Guidelines. |
| **VI. Access to Housing Finance** | |
| Legal and judicial systems should recognize creditors' liens on owner-occupied residential property and permit and promote efficient, effective processes for protecting creditor rights in the event of defaults. | Ongoing implementation with the five draft law package that is expected to deeply overhaul and strengthen the mortgage system. The draft laws are said to be close to final approval. |
| Link the REDF to formal finance through the banking sector to help catalyze the expansion of a market-based mortgage finance system and potentially alleviate the budgetary demands of the program. | The new REDF management initiated a dialogue with several banks on possible partnerships to mobilize their resources. Options to arrange such partnerships are being discussed. |

| ***Recommendations*** | ***Status of Implementation*** |
|---|---|
| Disclose reliable market information on the housing sector. | Reliable market information is not yet being disclosed on the housing sector. |
| Adapt prudential capital adequacy rules for banks' assets collateralized by residential property. | Banks were exempt from the lending restrictions on consumer loans that SAMA passed in October 2005. This was one of the reasons for the sudden growth of housing loans. However, neither capital adequacy (through risk weights) nor provisioning rules have been adjusted to reflect the collateralization of loans given enforcement difficulties. The adjustment should however be considered once the new mortgage framework is in place. |
| Establish a new regulatory framework as the mortgage market develops, as well as regulations on appraisers, mortgage brokers, and realtors. | A legal status for appraisers is included in the mortgage package. |
| Adapt the real estate industry's products to the risks associated with the sector (for example, extending the availability of property title insurance or mortgage insurance for residential housing loans). | The implementation of this recommendation is premature and should be reassessed later. |
| Consider allowing repossession while also providing for a government-funded and appropriately targeted social safety net mechanism to effectively enforce collateral in a market-based housing system. | The mortgage package, along with strengthening mortgage enforceability, includes a provision covering social implications of foreclosures. |
| **VII. SME Access to Finance** | |
| Strengthen collateral enforcement to promote the expansion and reduce the cost of market-based financing of SMEs and leasing. | Enforcement of collateral is expected to be substantially improved by a new enforcement law which is part of a broad mortgage finance package recently approved by the Shura Council, but the package needs to be approved by the Council of Ministers. |