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Macroprudential Policy and Financial Stability in the Arab Region

by Ananthakrishnan Prasad, Heba Abdel Monem, and Pilar Garcia Martinez

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Macroprudential Policy and Financial Stability in the Arab Region

Prepared by Ananthakrishnan Prasad, Heba Abdel Monem, and Pilar Garia Martinez[1]

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Abstract

Several characteristics of the structure of the Arab economies, their economic policy framework, and their banking systems make macroprudential policy a particular relevant tool. For most oil exporters, heavy reliance on the extractive sector for generating fiscal revenues and export earnings translates into increased vulnerabilities to oil price shocks. In the case of oil importers, relatively small external and fiscal buffers make them highly vulnerable to shocks. This paper discusses the experience of Arab countries in implementing macroprudential policies and contains recommendations to strengthen their macroprudential framework.

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Keywords: Macroprudential policy, systemic risk, credit, financial stability

Author's E-Mail Address: aprasad@imf.org; Heba.Ali@amf.org.ae; pgarciamartinez@imf.org

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INTRODUCTION

The global financial crisis not only triggered major changes to financial regulation, but it also led to the recognition that financial stability is important to ensure macroeconomic stability. The crisis highlighted the need for a better understanding of macrofinancial linkages and underscored the importance of macroprudential policies, in addition to microprudential regulation and supervision and strong fiscal and monetary policy frameworks. Macroprudential policies aim to increase the overall resilience of the financial system, contain the buildup of systemic risk over time, and address vulnerabilities stemming from structural relationships between financial intermediaries.[2]

Several characteristics of the structure of the Arab economies, their economic policy framework, and their banking systems make macroprudential policy a particularly relevant tool. The importance of macroprudential policy to limit systemic risk in the financial system is underlined by the high dependence of the Arab countries on hydrocarbon revenues in fostering economic growth, which makes them especially vulnerable to swings in global energy prices. Volatility in the hydrocarbon sector spills over to the rest of the economy, amplified in many cases by the financial sector. The lack of ex ante crisis management and resolution regimes would make a banking crisis even more difficult to handle ex post.

For most oil exporters, heavy reliance on the extractive sector for generating fiscal revenues and exports earnings also translates into increased vulnerability to oil price shocks. In addition, their pegged exchange rate regimes and the consequent limited independence of monetary policy places an additional premium on macroprudential policies. In the case of oil importers, relatively small external and fiscal buffers make them highly vulnerable to shocks. Macroprudential policy can help increase buffers to protect the financial system from potential systemic risks. However, macroprudential policies cannot serve as a substitute for sound fiscal policy and essential structural reforms—including financial sector reforms— to attain macroeconomic stability.

Arab countries have made important strides toward strengthening the stability of their financial systems. Since the global financial crisis, they have sharpened prudential regulation by tightening capital and liquidity requirements and are in the process of implementing Basel III standards on capital, liquidity, and leverage. A number of central banks have established a separate financial stability office/unit and set up an early warning system, in addition to conducting periodic stress testing of banks. Many countries in the Arab region, particularly the GCC, were ahead of others around the world in implementing some measures now widely accepted as macroprudential tools. These measures include the loan-to-

[2] See IMF (2013c).

deposit ratio, regulations on personal lending such as debt service to income ratio and limits on loan tenor, and limits on concentration, including on real estate exposure.

There is scope for the Arab countries to better understand, identify and mitigate spillovers through the financial sector, and in particular to build up appropriate buffers and limit excessive leveraging and credit booms in good times. Maintaining financial stability requires flexible and adaptive macroprudential policies. A macroprudential policy framework should ideally encompass: (i) a system of early warning indicators that signal increased vulnerabilities to financial stability; (ii) a set of policy tools that can help contain risks ex ante and address the increased vulnerabilities at an early stage, as well as help build buffers to absorb shocks ex post;and (iii) an institutional framework that ensures the effective identification of systemic risks and implementation of macroprudential policies.

The existing institutional arrangement in many Arab countries requires adjustments to support an effective macroprudential policy function. Key improvements would involve: (i) assigning a macroprudential policy mandate and a delineation of its powers; (ii) establishing a financial stability coordination committee comprised of all financial system regulators, including the capital markets authority, the insurance supervisor, and the Ministry of Finance; (iii) ensuring appropriate accountability mechanisms; and (iv) elevating to a legal requirement the exchange of information.

Strengthening the effectiveness of macroprudential tools requires improving the availability of data. The recent global financial crisis in the advanced economies revealed major gaps in the information available to the authorities to monitor systemic risks. In Arab countries, there is room for enhancing data infrastructure and availability to allow for a more complete assessment of systemic risks and a more comprehensive basis for selecting and operating macroprudential tools.

I. Why is Macroprudential Policy Important in the Arab Region?

The Arab economies are heavily dependent on oil, which makes them especially vulnerable to swings in global oil prices. Volatility in the hydrocarbon sector has a direct impact on the rest of the economy, especially the financial sector. For most oil exporters, in particular, there is a direct line between their heavy dependency on oil and less diversified economies. Countries deeply dependent on the extractive sector for fiscal revenues and export earnings are also much more exposed to shocks. In addition, the financial sector operates as a shock amplifier as banks tend to have high US dollar and energy sector exposure.

Most of the Arab oil-importing countries also suffer from high macroeconomic volatility connected to sharp movements in oil prices. Small external and fiscal buffers and in some cases weak policy frameworks, make oil importers highly vulnerable to shocks. Foreign exchange reserves are low, and current account deficits remain substantial in many countries. High or rising public debt levels are of concern, driven by persistently large fiscal

deficits. Even as countries are realizing the need for fiscal consolidation and strengthening their fiscal frameworks, fiscal deficits are still high in most countries.

The pre- and post-global crisis period demonstrates the vulnerability of the region to credit and asset price cycles. In the pre-crisis period, domestic liquidity in the region grew by 24 percent in 2007 compared to 13.3 percent in 2003, while private sector credit growth of banks recorded a substantial increase over this period—especially by 2007—to 29 percent. When these factors reversed, they caused considerable stress to the financial system. The growth of domestic liquidity in the region declined by 11 percentage points in 2009, and private credit facilities slumped by more than 20 percentage points in the same year to 4.3 percent (Box.1).[3]

Monetary policy independence is constrained in most Arab oil-exporting countries due to fixed exchange rate arrangements, despite the presence of capital controls in some countries. Monetary operations are further constrained by relatively limited capabilities in liquidity management as central banks' liquidity management relies primarily on reserve requirements and issuance of Certificates of Deposit (CDs) and T-Bills. In addition, monetary operations are constrained by the absence of liquidity forecasting, the shallow nature of money markets and financial markets, all of which limit the capacity to conduct open market operations. Credit growth is characterized by a buildup of large exposures in oil-related and real estate sectors (see Box 1).

Despite more flexible exchange rate regimes in some cases and thus greater independence in monetary policy, some Arab oil-importing countries are also exposed to global economic shocks, which exacerbate existing vulnerabilities. The transmission occurs either through their increased level of sensitivity to external demand, which contributes about one-third of their gross domestic product, or through oil prices which heavily affect their fiscal and external balances in a context of small policy buffers. Furthermore, bank liquidity strains may severely affect the provision of credit while excessive concentration on some risky exposures like the real estate sector may contribute to the building-up of systemic risks. Twin deficits have amplified during oil prices surges as in 2009–11, and moved in the opposite direction when oil price decreases (Figure 1).

Fiscal policy has been used as a first line of defense to offset shocks in both in oil-exporters and importers, but with mixed results. Fiscal policy proved to be procyclical in many Arab countries due to heavy reliance on hydrocarbon revenues in oil-exporting countries and lack of automatic stabilizers in oil-importing countries. However, during the global financial crisis, many countries resorted to countercyclical fiscal policy to offset the effects of oil shocks on aggregate demand with substantial negative impact on fiscal and external balances. Fiscal policy is not always flexible enough to prevent credit booms and the

[3] Arab Monetary Fund, the Joint Arab Economic Report Database.

buildup of systemic risk in the financial sector due to implementation time lags and rigidities in expenditure as a result of the significant share of wage and subsidies bill in total public spending.

The global financial crisis showed that prudent monetary policy and strong microprudential policy cannot by themselves ensure financial stability. Serious financial imbalances were accumulating before the crisis due to excessive credit and exposure to risky assets, even in a more stable macroeconomic environment characterized by low levels of inflation and solid growth rates. Therefore, it became clear that the policies adopted prior to the crisis were neither sufficient for containing systemic risks nor in ensuring the resilience of the financial sector. Micro prudential policies, on the other hand, should focus on ensuring the soundness of financial institutions at the individual level. However, the lack of ex ante crisis management, and resolution regimes which do not provide a clear division of responsibilities and burden sharing complicates even more a potential crisis scenario.

In sum, macroprudential policy has a key role to play to limit systemic risk. Given the vulnerability of the region to credit and asset price cycles, the limited monetary policy independence under the fixed exchange regimes in many oil exporters, and the absence of fiscal buffers in oil importers, macroprudential policy also has an important role to play to limit systemic risk in the financial system. However, macroprudential policy cannot be a substitute for structural reforms—including financial sector reforms—needed to reduce medium and long term vulnerabilities and imbalances.

This study assesses the current regulatory and institutional macroprudential frameworks, identifies the macroprudential tool kit used in Arab countries, and traces the progress achieved towards the implementation of Basel III standards.[4] Information in this study is based on survey conducted by the IMF and AMF with the regulatory and supervisory departments of central banks.[5] The rest of the paper is structured in the following manner. Section II discusses the institutional framework for macroprudential policy. Section III discusses the role of macroprudential policy in achieving financial stability. A detailed discussion on the experience of Arab countries in implementing macroprudential policies can

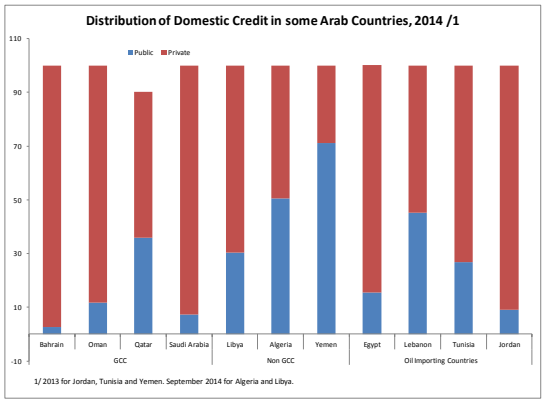
[4] Arvai, Zsofia, Prasad Ananthakrishnan and Katayama Kentaro (2014) provide a framework for the GCC countries.

[5] The survey was sent to 19 countries. Responses were received from all except Djibouti, Mauritania, Yemen, and Syria. Countries have been grouped in three. The first group comprises the GCC oil exporters, namely Bahrain, Oman, Kuwait, Qatar, Saudi Arabia and the UAE. The second Group includes oil-importers, namely, Egypt, Jordan, Lebanon, West Bank and Gaza, Morocco, Tunisia, and Sudan. Of these countries, both West Bank and Gaza and Sudan have unique banking sector characteristics. The Palestine Monetary Authority (PMA) is working under very tough and exceptional conditions to achieve sound and effective financial system, which are mainly associated with the peculiarities of the Palestinian situation. Since 1983, Sudan has operated under a purely Islamic banking system. The third group comprises non-GCC oil exporters, namely Iraq and Libya with exacerbated geo-political challenges.

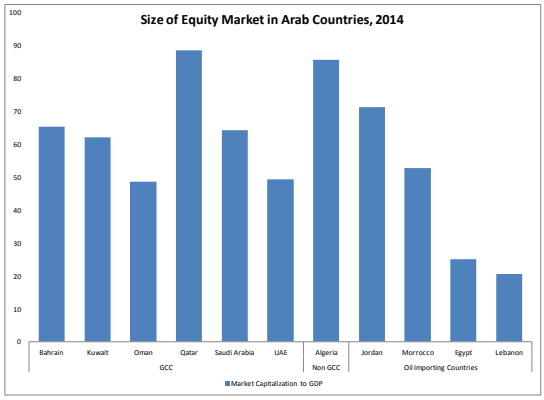
be found in Section IV. Finally, Section V contains recommendations to strengthen the macroprudential framework in Arab countries.

Box 1. Potential Vulnerabilities in Credit, Equity, and Real Estate Markets in Arab Countries[1/]

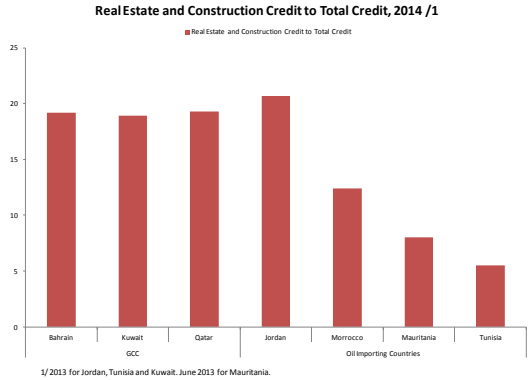
The majority of the Arab world's bank domestic credit is concentrated in the private sector (except for Qatar, Algeria, Yemen, and Lebanon which have a high percentage in the public sector). Private sector credit distribution also varies within the GCC and Arab oil importing countries. Bahrain, Egypt, Morocco, and Tunisia have a high percentage of their private credit for trade, industry, and finance sectors. However, banks in the GCC countries and Mauritania have a large share of the credit portfolio in personal consumption loans. For many GCC banks' credit is also concentrated in the real estate sector. Furthermore, many GCC countries face borrower concentration risk in their credit portfolio. For instance, the five largest borrowers account for about seven percent of the Omani banks' total credit portfolio (35 percent of capital), while the top 10 largest borrowers represented about 109 percent of Tier 1 capital in Qatar at end-2012. The 10–20 largest borrowers in three Kuwait banks represented more than 18 percent of their gross loans, advances.[2,3] Their gross exposures are concentrated on claims on corporates, sovereigns, and public entities. Specifically their credit exposures are in sectors that are ultimately dependent on oil. Many GCC banks are found not to lend much outside of the Middle East. By international standards, banks in GCC countries have sizable capital buffers considering the concentration risks they currently face in their credit portfolios.



Equity market values to GDP ratios are generally below 100 percent in the Arab region. GCC countries, for instance, have a market cap to GDP ratio of above 50 percent with Qatar exceeding 80 percent in 2014. Oil-importing Arab countries further vary with the size of their equity markets; some like Jordan and Morocco exceeded 50 percent of market cap to GDP, while the ratios of Lebanon and Egypt are well below 50 percent.



Although the availability of information on the real estate sector in the Arab world is scarce, few available indicators (such as credit to real estate and construction to total credit) point to a relatively significant size of the real estate sector in oil-importing countries. All available information for Arab countries' banks point to exposures in the threshold of 20 percent of their total credit to real estate and construction sectors. Some GCC countries have constructed housing price indices that clearly indicate a surge in their real estate prices (e.g., Qatar). The real estate price trends seem more subdued in Arab oil importing counties. By looking at other available indicators—such as the trading volume of real estate stocks for Jordan and its real estate price index—steady growth is evident.



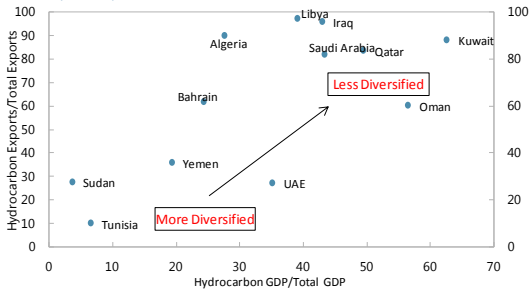
Prepared by: Hania Qassis, IMF

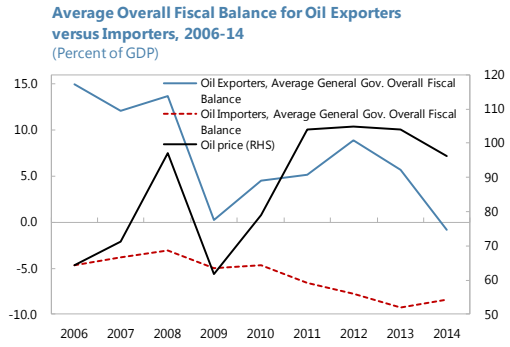
1/ Arab Countries Central Banks', Annual and Financial stability reports and IMF's article IV reports for each respective country.

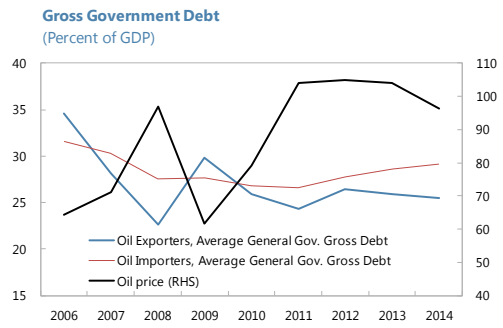
2/ Based on IMF paper for the Annual Meeting of Ministers of Finance and Central Bank Governors; "Assessing Concentration Risk"; October 25, 2014.

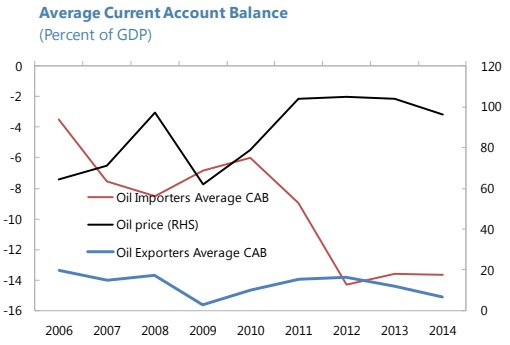
3/ Information on concentration of Banks in non GCC countries was not available.

Figure 1. Oil Dependency and Variability of Main Macro Variables



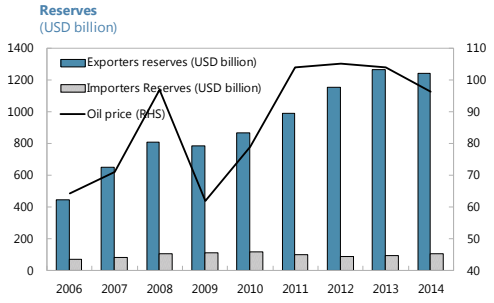


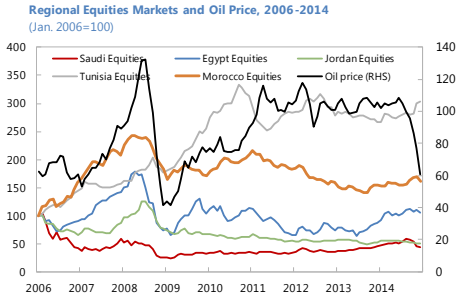


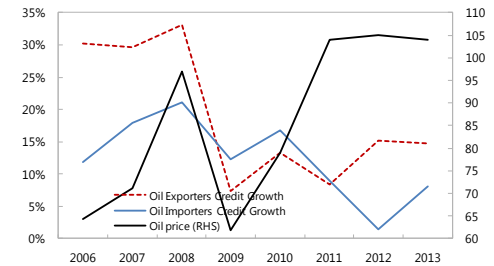


Source: IMF staff calculations

Figure 2. Oil Prices, Monetary Developments and Exchange Regimes







Soft peg		
Conventional Peg	*Stabilized Arrangement*	*Crawl-like arrangement*
Bahrain	Iraq	Tunisia
Kuwait	Yemen	
Libya	Egypt	
Oman	Lebanon	
Qatar		
Saudi Arabia		
Sudan		
UAE		
Jordan		
Morocco		
Other managed arrangement	**Floating**	**Currency board**
Algeria		Djibouti
Mauritania		
Syria		

Source: IMF calculations, Bloomberg

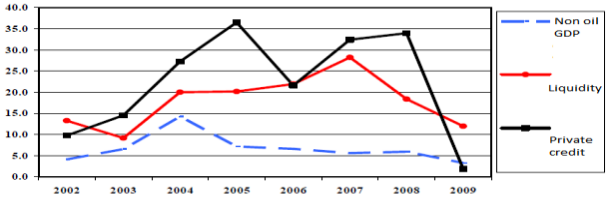
Figure 3. Arab Banking Sector Developments, Effects of the Global Financial Crisis, Measures taken to Mitigate the Effects of the Crisis and Main Characteristics

Private Sector Credit to GDP (1990–2010) %

(2000-2010)	(1990-1999)	
48.62	35.58	First Group (GCC countries)
51.45	41.37	Second Group (Oil-importing countries)
10.00	12.71	Third Group (Other oil-exporting countries)

Source: Arab Monetary Fund, " The Joint Arab Economic Report" Database.

Effects Of the Global Financial Crisis on GCC Countries Growth of Non-Oil GDP, Liquidity and Private Credit



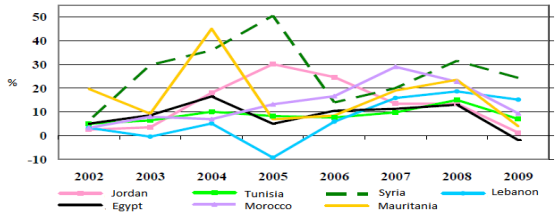
Arab Monetary Fund, (2010). "The Consequences of the Global Financial Crisis on Arab Countries", The Joint Arab Economic Report: Thematic Chapter.

Financial Soundness Indicators: First Group

	Capital Adequacy Ratio		% of Non-Preforming Loans		ROA		ROE	
	2007	2009	2007	2009	2007	2009	2007	2009
UAE	14.0	18.6	2.9	4.6	2.0	1.5	22.0	12.1
Bahrain	21.0	19.6	2.3	3.9	1.2	1.2	18.4	10.6
Saudi Arabia	20.6	16.5	2.1	3.3	2.8	1.9	22.3	13.7
Oman	15.9	15.5	3.2	2.8	2.1	2.2	14.3	14.2
Qatar	13.5	16.1	1.5	1.7	2.0	2.3	25.5	19.9
Kuwait	18.5	18.9	3.2	9.7	3.2	0.8	25.0	6.5

Arab Monetary Fund, (2010). "The Consequences of the Global Financial Crisis on Arab Countries", The Joint Arab Economic Report: Thematic Chapter.

Change in Credit to Private Sector: Second Group



Arab Monetary Fund, (2010). "The Consequences of the Global Financial Crisis on Arab Countries", The Joint Arab Economic Report: Thematic Chapter.

Interventions to Enahnce the Resilience of the Banking Sectors and Mitigate the Effects of the Crisis: First Group

	Ensuring Banking Deposits	Central Banks Liquidity Facilities	Gov. Long-term deposits	Capital injection	Buying Banking Investments Portfolio	Buying Banking listed Stocks	Easing Monetary Policies
United Arab Emirates	✓	✓	✓	✓			✓
Bahrain		✓	✓				✓
Saudi Arabia	✓	✓	✓				✓
Oman		✓	✓		✓	✓	✓
Qatar	✓	✓	✓	✓		✓	✓
Kuwait	✓	✓	✓	✓		✓	✓

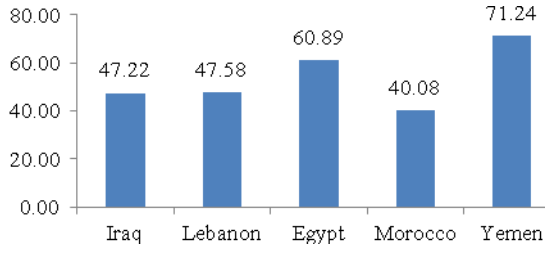
Arab Monetary Fund, (2010). "The Consequences of the Global Financial Crisis on Arab Countries", The Joint Arab Economic Report: Thematic Chapter.

Interventions to Increase the Resilience of the Banking Sectors and Mitigate the Effects of the Crisis: Second Group

	Measures to enhance economic growth	Banking deposits guarantee	Lowering the legal reserve requirements	Enhancing liquidity	Reducing policy rates
Jordan		✓	✓	✓	✓
Tunisia	✓	✓	✓	✓	✓
Syria			✓		
Lebanon			✓	✓	
Egypt	✓	✓			✓
Morocco		✓	✓	✓	✓
Mauritania			✓		

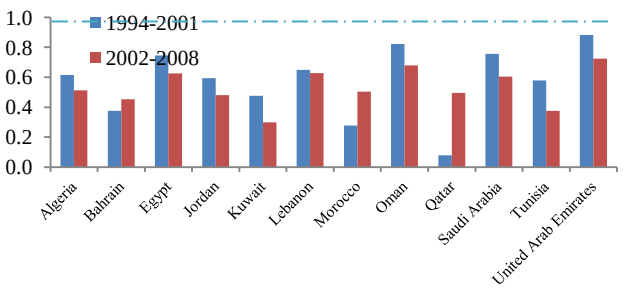
Arab Monetary Fund, (2010). "The Consequences of the Global Financial Crisis on Arab Countries", The Joint Arab Economic Report: Thematic Chapter.

Dominance of Public Banks With A High Level of Credit to Public Sector Associated in Some Arab Counrties



Source: Arab Monetary Fund, " The Joint Arab Economic Report" Database.

Levels of Banking Sector Competition According to H-Statistics



* Approaching 1 means increasing levels of competition.
Anzoátegui, D. et al. (2010). "Bank Competition in the Middle East and Northern Africa Region", Review of Middle East Economics and Finance, Vol. 6, No. 2

II. INSTITUTIONAL FRAMEWORK FOR MACROPRUDENTIAL POLICY[6]

A. Mandate

A strong institutional framework is crucial for ensuring that the authorities can use macroprudential tools effectively.[7] The framework needs to ensure a so-called ability and willingness to act while fostering adequate coordination across different sectors and policies. In particular, the macroprudential authority should be guarded from political and industry pressures to delay action, while providing an adequate system of checks and balances to avoid using macroprudential policy beyond its call of duty (see Box 2). The necessary coordination mechanisms should be in place to facilitate information sharing and policy cooperation, while preserving the autonomy of separate policy functions.

In practice, different models can be identified in Arab countries depending on who has the mandate for macroprudential policies (Table 1):[8] (i) there is no explicit financial stability mandate legally assigned to any institution (Kuwait, and Libya); (ii) different agencies ensure different aspects of financial stability but there is no coordination between them (the UAE); (iii) the financial stability mandate is shared by multiple agencies including the central bank, which chairs the coordination body (Morocco); (iv) the central bank, or a committee of the central bank, is the sole owner of the mandate (Saudi Arabia, Bahrain, Oman, Jordan, Iraq, Qatar, Lebanon, Tunisia, and Egypt). The central bank, in a majority of countries, plays an important role.

There is no one-size fits all model but most Arab countries would benefit from strenghtening their institutional setting. In particular, for most countries, greater clarity on the mandate, instruments and functions of the institutions involved together with a transparent accountability framework would reinforce the capactiy and willingness of those institutions to act.

As part of the implementation of the financial stability objective, some countries have established a separate financial stability office within the central bank. Central banks in all Group 1 countries (GCC) have set up separate financial stability offices and publish financial stability reports. In Group 2, Lebanon has recently established a financial stability unit within the central bank and a department within the banking control commission to monitor the systemic risk in the banking sector, and a financial stability committee chaired by the vice governor of the central bank, together with members of the banking control commission, the financial stability unit, and representatives from other departments in the central bank.

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[6] This section draws heavily on IMF work on the subject.

[7] For more details see Staff Guidance Note on Macroprudential Policy, IMF (2014).

[8] Lim, C. and others (2013b).

Box 2. Considerations for Institutional Framework

An explicit mandate assigning clear roles and responsibilities to the relevant agencies with powers to decide—while remaining accountable—should be clearly defined in the law. A rules-based approach helps to overcome the inaction bias or avoid extra limitations in the use of the tools, but some discretion may be needed to enable the authorities to respond to changing conditions in financial sectors as sources of systemic risks evolve. Guided discretion should be accompanied by clear communication based on the systemic monitoring of various key indicators combined with expert judgment. Clear communication and transparency creates public awareness of risks and an understanding of the need for action. An adequate accountability arrangement involves two elements: an internal system of checks and balances, complemented by the scrutiny of external third parties (e.g. parliament, public opinion). Transparency should also involve the publication of an overall strategy, motivation for policy decisions, and the periodic assessment of effectiveness and costs.

There is no one-size fits all.[1] No institutional model is without weaknesses and each has different strengths. Different institutional arrangements are shaped by country-specific circumstances, such as historical events, legal traditions, resource availability, and the size and complexity of the financial markets. A variety of frameworks exists depending on the degree of integration between the main building blocks and the structure of coordination across policies. Nier et al. (2011) identify five key distinguishing dimensions for different arrangements: (i) the degree of institutional integration between central bank and financial regulatory and supervisory functions; (ii) the ownership of the macroprudential mandate; (iii) the role of the government in macroprudential policy; (iv) the degree to which there is organizational separation of decision making and control over instruments; and (v) whether or not there is a coordination committee that while not itself charged with the macroprudential mandate, helps coordinate several bodies. The need for coordination is especially important since macroprudential policies interact with other policies.

While there are advantages and disadvantages to any model, some general lessons can be translated into basic guidance.

- The macroprudential mandate should be assigned by law to an authority with clear objectives and accountability.
- The central bank should play an important role in macroprudential policy. However, its independence and credibility should not be undermined.
- Complex and fragmented regulatory and supervisory structures are unlikely to lead to the effective mitigation of risks to the system as a whole. Formal coordination mechanisms across institutions and policies are needed.
- Participation by the Ministry of Finance is useful, but if the ministry plays a dominant role, that may pose important risks.
- Systemic risk prevention and crisis management are different policy functions that should be supported by separate arrangements.

Source: This box is based on information in Nier, Erland, W and others (2011).

[1] See Arvai, Zsofia Prasad Ananthakrishnan and Katayama Kentaro (2014) for more details.

Table 1. Who Runs Macroprudential Policy?

Who Is Runs Macroprudential Policy?	Countries
No Formal Macroprudential Policy Mandate in the Law	Kuwait, Libya
Different Agencies Without Formal Coordination	UAE
Different Agencies With a Coordination Committee	Morocco
Central Bank is the Macroprudential Authority	Saudi Arabia, Bahrain, Oman, Jordan, Iraq, Qatar, Lebanon, Tunisia, and Egypt

Source: Authors' calculations from survey of 12 countries

B. Coordination

The need for coordination arises because macroprudential policy, inevitably, interacts with other policies. Coordination is especially important when formal authority over tools for specific systemic risks rests with bodies other than macroprudential authorities, such as in the case of Morocco. Nonetheless, coordination should respect the autonomy of the different bodies in achieving their primary responsibilities. Coordination helps exploit complementarities with micro prudential, fiscal, monetary, and structural policies.

The current regulatory structure for most Arab countries depends on informal mechanism for coordination and information sharing. Some countries, including Kuwait, Oman, Qatar, Saudi Arabia and the UAE have established authorities to regulate capital market institutions and investments. Although the central bank is the de facto single integrated regulator of the financial market, capital markets are regulated and supervised by the capital market authority. In the UAE, there are multiple regulators.[9] Qatar has established a formal structure for coordination among the regulatory bodies through the financial stability and risk control committee. The recently established Higher Committee on Financial Stability in Oman is headed by the Executive President of the central bank and includes other regulatory bodies—plus the Ministry of Finance—as members. Morocco has amended laws governing the supervisors for insurance, pensions, and capital markets in order to strengthen their respective independence. These new institutions will become fully operational with the appointment of their respective management bodies.

III. Macroprudential Policy Tools: A Practical Approach

A successful macroprudential policy framework should closely monitor systemic risks in time varying and cross-sectional (structural) dimensions. Supervisory authorities should monitor and evaluate financial imbalances and procyclical financial activities over time. They must also give due attention to the cross-sectional (across the firms) systemic risks that emerge from the interconnectedness of the financial institutions, common exposure, and high risk concentration.[10]

There are many classifications for macroprudential instruments according to their dimensions, purpose of use, and the financial variables they are targeting. Macroprudential policy measures could be classified into five major groups according to the source of systemic risk.[11] Credit booms can be addressed by measures that influence all credit

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[9] The central bank regulates the banking system and the exchange houses. Of the three stock exchanges in the country, the Dubai Financial Market and the Abu Dhabi Securities exchange are both governed, and regulated, by the Securities and Commodities Authority. The third, NASDAQ Dubai, located in the Dubai International Financial Center, is governed by an independent regulator (the Dubai Financial Services Authority). The insurance sector is regulated by the insurance authority.

[10] Caruana, J. and Cohen, B. (2014).

[11] International Monetary Fund (IMF), (2014). "Staff Guidance Note on Macroprudential Policy", Dec.

exposures of the banking system. These measures include, for instance, countercyclical capital buffers (CCBs), dynamic loan loss provision requirement, and leverage ratio. These measures are also called broad based macroprudential tools as they affect all the credit exposure of the banking system.[12] On the other hand, household sector vulnerabilities can be contained through a range of sectoral tools that target specific credit categories such as sectoral capital requirements (risk weights), loan-to-value (LTV), and debt-service-to-income (DSTI) ratios. Financial vulnerabilities arising from increasing corporate leverage can be addressed using sectoral capital requirements (risk weights) and exposure caps, in addition to other measures such as LTV limits. Systemic liquidity and currency risks can be contained through liquidity buffer requirements, stable funding requirements, liquidity charges, reserve requirements, constraints on open FX position, and constraints on FX funding. Structural risks can be addressed through capital and liquidity surcharges for systemically important institutions, measures to control interlinkages in funding and derivatives, and exposure limits. (Table 2).

Table 2. Macroprudential Policy Toolkit

Time Varying MaPP tools:
Liquidity
• Reserve requirement ratio
• Limits on open FX positions
• Liquidity requirements
• Loans to deposits ratio
• Margins/haircuts on collateral financial transactions
Capital:
• Countercyclical capital buffer
• Time varying / dynamics loan loss provisioning
• leverage ratio
Sector Specific measures:
• Sector specific capital buffer
• LTV ratio
• DSTI ratio
Others
• Limits on domestic loans
• Limits on foreign currency loans
Structural dimension MaPP tools:
Interconnectedness
• Capital surcharge on SIFIs
• Limits on interbank exposure
• Concentration limits

Source: International Monetary Fund (2013), "Global Macroprudential Policy Instruments Survey"

[12] International Monetary Fund, (2014). "Staff Guidance Note on Macroprudential Policy-Detailed Guidance on Instruments, Nov.

Macroprudential measures had been widely used in emerging market economies long before the crisis. The macroprudential tool most frequently used by regulatory authorities is loan to value ratio for both advanced and emerging economies.[13] More specifically, advanced economies tend to use LTV, DSTI ratios, while emerging economies prefer LTV, limits on foreign currency lending, and limits on credit growth.[14] Generally, housing measures have been the key focus of MaPP interventions in many different jurisdictions.

Regulatory authorities should continuously trace all relevant information to identify the proper macroprudential policy stance. Regulators are encouraged to make use of all available and relevant indicators to identify when to tighten, or ease, their macroprudential stance (Table 3). Therefore, if policy makers discover market participants to be excessively risk-averse, they can intervene to restore confidence in the market, and vice versa. The regulatory authority's discretion is also important for determining whether systemic risks are the result of an accumulation of financial imbalances, or merely the result of reasons completely unrelated to the financial sector. For instance, higher levels of private credit to GDP could be linked either to financial development or as a result of some economic plans aimed at fostering economic growth. Also, housing price asset bubbles could be associated in some countries to a shortage in the supply of housing units, rather than excessive real estate loans.

[13] Bank for International Settlements (BIS), (2010). "Macroprudential Instruments and Frameworks: a Stock-Taking of Issues and Experiences (A report of a Working Group chaired by Lex Hoogduin). CGFS Papers No 38.

[14] Claessens et. Al. (2014). "Macroprudential Policies to Mitigate Financial System Vulnerabilities". IMF working paper 14/155

Table 3. Indicators Used to Identify When to Tighten and Ease Macroprudential Measures

Indicators used to define when to tighten macroprudential policy			**Indicators used to define when to ease macroprudential policy**
Instruments	**Core indicators**	**Additional indicators**	**Additional indicators**
Broad-based (Capital) tools	Credit/GDP gap	• Growth in credit/GDP • Credit growth • Asset price deviations from long-term trends • Under-pricing of risk in financial markets (low volatility/spreads) • DSTI ratios • Leverage on individual loans or at the asset level • Increasing wholesale funding ratio (noncore funding) • Weakening exports and resulting current account deficits	• High frequency indicators of balance sheet stress, such as increases in bank credit default swap (CDS) spreads. • Increases in lending rates/ spreads. • Slowing credit growth. • Increasing default rates and nonperforming loans (NPLs)/arrears. • Indication of worsening credit supply from lending surveys.
Household tools	• Household loan growth • Increasing house prices (nominal and real growth) • House price-to-rent and house price-to-disposable income ratio • Increasing share of household loans to total credit	• Increasing house prices by region and by types of properties • Deteriorating lending standards • High LTV ratio • High loan-to-income (LTI) ratio • High DSTI ratio • Share of FX loans and interest only loans	• Decreasing house prices • Decreasing real estate transactions • Increasing spreads on household loans • Decreasing prices of mortgage backed securities • Slowing net household loan growth (change in stock) • Slowing growth of new household loans (flow) • Increasing household NPLs/arrears
Corporate tools	• Corporate loan growth • Increasing share of corporate loans to total credit • Increasing commercial property prices • Increasing commercial real estate credit. • Increasing share of FX loans	• Increasing corporate leverage (debt to equity ratio) • Corporate credit gap • Increasing debt-service ratio • Deteriorating lending standards • Average DSTIs on commercial real estate loans • Average LTVs on commercial real estate loans • Share of FX loans and extent of natural hedges	• High frequency indicators, e.g., corporate CDS spreads, bond yields • Increases in lending rates/spreads • Decreasing corporate loan growth; Increasing corporate default rates/NPLs/arrears • Indication of worsening credit supply from lending surveys.
Liquidity tools	• Increasing loan-to-deposit (LTD) ratio • Increasing share of noncore funding to total liabilities	• Decreasing share of liquid assets • Worsening maturity mismatches • Increasing securities issuance • Increasing unsecured funding • Increasing FX positions • Increasing gross capital inflows	• Increasing spread between interbank rate and policy/swap rate • Increasing funding costs in the wholesale market • Increased recourse to central bank liquidity windows • Swap rate of local currency against FX and FX implied volatility • Reversal of gross capital inflows.

IV. How Arab Countries Have Implemented Macroprudential Policy

This section reviews the macroprudential tools Arab countries have been using. The discussion is structured using the three-group classification specified earlier. The Annexes provide an overview of the major macroprudential instruments, the institutional structure, and progress in the implementation of Basel III standards used in individual countries that responded to the survey.

GCC central banks have been using several macroprudential instruments over many years to mitigate against exposures to real estate and personal loans, and group concentration risks. GCC countries implemented a number of macroprudential tools before the global financial crisis, particularly in order to contain retail lending. However, these measures often came late in the credit boom.

- **Capital, provisioning, and liquidity requirements for banks.** Most of the GCC countries have established a fixed ratio for general provisions, but none have dynamic or countercyclical measures, except Saudi Arabia, where banks are required to maintain a provisioning ratio of 100 percent of nonperforming loans (NPLs), a requirement raised to as high as 200 percent at the peak of the economic cycle. In Kuwait, Oman, Qatar, and the UAE, the general provisioning ratio was adjusted upward after the crisis. In addition, in Kuwait precautionary provisions are applied since 2008. Other requirements for banks—such as those forbank deposit reserves and liquidity levels—have been commonly used in the region.

- **Basel III regulations.** Basel III capital regulations have been implemented in all the GCC countries except in the UAE. The framework for domestic systemically important baks (DSIBs) has been implemented in Bahrain, Kuwait, Oman, Saudi, and Qatar. The framework is expected to be finalized in the near-term in the UAE. With regard to liquidity regulations, the liquidity coverage ratio has been introduced in all the GCC countries except the UAE, the same with regard to leverage ratio.

- **Ceilings on personal loans.** Personal lending regulation assumes macroprudential significance because of its high share in total lending and the moral hazard related to the debt-bailout expectations of nationals.[15] DSTI ratios are commonly used in the region, except in Oman and Kuwait. In Kuwait the applicable DSTI is 40 percent. Most countries have imposed a cap on monthly repayments as a share of the monthly salary of the borrower. This limit ranges from between 33 percent (Saudi Arabia) and 50 percent (Bahrain, Qatar, and the UAE). While the UAE has set a ceiling on the total amount of

[15] The United Arab Emirates set up an AED10bn (USD2.7bn) debt settlement fund to clear the defaulted debts of its citizens in 2011, but to date there has only been limited utilization.

personal loans, Oman has no such ceiling. Qatar has imposed a differential ceiling on individual loans to nationals and expatriates. The use of LTV ratios on mortgages is still uncommon, although the UAE has implemented a ceiling on LTV ratios. Only Qatar and Saudi Arabia have taken explicit measures, while business practices in other countries have resulted in the ratio being around 80 percent.

- **Loan-to-deposit ratios:** GCC countries have been ahead of many other countries in imposing LTD ratios. Ceilings on credits for banks, such as LTD ratios, are common in the region, with the range of ratios varying from 60 percent in Bahrain to more than 100 percent in Qatar. The only exception is the UAE, where there is a related regulation prohibiting loans that exceed stable resources as percent of bank's capital. These ratios helped contain liquidity risk and the reliance on wholesale funding. However, constant LTD ratios failed to sufficiently slow credit growth in the run-up to the crisis: the deposit base was expanding due to high liquidity in the system (the average annual real growth in credit to the private sector in the GCC ranged from between 17 percent for Oman to 35 percent for Qatar during 2003–08). A gradual tightening of LTD**s** might have contributed more effectively to limiting credit growth, though it would not have prevented the kind of exuberant foreign borrowing observed in the UAE prior to 2008.

- **Limits on real estate exposures.** Such limits were in place in GCC banking systems even before the global crisis, but the definition of real estate in the regulations did not adequately cover real estate–related lending and financing activities. As a result, banks' actual exposure to the real estate sector turned out to be higher than suggested by the regulatory caps. LTVs for real estate lending were generally not part of the macroprudential toolkit prior to the crisis. Although mortgage lending is still only a small share of residential real estate financing—which remains largely cash-based—LTVs for real estate developers, where relevant, might have helped to stem the real estate boom. In the aftermath of the crisis, LTVs are increasingly recognized in the GCC as potentially useful instruments for containing banks' exposure to the real estate sector. All countries have some form of LTVs, except Bahrain.

The oil-importers group (Egypt, Jordan, Lebanon, West Bank and Gaza, Morocco, Tunisia and Sudan) is characterized by high levels of banking concentration. Banks in this group are more vulnerable to business cycle shocks due to the credit concentration in some sectors that are highly sensitive to the economic cycle.[16] Liquidity problems, credit concentration and large sectoral exposures constitute the main risks that banks face within

[16] For instance, tourism and personal loans constitute around 71 percent of total credit facilities in Tunisia.

this group.[17] Most of these countries use different macroprudential instruments to manage these risks.

- **Broad-based macroprudential tools.** All the countries in this group have some form of general provisioning requirements aimed at helping banks to establish a "safety cushion" to strengthen resilience against risks. In Lebanon, banks are required to maintain a minimum general provision of 1.5 percent of the retail loan portfolio, gradually phased over 4 years beginning 2014. In addition, banks are required also to hold a general reserve of 1.5 percent of corporate and SME loans over a four-year period and 3.5 percent of retail loans (excluding housing) over 7 years starting 2014. In West Bank and Gaza, banks have to maintain a general provision of 1.5 percent of direct performing loans and 0.5 percent of the off-balance sheet facilities. Sudan applies a general provision of 1 percent of credit facilities. It is worth noting that, despite high levels of banks' vulnerability to business cycle risks, none of these countries use time-varying loan loss provisioning requirements.

- **Liquidity tools.** A legal reserve requirement is a commonly used tool to mitigate liquidity risks. In addition, liquidity ratios are imposed on banks, ranging from between 60 and 70 percent of the total short-term banking obligations. Moreover, limits on forex currency positions and mismatches have been enforced within this group. In Egypt, long and short positions in any single currency cannot exceed 1 percent and 10 percent, respectively, of the capital base, and 2 percent and 20 percent, respectively, for all currencies. In Jordan, they cannot exceed 15 percent for position in total currencies and 5 percent in individual currency, while in Lebanon there are limits of 1 percent of Tier 1 capital for net trading position and 40 percent of Tier 1 capital for global forex position. Banks in Morocco are required to maintain their forex position under 20 percent of capital for all currencies and 10 percent per currency, while in Tunisia there are two limits on FX position: one in relation to net capital equity and another related to total loss on a position. In West Bank and Gaza, open position of each currency should not exceed 5 percent of the bank's capital base and the aggregate total of short and long positions should not exceed 20 percent of the bank's capital base for all currencies. In Sudan, foreign exchange position should not exceed 20 percent of capital.

- **Basel III regulations.** Basel III capital requirements have been enforced in Lebanon and Morocco since 2014 for progressive implementation, respectively, by end-2015 and end-2018, while frameworks required to enforce these regulations are expected to be finalized

[17] The largest bank in Jordan owns 54 percent of the total banking assets, while the assets of the largest three banks in Lebanon and Morocco constitute 50 and 66 percent of banking assets respectively. In Tunisia, large and medium- sized banks hold 85 percent of the total assets. Public banks dominate the banking sector in some of these countries with market share ranges 20 to 40 percent.

in the near-term in Jordan and Tunisia. Jordan, Lebanon, and Morocco are working on a framework for introducing countercyclical capital buffers. Frameworks for DSIBs have not been finalized by any of the countries in this group of countries.[18] With regard to liquidity regulations, the implementation of liquidity coverage ratio (LCR) is being phased in in Morocco and Tunisia, while others have not implemented this standard. As for leverage ratio, the framework has not been finalized in any of these countries. However, in Lebanon, the central bank is monitoring this variable on a semi-annual basis and expects to set a minimum leverage ratio for banks in 2015. The Central Bank of Egypt is completing Pillar 2 of Basel II regulations, and is on track to implement Basel III regulations according to the internationally agreed timeline.

- **Ceilings on personal loans.** Personal loans constitute a high proportion of banking assets portfolio in some countries in this group. For instance, credit to households constituted about 40 percent of total credit in Jordan at end-2013 Limits on DSTI ratios have been enforced in Lebanon (at 35 percent, and 45 percent if debt includes housing loans), Tunisia (40 percent), and West Bank and Gaza (50 percent). Jordan, Lebanon, Tunisia, and Sudan have introduced LTV ratio ranging from between 70 and 80 percent for housing, car and mortgage loans. In West Bank and Gaza, the LTV ratio depends on borrower's credit rating scores, ranging from 30 percent for the lowest graded borrowers to 85 percent for the highest graded borrowers.

- **Limits on exposures.** Single-borrower and country limits on bank exposures are extensively used by countries in this group. In Lebanon, measures have been enforced to limit exposure to single borrower, not exceeding 20 percent of Tier 1 capital. Other exposure limits include country-limits not exceeding 50 percent of Tier 1 capital, and a minimum BBB rating, and limits on non-resident bond issuances not exceeding 10 percent of Tier 1 capital. In Egypt, the single exposure limit is 20 percent of the capital base and 25 percent for group exposure. In Tunisia, the total amount of incurred risks should not exceed three times the net core funds of the lending institution. West Bank and Gaza enforces between 10 percent and 25 percent of bank's capital base subject to a prior approval from the PMA. Limits on real estate and foreign currency exposures are uncommon in these countries. In Jordan, there is a maximum limit for real estate exposure of 20 percent of the total deposits in local currency and a 30 percent limit for foreign currency loans, which should only be used for exporting purposes. Sudan imposes a 25 percent ceiling on direct finance and 25 percent on indirect finance. Related parties have an added condition that their total finance must not exceed 10 percent of their portfolio or 100 percent of their capital, whichever is lower. Limits on interbank

[18] In Jordan, there is currently a committee working on issuing Basel III Instructions, while there are ongoing studies in Morocco to define DSIBs.

exposures exist in Lebanon.[19] None of the countries in this group use sector-specific capital buffers. However, in Jordan, residential mortgage loans should have a preferential risk weight of 35 percent in which the LTV does not exceed 80 percent, otherwise the risk weight should be set at 100 percent. Also, concentration risk is the main component in implementing the Internal Capital Adequacy Assessment Process (ICAAP) and many banks in the preparation of the ICAAP document assign capital for specific sectors.

- **Loan-to-deposit ratios.** The Central Bank of Egypt has imposed a guiding limit of 75 percent. Tunisia imposes a limit on domestic currency loans, while in Sudan, domestic lending must not exceed the available domestic resources and foreign lending must not exceed the available foreign resources.

The banking sector in the third group of Arab countries (Iraq and Libya) are characterized by the dominance of public banks, high levels of liquid assets, low levels of financial deepening (credit to GDP) and high levels of non-performing loans.[20] The focus of macroprudential measures in these two countries has been to enhance capital adequacy ratios and to limit the risks of large exposure.

- **Broad-based macroprudential tools.** Both countries rely on caps on credit growth to contain banks' total exposure. Since 2007, the Iraqi central bank has implemented a plan to increase the capital base of the banking sector, mandating commercial banks to increase their capital base to a minimum of US$215 million. However this plan contributed only in increasing capital adequacy for private banks—which now account for around 80 percent of the total capital base—while public banks' capital base still needs to be strengthened.

- **Liquidity tools.** Given the excess liquidity in both countries, central banks have imposed legal reserve requirements ranging from between 15 and 20 percent of total deposits.[21] Liquidity buffers are imposed in both countries, ranging from between 25 and 30 percent of the total short-term obligations.

- **Basel III regulations.** There is no schedule for the implementation of Basel III regulatory requirements in either Iraq or Libya.

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[19] As net credit exposure to unrelated foreign correspondents must not exceed 25 percent of Tier 1 capital. Also banks and non-bank financial institutions are prohibited from lending and making placements with foreign correspondents rated below BBB or unrated, expect for operational purposes. Limit on net placements with related foreign banks and financial institutions should not exceed 25 percent of Tier 1 capital.

[20] For instance, the assets of public banks accounts for 90 percent of the total assets in Libya.

[21] Liquid assets constitute around 60 percent of total assets in Libya.

- **Ceilings on personal loans.** There are no ceilings on personal loans in Libya, while in Iraq, the DSTI ratio for those holding positions of leadership in banks must not exceed 50 percent of their annual incomes. Iraq also has in place an LTV ratio of 40 percent to limit exposure to real estate loans.

- **Limits on exposure.** In Libya, individual large exposures should not exceed 20 percent of the bank capital base, and government entities are not allowed, by law, to borrow from commercial banks. In Iraq, loans provided to "natural and moral persons"—including public institutions—should not exceed 10 percent of bank capital and its total reserves.[22] Sectoral exposure is capped at four times the level of capital and reserves, and interbank lending is limited to 10 percent of capital and sound reserves.

- **Loan-to-deposit ratios.** Total credit must not exceed 70 percent of deposits in both countries.

V. Towards A More Effective Macroprudential Policy Framework in the Arab Region

Despite the absence of formalized legal and institutional frameworks for financial stability, Arab countries have a history of using several macroprudential instruments. Certain macroprudential tools were already part of the regulatory toolkit before the global financial crisis, the extent varying between country-groups. Macroprudential policy will have to play an important role in this region to mitigate systemic risk in the financial sector. The special characteristics of the Arab economies, reliance on volatile oil revenues, limited monetary policy independence in light of the pegged exchange rates in some countries, the lack of sophistication in operating instruments of monetary policy in others, and the risk of procyclical fiscal policy pose challenges to the central bank for maintaining financial stability.

There is scope for strengthening the macroprudential policy framework, refining the toolkit, and developing the enabling market infrastructure for effective implementation of macroprudential policy.

- Strengthening the institutional framework. Based on the emerging international experience, having a clear mandate for financial stability and strengthening interagency coordination would better facilitate the use of macroprudential policy instruments to address systemic risks. The mandate will strengthen the ability and willingness to act in the presence of evolving systemic risks. A necessary element of such a framework would also include an appropriate accountability mechanism to assess the efficacy of the

[22] 15 percent at maximum for person and his companies and relatives.

implementation. In the Arab region, central banks seem well placed to take a leading role in ensuring financial stability, given their longstanding experience in monitoring and managing financial risks.

- Strengthening macroprudential instruments. Arab countries should focus on expanding the range of macroprudential instruments and refining the existing instruments as needed. Multiple macroprudential tools should be available in order to maximize their effectiveness, while reducing leakages. In particular, countries should focus on implementing Basel III regulations, CCBs, instruments targeting real estate risk, liquidity tools, and instruments for dealing with DSIBs.

- Strengthening the regulatory capacity to monitor and assess systemic risks. Arab countries need to strengthen their capacities for monitoring time-varying, and cross-sectoral, risks. Effective early warning systems and regular assessments of systemic risks are integral parts of macroprudential policies. Macro stress testing would help the regulators to align the macroprudential toolkit with the changing nature of financial risks. Better monitoring of systemic risks and addressing financial vulnerabilities could be achieved through several steps, including:

  - ✓ Developing a financial stability risk map. The regulatory authorities should work on identifying systemic risks through, for example, "financial stability risk map." This map includes all the risk elements crucial for financial stability. These risks are mainly related to macroeconomic performance, credit growth, financial activities, and interconnectedness. In addition to market risk, the map would also identify liquidity risk, contagion risk, real estate exposure risk and other risks related to linkages between different components of the financial sector, structural indicators and financial infrastructure.

  - ✓ Adopting of an Early Warning System (EWS). The macroprudential technical staff should adopt an EWS, built on the analytical work, forecasting outputs and macro stress testing results to identify the potential financial risks.

  - ✓ Establishing ex ante crisis management and resolution regimes with clear division of responsibilites and burden sharing mechanisms.

  - ✓ Choosing tools. The authorities should focus on choosing macroprudential instruments that are effective in preventing the buildup of systemic risks.

  - ✓ Communicating with the market. After choosing the adequate stance of macroprudential policy, regulators should communicate their decisions to the market at an appropriate time to ensure better understanding of the reasons behind tightening or easing the macroprudential stance.

- ✓ Continuous monitoring and updating of the risk map. Regulatory authorities should work on monitoring the implementation of the macroprudential tools to align the policy mix, according to the dynamic nature of financial activities.

- Ensure effective policy coordination. Arab countries' regulatory authorities should ensure effective coordination between macroprudential and macroeconomic policies on the one hand, and macro and microprudential policies, on the other. In this respect, there are positive complementarities across policies but also negative spillovers that need to be taken into account when quantifying the expected impact.

- The urgent need to address the challenges related to Basel III implementation. While a number of Arab countries are ahead in implementing Basel III requirements, others are in the early stages of applying these standards. Further efforts are needed to enable Arab countries to implement Basel III regulations. The Arab regulatory authorities should work on addressing the challenges they are likely face to cope with the Basel III framework, especially with regard to liquidity standards.

- Sharing of cross-sectional country-experiences. This provision would bridge the gap in macroprudential policy implementation across the region. There is no one-country fits all solution, but regional experiences can provide good lessons of do's and don'ts.

- Other financial reforms. Such reforms, including developing domestic debt markets and strengthening bank resolution frameworks, are needed to enhance the resilience of the Arab banking sector and ensure financial stability. Macroprudential policies cannot substitute for needed medium and long term structural reforms; in fact, macroprudential policies are more effective in the context of well-working financial structures. Strengthening corporate governance, financial disclosure, credit reporting systems, and insolvency regimes would mitigate systemic risk and increase the resilience of Arab banking sectors.

Appendix I

The Financial Sector in the Arab Countries

The financial sector in most Arab countries is mainly dominated by banking activities. The banking sector constitutes about 54.2 percent of the total size of the Arab financial sector, with the equity and bond markets contributing to about 33 percent and 12.8 percent, respectively. Arab banking sector assets exceeded US$ 3 trillion by the end of 2013.[1]

The Arab banking sector has witnessed remarkable progress during the past three decades. Reforms have aimed at liberalizing interest rate structures in varying degrees, removing credit controls, strengthening the regulatory and legal framework and the restructuring of banks. In addition, banking reforms included the privatization of some public banks and opening the sector for foreign banks, for increasing competition and access to finance. Credit bureaus and deposit insurance schemes have been established in some countries. These reforms have reflected positively on banking sector activities and led to an increase in banking assets, deposits, and profitability. Since 2000, reforms mainly focused on enhancing banking supervision, increasing the level of compliance with international banking regulatory requirements, ensuring the soundness of banking sectors and moving towards the adoption of international standards in transparency and corporate governance.

Despite the reforms, the banking sectors in many Arab countries still face major challenges that limit their potential growth. Public banks still dominate the banking sector activities in some Arab countries, exceeding 70 percent of the share in certain countries. Although this dominance enabled Arab countries to intervene to limit the consequences of the financial crisis, it hinders competition and leads to an increasing level of credit facilities to public sector, hence, crowding out private lending in some Arab countries (Figure. 3). Enhancing sound competition is a key factor for improving intermediation and supporting financial stability. Using the structural approach to assess bank competition by examining measures of market structure such as concentration ratios (the share of assets held by the top 3-5 institutions) or indices (e.g., the Herfindhal index), reveals high levels of concentration in some Arab banking sectors. Also, some studies concluded that banking sectors in the region are best characterized as markets operating under "monopolistic competition" using a non-structural approach. According to these studies, competition throughout the region has declined—or has not changed significantly—from the second half of the 1990s to 2008.[2] On the contrary, it is noteworthy that some other Arab banking sectors remain highly competitive. This is clearly reflected in the high levels of competition between local and foreign banks and the low levels of interest rate margins. Another challenge facing the Arab

[1] Arab Banking Union.

[2] See Anzoátegui, D. et al. (2010).

banking sectors is the high level of credit concentration. Credit facilities in some Arab jurisdictions are more concentrated in some risky assets, such as personal and real estate loans, where the share of these loans exceeded 40 per cent of the total banking assets in a number of Arab countries.

Box 3. Impact of the Global Financial Crisis on the Arab Banking System and Response

High global oil prices and the subsequent increase in oil revenues during the period (2003–08) led to a surge in domestic liquidity in Arab oil exporting countries, especially in the GCC. The liquidity spread to other oil-importing countries through the channels of capital inflows and workers' remittances, which contributed to a notable increase in banking credit to the private sector. The major part of this credit boom financed consumption, real estate, and stocks-guaranteed loans, and triggered bubbles in asset prices. As a result, the Arab banking sector was more vulnerable to the risk associated with the correction in asset prices, particularly in light of the consequences of the global financial crisis.

The global crisis impacted negatively on economic activity and led to the burst of asset bubbles, causing a sharp decline in domestic liquidity and private loans (Figure 3).[1] Non-performing loans (NPLs) increased significantly in countries most affected by the crisis. The banking sectors in the Arab oil-importing countries were affected by such developments in a different way. High oil prices led to a widening of external and fiscal deficits (due to energy subsidies) which caused drains on foreign reserves and volatility in the management of treasury accounts, which, in turn, generated major banking liquidity deficits. Banking credit was also affected because of supply (tight liquidity, higher risks) and demand (lower expectations). Nonetheless, the total effect was relatively limited due to lower levels of openness with international financial markets, and as a result of regulatory measures already adopted before the crisis limiting exposure to high-risk assets.

The response of Arab policy makers and banking regulatory authorities to the crisis was decisive. Policy makers and banking regulatory authorities adopted a diversified set of measures to mitigate the impact of such a crisis on their domestic economies in general and the banking sectors' activities, in particular. In GCC countries, these measures included imposing limits on loan-to-deposit ratios, ceilings on some private loans, increasing non-performing loans provisions, buying the assets of some banks, supporting capital bases through injecting liquidity among other measures (Figure. 3). Though some of these interventions were costly (for instance, the cost of these policies constituted 8 percent of GDP in some GCC countries), they helped restore confidence in the banking sectors and minimized the negative effects of the crisis. On the other hand, oil-importing countries tended to ease monetary policy and avail access to central banks' credit facilities, among other measures, to weather the impact of the crisis (Figure. 3).[2]

The subsequent global banking regulatory reforms motivated the Arab regulatory authorities to move forward on increasing banking sector resilience against potential internal or external shocks. During the past four years, Arab banking regulatory authorities have focused on strengthening financial stability through increasing capital adequacy, enhancing liquidity, limiting exposure to risky assets and implementing risk-based supervision. Moreover, some Arab central banks have recently developed a framework and methodology to identify DSIBs and deal with the risk associated with them, according to BIS methodology.

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[1] See Ali, H. (2013).

[2] Arab Monetary Fund, (2010).

Appendix II

Macroprudential Policy Framework in Arab Countries

Macroprudential Toolkit: First Group

Macroprudential Measures	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
General Provisions	Fixed level: 1.0 percent of total loans and 100 percent of NPLs	Must represent 1.5 percent of credit risk weighted assets. Will be modified after we implement Basel III	NO	Min. 1.0 percent of net loans.	Fixed 1.0 percent of cash items 0.5 percent of non-cash Items	2.0 percent for retail loans, 1.0 percent on all other standard loan, and 0.5 percent on loans and advances to SMEs
Reserve Requirements on Bank Deposits	7.0 percent on demand deposits and 4.0 percent on time and saving deposits.	14.0 percent on demand and savings deposits. 1.0 percent on time deposits. Effective tool to compel banks to keep liquid assets with the CB.	4.75 percent of total deposits.	5.0 percent of Bahraini Dinars non-bank deposits, due at first week of every month.	NO	5.0 percent of deposits.
Leverage Ratios (Capital to Assets)	Deposit/(Capital + Reserve) not to exceed 15 times. Basel III Leverage ratio was introduced since 2011.	NO	3.0 percent	3.0 percent as per Basel III requirement will be implemented in 2017. In the meantime a 5.0 percent gearing ratio continues to apply.	3.0 percent minimum, and applicable from 31/12/2014.	NO
Ceiling on Credit or Credit Growth	NO, However, SAMA closely monitor credit growth in general and credit to private sector in particular.	NO	NO	NO	NO	Ceiling on Personal Loans is 35.0 percent of total credit, Housing Loans 15 of total credit, Real Estate Loans 60.0 percent of higher of banks' net worth or time and savings deposits.
Limits on Loan-to-Deposit (LTD) Ratios	85.0 percent	Lending to Stable Resources ratio. Lending includes loans plus Interbank lending more than three months. Stable Resources include Capital & Reserves, Time Deposits, 85.0 percent of demand and savings deposits, Interbank borrowings more than 6 months.	90.0 percent (loan-to-seposit ratio)	In the range of 60.0 percent to 65.0 percent on an individual bank basis.	LTD ratio was replaced by a maximum lending limit. The limit is calculated by multiplying the sources (Deposits, interbank placements, CD's, medium and long-term loans, issued bonds/ Sukūk) by specific percentage based on the maturity buckets. The allowed lending percentages are as the following: (i) Remaining maturity up to 3 months: 75 percent; (ii) remaining maturity more than 3 months until one year: 90 percent; (iii) remaining maturity more than one year: 100 percent.	87.5 percent

Macroprudential Toolkit: First Group (continued)

Macroprudential Measures	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
Liquidity Requirements /Buffers	Liquid Assets to Deposits is at least 20.0 percent.	NO	Liquidity coverage ratio to be 60 percent in 2014, increasing by 10.0 percent each year and reaching 100 percent by 2018.	Currently banks must meet stock liquidity requirements (i.e. 25.0 percent liquid assets ratio).	18.0 percent of domestic currency customer deposits.	YES
Limits on Real estate Exposure	NO	Real Estate Exposure cannot exceed 20.00 percent of the funding. Funding includes all customers deposits, capital market funding and interbank deposits. Effective tool to limit over exposure to this sector.	Real estate finance should not exceed 150.00 percent of the bank's capital and reserves.	NO	NO	Exposure 60.00 percent of bank's net worth or 60.00 percent of all time and saving deposits other than government and interbank deposits, whichever is higher.
Limits on Other Sectoral Exposure	NO	NO	Ceiling for credit facilities at 20.00 percent and credit facilities and investment at 25.00 percent of bank's capital and reserves for single customer. Credit facilities granted by all banks to a single borrower group should not exceed QR 3bn.	NO	Lending to KSE Trading shares should not exceed 10 percent of total credit facilities portfolio extended to the resident customers, or 25 percent of the bank's capital in its comprehensive concept, whatever is lower.	
Limits on Interbank Exposures	NO	Domestic Interbank exposures over 1 year cannot exceed 30.0 percent of bank capital base. Overseas Interbank are limited to 30.0 percent of bank capital base. Capital base is defined as per Basel II.	25.0 percent of bank's capital and reserves for Category I banks and financial institutions, 10.0 percent for Category II and 5.0 percent for Category III.	NO	NO	On overseas interbank exposures, 'Limits are as under for overseas interbank exposures; - Per party limit for lending to bank is 5.0 percent of net worth of the lending bank - Aggregate limit is 30.0 percent of net worth (banks and non- banks combined) - Aggregate overseas exposure (bank and non-bank including lending, and placements) is 120.0 percent.

Macroprudential Toolkit: First Group (continued)

Macroprudential Measures	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
Sector Specific Capital Buffer/Requirement	NO	NO	NO	NO	The following risk weights apply: 1. SME's 75.0 percent 2. Trading in Real Estate Lending 150.0 percent 3. Trading in Share lending 150.0 percent.	SMEs - 75.0 percent
Loan-to-Value (LTVs) Ratios	70.0 percent for real estate finance	For UAE nationals: on first property (a) if property value less than AED 5 M; 80.0 percent (b) if value more than AED 5 M: 70.0 percent. On subsequent properties : maximum 65.0 percent For expatriates: on first property (a) if property value less than AED 5 M: 75.00 percent (b) if value more than AED 5 M: 65.00 percent. On subsequent properties : maximum 60 percent Limits introduced recently.	70.0 percent for real estate finance for salaried people and 60.0 percent for others.	NO	For undeveloped land purchase 50.0 percent , existing property purchase 60.0 percent, 70.0 percent for construction use only. All of the above is only for residential property only	On housing and vehicle loans, Margin requirements of 20.0 percent on housing and vehicle loans, which translates into LTV of 80.0 percent
Debt/Loan-to-Income (DTI/LTIs) Ratios	Total monthly repayments for personal loans and credit cards should not exceed 33.0 percent of income (personal loans & credit cards) and 25.0 percent for retirees	Loan servicing can not exceed 50.0 percent of gross salary plus any regular income. Effective tool to prevent over indebtedness	NO	NO	Monthly installment limits have been set, capping at 40.0 percent for employed individual and 30.0 percent for a retired individual.	50.0 percent of net salary for personal loans other than housing loan, 60.0 percent including housing loan.
General Countercyclical Capital Buffer/Requirement	NO. However, SAMA has encouraged Saudi banks to increase their capital buffer on a countercyclical basis. Banks' capital buffer rose by 100 percent during the period from 1992 to 1997 and by 250 percent during the period from 2003-2007.	NO	The details are currently being worked out and will be implemented from 2016.	NO	In times of excess credit growth, banks will be subject to a countercyclical buffer that varies between 0 percent - 2.5 percent of the bank's total risk-weighted assets, that must be met with CET1 form of capital.	In Process, Up to 2.5 percent of Risk Weighted Assets, primary guide Credit to GDP ratio, Private Credit to Non-oil GDP with a set of complementary indicators.

Macroprudential Toolkit: First Group (concluded)

Macroprudential Measures	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
Domestic Systemically Important Banks Capital Buffer	NO	NO	The details are currently being worked out and will be implemented from 2016	D-SIB's are subject to more frequent reporting and inspection. The CBB is evaluating the possibility of requiring such banks to hold more capital.	Banks identified as DSIBs will be required to hold additional capital buffers ranging from 0.5 percent to 2 percent in the form of CET1. DSIBs charge will be applied in 2016.	YES, Currently at 1 percent, can be increased up to 2.5 percent
Limits on Domestic Currency Loans	NO	NO	NO	NO	NO	For non-residents, lending to non-residents in domestic currency is prohibited.
Limits on Foreign Currency Loans	NO, however SAMA approval is needed.	NO	NO, Banks are advised to follow prudential banking norms.	NO	NO	For non-residents, lending to non-residents in foreign currency
Limits on open FX Currency Position/Currency Mismatch	NO	NO	The floor for ratio of foreign currency assets to foreign currency liabilities is fixed at 100 percent	NO	Each bank is given a limit based on their individual profile which is reviewed by the Central Bank of Kuwait.	Forex Open Position 40.0 percent of capital and reserves
Limits on Maturity Mismatch	NO	NO	NO	May not exceed 15.0 percent for the "At sight" band or 20.0 percent for the "One month" band	7 Days and under 10.0 percent 1 month and under 20.0 percent 3 months and under 30.0 percent 6 months and under 40.0 percent	For time buckets up to 1 year, gaps of not more than 15.0 percent of cumulated liabilities
Limits on Exposure Concentration (ex. Individual Large Exposure, or Government Entities as percent of Total Capital)	The legal limit is 25.0 percent to be reduced to 15 percent by 2019.	Exposures include on and off balance sheet items converted using CCF. Individual Large borrower: 25.0 percent of capital base.. Government entities exposure: 25.0 percent individual limit and aggregate limit 100 percent of capital base. Capital base is calculated as per Basel II.	Real estate finance should not exceed 150.0 percent of the bank's capital and reserves. Ceiling for credit facilities at 20.0 percent and for credit facilities and investment at 25.0 percent of bank's capital and reserves for single customer. Credit facilities granted by all banks to a single borrower group should not exceed QR 3bn.	A bank may not incur an exposure to an individual counterparty or group of closely related counterparties (not connected to the reporting bank) which exceeds 15.0 percent of the reporting bank's (consolidated) capital base without the prior written approval of the CBB. Equivalent limits are in place for parties connected to the bank.	15.0 percent per obligor, 400.0 percent for total large exposures	Per party limit of 15.0 percent of bank's net worth

Macroprudential Toolkit: Second Group

Macroprudential Measures	Egypt	JORDAN	LEBANON	MOROCCO	Tunisia	Palestine
General Provisions	YES. According to Obligor Risk Rating set at seven grades	YES, they are called general banking risk reserves and are created for the performing loans	Banks and non-bank financial institutions are requested to take collective provisions on performing loans based on impairment tests. For retail loans (excluding housing) a minimum level of collective provisions has been imposed by the end of 2014 (1.5 percent of the loan portfolio to be gradually constituted over 4 years starting 2014). In addition to the provisions mentioned above, banks and non-banks financial institutions are requested to take a general reserve of 1.5 percent of corporate and SME loans over 4 years (0.25 percent in each of the years 2014 & 2015 and 0.5 percent in each of the years 2016 & 2017) and 3.5 percent of retail loans excluding housing over 7 years (0.5 percent per year starting 2014).	10.0 percent of the value of watch listed loans	Banks are obligated since 2011 to constitute collective provisions by deducting from their results to cover latent risks on current commitments and commitments that require a particular follow-up through the reservation of unpaid interest related to consolidated commitments. In fact, this requirement aim at helping banks constitute a capital buffer "safety cushion "with a view to boosting their resilience in times of economic or financial crisis and curb pro-cyclicality.	1.5 percent of direct performing loans and 0.5 percent of the off-balance sheet facilities.
Time Varying/Dynamic Loan-Loss Provisioning	NO	NO	NO	NO	The CBT required banks to constitute additional provisions on their assets with seniority in class 4 exceeding or equaling 3 years to cover net risk pursuant to the following minimum proportions: • 40.0 percent for assets with seniority in class 4 of 3 to 5 years • 70.0 percent for assets with seniority in class 4 of 6 to 7 years • 100 percent for assets with seniority in class 4 exceeding or equal to 8 years	NO
Reserve Requirements on Bank Deposits	Banks are required to maintain 10 percent of their Egyptian pound deposits (excluding CD to individuals with maturities exceeding three years and direct exposure to a certain tranche of SMEs Companies) with the CBE as non-interest bearing reserve. Banks are required to place 10 percent of their foreign currencies deposits with the CBE as interest bearing.	7.0 percent from average of bank deposits in JD (65.0 percent restricted and 35.0 percent free) and 7.0 percent from average of bank deposits in Foreign currency.	Local Currency deposits: * 25.0 percent on demand deposits * 15.0 percent on time deposits Foreign currency deposits: * 15.0 percent on demand and time deposits	Reserve requirement have been lowered several times during last years in a context of banking system liquidity deficit	The level of the reserve requirement on banks is 1.0 percent of the outstanding deposits and other amounts due to clients.	9.0 percent of deposits in each currency.
Leverage Ratios (Capital to Assets)	In the phase of implementation according to agreed schedule with Basel Committee.	Minimum limit 6.0 percent and it is calculated as Equity/ Assets	The central bank developed templates for the calculation of the Leverage Ratio. These templates are submitted on a semi - annual basis since December 2013.	NO	NO	NO

Macroprudential Toolkit: Second Group (continued)

Macroprudential Measures	Egypt	JORDAN	LEBANON	MOROCCO	Tunisia	Palestine
Limits on Loan-to-Deposit (LTD) Ratios	Guide limit of 75 percent is used on local and foreign currency separately	NO	NO	NO	NO	NO
Liquidity Requirements /Buffers	All Banks operating in Egypt are required to maintain a liquidity ratio of 20 percent for local currency and 25 percent for foreign currency. Liquidity Ratios according to Basel Committee pre-set time line (NSFR-LCR).	Legal Liquidity Requirement (LLR): minimum threshold 70 percent in JD and 100 percent in all currencies.	Foreign currency liquidity ratio: Net liquid assets in foreign currency should be no less than 10.0 percent of deposits and other commitments in foreign currency. Net Liquid Assets in FC include: * Placements at the Central Bank excluding required reserves. * Net instruments (excluding Lebanese Eurobonds) maturing within one year. Deposits and Other commitments include: * Total customers' deposits (all maturities) *All other creditors maturing within one year.	For the time being, the instrument is for a microprudential use but could be increased or lowered in the future if needed for macrprudential policy requirement	NO	NO
Limits on Real estate Exposure	The regulation sets a limit of 5 percent of the bank's total loan portfolio included under the mortgage finance law.	Maximum limit of 20.0 percent of customer deposits in local currency	Although no limits are imposed, the Banking Control Commission closely monitors exposures to the real estate and other sectors in order to avoid any excessive concentration in these sectors.	NO	NO	20.0 percent of total loans portfolio.
Limits on Interbank Exposures	**NO**	A limit exists on balances between banks in foreign currencies	Limit on net credit exposure to unrelated foreign correspondents * Total net credit exposures per foreign correspondent must not exceeds 25.0 percent of Tier 1 capital. * Banks & non-bank financial institutions are prohibited from lending and placing with foreign correspondents rated below BBB or unrated, expect for operational purposes. Limit on net placements with related foreign banks and financial institutions Total net placements should not exceed 25.0 percent of Tier 1 capital.	NO	NO	Setting an upper ceiling for banks' placements abroad (55.0 percent of total deposits). Forcing banks to diversify their placeements by financial institutions and country depending on the rates of the credit rating agencies. Prohibiting banks from depositing balances in non rated institutions for more than 15.0 percent of their total outside placements. setting an upper ceiling for banks' placements abroad at the level of the state with 40.0 percent of bank outside placements (bank outside placements at the state should not exceed 40.0 percent of bank outside placements).

Macroprudential Toolkit: Second Group (continued)

Macroprudential Measures	Egypt	JORDAN	LEBANON	MOROCCO	Tunisia	Palestine
Loan-to-Value (LTVs) Ratios	NO. Ratios are closely monitored.	For the purpose of Basel II regulations the residential mortgage loans should have a preferential risk weight of 35.0 percent in which the LTV doesn't exceed 80.0 percent and other than that it gets a 100 percent risk weight.	YES, LTV Housing Loans: 75.0 percent of the value of the house LTV Car Loans: 75.0 percent of the value of the car LTV Real Estate Commercial Loans: 60.0 percent of the real estate project	NO	- 70.0 percent of the project cost for loans medium and long term loans - 80.0 percent for loans with mortgage loans - 80.0 percent for car loans.	YES Codeforcreditrating / LTV / PDwithin12month (%) / LendingPeriod (Years) AandB / 85% / 08 / 25 C / 80% / 888 / 25 D / 60% / 1961 / 15 E / 30% / 6110 / 7
Debt/Loan-to-Income (DTI/LTIs) Ratios	NO. Ratios are closely monitored.	NO. The banks should set the debt burden ratio in their credit policies.	Debt servicing to income: 35.0 percent; it can go up to 45.0 percent in case the borrower benefits from a housing loan.	NO	40.0 percent of the income for loans to individuals. This standard is generally respected by banks despite the fact that it is a customary rule.	50.0 percent.
General Countercyclical Capital Buffer/Requirement	In the phase of implementation according to agreed schedule with Basel Committee.	NO, A special study was conducted in this regard which showed that there is no need to apply this buffer.	In preparation	ONGOING	NO	YES, A geopolitical reserve 15 percent of net profit.
Domestic Systemically Important Banks Capital Buffer	Important Banks are closely monitored by the Supervision Department.	YES, A special study was conducted in this regard and in the process of issuing instructions.	In preparation	ONGOING	NO	YES, Note: PMA in process of developing a methodology and instructions for dealing with DSIBs.
Limits on Domestic Currency Loans	YES. According to income	NO	NO	NO	Loans of more than 7 years and up to 15 years are granted by banks deposits in the limit of 3.0 percent of the volume of their deposits, eventually in special savings accounts and under form of certificates of deposit. - onshore Banks are only allowed to lend short term credits in domestic currency to offshore companies	NO. Palestine does not have a national currency.
Limits on Foreign Currency Loans	YES. According to income in FX	YES, 30.0 percent. The loan should be for exporting purposes only.	NO	NO	NO	NO. Palestine does not have a national currency.

Macroprudential Toolkit: Second Group (concluded)

Macroprudential Measures	Egypt	JORDAN	LEBANON	MOROCCO	Tunisia	Palestine
Limits on open FX Currency Position/Currency Mismatch	Long and short positions in any single currency should not exceed 1 percent and 10 percent of the capital base, respectively. While long and short poistions for all currencies should not exceed 2 percent and 20 percent of the capital base, respectively.	15.0 percent for position in total currencies and 5.0 percent per currency.	Net trading position: 1.0 percent of Tier 1 capital. Global FX Position: 40.0 percent of Tier 1 capital. Banks are allowed to hold a fixed position in foreign currency up to 60.0 percent of their equity in LBP. This fixed position is deducted from the calculation of the net trading position.	Banks are required to maintain their FX position under 20.0 percent of capital for all currency and 10.0 percent per currency.	2 limits on FX position in relation to net capital equity: - in currency basis - in global currencies basis 1 limit related to total loss on a position	Code of credit rating / LTV / FD within 12 month (%) / Lending Period (Years) A and B / 85% / 08 / 25 C / 80% / 818 / 25 D / 60% / 1881 / 15 E / 30% / 0-10 / 7 shorts and longs should not exceed +/- 20.0 percent of bank's capital base for all currencies regardless of the sign (+) or (-)
Limits on Maturity Mismatch	One of the existing prudential regulations is Maturity ladder that displays the banks assets and liabilities according to their maturities and is comprised of 8 buckets. The CBE obliged banks to calculate the gap between total assets and liabilities for each bucket and specify an internal limit acceptable for individual and cumulative gaps.	There are specific instructions regarding Liquidity maturity ladder (instructions no. 41/2008 and 43/2008.). The bank liquid position should be positive after the fifth bucket.	Article 156 of the code of money and credit stipulates that banks should ensure adequate matching between the maturities of their assets and liabilities.	NO	Minimum resources maturities for mortgage loans: The mortgage loans having an initial period between 10 and 15 years must be backed with resources minimum maturity of 10 years. The mortgage loans having an initial period between 15 and 20 years must be backed with resources minimum maturity of 15 years. The mortgage loans having an initial period between 20 and 25 years must be backed with resources minimum maturity of 20 years.	NO
Limits on Exposure Concentration (ex. Individual Large Exposure, or Government Entities as percent of Total Capital)	Limits imposed on bank's exposure to single borrower and related parties are as follows: 20 percent of their capital base if the exposure is to one counterparty, or 25 percent of the bank's capital base if the exposure is to a group of related counterparties , or Overall large exposure exceeding 10 percent of bank's capital base should not exceed in total 8 times the bank's capital base.	YES	Per borrower/ Group of Borrowers * One borrower using facilities in Lebanon and Abroad: 20.0 percent of Tier 1 capital. * One borrower using facilities abroad only: 10.0 percent of Tier 1 capital. * Total facilities of Large borrowers: 400.0 percent of Tier 1 capital (Large borrower is a borrower whose facilities exceed 10.0 percent of Tier 1 capital). Per Country / Group of Countries * Total facilities used in one country rated BBB and above: 50.0 percent of Tier 1 capital. * Total facilities used in one country rated below BBB or unrated:25.0 percent of Tier 1 capital. * total facilities used in all countries rated below BBB or unrated: 100.0 percent of Tier 1 capital. *Total facilities used abroad: 400.0 percent of Tier 1 Capital. Other Concentration Limits BDL: limit per non-resident issuer of bonds: 10.0 percent of Tier 1 capital * Investments in non-resident bonds rated below BBB or unrated and investments in structured products rated below A and not capital guaranteed are not allowed. * Limit on total investments in non-resident bonds (that should be rated BBB and above): 50.0 percent of Tier 1 capital. * Limit on total investments in nonresident structured products (that should be rated A and above and capital guaranteed): 25.0 percent of Tier 1 capital. * operations on derivatives for speculative purposes are not allowed.	YES	The total amount of incurred risks should not exceed: - 3 times the net core funds of the lending institution, for beneficiaries whose incurred risks for each of them, amount to 5.00 percent or more of the aforesaid net core funds,(against 5 times the net core funds at the present time), and - 1.5 times the net core funds of the lending institution, for beneficiaries whose incurred risks amount, for each of them, to 15.00 percent or more of the aforesaid net core funds(against twice the net core funds presently). - The total amount of incurred risk on relevant parties as defined by Article 23 of lawn ° 2001-65 of 10 July 2001 on lending institutions must not exceed once the net core funds of the lending institution. • The incurred risks on the same beneficiary shall not exceed 25.00 percent of the net core funds of the bank	10.0 percent up to 25.0 percent of bank's capital base subject to a prior approval from the PMA.

Macroprudential Toolkit: Third Group

Macroprudential Measures	Libya	Iraq
General Provisions	NO	
Time Varying/Dynamic Loan-Loss Provisioning	NO	NO
Reserve Requirements on Bank Deposits	20.0 percent	15.0 percent on total deposits
Leverage Ratios (Capital to Assets)	YES	Not exceeding eight times of the capital and reserves for all banks
Ceiling on Credit or Credit Growth	YES	The total credit ratio must not exceed 8 times of capital and banks reserves
Limits on Loan-to-Deposit (LTD) Ratios	70.0 percent	YES, according to adopted standard the total credit must not exceed 70.0 percent of the total deposits
Liquidity Requirements /Buffers	YES, 25.0 percent	Liquidity ratio must not exceed 30.0 percent of gross total assets/liabilities.
Limits on Real estate Exposure	30.0 percent	NO
Limits on Other Sectoral Exposure	NO	Concentration of credit must not exceed 4 times of capital and reserves
Limits on Interbank Exposures	NO	Credit not to exceed 10.0 percent of lending bank's capital and sound reserves
Sector Specific Capital Buffer/Requirement	NO	NO
Loan-to-Value (LTVs) Ratios	NO	60.0 percent of real estate value
Debt/Loan-to-Income (DTI/LTIs) Ratios	NO	The loan provided to the occupants of leadership positions in banks must not exceed 50.0 percent of total annual incomes
General Countercyclical Capital Buffer/Requirement	NO	YES, capital adequacy standard is adopted (Basel 2) by 12.0 percent
Domestic Systemically Important Banks Capital Buffer	NO	YES, 250 billion Iraqi dinars o its equivalent
Limits on Domestic Currency Loans	NO	10.0 percent for moral and natural person. 15.0 percent for person and his companies and relatives from first and second class
Limits on Foreign Currency Loans	NO	YES
Limits on open FX Currency Position/Currency Mismatch	NO	YES
Limits on Maturity Mismatch	NO	Most of provided loans are short-term loans and represent the first rank for the period 1 to 2 years then mid loans they are limited and related to real estate loans
Limits on Exposure Concentration (ex. Individual Large Exposure, or Government Entities as percent of Total Capital)	20.0 percent Government entities are not allowed to borrow from Commercial bank, by law. All of the above mentioned ratios are microprodential tools applied by Banking Supervision Department at the Central Bank of Libya.	The loans provided must not exceed 10.0 percent for natural and moral person including public institutions of (10.0 percent) of bank capital and its total reserves

Macroprudential Framework: First Group

	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
Does any institution or authority within your jurisdiction have a formal mandate for macroprudential policy?	YES	Only on the banking sector	YES	YES	Only on the banking sector	YES
Which institution has been given this mandate?						
Central Bank	Central Bank	Central Bank	Central Bank	Central Bank		Central Bank
Integrated financial regulator/supervisor		NO				
Banking regulator/supervisor		NO				
Ministry of Finance		On Fiscal policy				
Financial stability council/committee		NO				Higher Committee on Financial Stability
Other (Please Specify)		Securities and investment commission on capital markets				
Is the formal mandate made explicit in:						
Legislation	Decision of the Executive	Union Law number 10 of 1980 for the Central Bank	Under Law number (13) of 2012 - Law of the Qatar Central Bank and the Regulation of Financial Institutions	YES		Banking Law
Decision of the Executive						
Memorandum of understanding						
Other (Please Specify)						
Which department in the central bank is responsible for macroprudential policy ?	The Monetary Policy and Financial Stability Department	Financial Stability Division	Financial Stability and Statistics Department	Financial Stability Department	Financial Stability Department	Financial Stability Department

Macroprudential Framework: First Group (concluded)

	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
Is there a coordination between macroprudential policy and microprudential policies in your jurisdiction?	The financial stability committee in SAMA includes deputy governors and directors of both macro and micro-prudential supervisory deputyships and departments. Additionally, SAMA has established a sub-committee which is mandated to coordinate and align macro and micro-prudential regulations together to ensure delivery of broader financial stability. the mandates also include formalizing micro and macro-prudential interactions, information sharing, policy response assessment and relevant use of micro-prudential instruments for macroprudential purposes	NO	Yes. Both macroprudential and microprudential policies are being framed by the Qatar Central Bank			While individual bank's health is monitored by Banking Surveillance function of CBO, Systemic Risk is monitored by the Financial Stability function. Sectoral macroprudential caps are in place to address real estate sector booms.
Is there a coordination between macroprudential policy and other macroeconomic policies in your jurisdiction (monetary policy, fiscal policy,…)?	The monetary policy and financial stability representatives are members of both monetary policy and financial stability committees at SAMA. In addition, both monetary policy and financial stability divisions are structured under the same department and report to the same director and deputy governor. For other macroeconomic policies, the financial stability team holds periodic meetings with relevant external entities such as the Capital Market Authority and Ministry of Finance.	NO	Partly yes as QCB also formulates the monetary policy. The fiscal policy is under the jurisdiction of the Ministry of Finance but there is coordinated approach towards financial and macroeconomic stability. A coordination committee for financial stability exists with membership from the central bank, capital markets authority and the financial center.			As above. The idea is to supplement the effort of monetary policy to address economic issues by way of macro prudential steps so that they do not work to counter each other. Raising interest rates to contain inflation may affect earning of banking sector as it may increase cost of lending and depress the demand for them. A ccordination committee for financial stability exists which includes membership from the capital Markets authority and the Ministry of Finance.
If your jurisdiction does not have a formal mandate for macroprudential policies, are there any plans within the next three years to introduce a formal and explicit mandate for macroprudential policy?	Not applicable	A new financial services law is currently being drafted.	Not applicable		NO	Not applicable

Macroprudential Framework: Second Group

	EGYPT	Jordan	Lebanon	Morocco	Tunisia	Palestine	Sudan
Does any institution or authority within your jurisdiction have a formal mandate for	YES	YES	NO	YES	YES	NO	NO
Which institution has been given this mandate?							
Central Bank	YES	Central Bank		The committee for coordination and surveillance of Systemic Risks (CCSRS) is in charge of the	Central Bank	Central Bank	
Integrated financial regulator/supervisor							
Banking regulator/supervisor							
Ministry of Finance							
Financial stability council/committee				YES. the Committee for coordination and surveillance of Systemic Risks (CCSRS) is in			
Other (Please Specify)							
Is the formal mandate made explicit in:							
Legislation	YES	YES		YES. (in the Banking law)	YES	YES (Banking Law and instructions)	
Decision of the Executive							
Memorandum of understanding							
Other (Please Specify)							
Which department in the central bank is responsible for macroprudential policy ?	The Macroprudential Unit	Financial Stability Department	* A Financial Stability Unit (FSU) within the Central Bank has been recently established. * A department within the Banking Control Commission has been established to monitor the systemic risk in the banking sector as a whole.	In the central Bank, four entities contribute to the macroprudential policy, namely "the studies and international relations department", "The Monetary and Exchange Operations department", "the banking supervision department" and "the research department".		Supervision and Inspection Department.	
Is there a coordination between macroprudential policy and microprudential policies in your jurisdiction?	Based on the Macroprudential unit continued monitoring assessing for systemic risks facing the banking sector, recommendations are communicated to microprudential units that could lead to issuing corrective action measures, e.g. introduction of new regulations.	There are several joint committees with banking supervision department such as Basel III committee and crisis management committee.	A Financial Stability Committee has been recently formed, chaired by the Vice Governor of the Central Bank with Members of the Banking Control Commission, the Financial Stability Unit and representatives from other departments in the Central Bank. Monthly meetings are held to discuss the FSU findings and recommend the necessary measures to be taken.	The banking supervision which is responsible for the regulation and the microprudential surveillance of banks is a member of the financial stability committee.	YES	YES	

Macroprudential Framework: Second Group (concluded)

	EGYPT	Jordan	Lebanon	Morocco	Tunisia	Palestine	Sudan
Is there a coordination between macroprudential policy and microprudential policies in your jurisdiction?	Based on the Macroprudential unit continued monitoring assessing for systemic risks facing the banking sector, recommendations are communicated to microprudential units that could lead to issuing corrective action measures, e.g. introduction of new regulations.	There are several joint committees with banking supervision department such as Basel III committee and crisis management committee.	A Financial Stability Committee has been recently formed, chaired by the Vice Governor of the Central Bank with Members of the Banking Control Commission, the Financial Stability Unit and representatives from other departments in the Central Bank. Monthly meetings are held to discuss the FSU findings and recommend the necessary measures to be taken.	The banking supervision which is responsible for the regulation and the microprudential surveillance of banks is a member of the financial stability committee.	YES	YES	
Is there a coordination between macroprudential policy and other macroeconomic policies in your jurisdiction (monetary policy, fiscal policy,…)?	Coordination takes place among CBE main functions: Monetary Policy, Reserve Management, and other Banking Supervision departments along with Macroprudential. In addition, deputy governor of the banking supervision is a voting member in the monetary policy committee.	For the monetary policy, there is coordination with the research and open market operations departments on several policy issues.		The recommendations of the macroprudential policy are made to not prejudice the objective of the monetary policy which is to maintain price stability, because the members on the financial stability committee and the Monetary and financial committee of the Central bank are the same, namely the governor of the Central Bank, the Chief Executive and the heads of "the studies and international relations", "The Monetary Operations and Exchanges", "the banking supervision" and "the research" departments. Indeed, Ministry of Finance, Central Bank, Insurance authority and market authority are responsible of the macroprudential policy as they are members in the CCSRS.	YES	YES	
If your jurisdiction does not have a formal mandate for macroprudential policies, are there any plans within the next three years to introduce a formal and explicit mandate for macroprudential policy?	Not applicable	Not applicable		Not applicable	Not applicable	YES	YES

Macroprudential Framework: Third Group

	LIBYA	IRAQ
Does any institution or authority within your jurisdiction have a formal mandate for macroprudential policy?	NO	YES
Which institution has been given this mandate?		Central Bank of Iraq
Is the formal mandate made explicit in:		
Legislation	NO	Banking law and executive instructions issued according to it
Which department in the central bank is responsible for macroprudential policy ?		Banking and Credit Control Dept.
Is there a coordination between macroprudential policy and microprudential policies in your jurisdiction?		The legslative authority through financial services court formed according to CBI Law
Is there a coordination between macroprudential policy and other macroeconomic policies in your jurisdiction (monetary policy, fiscal policy,…)?		Independent Monetary Policy prepared by CBI according to law. Financial policy is prepared by special law and approved by parliament and mandate executive authority to pay public fund
If your jurisdiction does not have a formal mandate for macroprudential policies, are there any plans within the next three years to introduce a formal and explicit mandate for macroprudential policy?	YES, The Central Bank of Libya took the initiative of addressing the issue of Macroprudential policy by forming a committee to draft a proposal in order to introduce the subject to all concerned parties.	Not applicable

Basel III Implementation Schedule: First Group

	KSA	UAE	QATAR	BAHRAIN	KUWAIT	OMAN
Capital Adequacy Ratio	2015: Final rule in force: the domestic legal and regulatory framework is already applied to banks.	To be finalized in the near future	Implemented from 2014	6.5 percent	2014: 12.0 percent 2015: 12.5 percent 2016: 13.0 percent	2015: Common Equity Tier 1 - 7 percent 2016: Tier 1- 9 percent 2017: Total CRAR 12 percent 2018: Capital Conservation Buffers currently 0.625, full effect 2.5 percent by 2019 2019: Countercyclical Capital Buffers up to 2.5 percent, full effect by 2019
Framework for DSIBs.	2016: The framework for DSIBs has been implemented beginning 2016.	To be finalized in the near future	Implemented from 2016	Number of banks=5 No additional Capital buffer Resolution Recovery Plan submitted to the CBB/ Subject to more intensive Supervision	2016: 0 percent - 2 percent	2015: 1 bank designated as D-SIB 2016: 1 percent additional CET1 In phases of 40 bps (2017), 30 bps (2018) and 30 bps (2019)
Liquidity Ratio	2015: Final rule in force: the domestic legal and regulatory framework is already applied to banks. 2016: Final circular #107020 on amended LCR was issued on 10 July 2013 and in force,	To be finalized in the near future	Liquidity coverage ratio to be 60 percent in 2014, increasing by 10 percent each year and reaching 100 percent by 2018. NFSR to be 70 percent in the current year, increasing by 10 percent each year to reach 100 percent by 2018.	2015: LCR min. 60 percent 2016: LCR 70 percent 2017: LCR min 80 percent 2018: LCR min 90 percent 2019: 100 percent LCR NSFR minimum standard	2015: 100 percent 2016: 100 percent	starting from 60 percent in 2015 up to 100 percent by 2019
Leverage Ratio	2015: Final rule in force: the domestic legal and regulatory framework is already applied to banks. 2016:Leverage ratio is Monitored quarterly at a minimum of 5 percent since January 2011 on the basis of BCBS document of December 2010. Disclosure will start in 2015 as per the BSCS requirements. Any other adjustments to definition and calibration will be made by 2017,	To be finalized in the near future	Already implemented. Ratio set at 3 percent	2017: Disclosure starts 2018: Migration to in 2018	2014: 3 percent 2015: 3 percent 2015: 3 percent	LCR 100 percent when fully phased in

Basel III Implementation Schedule: Second Group

	Egypt	Jordan	Lebanon	Morocco	Tunisia
Capital Adequacy Ratio	In the phase of implementation according to agreed schedule with Basel Committee	still not decided (but there is currently a committee working on issuing Basel III Instructions)	Banks are required to gradually abide by the following capital requirements by the end of 2015: • Min CET1 Ratio ≥ 5.5 percent • Min T1C Ratio ≥ 7.5 percent • Min TC Ratio ≥ 9.5 percent In addition, they are required to build up a capital conservation buffer of 2.5 percent of Risk-Weighted Assets to reach the following minimum capital requirement (including conservation buffer) by the end of 2015: • Min CET1 + Capital Conservation Buffer ≥ 8 percent • Min T1C + Capital Conservation Buffer ≥ 10 percent • Min TC + Capital Conservation Buffer ≥ 12 percent BDL is expected to issue a framework on Countercyclical Capital Buffer	CAR (additional capital): Core tier I (8 percent), tier I (9 percent), CAR (12 percent) Timeline: In force since 2014 - progressive implementation until end 2018-	Operational risk and market risk are not yet considered in the CAR. Regarding the regulation in force the core tier 1 is 7 percent
Framework for DSIBs	In progress	still not decided (but there is currently a committee working on issuing Basel III Instructions)	BDL and BCCL are setting the definition for Domestically Systemically Important Financial Institutions and the treatment to be adopted for them, based on a series of consultations and practices worldwide.	Number of banks: Ongoing studies Additional capital/times line: circular to be adopted by the end of 2015	NO
Liquidity Ratio	In the phase of implementation according to agreed schedule with Basel Committee	still not decided (but there is currently a committee working on issuing Basel III Instructions)	Two Quantitative Impact Studies have been performed so far . BDL will decide on the factors to be used in the calculation of the L.C.R. in accordance with Basel 3 Liquidity Standards. BCCL is preparing templates for the calculation of the NSFR in accordance with Basel III liquidity standard	LCR: 2015: 60 percent, 2016: 70 percent, 2017: 80 percent, 2018:90 percent, 2019: 100 percent. NSFR: Regulation implementation not yet planned	The CBT has published in November 2014 the new liquidity ratio by opting for the new ratio Basel Liquidity Coverage Ratio (LCR) . The LCR is the net outflow of cash coverage by outstanding high quality liquid assets on a 30-day horizon in a liquidity tension. LCR timeline: 2015: 60 percent, 2016: 70 percent, 2017: 80 percent, 2018: 90 percent 2019: 100 percent
Leverage Ratio	In the phase of implementation according to agreed schedule with Basel Committee	still not decided (but there is currently a committee working on issuing Basel III Instructions)	Templates have been developed and are submitted to BCCL on semi-annually basis by banks. BDL will set a minimum leverage ratio for banks in 2015.	Ongoing studies	Not Yet

Basel III Implementation Schedule: Third Group

	Libya	Iraq
Capital Adequacy Ratio	NO	Central Bank has not adopted Basel III but adopted Basel II through three pillars which are capital enhancement, market risk and operational risk.
Framework for DSIBs	NO	The central bank has adoped (CAMEL) system to evaluate banks.
Liquidity Ratio	Commercial banks are obliged to develop their risk policies and risk management.	Liquidity ratio must not exceed 30 percent of gross total assets/liabilities.
Leverage Ratio	Commercial banks are obliged to develop their risk policies and risk management.	NO.

Financial Stability: First Group

	KSA	UAE
The Regulatory Framework	A regulatory framework has been adopted. Financial stability department is established, Financial Stability Committee is formed, coordination between different regulatory authorities is in place and under further developments, and a process for macro-prudential policy decisions and implementation is adopted.	Currently the UAE applied Basel II standardized approach for capital adequacy ratio. The central bank is in the process of implementing Basel III capital and liquidity standards by 2019.
Adoption of Early Warning System	A macroprudential dashboard has been launched. The dashboard is part of an integrated early warning system and provide recent changes and developments in the banking, insurance, capital market, and other macroeconomic developments that have implications on financial stability. Another tool that has been used is an excel based early warning model that tracks changes in the capital market index and the credit to GDP ratio.	The central bank monitors a series of early warning indicators including the IMF financial soundness indicators (both core and recommended where possible). In addition, indicators such as credit to GDP ratio gap, deviation of real estate prices and yields from long-term trends and capital market ratios are also monitored. A financial stability index is currently being developed which shows the current status of financial stability but would allow the testing of new early warning indicators.
Establishment of Financial Stability Office	A financial stability division has been established. The department is in charge of setting up and reviewing macro-prudential policies, assessing systemic risk and provide recommendations, perform macro stress testing, publish financial stability reports, in addition to its role as a secretariat for the financial stability committee in SAMA.	The Financial Stability Unit was created in 2008 at the Central Bank. The Unit monitors key financial soundness indicators for signs of vulnerability building up in the financial system; it also tracks developments in key sectors of the economy such as the real estate and the stock market. Exposures to other countries in the form of a funding source, or a credit exposure is also regularly reviewed to identify concentration. The Unit is also responsible for recommending the use of macro-prudential tools to achieve financial stability objectives, conducts periodic capital and liquidity stress testing of the banking system.
Publishing Financial Stability Reports	A final draft of the report is under review.	An annual financial stability report is issued since 2012, the report communicates the central bank's views on financial stability and the build-up of systemic risk that might impact the UAE financial system. The reports are available on the central bank website and we expect to release the 2014 report by Mid June 2015
Responsibility and Implementation of Stress Testing of Banks	Financial stability division is responsible for performing a stress testing. The division is now updating and improving the stress testing model used by SAMA. Additionally, banks run stress testing in a semi-annual bases and are reviewed by SAMA on annual bases	The financial stability division at the central bank is responsible for conducting stress testing. The IMF next generation balance sheet stress testing tool was used to conduct the stress test in 2014 ; the tool allows running adverse economic scenarios through "satellite models" and then translating the shocks into impact on key risk parameters' at banks, thereby enabling an assessment of their solvency in light of such adverse scenarios.

Financial Stability: First Group (continued)

	QATAR	BAHRAIN
The Regulatory Framework	The Qatar Central Bank (QCB) is the regulator of the banking system as well as the insurance sector in Qatar. Offshore banks and insurance companies in Qatar Financial Center are regulated by Qatar Financial Center Regulatory Authority (QFCRA). Capital markets and investment funds are being regulated by Qatar Financial Markets Authority. The QCB, working closely with QFCRA and QFMA, has developed a Strategic Plan that is being implemented during 2013 – 2016 within the context of the overall objectives of the Qatar National Vision 2030 and the Qatar National Development Strategy Plan 2011–2016. The Strategic Plan focuses on enhancement of micro- and macro-prudential regulatory framework and financial infrastructure as per the international best practices, enhancement of consumer and investor protection, promotion of regulatory cooperation among the three regulatory authorities and development of human capital. Strengthening of risk-based regulation, promotion of Islamic financial institutions and markets, enhanced cooperation within the GCC and increased involvement with the Basel Committee, IAIS and IOSCO are the thrust areas in regulations.	The Central Bank of Bahrain ('CBB') is responsible for regulating and supervising the whole of Bahrain's financial sector. Prior to the creation of the CBB in September 2006, the Bahrain Monetary Agency ('BMA') had previously acted as the sole regulatory authority for Bahrain's financial sector. (The BMA was responsible since its establishment in 1973 for regulating Bahrain's banking sector, and was subsequently given responsibility in August 2002 for regulating Bahrain's insurance sector and capital markets.) The CBB's duties include the licensing and supervision of banks (both conventional and Islamic), providers of insurance services (including insurance firms and brokers), investment business licensees (including investment firms, licensed exchanges, clearing houses and their member firms, money brokers and investment advisors), and other financial services providers (including money changers, representative offices, finance companies and ancillary service providers). The CBB also regulates Bahrain's licensed exchanges and clearing houses and acts as the Listing Authority for companies and financial instruments listed on the exchanges. It is also responsible for regulating conduct in Bahrain's capital markets. The CBB's supervision of licensees is a mixture of onsite assessment (including the quality of systems and controls, and of books and records) and offsite supervision (which focuses on the analysis of regulatory returns, as well as of audited financial statements and other relevant public information). Onsite examinations are undertaken by the CBB's own examiners, as well as by experts appointed for the purpose by the CBB (such as accountants and actuaries). Offsite supervision also includes regular prudential meetings with licensees to review performance, strategy and compliance matters (such as capital adequacy, large exposures and liquidity). For banks, a risk profiling system has been developed to underpin the above supervisory efforts, by providing a detailed framework for assessing the impact and risk profile of individual licensees, and prioritizing subsequent supervisory efforts. Work is underway to extend this profiling system to insurance companies. Where a licensee fails to satisfy the CBB's regulatory requirements, then the measures outlined in the Enforcement Modules of the applicable Volumes of the Rulebook may be applied. Enforcement measures include formal warnings, directions (e.g. to cease or desist from an activity), formal requests for information, adverse fit & proper findings, financial penalties or investigations. Extreme violations of the CBB's regulatory requirements may entail cancellation of a license, administration or criminal sanctions
Adoption of Early Warning System	QCB has been monitoring various financial stability indicators over the past several years. Enhancement of early warning system is an ongoing process and currently QCB is working on further strengthening its early warning system.	The Early Warning Report (EWR) is a strictly confidential, internal CBB document, produced semi-annually. It's aim is to identify potential threats to the safety and soundness of systemically-important banks in Bahrain. It assesses key soundness indicators for these institutions and produces an overall rating of financial soundness for each bank. The report assesses the financial condition and performance of selected, systemically-important banks in Bahrain. The aim is to detect any potential threats to their safety and soundness. For the purpose of this report, "systemically-important banks" are defined as locally-incorporated retail and wholesale banks in Bahrain (both conventional and Islamic). The banks were carefully categorized as systematically important based on specific criterion: cross-jurisdictional activity, size, interconnectedness, substitutability, and complexity. Since the stress test will only look at systemically important banks in Bahrain, it is often referred to in some writings as "system-oriented" instead of "system-wide" stress testing.
Establishment of Financial Stability Office	Financial Stability and Statistics Department of the QCB has ben monitoring financial stability in Qatar and publishing the annual Financial Stability Reviews. Based on the recommendations of the central bank's Strategic Plan, Financial Stability and Risk Control Committee, chaired by the QCB Governor, was set up and it oversees coordination between the regulatory authorities in Qatar, including the implementation of the strategic plan for financial sector regulation.	A key objective of the Central Bank of Bahrain (CBB) is to ensure the continued soundness and stability of financial institutions and markets. The CBB defines financial stability as a situation where there is continuous and prudent provision of financial services, even in the face of adverse shocks. It believes that financial stability is critical for maintaining Bahrain's position as an international financial center and for ensuring that the sector continues to contribute significantly to growth, employment and development in Bahrain. The pursuit of this objective is the primary responsibility of CBB's Financial Stability Directorate (FSD), which conducts regular surveillance of the financial system to identify areas of concern and undertakes research and analysis on issues relating to financial stability. The Directorate prepares Financial Stability Reports (FSRs) for CBB management, reviewing recent trends and identifying areas of concern which require supervisory and policy attention. The FSD has developed relevant Financial Soundness Indicators to monitor the financial sector on a continuous basis.
Publishing Financial Stability Reports	Financial Stability and Statistics Department of the QCB is responsible for publishing Financial Stability Reports. FSSD, QCB has been publishing Financial Stability Reviews (FSRs) since 2009.	In pursuit of its objective of promoting financial stability, the CBB conducts regular financial sector surveillance, keeping a close watch on developments in individual institutions as well as in the system as a whole. The Financial Stability Report (FSR) is one of the key components of CBB's financial sector surveillance framework. Produced semi-annually by the Financial Stability Directorate (FSD), its principal purpose is macro-prudential surveillance, assessing the safety and soundness of the financial system as a whole (intermediaries, markets and payments/settlement systems). The ultimate objective of such macro-prudential analysis is to identify potential risks to financial stability and mitigate them before they crystallize into systemic financial turbulence.
Responsibility and Implementation of Stress Testing of Banks	Stress testing of banks is being done at two levels. QCB has been conducting stress tests for credit, liquidity, market and cross border risks. The results of these tests are being published in the FSRs. Based on the parameters set by the QCB, the banks are also conducting stress tests and submitting their results to the QCB.	The CBB conducts sensitivity stress testing exercises semi-annually for the Domestic Systemically Important Banks (D-SIBs). The tests are conducted for locally incorporated retail and wholesale banks in the Kingdom of Bahrain (both conventional and Islamic). The banks were carefully categorized as systemically important based on specific criteria such as cross-jurisdictional activity, size, interconnectedness, substitutability, complexity and others. There are two Islamic Banks among the D-SIBs. The CBB identified 1) Credit risks and 2) Liquidity risks as the relevant challenges for the D-SIBs. Therefore, the focus is on these two areas. In the credit risk scenarios, the banks are tested under various assumptions. Banks' balance sheets are stressed (for example, an increase in the share of non-performing facilities) and the results are observed in the pre-shock and post-shock CAR. The aim of the exercise is to measure the impact on CAR and the corresponding capital shortfall for the banks to meet the CBB's minimum requirement. Similarly, the banks' balance sheets are stressed under various assumptions in the liquidity risk scenarios. The liquidity exercises aim to measure the resilience of financial institutions in Bahrain if there were a sudden surge in withdrawals of deposits, the main determinant being the length of time before a bank runs out of liquid assets. The CBB has utilized both top-down and bottom-up approaches in conducting its sensitivity stress testing exercises. Relevant data are collected from the banks and tested under several scenarios with varying degrees of shock (low, moderate, severe and very severe). The stress test model used is based on stress testing exercise tools developed by the IMF. The model was modified to fit the Bahraini banking system. The CBB is currently working on further developing its stress testing strategy with plans that include developing other model based stress tests to assess other risks and the involvement of banks in further exercises.

Financial Stability: First Group (concluded)

	KUWAIT	OMAN
The Regulatory Framework	The Central Bank of Kuwait (CBK) has taken several steps in line with those taken by the international banking community in response to the financial crisis. Some of these steps include new supervisory methods such as risk based supervision, stress tests on the banks, and the taking of necessary measures in the application of Basel III. Finally, the introduction of governance rules in line with international standards was a priority of the Central Bank of Kuwait as it enabled Kuwait's regulatory standards to be in line with the best international banking standards. Furthermore The CBK is presently using several analytical methods to diagnose issues of systemic risk. These methods include: stress testing, and quarterly reports on financial stability.	Central Bank of Oman (CBO) regulates banks, finance companies, exchange houses, and money and forex markets of Oman. Insurance sector, mutual funds sector and securities markets are regulated by the Capital Markets Authority (CMA). Deposit insurance and credit rating frameworks are also administered by the CBO. Micro-surveillance of banking sector is done by off-site assessment of performance at CBO and on-site examination of banks at their premises. Off-site assessment (OSMOS) triggers the focus points bank examination for which Risk Based Supervision (RBS) has been introduced. For Macro-financial surveillance to monitor systemic risk a new department (Financial Stability Department-FSD) has been established at CBO which renders focused attention on managing financial instability in the whole system. It keeps macro-economy, Financial Markets, Financial Institutions and Financial Infrastructure under its radar. Supplementing use of macro-prudential tools to fine-tune efficacy of monetary policy making is in practice at CBO.
Adoption of Early Warning System	While preliminary work has been done in putting together a formal EWS, the system is not yet operational due to various data limitations.	An Early Warning Mechanism (EWM) for Oman, which involves identification of suitable variables having characteristics of signaling of early warning on impeding distress. This has been done by computing empirically the thresholds for each variable, which if breached either way can forewarn possible vulnerabilities in the system. This will be shortly operationalized to have a sense on the movement of such indicators having potential vulnerabilities implications so that timely macroprudential intervention can be envisaged.
Establishment of Financial Stability Office	Central Bank of Kuwait (CBK) established an independent Financial Stability Office (FSO) in June 2011 in its pursuit to ensure a sound and stable financial system. FSO publishes an annual Financial Stability Report in both English and Arabic. Moreover, FSO prepares a Quarterly Report for internal use, covering the major developments in the banking sector and domestic markets, and is also responsible for conducting stress tests on quarterly basis, among other tasks.	Oman has a financial stability office that monotors the stability of the banking system with the help of an early warning system and a dashboard, does periodic stress testing of banks, and publishes an annual financial stability report.
Publishing Financial Stability Reports	FSO published its first annual 'Financial Stability Report' in 2013, followed by the second annual FSR in 2014. These reports, available on the CBK website (http://new.cbk.gov.kw/en/statistics-and-publication/publications/financial-stability-report.jsp), cover in details the key developments in the banking sector (making an assessment of financial intermediation, analyzing key risks in the banking sector and examining the trends in banks' profitability, solvency and resilience against major shocks), domestic markets (money, foreign exchange, equity, and real-estate markets) and the payment and settlement systems. form 2014, the FSR has been published in both Arab and English.	A data series on a number of variables in the four constituents of financial stability analysis (economy, markets, institutions and infrastructure) has been prepared. The movements in these variables are studied and monitored. A Systemic Risk Dashboard detailing the issues of vulnerabilities in the system is prepared on quarterly basis for the information of the Higher management of CBO. A larger version of this, Financial Stability Reports are published in public domain on an annual basis which examines the potential vulnerabilities of the system in sync with global developments and the systems in place to handle them in line with global regulatory reforms. The third Report is in the process of preparation.
Responsibility and Implementation of Stress Testing of Banks	The FSO is responsible for conducting Quarterly Stress Testing Exercise. The report is prepared for internal consumption, using the results of FSO's in-house quarterly stress testing exercise which aims to determine the resilience of the banking systems against various macroeconomic and financial shocks.	A data series on a number of variables in the four constituents of financial stability analysis (economy, markets, institutions and infrastructure) has been prepared. The movements in these variables are studied and monitored. A Systemic Risk Dashboard detailing the issues of vulnerabilities in the system is prepared on quarterly basis for the information of the Higher management of CBO. A larger version of this, Financial Stability Reports are published in public domain on an annual basis which examines the potential vulnerabilities of the system in sync with global developments and the systems in place to handle them in line with global regulatory reforms. The third Report is in the process of preparation.

Financial Stability: Second Group

	EGYPT	JORDAN
The Regulatory Framework	According to Law no. 88 of the year 2003 promulgating the law of the central bank, the banking sector and money; the Central Bank of Egypt (CBE) focuses on realizing price stability and banking system soundness, within the context of the general economic policy of the state. In doing so the CBE has the powers of supervising the units of the banking sector and among its mandates is to set rules for regulating and supervising banks' activities. In setting those rules, the main target of the CBE is to preserve the safety and soundness of the banking system thus enhancing financial stability. In addition, the Macroprudential unit is responsive to any developments that could lead to issuing other safeguard regulations.	The Banking supervision departmen in the process of issuing Basel III instructions in collaboration with the Financial Stability Department
Adoption of Early Warning System	The Macroprudential unit is in phase of implementing Early Warning tools, such as Macroeconomic Early Warning models and Countercyclical capital buffer model.	Adopted an Initial Early Warning System
Establishment of Financial Stability Office	CBE established in 2006 an independent Financial Stability Unit under the umbrella of the Banking Supervision named Macroprudential Unit. The unit has been tasked to develop analysis framework that evaluates health, soundness and vulnerabilities of Egyptian banking sector at macro level within three main functions: Financial and Banking Analysis, Macro-economic Research, and Modeling. The main goal is to identify systemic risks to Banking Sector financial stability and to take corrective action measures.	The financial stability department ha been established in 2012
Publishing Financial Stability Reports	Macroprudential Unit has worked in cooperation with the World Bank for issuing its Financial Stability Report. Financial Stability Report covers: Macroeconomic and Financial Markets (International and Domestic overview, financial markets, and Real estate development), Banking Sector Financial Analysis (Financial Statements' Analysis, and Financial Soundness Indicators' Analysis), and Banking Sector Structural Developments. Previously, the FSR was submitted to the CBE board directors and will be published during the course of this year.	Two reports have been published 20 and 2013 and currently working on 2014 report
Responsibility and Implementation of Stress Testing of Banks	CBE implements different stress testing models since 2010 as a result of increasing attention in the recent years as a supervisory and crisis management tool. The tests offer an integrated approach in implementing stress testing against all material risks (Credit, Market, Liquidity, and Interest rate), With bottom-up and top-down approaches. These tests use are sensitivity analysis; single and simple multi-factor shocks.	FSD conducts top down stress testi Also, is responsible for bottom-up st testing and is in the process of issuin new rules regarding bottom-up stres testing.

Financial Stability: Second Group (continued)

	LEBANON	MOROCCO
The Regulatory Framework	The central bank and the Banking Control Commission of Lebanon are in process of implementing the Basel III amendments.	**1) achieved** : legal mandate for macroprudential surveillance (banking law) **2) ongoing:** - legal mandate for "contribution to financial stability" for the Central bank (ongoing reform of the Central bank act) - DSIB's framework **3) planned:** other macroprudential toolkit regulatory framework namely countercyclical buffer
Adoption of Early Warning System	An early warning system developed at the level of the Financial Stability Unit is functional since June 2014.	The central bank has established a systemic risk mapping based on a selection of early warning indicators likely to identify the development of actual or potential risks to the financial system. These macroprudential indicators are designed to assess risks in financial institutions and markets, as well as risks that might arise from the real economy, mainly corporate, real estate and household sectors. Macroprudential indicators are assessed in view of trends in their historical values over a long period and international comparisons with other developed and emerging countries. Forecasts of some leading indicators are also considered, in order to give the analysis a prospective dimension. Scores on a scale - of 1 to 5- are attributed to reflect the level of risk.
Establishment of Financial Stability Office	Recently established in 2014.	
Publishing Financial Stability Reports	NO	The first financial stability annual report was published in 2014, July 24th
Responsibility and Implementation of Stress Testing of Banks	The Banking Control Commission is responsible for conducting stress tests on banks. Several stress tests were performed on banks operating in Lebanon and their exposures abroad.	The central bank implemented top down stress tests revolved around three approaches: stress tests of balance sheet sensitivity (conducted by the Banking Supervision Department), stress tests of interbank contagion (conducted by the Monetary and Exchange Department) , and macro stress tests (conducted by the Research Department) BAM implemented also; bottom up stress tests conducted by banks and supervised by the Banking Supervision Department.

Financial Stability: Second Group (concluded)

	Palestine	Sudan
The Regulatory Framework	Our regulatory framework is consists of the following: -Laws -Regulations -Instructions -circulars We are in process of developing our practices follows: -Risk-Based Supervision -Basel II/III	set up strategy for financial inculsion by rasing the banking awarness through workshop in deffent state . Regulation governing the offshore banking.Circular concerning the requirmeent of AML AND CFT.
Adoption of Early Warning System	An early warning system exists consisting of the following: -The UBPR financial ratios for each bank and for the banking system as a whole -Financial Soundness Indicators (FSIs) -Stress Testing (conducted by the PMA quarterly, and conducted by banks semi-annual) -Montering liquidity on daily basis for each bank and the banking system -Off-site and on-site inspection - Monetaring systemic risks regarding exposures of outside investment and exposures to Govenment and its emploees - Crisis managemet and business continuity plans including establishment of (AS and DRS) sites.	
Establishment of Financial Stability Office	The financial stability office consists of the following departments: - Supervision & Inspection Department -Payment System Dept. -Enterprise Risk Management -Business Continuity Unit -Market Coduct Dept.	Financial Stability Unit exists since 2013
Publishing Financial Stability Reports	YES	Financial stablity uint prepares report on quartely basis
Responsibility and Implementation of Stress Testing of Banks	Stress testing conducted since 2011. By the end of 2014 PMA developed the stress testing instructions, these instruction take into consideration the best practices in this regard and implemented by banks and the PMA (the wide industry-stress test).	Planning to implement the ICAAP and we have a certain model for stress testing about credit, exchange rate and liquidtiy.

Financial Stability: Third Group

	Libya	Iraq
The Regulatory Framework	The existing regulatory framework is mainly for micro-prudential policies.	Regulatory instructions exisit to achieve financial stability as stipulated under Article 3 of the Central Bank of Iraq Act.
Adoption of Early Warning System	YES	Currently under review
Establishment of Financial Stability Office	There is a committee within the Central Bank of Libya which has been established and mandated to a framework aiming for the development of a memorandum of understanding with other concerned parties.	Central Bank of Iraq is examining establishing specialized unit within the central bank.
Publishing Financial Stability Reports	The department of banking supervision publishes an annual report dealing with the stability and soundness of banking sector, and providing financial indicators about commercial banks.	Annual reports on financial stability position in Iraq and distributed it to formal and non-formal parties and University researchers
Responsibility and Implementation of Stress Testing of Banks	The department of banking supervision is responsible for implementing stress testing of banks.	Currently under review

Financial Stability Indicators: First Group

Capital Adequacy Ratio

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
KSA			20.6	16.0	16.9	17.6	17.6	18.2	17.9	17.9
UAE	17.0	17.0	14.0	13.0	20.0	22.0	21.0	21.0	19.0	18.0
Qatar	24.8	15.1	13.5	15.5	16.1	16.1	20.6	18.9	16.0	12.8
Kuwait						18.9	18.5	18.0	18.9	18.3
Oman		17.2	15.9	14.7	15.6	15.8	15.9	16.0	16.2	15.1

NPLs to Loans

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
KSA		2.0	2.1	1.4	3.3	3.0	2.2	1.7	1.3	1.1
UAE	8.0	6.0	3.0	3.0	5.0	6.0	7.0	9.0	8.0	7.0
Qatar	4.3	2.2	1.5	1.2	1.7	2.0	1.7	1.7	1.9	1.7
Kuwait						8.9	7.3	5.2	3.6	3.5
Oman		22.0	19.1	16.3	15.0	13.4	12.4	12.4	12.5	12.2

Provisioning Rate (general plus specific)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
KSA		182.0	143.0	153.0	89.8	116.0	133.0	145.0	163.0	
UAE	95.0	98.0	100.0	99.0	85.0	84.0	87.0	83.0	92.0	102.0
Qatar	84.3	94.3	90.7	83.2	84.5	85.1	87.2	97.5	96.8	99.1
Kuwait								95.1	134.6	139.4
Oman		102.9	110.0	131.0	110.3	116.4	124.7	135.9	138.0	136.2

Return of Assets

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
KSA		4.3	2.8	2.7	3.1	2.9	2.7	2.6	2.6	2.5
UAE				1.5	1.2	1.4	1.5	1.4	1.5	1.7
Qatar	4.30	3.7	3.6	2.9	2.6	2.6	2.7	2.4	2.1	2.1
Kuwait						1.2	1.1	1.2	1.0	1.0
Oman		2.9	2.8	2.3	2.1	1.9	1.8	1.8	1.8	1.8

Financial Stability Indicators: First Group (concluded)

Return on Equity

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
KSA		30.4	22.3	20.5	23.0	20.4	19.4	18.7	18.6	18.5
UAE				14.3	9.8	11.6	12.5	11.2	11.9	13.7
Qatar	28.5	27.2	30.4	21.5	19.3	19.9	18.6	17.7	16.5	16.5
Kuwait										
Oman		22.0	19.1	16.3	15.0	13.4	12.4	12.4	12.5	12.2

Bahrain

	2010				2011				2012				2013				2014			
	Retail Conventional	Wholesale Conventional	Retail Islamic	Wholesale Islamic	Retail Conventional	Wholesale Conventional	Retail Islamic	Wholesale Islamic	Retail Conventional	Wholesale Conventional	Retail Islamic	Wholesale Islamic	Retail Conventional	Wholesale Conventional	Retail Islamic	Wholesale Islamic	Retail Conventional	Wholesale Conventional	Retail Islamic	Wholesale Islamic
Capital Adequacy Ratio	19.9	24.1	17.7	22.6	19.9	24.1	19.1	23.8	19.3	23.6	18.5	9.4	19.2	22.2	17.3	25.8	18.6	20.8	15.4	24.8
NPLs to Loans	4.6	7.7	16.5	7.1	4.9	8.5	15.0	6.0	4.2	8.1	15.1	6.2	4.1	6.9	12.1	5.2	3.3	5.7	12.6	4.9
Provisioning Rate (specific)	45.5	47.3	34.1	66.6	49.7	54.8	43.5	64.7	66.3	79.5	40.0	23.9	53.5	65.6	41.5	73.4	60.9	75.5	38.3	76.4
Return on Assets	1.2	0.3	(0.3)	(1.8)	1.3	0.7	(0.4)	(2.0)	1.3	0.4	(0.3)	0.4	1.8	1.3	0.1	0.8	1.2	0.6	0.4	
Return on Equity (Locally incorporated)	9.6	8.6	(2.4)	8.6	10.7	4.6	(3.2)	(1.3)	11.5	4.6	(2.8)	7.1	17.2	8.1	0.4	5.1	11.3	4.0	3.9	

Financial Stability Indicators: Second Group

Capital Adequacy Ratio

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Egypt	13.7	14.7	14.8	14.7	15.1	16.3	15.9	14.9	13.7	
Jordan	17.6	21.4	20.8	18.4	19.6	20.3	19.3	19.0	18.4	17.4
Lebanon			12.5	12.2	13.7	13.4	11.6	13.0	14.5	14.9
Morocco	11.5	12.3	10.6	11.2	11.7	12.3	11.7	12.3	13.3	13.5
Palestine				19.2	20.3	21.4	21.1	20.3	20.0	19.0
Sudan	19.0	19.0	22.0	11.0	7.0	10.0	13.0	12.0	17.0	18.0

NPLs to Loans

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Egypt	26.5	18.2	19.3	14.8	13.4	13.6	10.5	9.8	9.3	
Jordan	6.6	4.3	4.1	4.2	6.7	8.2	8.5	7.7	7.0	7.0
Lebanon			10.1	7.5	6.0	4.3	3.8	3.8	4.0	4.2
Morocco	15.7	10.9	7.9	6.0	5.5	4.8	4.8	5.0	5.9	6.4
Palestine				8.2	4.1	3.1	2.7	3.1	2.9	2.5
Sudan	7.0	19.0	26.0	22.0	21.0	14.0	13.0	12.0	8.0	7.0

Provisioning Rate (general plus specific)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Egypt	51.0	76.2	74.6	92.1	100.4	92.5	94.5	97.1	99.8	
Jordan	78.4	80.0	67.8	63.4	52.0	52.4	52.3	69.4	77.0	76.4
Lebanon			76.8	86.4	99.7	109.3	110.1	113.7	107.9	103.0
Morocco					76.4	73.5	75.5	75.6	76.6	76.0
Palestine				95.2	120.7	123.4	119.7	118.4	131.8	128.6
Sudan	27.0	13.0	10.0	14.0	14.0	26.0	26.0	24.0	32.0	62.0

Financial Stability Indicators: Second Group (concluded)

Return on Assets

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Egypt	0.6	0.8	0.9	0.8	0.8	1.0	0.8	1.0	1.0	
Jordan	2.0	1.7	1.6	1.4	1.1	1.1	1.1	1.1	1.2	0.7
Lebanon			1.0	1.1	1.1	1.2	1.1	1.0	1.0	1.0
Morocco	0.5	1.3	1.5	1.2	1.2	1.2	1.1	1.0	1.0	1.1
Palestine				1.6	1.8	2.1	1.9	1.8	1.9	1.7
Sudan*				3.0	4.0	4.0	4.0	4.0	4.0	4.0

Return on Equity

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Egypt	10.2	14.3	15.6	14.1	13.0	14.3	11.7	13.9	14.5	
Jordan	20.9	15.0	12.6	11.5	8.8	8.8	8.3	8.6	9.9	5.8
Lebanon			12.1	13.8	14.3	17.1	14.5	12.8	11.7	11.2
Morocco	6.3	17.4	20.6	16.7	15.2	14.2	13.4	11.8	10.6	12.0
Palestine				21.4	20.3	21.1	17.0	16.2	18.7	17.2
Sudan*						27.0	28.0	36.0	30.0	13.0

Financial Stability Indicators: Third Group

Capital Adequacy Ratio

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Libya										
Iraq	29.5	33.4	31.4	28.0	26.0	31.0	30.0	28.0	33.0	28.4

NPLs to Loans

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Libya										
Iraq	15.6	10.6	9.7	6.5	5.9	2.8	3.0	2.2	8.1	8.4

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