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MOROCCO

FINANCIAL SYSTEM STABILITY ASSESSMENT

February 2016

The Financial System Stability Assessment for Morocco was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on November 25, 2015.

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FINANCIAL SYSTEM STABILITY ASSESSMENT

November 25, 2015

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This report is based on the work of the Financial Sector Assessment Program (FSAP) mission that visited Morocco in April and September 2015. The FSAP findings were discussed with the authorities during the Article IV Consultation mission in November 2015.

- The FSAP team was led by Jianping Zhou (IMF) and Gabriel Sensenbrenner (World Bank), and included Kay Chung, Dale Gray, Pilar Garcia Martinez, Sanaa Nadeem, Cyril Pouvelle (all IMF), Didier Debals, Onenne Partsch (IMF external experts), Ines Gonzalez del Mazo, Philippe Aguera, Teymour Abdel Aziz, Sarah Fatallah, Jonathan Katz, Maria do Ceu Pereira, Eddy Rodriguez, and Gynedi Srinivas (all World Bank).

- The team assessed financial sector vulnerabilities, the policy oversight framework (including macroprudential policy), bank resolution, and financial safety nets. The mission also evaluated financial inclusion and microfinance, as well as capital market regulations and financial market infrastructures.

- FSAPs assess the stability of the financial system as a whole and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk or risk related to fraud, are not covered in FSAPs.

- This report was prepared by Jianping Zhou, with contributions from Gabriel Sensenbrenner and the members of the team.

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Glossary

ACAP	Autorité de Contrôle des Assurances et de la Prévoyance Sociale/Pension and insurance supervisor
AML-CFT	Anti-Money Laundering and Combating the Financing of Terrorism
AMMC	L'Autorité Marocaine du Marché des Capitaux/Capital Markets Authority
BAM	Bank Al-Maghrib
BCP	Basel Core Principles for Effective Banking Supervision
BU	Bottom-UP (stress test)
CAR	Capital Adequacy Ratio
CCA	Contingent Claims Analysis
CCB	Countercyclical Capital Buffer
CCSRS	Systemic Risk Surveillance and Coordination Committee
CDG	Caisse de Dépôts et de Gestion
CDVM	Conseil Déontologique pour les Valeurs Mobilières, replaced by AMMC
DAPS	Direction de l'Assurance et Prévoyance Sociale, replaced by CAPS
DGF	Deposit Guarantee Fund
DSB	Department of Banking Supervision (BAM)
DTI	Debt to Income
ELA	Emergency Liquidity Assistance
FMI	Financial Market Infrastructure
FSI	Financial Sector Indicator
IFRS	International Financial Reporting Standards
IOSCO	International Organization of Securities Commissions
LCR	Liquidity Coverage Ratio
LTV	Loan to Value
MADEX	Moroccan Most Active Shares Index
MAROCLEAR	Morocco Central Custodian and Securities Settlement System
MOF	Ministry of the Economy and Finance
NPL	Nonperforming Loan
OPCVM	Mutual Fund (Organisme de Placement Collectif en Valeurs Mobilières)
SIBs	Systemically Important Banks
SME	Small and Medium Sized Enterprises
SRBM	Système des règlements Bruts du Maroc/Real time Gross Settlement System
SSA	Sub-Saharan Africa
SSS	Securities Settlement System
TD	Top-Down (stress test)
UCITS	Undertakings for Collective Investment in Transferable Securities

EXECUTIVE SUMMARY

Context. Since the 2007 FSAP Update, Morocco's financial system has grown in size and complexity, with increased links between the banking and insurance sectors and a significant expansion into Sub-Saharan Africa (SSA). A new banking law introduced in December 2014 aims to strengthen consolidated supervision and improve bank resolution. The forthcoming central bank law further enhances central bank independence and expands its role to include, inter alia, contributions to financial stability and the oversight of financial market infrastructures.

Banks are adequately capitalized and profitable, with stable funding. Banks provide mostly short- and medium-term customer loans, funded mainly by stable retail deposits, including from Moroccans living abroad. However, nonperforming loans (NPLs) have risen recently due to weak activity in certain sectors, although they are well provisioned. Vulnerabilities include difficulties faced by companies involved in construction and real estate development. While these strains are unlikely to affect financial stability at present, close monitoring of risky loans should be strengthened.

Comprehensive stress tests for the eight largest banks suggest the system is resilient to severe shocks associated with prolonged weakness in Europe and global financial market volatility. In a scenario with a sharp downturn that leads to sustained output losses, only one small bank would see its capital ratio fall below the regulatory minimum, with a capital shortfall estimated at 0.2 percent of GDP. Market price-based stress tests confirm the resilience of the banking system.

However, banks are vulnerable to large corporate defaults and deposit withdrawals. The banking system is particularly vulnerable to concentration risks: for each of the eight banks, the default of its three largest corporate exposures could lead to undercapitalization. In a very low probability event of large deposit losses, all eight banks would maintain liquidity coverage ratios (LCRs) above the 60 percent regulatory threshold, although two banks' LCRs would be below 100 percent.

Interconnectedness between large banks and insurers should be closely monitored. A network analysis of direct bilateral exposures found that insurers are vulnerable to large bank failures, mainly due to their large holdings of bank equity, but contagion risks to banks from large insurers are limited. The market price-based stress test found stronger interconnectedness between large banks and insurers, likely reflecting indirect connections not captured by the network analysis.

Moroccan parent banks' exposures to their subsidiaries in SSA appear contained. The stress test results suggest that on average, the risk that severe distress in SSA subsidiaries would affect Moroccan banks via credit and funding channels is very limited (about 1 percent of regulatory capital). Nonetheless, immediate efforts should focus on addressing regulatory and supervisory gaps in the cross-border activities of conglomerates, which will require stronger home-host cooperation.

Bank supervision is effective and improving. The new banking law extends Bank Al-Maghreb's (BAM) regulatory and supervisory power to financial conglomerates, microfinance institutions, and off-shore banks. The law also aims at improving cross-border supervision and tightening rules for consolidated risk management. Supervisory colleges have just been set up for the three banks with significant SSA exposures. Most regulations to implement the new banking law are expected to be in place by end-2015 and those related to financial conglomerates by 2016. Recovery plans for large banks should be established promptly.

Enhanced on-site supervision and periodic asset quality reviews for systemically important banks are priorities that will require increased resources. Supervision of capital markets and financial market infrastructures also need upgrading. Supervisory capacity constraints need to be alleviated to enable BAM to continue its effective core functions while taking on new responsibilities. Local standards for loan classification and provisioning should be reviewed to fully implement the International Financial Reporting Standards (IFRS) as current rules may not capture all impaired loans, such as unauthorized overdrafts.

The new banking law created a macroprudential policy committee, the Systemic Risk Surveillance and Coordination Committee (CCSRS), in which BAM plays a leading role. The institutional setup of the CCSRS provides a good framework for coordinating macroprudential policy. There are a few areas for enhancement, including a clearer definition of the powers entrusted to CCSRS for fulfilling its macroprudential mandate as well as the Committee's decision-making process. The authorities are taking preparatory steps to develop a macroprudential toolkit.

A special bank resolution regime is in place but needs stronger legal basis. The resolution regime provides various options—such as purchase and assumption, bridge bank, and asset management companies—but remains untested. The legal framework needs to be strengthened, including by embedding the least-cost principle, bail-in powers, and depositor preference. The law should also designate a bank resolution authority.

Crisis preparedness could be improved by strengthening safety nets. The new central bank law needs to stipulate explicitly that emergency liquidity assistance (ELA) will be limited to solvent institutions and differentiate clearly ELA from government solvency support. The deposit guarantee fund should avoid providing open bank assistance.

Morocco has made good progress in financial inclusion and the effort needed to be maintained. It is necessary to lay out the coordination mechanism among the key stakeholders in the forthcoming National Financial Inclusion Strategy. The successful implementation of the strategy will require adequate financial and human resources, strong governance, and a robust monitoring and evaluation framework to track progress.

Table 1. FSAP Key Recommendations

Recommendations	Priority[1]
Banking Regulation and Oversight	
Address banking supervisor's capacity constraints; strengthen on-site supervision capacity.	I
Periodic review of asset quality for SIBs; and advance their recovery and resolution plans.	I/NT
Review loan classification and provisioning rules on a solo basis; and conduct an impact study for implementing the relevant IFRS in coordination with tax authorities.	NT
Macroprudential Oversight	
Clarify the powers, instruments and voting arrangements of the CCSRS.	I
Amend laws governing ACAP and AMMC to include financial stability objective.	I/NT
Prioritize the implementation of a countercyclical buffer; expand data coverage for the risk map; and expand instruments targeting at risks in specific sectors.	NT
Emergency Liquidity Assistance (ELA)	
Separate BAM's ELA function clearly from government solvency support.	I
Strengthen BAM's recapitalization process and review its profit distribution mechanism.	NT
Early Intervention/Bank Resolution Framework	
Define the objectives of banking resolution and incorporate "the least-cost principle".	I
Formalize the hierarchy of creditors' claims and introduce bail-in powers.	I/NT
Designate an explicit bank resolution authority and limit its legal liabilities to this mandate.	I/NT
Deposit Insurance	
Remove any type of open bank assistance via the deposit guarantee fund (DGF).	NT
Grant DGF a priority over uninsured depositors and general creditors.	NT
Financial Market Infrastructures	
Implement guarantee scheme and default-handling procedures for securities transactions.	I
Strengthen BAM's oversight of the payment systems.	NT
Publish all policies applicable to FMIs and the disclosure framework of the SRBM.	NT
Securities Market Regulation and Oversight	
Apply consistent regulations and supervision to all participants in securities markets.	NT
Strengthen enforcement of sanctions and fines imposed on individuals.	NT
Improve valuation of government securities and review valuation rules of mutual funds.	NT
Financial Inclusion	
Establish a well-resourced governance and a robust monitoring and evaluation framework.	I
Improve credit bureau data quality; expand data providers to non-financial institutions.	I/NT
Review blanket ceiling on lending rates.	NT

[1] I-Immediate" is within one year; "NT-near-term" is one to three years; "MT-medium-term" is three to five years.

MACRO-FINANCIAL SETTING AND FINANCIAL SYSTEM STRUCTURE

A. Macro-Financial Context

1. **Morocco's financial sector weathered the global financial crisis of 2008/09 relatively well (Table 2).** The global crisis had little direct impact on the financial sector, mainly because of banks' limited exposure to risky global assets, low private and public foreign debt, and the relatively weak linkage of the Moroccan financial system to global financial markets. Capital outflows are restricted for residents and the exchange rate is pegged to a basket of the euro (60 percent) and U.S. dollar (40 percent).[1] However, the system has been indirectly affected through real channels due to Morocco's close links with Europe via trade, remittances, and foreign direct investment (FDI).[2] Weak economic activity in certain sectors has resulted in rising NPLs since 2012. Bank lending has slowed since 2012 driven by weak demand as well as supply-side factors including tight liquidity, increased credit risks and rising NPLs. Banks with limited access to the interbank market relied on BAM's liquidity facilities (Table 3). The situation has significantly improved since 2014, but lending conditions have remained tight, especially for the very small, small and medium enterprises (VSSMs).

B. Financial Sector Structure

2. **Morocco's financial system is bank-dominated and highly concentrated (Figure 1).** With total assets of 140 percent of GDP—up from 111 percent in 2008—banks comprise about half of the financial system. Among the 19 banks, the top three account for over two-thirds of the bank system assets and deposits. The share of public banks has declined steadily to 16 percent from 40 percent in 2002. Foreign (mainly of French-origin) financial institutions are majority stakeholders in seven banks and nine finance companies. The financial system also comprises several microcredit associations and financing companies, with combined assets of 10½ percent of GDP. Offshore banks' presence is small (less than 5 percent of total bank assets).

3. **Banks' balance sheets are comprised mostly of short- and medium-term customer loans, funded mainly by retail deposits.** Interbank loans have declined substantially since 2008 while banks' exposure to government securities increased somewhat. On the funding side, about 20 percent of total bank deposits are from Moroccans living abroad.

[1] There are no restrictions on capital inflows from non-residents, but capital outflows for residents are subject to limits and approval requirements. In April 2015, the authorities revised the weights of the euro and dollar in the basket as a first step toward a more flexible exchange rate.

[2] Currently about 60 percent of exports are destined for the euro area, down from 70 percent 10 years ago; and 53 percent of FDIs inflows and 68 percent of workers' remittances originate from the euro area.

Table 2. Selected Economic Indicators, 2012–20

			PLL 1/	Rev. 2/	PLL 2/	Rev. 2/	Proj.				
	2012	2013	2014		2015		2016	2017	2018	2019	2020
					(Annual percentage change)						
Output and Prices											
Real GDP	3.0	4.7	2.9	2.4	4.9	4.7	3.1	4.2	4.4	4.6	4.7
Real agriculture GDP	-9.1	17.9	-1.3	-2.5	15.0	15.2	-1.8	4.7	5.2	5.4	5.4
Real non-agriculture GDP	4.7	3.0	3.6	3.1	3.5	3.3	3.8	4.1	4.3	4.5	4.7
Consumer prices (end of period)	2.6	0.4	1.6	1.6	1.6	1.6	1.3	2.0	2.0	2.0	2.0
Consumer prices (period average)	1.3	1.9	0.4	0.4	1.5	1.6	1.5	2.0	2.0	2.0	2.0
					(In percent of GDP)						
Investment and Saving											
Gross capital formation	35.0	34.7	34.0	33.7	33.4	33.3	34.5	35.5	36.5	37.1	37.6
Of which: Nongovernment	29.6	29.6	28.5	28.3	28.9	28.6	29.4	30.2	30.6	30.9	31.2
Gross national savings	25.5	26.8	28.1	28.0	30.6	31.8	33.8	34.6	35.1	35.7	36.4
Of which: Nongovernment	25.9	25.3	26.0	26.0	28.9	29.9	30.6	30.6	30.6	30.7	30.6
					(In percent of GDP)						
Public Finances											
Revenue	28.0	27.7	28.3	28.0	25.8	25.6	26.4	26.6	27.1	27.6	28.0
Expenditure	35.3	32.9	33.2	33.0	30.0	29.8	29.9	29.6	29.9	30.1	30.0
Budget balance	-7.3	-5.2	-4.9	-4.9	-4.3	-4.3	-3.5	-3.0	-2.8	-2.5	-2.1
Primary balance (excluding grants)	-4.9	-3.3	-3.7	-3.7	-3.0	-2.5	-2.2	-1.1	-0.2	0.1	0.7
Cyclically-adjusted primary balance (excl. grants)	-5.0	-2.8	-3.5	-3.7	-2.8	-2.2	-2.0	-1.0	-0.1	0.2	0.7
Total government debt	58.3	61.5	66.4	63.4	63.8	63.6	64.4	64.0	63.2	61.9	60.0
					(Annual percentage change; unless otherwise indicated)						
Monetary Sector											
Credit to the private sector 3/	4.8	3.8	4.6	2.5	4.2	3.3	4.3	...	...	...	...
Base money	-0.5	9.0	4.8	6.2	5.8	5.5	6.5	...	...	...	...
Broad money	4.5	3.1	4.8	6.2	5.8	5.5	6.5	...	...	...	...
Velocity of broad money	0.9	0.9	0.9	0.9	0.9	0.9	0.9	...	...	...	...
Three-month treasury bill rate (period average, in percent)	3.4	3.4	...	2.5	...	...	...	...	...	...	...
					(In percent of GDP; unless otherwise indicated)						
External Sector											
Exports of goods and services (in U.S. dollars, percentage change)	0.4	4.0	4.8	7.4	-10.8	-10.4	5.9	8.8	8.8	8.4	9.0
Imports of goods and services (in U.S. dollars, percentage change)	2.2	4.3	0.8	1.0	-16.3	-18.9	4.5	8.0	7.5	7.9	8.7
Merchandise trade balance	-22.3	-20.5	-17.6	-18.7	-14.5	-13.5	-13.5	-13.5	-13.4	-13.4	-13.5
Current account excluding official transfers	-9.8	-8.6	-7.5	-7.4	-4.2	-2.4	-2.0	-1.8	-1.5	-1.5	-1.4
Current account including official transfers	-9.5	-7.9	-5.8	-5.7	-2.8	-1.5	-0.7	-0.9	-1.4	-1.3	-1.3
Foreign direct investment	2.4	2.8	2.9	2.8	2.5	2.6	2.7	2.8	2.8	2.8	2.8
Total external debt	28.5	29.2	32.1	32.7	32.2	31.9	32.7	31.9	31.4	30.8	29.3
Gross reserves (in billions of U.S. dollars)	17.5	19.3	20.4	20.4	22.1	23.5	28.8	32.2	35.8	39.2	42.9
In months of next year imports of goods and services	4.3	4.7	5.3	6.1	6.0	6.7	7.6	8.0	8.2	8.3	8.3
In percent of Fund reserve adequacy metric	88.1	91.0	93.6	94.2	105.1	110.9	128.6	137.8	146.2	150.1	163.6
Memorandum Items:											
Nominal GDP (in billions of U.S. dollars)	98.3	107.2	109.2	110.0	103.3	103.5	108.4	115.3	123.0	131.8	141.4
Unemployment rate (in percent)	9.0	9.2	...	9.9	...	...	...	...	...	...	...
Population (millions)	32.6	33.0	33.3	33.3	33.7	33.7	34.0	34.4	34.7	35.0	35.4
Population growth (in percent)	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9
Net imports of energy products (in billions of U.S. dollars)	-12.4	-12.2	-11.1	-11.0	-7.2	-6.6	-6.7	-7.5	-8.1	-8.7	-9.1
Local currency per U.S. dollar (period average)	8.6	8.4	...	8.4	...	...	...	...	...	...	...
Real effective exchange rate (annual average, percentage change) 4/	-2.0	1.8	...	0.1	...	0.0	...	...	...	...	...

Sources: Moroccan authorities; and IMF staff estimates.

1/ Refers to the macro framework for the 1st review of the PLL arrangement in CR/15/44, based on national accounts based in 1998 and BOP manual 5.
2/ Revised macro framework, based on national accounts based in 2007 and BOP manual 6.
3/ Includes credit to public enterprises.
4/ For 2015, actual value as of August 2015

Table 3. Financial Soundness Indicators, 2009–15
(In percent, unless otherwise noted)

	2008	2009	2010	2011	2012	2013	2014	June 2015
Regulatory capital 1/								
Regulatory capital to risk-weighted assets	11.2	11.7	12.3	11.7	12.3	13.3	13.8	...
Tier 1 capital to risk weighted assets	9.6	9.2	9.7	9.6	10.2	11.1	11.6	...
Capital to assets	6.9	7.2	8.3	8.1	8.5	8.6	8.8	9.0
Asset quality								
Sectoral distribution of loans to total loans								
Industry	18.7	18.3	18.4	18.6	18.4	18.6	19.3	19.0
Of which: agro-business	3.3	3.6	3.8	3.4	3.2	3.6	3.5	3.7
Of which: textile	1.7	1.9	1.4	1.3	1.2	1.0	0.9	0.9
Of which: gas and electricity	3.3	2.9	3.9	4.5	4.8	4.7	6.1	6.3
Agriculture	4.1	3.4	4.1	4.2	4.1	4.1	3.9	4.1
Commerce	6.5	7.0	6.7	6.6	6.7	6.2	6.6	6.4
Construction	15.9	14.1	13.3	13.9	12.6	12.4	12.2	11.8
Tourism	2.6	3.2	2.9	2.8	2.9	2.4	2.4	2.2
Finance	13.1	12.5	12.1	11.9	11.0	12.7	11.6	11.8
Public administration	3.7	4.3	5.0	4.8	5.0	5.0	4.7	4.4
Transportation and communication	4.5	4.2	4.0	4.1	4.0	3.8	3.7	4.3
Households	26.5	27.6	28.1	27.6	28.9	29.7	31.4	32.0
Other	4.4	5.4	5.4	5.5	6.4	5.1	4.2	4.0
FX-loans to total loans	2.4	2.5	2.5	3.5	2.9	2.7	3.9	2.9
Credit to the private sector to total loans	93.3	91.0	91.0	92.0	91.0	91.0	91.0	91.0
Nonperforming Loans (NPLs) to total loans	6.0	5.5	4.8	4.8	5.0	5.9	6.9	7.2
Specific provisions to NPLs	75.3	74.1	70.1	68.7	67.8	64.0	65.0	66.0
NPLs, net of provisions, to Tier 1 capital	13.9	12.7	12.2	12.9	13.6	16.8	19.2	18.6
Large exposures to Tier 1 capital	314.0	376.0	336.0	354.0	347.0	327.0	341.0	304.0
Loans to subsidiaries to total loans	6.4	6.7	6.1	6.3	5.4	7.2	6.8	6.2
Loans to shareholders to total loans	2.0	1.0	0.8	1.2	1.0	1.3	1.4	1.3
Specific provisions to total loans	4.5	4.0	3.4	3.5	3.3	3.8	4.5	4.8
General provisions to total loans	0.2	0.1	0.2	0.3	0.7	0.7	0.8	0.8
Profitability								
Return on assets (ROA)	1.2	1.2	1.2	1.1	1.0	1.0	0.9	1.0
Return on equity (ROE)	16.7	15.2	14.2	13.4	11.8	10.6	10.2	10.6
Interest rate average spread (b/w loans and deposits)	4.4	4.3	4.2	4.2	4.2	4.0	4.1	...
Interest return on credit	5.8	5.8	5.7	5.7	5.6	5.5	5.5	...
Cost of risk as a percent of credit	0.4	0.5	0.5	0.5	0.8	0.9	1.0	1.4
Net interest margin to net banking product (NPB) 2/	78.1	76.7	76.3	75.8	76.5	74.0	68.9	73.1
Operating expenses to NPB	47.8	47.5	46.4	47.9	47.5	47.7	46.1	44.5
Operating expenses to total assets	1.7	1.7	1.8	1.9	1.8	1.8	1.9	1.9
Personnel expenses to noninterest expenses	51.9	49.7	49.1	49.4	49.2	48.4	47.6	...
Trading and other noninterest income to NPB	21.9	23.3	23.7	24.2	23.4	26.0	30.8	26.9
Liquidity								
Liquid assets to total assets	24.4	17.3	12.0	11.4	10.5	12.5	13.3	14.4
Liquid assets to short-term liabilities	24.7	23.0	16.0	16.1	14.7	17.4	17.7	14.0
Deposits to loans	113.0	108.0	104.0	99.0	96.1	96.2	100.8	102.5
Deposits of state-owned enterprises to total deposits	5.1	4.8	5.2	2.9	3.4	2.0	2.5	2.7
Sensitivity to market risk								
FX net open position to Tier 1 Capital	6.5	13.5	10.3	7.3	7.4	11.3	9.0	9.8

Source: Bank Al-Maghrib.

1/ Financial Soundness Indicators (FSIs) are calculated according to guidelines of the IMF FSIs compilation guide, 2004.

2/ Net Banking Product (NPB)=net interest margin-commissions paid+commissions received.

* Provisional figures calculated according to Basel III definition and transitional provisions

Figure 1. Structure of Credit Institutions

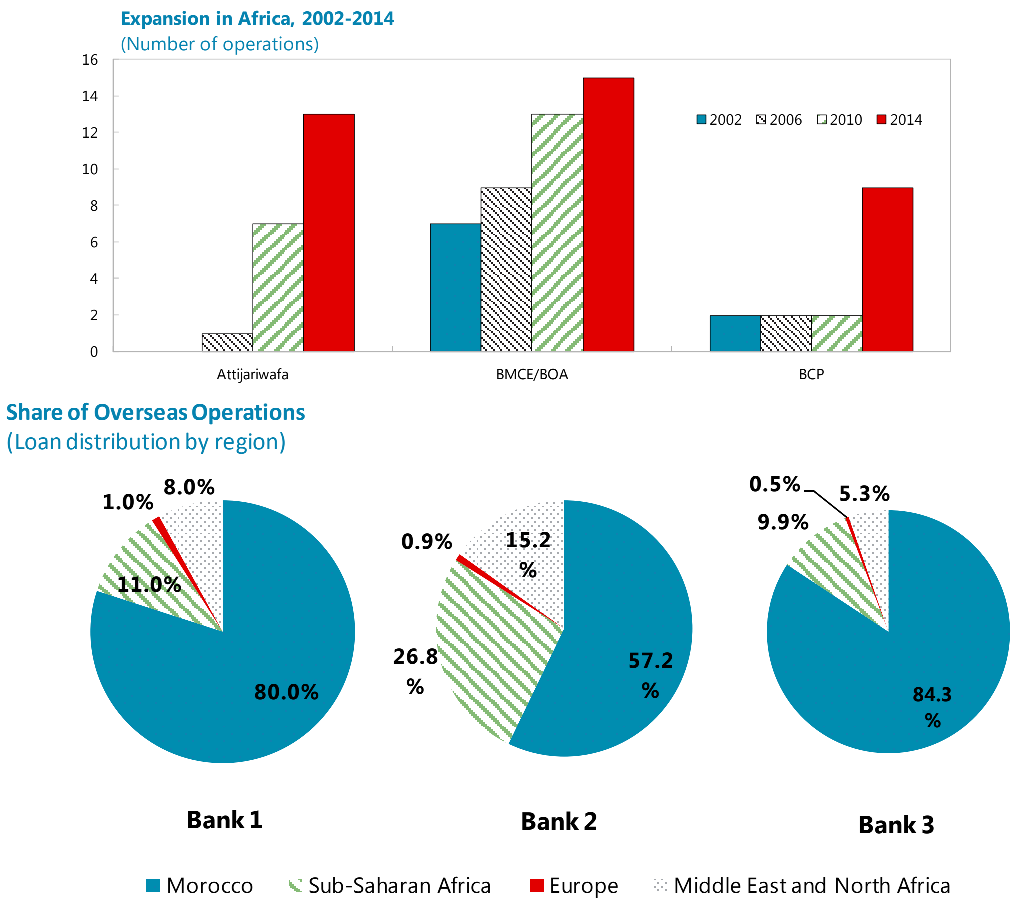
Source: Bank Al-Maghrib, Annual Report 2014.

4. Moroccan banks have expanded both domestically and regionally since the global financial crisis (Figure 2).

- Banks have significantly widened their range of products and services, which has led to increased bank penetration (63 percent of total population now has a bank account compared to 43 percent in 2008) and banking density (branches per 10,000 residents has increased by 50 percent since 2008).

- The three largest Moroccan bank groups have expanded rapidly abroad, notably in Sub-Saharan Africa. The retrenchment of French banks in SSA and increased trade flows from Morocco to West Africa have provided opportunities to fund corporate clientele in these countries. Weak activity in Moroccan domestic markets has further contributed to the cross-border expansion.

Figure 2. Moroccan Banking Groups



Sources: Bank websites and Annual Reports.

5. **Morocco's insurance sector has also expanded strongly in recent years.** The sector has become an important part of the financial system (8 percent) and is highly concentrated. The sector comprises 18 insurance and reinsurance companies, with the top five accounting for nearly three-quarters of total premiums. Life insurance represents 33 percent of premiums, followed by auto insurance at 32 percent. The "bancassurance" model has contributed to insurers' tight links with banks, as the largest banks own controlling stakes in the largest insurance companies and insurance companies often cross-hold shares of parent banks. A significant share of the insurance sector's assets is government bonds. Several insurance companies have also recently expanded into Africa.

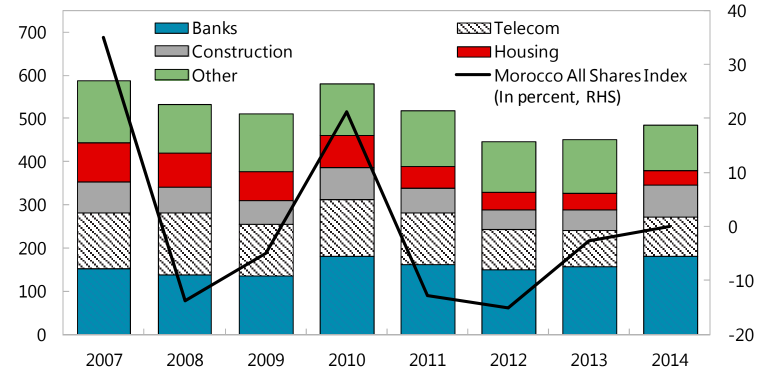
6. **Pension fund assets account for 25 percent of the financial system.** Morocco has four pension funds (of which two are public) that have accumulated large asset holdings, mainly government bonds. The reserves of one pension fund (la Caisse Marocaine des retraites) is projected to be exhausted by 2022, and the coverage ratio stands at only about 30 percent of workers, mainly due to a high degree of informal employment. Extensive pension reform—including by raising the

eligible pension age and contributions, and adjusting pension payouts—is essential to improving solvency and increasing coverage. This is now expected to be implemented by 2017.

7. The Casablanca Stock Exchange (CSE) is dominated by large banks and tele-communication firms (Figure 3). Finance, telecommunication, and construction firms account for nearly 70 percent of total capitalization; the three largest banks alone account for 30 percent. Concerns about market liquidity prompted a reclassification of Morocco from an emerging to a frontier market by MSCI and S&P in 2013.

Figure 3. CSE Market Capitalization

(In billions of Moroccan dirham)



Source: Bourse de Casablanca Annual Reports.

FINANCIAL SYSTEM RESILIENCE

A. Risk Assessment

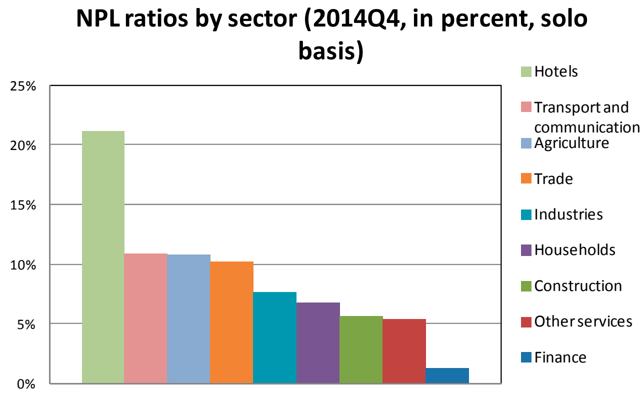
8. Moroccan banks are adequately capitalized and profitable. The Capital Adequacy Ratio (CAR) for the banking system stood at 13.8 percent in December 2014, with Tier 1 capital accounting for 85 percent of total capital. Banks are profitable, mainly due to large interest rate margins (the average interest rate spread has been above 3 percentage points since 2007), low operating expenses, and rising fees and commissions (Table 3).

9. Rising NPLs in recent years have led to closer monitoring of bank asset quality. By June 2015, the banking system NPL ratio reached 7.2 percent, with the highest NPL ratios observed in sectors most affected by the weak growth in Europe, such as the hotel and restaurant sector (with an NPL ratio of 21 percent),[3] followed by the transport and communication, agriculture, and trade sectors (Figure 4). Continued difficulties faced by companies involved in these sectors could further increase NPLs. The NPLs have been well provisioned, at 66 percent. There is little evidence of a housing bubble, as the price increase over the past 10 years appears modest relative to nominal GDP growth (Figure 7). Since 2011, banks have been required to submit a list of risky loans to BAM. BAM has closely monitored these watch-list loans, and imposed a 10 percent provisioning requirement on these loans in 2014. More recently, the criteria for the watch-list loans have been tightened.

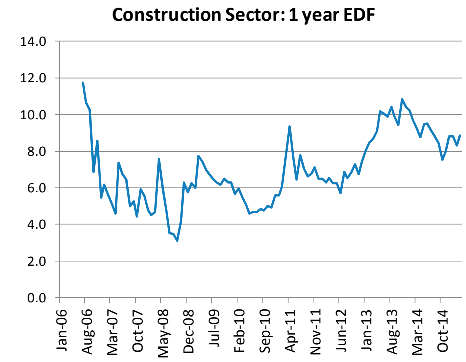
[3] Loans to the tourism sector represented 2.4 percent of the total loans as of 2014.

Figure 4. Corporate Sector Risks

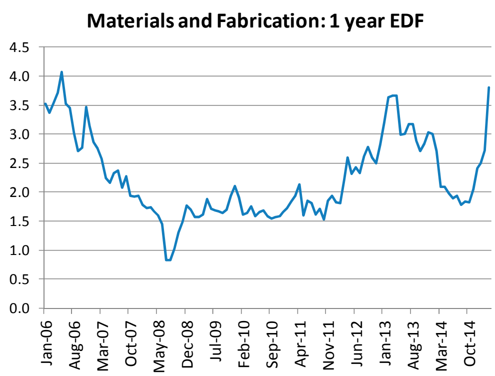
The hotel sector has the highest NPL ratio.



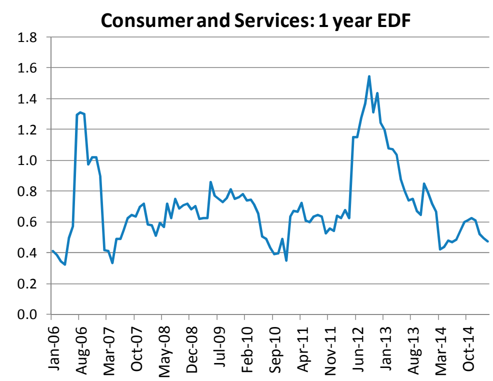
Construction sector risk is on an upward trend.



Materials and manufacturing sector risk is rising rapidly…



…while consumer goods and services sector risk is stabilizing.



Sources: Moroccan authorities and KMV Credit Edge. (EDF=expected default frequency)

10. Banks faced temporary liquidity pressures in 2011. Banks with limited access to alternative funding sources relied on BAM's expanded liquidity facilities to extend credit. The situation then improved as credit growth slowed while deposit growth stabilized. By June 2015, the deposit-to-loan ratio has strengthened to 103 percent, although liquid assets as a share of short-term liabilities fell to 14 percent from 23 percent in 2009.[4] At end-2014, the LCR ranged from 70 percent to 180 percent for the eight largest banks in Morocco (with two banks below 100 percent), suggesting that most banks hold sufficient high-quality assets to cover expected net cash outflows over 30 days.[5]

11. Large exposures continue to pose significant risks despite tight rules. Total large exposures represent 340 percent of the banking system's Tier 1 (T1) capital, based on a stricter

[4] Calculated according to the IMF compilation guidance for financial sector indicators (FSIs).

[5] Based on the Basel III definition.

definition than the Basel III.[6] BAM sets the limit for a bank's exposure to a single counterparty or a group of connected counterparties at 20 percent of T1 capital, compared to 25 percent in Basel III;[7] exposures above this limit are deducted from the banks' own funds. Exposures with explicit government guarantees are excluded. Large exposures present serious vulnerabilities, especially since it is unclear whether banks have seniority in corporate debt restructuring and the legal framework for restructuring private debt in Morocco is relatively weak (Table 4).

Table 4. Comparison of Insolvency Frameworks

	Recovery rate (cents on the dollar)	Time (years)	Cost (% of estate)	Strength of insolvency framework index (0-16)
East Asia & Pacific	32.5	2.7	21.8	6.8
Europe & Central Asia	38.3	2.3	13.2	9.7
Latin America & Caribbean	31.2	2.9	16.6	7.2
Middle East & North Africa	27.5	3.0	13.8	5.4
OECD high income	72.3	1.7	9.0	12.1
South Asia	31.8	2.6	10.1	4.5
Sub-Saharan Africa	20.0	3.0	23.1	6.3
Morocco	28.1	3.5	18.0	6.0

Source: World Bank.

12. Banks' rapid expansion in SSA has brought about benefits but also potential vulnerabilities (Appendix IV). Moroccan banks have built up their presence overseas mainly through the acquisition of local banks, thus local deposits largely fund their subsidiaries. Operations in SSA have been profitable. Compared to other pan-African banks, the share of cross-border operations is higher for Moroccan banks, although these operations are more diversified geographically. Potential risks could arise due to the weaknesses in banks' consolidated risk management framework, regulatory gaps in key host countries, and the lack of an effective cross-border crisis management framework. BAM is taking steps to address the risks, including by setting up supervisory colleges for the three largest banks and signing seven bilateral MOUs with host countries.

[6] BAM defines large exposures more conservatively (exposures exceeding 5 percent of T1 capital) than the Basel framework (10 percent).

[7] The central bank announced in October that the limit would be lowered further to 15 percent.

B. Stress Testing

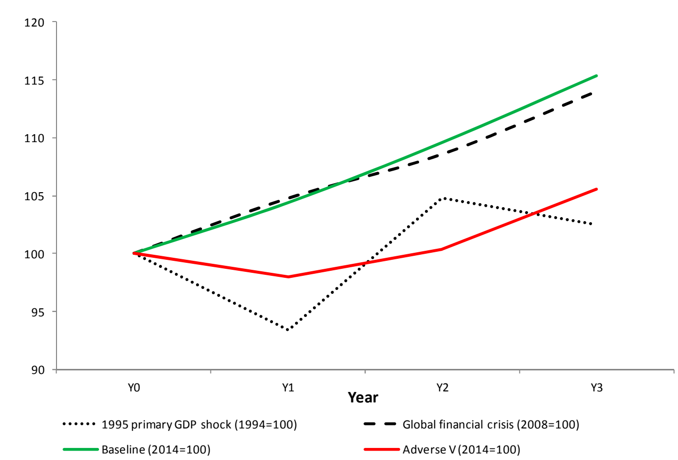
13. Stress tests examined the resilience of the banking system to *solvency*, *liquidity*, and *contagion* risks. These included top-down (TD) and bottom-up (BU) exercises based on macroeconomic scenarios and sensitivity analyses. Macroeconomic scenarios included external and domestic shocks over a three-year horizon (2015–2017) based on data available through December 2014. The effects of these shocks on individual banks' profitability and capitalization were assessed using satellite models developed by the authorities and IMF staff. Sensitivity stress tests evaluated vulnerabilities of the banking system to individual shocks. The TD liquidity tests assessed the capacity of banks to withstand large withdrawals of funding, while the contagion tests covered domestic interbank exposures and linkages between the domestic banking and insurance sectors.

14. The tests covered eight banks (about 90 percent of banking system assets). The Moroccan national framework was applied with a hurdle rate of 12 percent for total regulatory capital and 9 percent for T1 capital (including the conservation buffer), higher than the Basel framework's 10.5 percent and 8.5 percent, respectively.

Solvency tests

15. Solvency stress tests were based on two macroeconomic scenarios (Figure 5).

Figure 5. Real GDP Projections in the Baseline and Stress Scenarios



Sources: BAM and IMF Staff estimates.

- *Scenario 1 ("baseline")* reflects projections in the IMF's World Economic Outlook as of April 2015.

- *Scenario 2 ("Adverse V")* assumes volatile global financial conditions, a recession in Europe (which reduces FDI inflows and domestic activity), and a sharp rise in oil price volatility (Risk Assessment Matrix in Appendix I). This extreme but plausible scenario brings about a cumulative decline in real GDP of 10 percentage points relative to the baseline, and is significantly worse than the actual outturn during the 2008-09 crisis but closer to the outcome of the 1995 crisis in Morocco.

16. Both TD and BU stress test results suggest that the banking system is resilient to these adverse shocks (Table 5 and Figure 6). Although the banking system NPL ratio would increase substantially under the adverse scenario, the system's capitalization level would remain adequate. Only one bank (representing 6.1 percent of system assets) would see its capital adequacy ratio (CAR) and T1 capital ratio fall below the regulatory minimums but stay above the T1 regulatory intervention threshold.[8] The banking system is also found to be resilient in a more severe scenario.[9] Stress tests based on market prices also confirm banks' resilience. Capital losses under the BU stress tests are significantly smaller.[10] The favorable results partly reflected the relatively comfortable initial capitalization level and high profitability.

Table 5. Comparison between TD and BU Solvency Stress Test Results

	Peak of the aggregate NPL ratio (in percent)	Number of undercapitalized banks (total CAR)	As a percent of banking system's assets	Number of insolvent banks	Capital shortfall (as a percent of 2014 GDP)
IMF TD stress tests (NPL ratio on solo basis)					
Baseline	6.4	0	-	0	0
V-shaped negative scenario	14.8	1	6.1	0	0.2
IMF TD stress tests (NPL ratio on consolidated basis)					
Baseline	6.4	0	-	0	0
V-shaped negative scenario	15.4	2	25.8	0	0.3
BU stress tests (solo basis)					
Baseline	6.2	0	-	0	0
V-shaped negative scenario	10.2	0	-	0	0

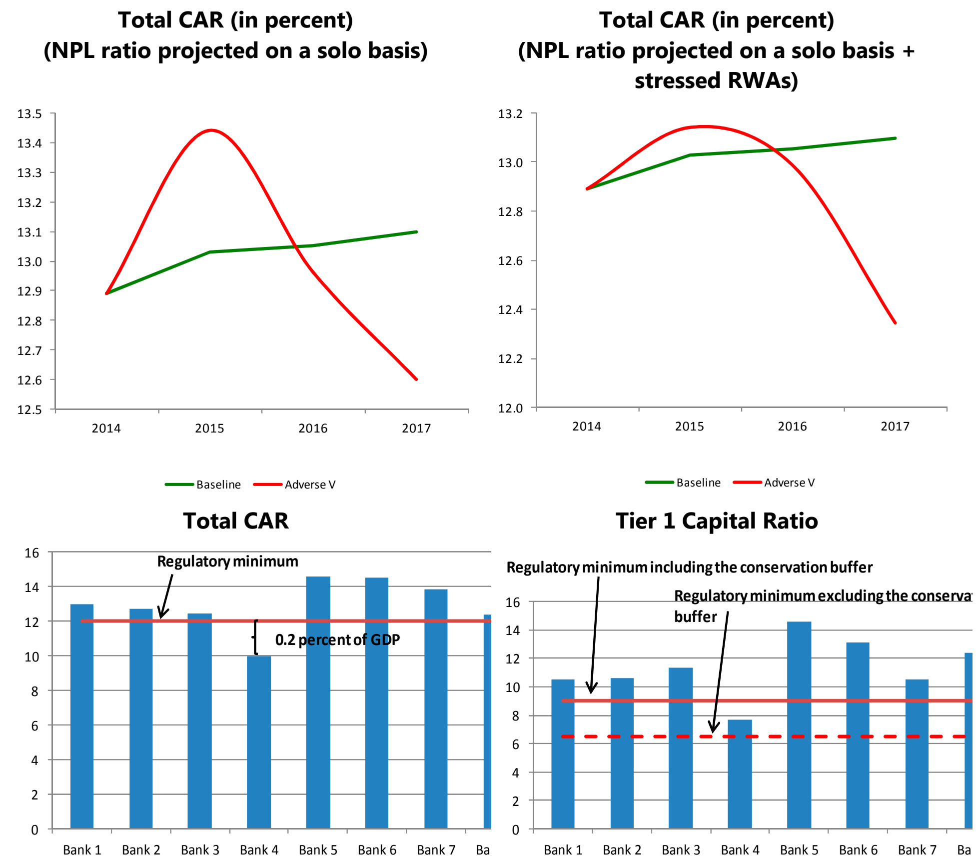
Sources: BAM and IMF staff calculations.

[8] In an alternative approach where cross-border credit risk exposures were treated as domestic exposures, one more bank would become slightly undercapitalized, with a total capital shortfall estimated at 0.3 percent of GDP.

[9] It assumes zero growth in 2016–17, with a cumulative GDP loss of 17 percentage points relative to the baseline, equivalent to a 3.5 standard deviation shock.

[10] The BU stress test exercise revealed a general lack of robust internal credit risk models and data issues at the Moroccan banks.

Figure 6. Banks' Solvency Ratios in the Adverse Scenario in 2017



Source: Staff estimates.

Market and concentration risks

17. Sensitivity tests assessed bank vulnerabilities to key individual shocks. The shocks include: (i) a decline in the prices of domestic securities; (ii) indirect and direct effects of interest rate increase; (iii) direct effect of exchange rate devaluation on banks' net open foreign exchange (FX) positions; and (iv) concentration risks. The main results are:

- A 300 basis point interest rate increase could result in losses in banks' domestic bond portfolio and a decline in banking system CAR of 0.8 percentage point; however, the impact of high interest rate on banks' net interest income would be limited.

- Banks are resilient to large exchange rate depreciations. The direct impact of a depreciation of 30 percent on banks' balance sheet is positive, mainly because banks have more FX assets than FX liabilities. Indirect effects of the depreciation on credit quality were not assessed but likely to be small, as the share of bank FX lending is less than 4 percent, household and corporate FX borrowing is low, and borrowers are required to hedge their FX positions.

- Credit concentration risk is high. The default of the largest exposure of each bank would cause undercapitalization of four banks, with a total capital shortfall of 0.8 percent of GDP. The capital shortfall would rise to 3.0 percent of GDP and every bank would become undercapitalized following the default of the three largest exposures in each bank.

Liquidity stress tests

18. Banks could face liquidity pressure in a low probability event of large deposit withdrawals. In the standard test, six banks would be able to maintain their LCR rate above 100 percent, and the two banks with the initial LCR rate below 100 percent would still pass the 60 percent regulatory limit for 2015. In an alternative scenario with more severe assumptions on deposit run-off rates, six banks, comprising 89 percent of the system's assets (including both on- and off-balance sheet items), would see their LCR fall below 100 percent. This scenario represents a very low probability event, given that bank deposits have been very stable historically, including during the recent global financial crisis.

Contagion risks

19. Low interbank exposures limit the possible spillovers between the eight largest banks, but insurance companies are vulnerable to bank failures. Results based on a network analysis confirm low spillover risks in the interbank market, mainly because banks' interbank exposures are small. However, another network model based on the direct linkages between Moroccan banks and insurance companies suggested that several large Moroccan insurers are vulnerable to bank failures, though banks were found less vulnerable to insurer failures.

Market price-based stress test

20. Market-price-based stress tests revealed more significant contagion between the banks and insurers than suggested by the previous network analysis, which was based on bank balance sheet data (paragraph 19).[11] Market price-based measures of credit risk were used to carry out stress tests for five banks and four insurers.[12] The contingent claims analysis (CCA) analysis provides a dynamic view of contagion risks: while the risks were low during the pre-financial crisis period, during the crisis period the number of connections increased sharply for both the default probability and asset volatility networks. Banks affect insurers and vice versa. Post crisis, the interconnections decreased somewhat as compared to the crisis period but were still significant and above the pre-crisis period (as observed in the US and Europe). This is likely due to indirect connections that were not captured by the balance sheet-based network analysis.

[11] The interconnectedness of the five banks and four insurers were measured using the expected default frequencies (EDFs) and the market implied volatility using Granger Causality networks, for three time periods: pre-global financial crisis (May 2005 to May 2008), the global financial crisis period (June 2008 to June 2011), and the recent period (July 2011 to December 2014).

[12] CCA uses equity market and balance sheet information to estimate forward-looking EDFs. The analysis links the macro factors (same as those used in the balance sheet stress tests) to the EDFs of banking and insurance sectors.

Cross-border contagion analysis

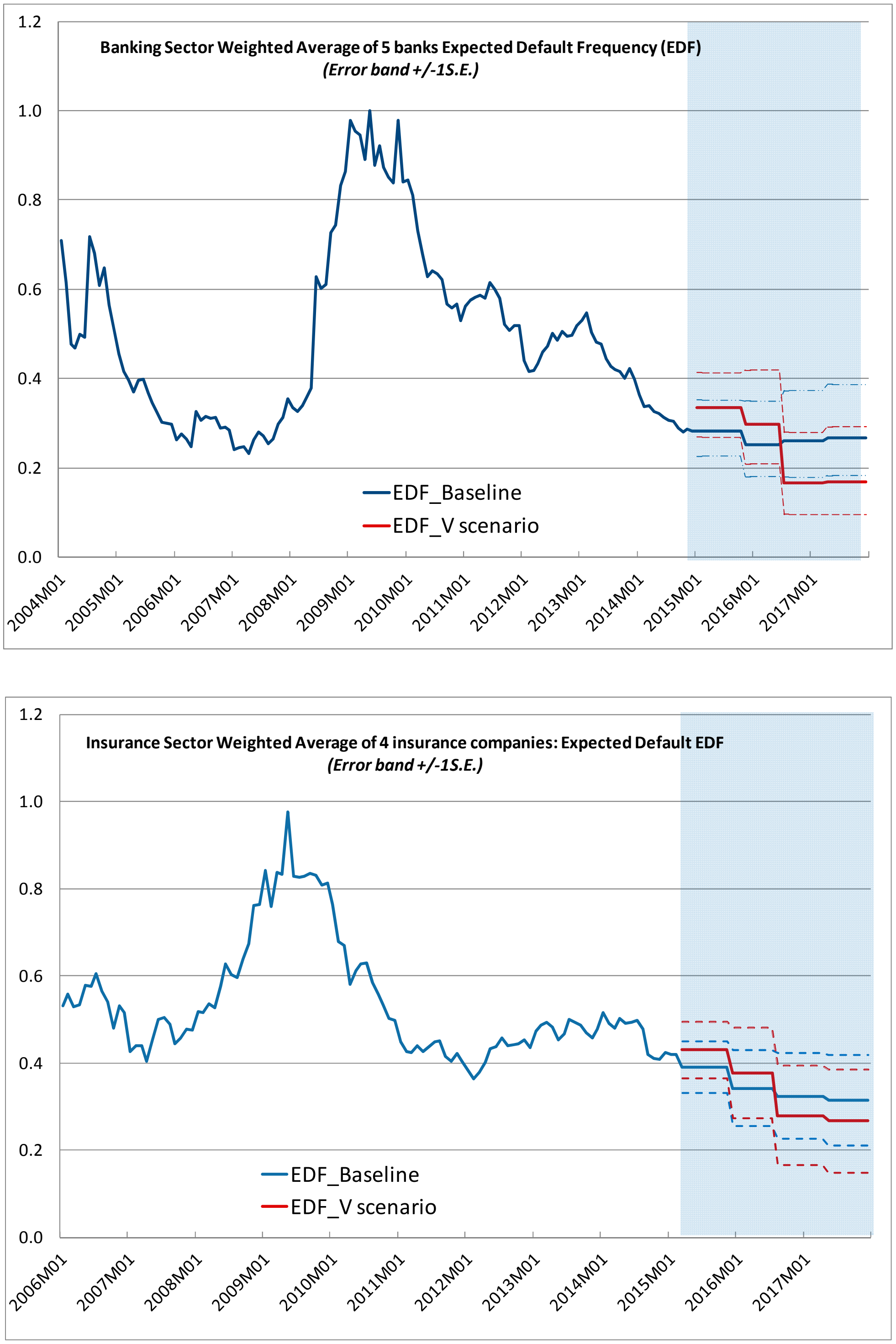
21. A network model-based stress test examined the contagion risks between Moroccan parent banks and their subsidiaries through capital, deposits, and credit channels. Specifically, the analysis assessed: (i) how funding difficulties in European parent banks would affect their Moroccan subsidiaries and the Moroccan banking system as a whole; and (ii) how severely stressed subsidiaries in Africa (due to political crisis and large negative commodity price shocks) could impact the Moroccan banking system when they default on their loans.

22. The results suggest that funding stress of a European parent bank would have a limited impact. This was expected as European banks' Moroccan subsidiaries are largely funded by local deposits and do not rely on cross-border funding. When parent banks experienced liquidity difficulties during the recent crisis in Europe, Moroccan banks' funding was not affected.

23. Moroccan banks exposures to their subsidiaries in SSA also appear contained. The network analysis suggests small direct exposures between Moroccan banks and their SSA subsidiaries in terms of credits or deposits. This implies that on average, the risk that a severe distress in African subsidiaries affecting the Moroccan banking system is low and the impact is small (around 1 percent of regulatory capital). Currently, there are no cross-border transactions between the Moroccan banks' subsidiaries in Africa, thus further limiting spillovers.

24. These results do not imply less reform efforts. The results capture only the spillover risks via the credit and funding channels, but not the risks transmitted through other indirect channels, including the macroeconomic channel or the cross-border activities of conglomerates. BAM is expanding data coverage to enhance cross-border risk analysis. Immediate efforts should focus on addressing regulatory and supervision gaps concerning the cross-border activities of the financial conglomerates and developing mechanisms to build strong regional cooperation.

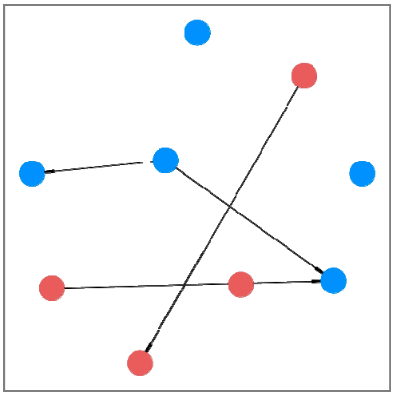
Figure 7. Market-Based Stress Test Results



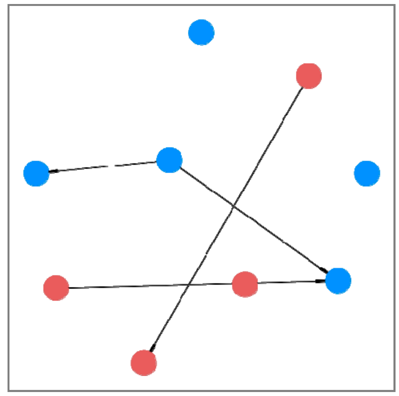
Sources: CreditEdge and Staff estimates.

Figure 8. Granger Causality Networks Between Five Banks (blue) and Four Insurers (red)

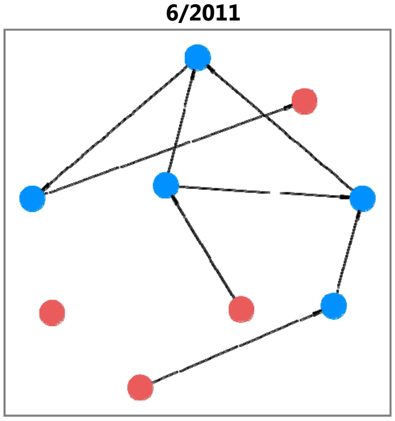
Period 1. GC Default Probability Network 5/2005–5/2008



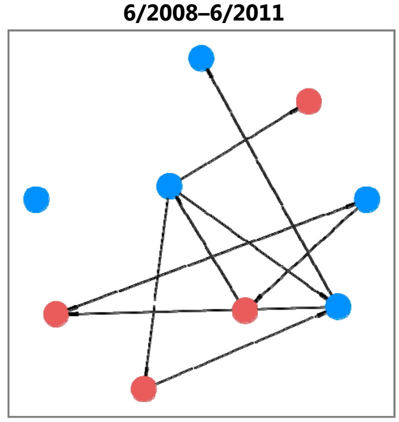
Period 1. GC Volatility Network 5/2005–5/2008



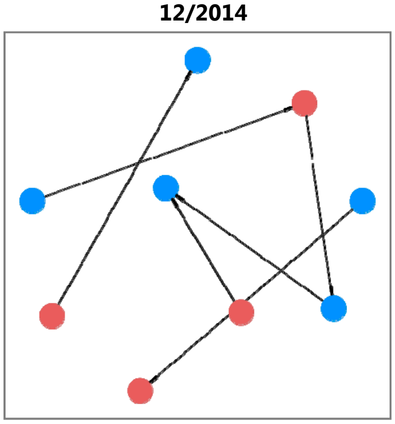
Period 2. GC Default Probability Network 6/2008–6/2011



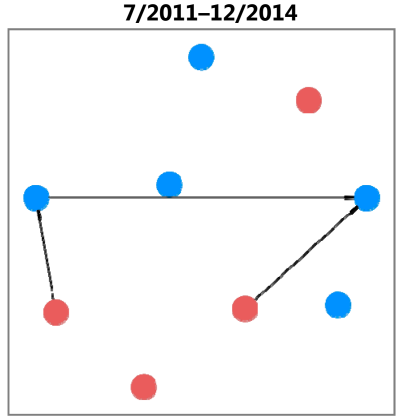
Period 2. GC Volatility Network 6/2008–6/2011



Period 3. GC Default Probability Network 7/2011–12/2014



Period 3. GC Volatility Network 7/2011–12/2014



Sources: CreditEdge and IMF Staff estimates.

FINANCIAL SECTOR OVERSIGHT

A. Bank Supervision

25. Bank supervision is effective and improving. BAM supervises all banks, bank groups, foreign subsidiaries, microfinance institutions, and off-shore banks, as well as the government financing arm, the Caisse de Dépôt et de Gestion (CDG). BAM is operationally independent in making decisions on banking supervision, and has an adequate range of tools for early intervention. The Governor has the authority to appoint a temporary administrator in a problem bank and decide whether to withdraw its license and proceed with liquidation. Regulations on governance and internal controls are now in line with the new Basel standards.

26. The regulations to implement the new banking law are being drafted. The law was formally adopted in 2014, setting up a supervision framework that would meet the new Basel standards. By end-2015, all new regulations are expected to be in place, except those for surveillance of financial conglomerates and recovery plans for systemically important banks (SIBs), which should be introduced in end-2016. The new banking law grants BAM exceptional powers to resolve banks and extends its regulatory and supervisory power to financial conglomerates that control credit institutions, as well as to microfinance and off-shore banks. It also aims to further improve cross-border supervision and tighten rules for risk management on a consolidated basis. BAM has identified three SIBs, for which supervisory colleges have been set up with host country supervisors.

27. The risk-based supervisory approach meets good standards. The supervisor monitors all institutions closely, with an on-going supervision of all types of risks, including internal control and governance issues. It communicates its annual assessment to bank managers and has developed a follow-up process for implementing subsequent actions plans. However, off-site tools and an on-site approach need to be reassessed in order to better capture emerging risks in the system. In particular, comprehensive assessments of banks should be much more frequent, preferably at least every three years for systemic banks.

28. Addressing the capacity constraints of the Banking Supervision Department (DSB) is a pressing matter. The DSB's current capacity (number of staff, experts, and resources) is not in line with the newly expanded scope of BAM responsibilities (Islamic banking, financial inclusion, consumer protection) and the evolving bank risk profile associated with a rapid cross-border expansion and increased interconnectedness between banks and non-bank sectors. The DSB has been working under resource constraints, which if not addressed could affect its ability to carry out effectively its core functions (developing regulations and discharging macro- and micro-prudential supervision).

29. The authorities should consider reviewing loan classification and provisioning rules on a solo basis to align them with the IFRS, which are already applied at a consolidated level. Current national rules may not capture all impaired loans, such as unauthorized overdrafts.[13] The review requires a study to assess the impact of IFRS on banks' capital position as a result of both the potential change in loan classification rules and the tax treatment of provisioning. BAM should coordinate with the tax authorities based on a benchmarking of the deductibility of provisions. BAM should also press banks to improve their internal credit risk models and address remaining data gaps.

B. Oversight of Securities Markets[14]

30. Morocco has made good progress in observing IOSCO Principles and Objectives since the 2007 Assessment. It has signed a memorandum of understanding with the International Organization of Securities Commissions (IOSCO) and set up a Capital Markets Code to unify different regulations. The 2013 law that created the new capital market authority (AMMC) and the draft law on the stock exchange should further improve the observance of international standards. The stock exchange law introduces the principle of registration and certification of individuals providing financial services (arranging, managing, dealing, custody, but not advising). The AMMC will have greater independence and expanded capacity to revise and develop policy circulars.

31. However, important gaps remain and should be addressed.

- First, all entities engaged in securities business should be regulated and supervised by the AMMC, including banks. It is common for Moroccan bank branches to provide capital market services to retail banks, securities firms and mutual funds managers. The AMMC should have effective powers to enforce conduct rules on bank employees providing such services. These legal changes would support a stronger risk-based supervisory program for all entities, including banks.

- Second, legal changes are needed to increase the fines that the AMMC can impose and to allow it to sanction individuals involved with unfair trading practices, including insider trading and market manipulation. The AMMC also needs to improve market surveillance, through more automated detection.

- Third, the authorities should accelerate the implementation of the new platform for government securities, and review the valuation rules of collective investment schemes. The OTC nature of the government bond market has resulted in anomalies in the calculation of the risk-free curve, which affected the pricing of private debt instruments. Low market liquidity also affected the valuation of mutual funds.

[13] According to BAM and private auditors, the size of such overdrafts is small.

[14] See the World Bank's Financial Sector Assessment Report on Morocco (2015) for more details.

- Finally, the quality of investor information needs to be improved, by strengthening the oversight of auditing companies and the requirements on the audit committees of listed companies, as well as better disclosure of risks of money market funds.

C. Oversight of Systemic Financial Market Infrastructures (FMIs)[15]

32. The authorities have designated systemic FMIs. They include the SRBM (the real time gross settlement system), Maroclear (the central depository and settlement system for securities), SIMT (the retail payment infrastructure), and the stock exchange. BAM and the capital market authority regulate and supervise FMIs based on their respective laws and a Multilateral Agreement between BAM, the systemic infrastructures, and CMI (e-payment system). The Agreement reflects the willingness of the FMIs to accept BAM's oversight.

33. The BAM-operated SRBM broadly observes the relevant Committee on Payments and Market Infrastructure/IOSCO Principles on Financial Market Infrastructures. It settles in central bank money interbank transfers, and net balances from Maroclear, SIMT and CMI. Governance and risk management have sound queuing algorithms while BAM intra-day liquidity ensures high security and availability. The legal framework should however establish clearly the moment of finality and incorporate in the law on the oversight provisions of the Multilateral Agreement. Transparency could be improved by publishing the internationally-agreed disclosure framework applicable to real time gross settlement system. The authorities intend to consider these points in the new central bank law.

34. The assessment of Maroclear found a missing link in the netting and settlement chain. The framework governing custody is sound, but there is an urgent need to develop rules and procedures to avoid unwinding in case of shortfalls of securities or funds and overcome outright participant default. A lending/borrowing mechanism should be introduced to handle securities shortfalls. In case of shortfalls of funds, BAM's intra-day facility should extend to the SRBM sub-accounts that are linked to Maroclear. A guarantee mechanism is also needed to ensure final settlement on the value date with resources sufficient to cover the largest exposure.

MACROPRUDENTIAL OVERSIGHT

35. The Moroccan authorities are committed to developing an effective macroprudential policy framework. BAM’s Strategic Plan 2013–15 aimed to establish a macroprudential toolkit along with a communication strategy for financial stability policy. Several IMF technical assistance missions have helped lay the groundwork for this strategy, focusing on developing a systemic risk mapping system, fine-tuning stress testing, as well as introducing the elements of a macroprudential toolkit.

[15] See the World Bank’s Financial Sector Assessment Report on Morocco (2015) for more details.

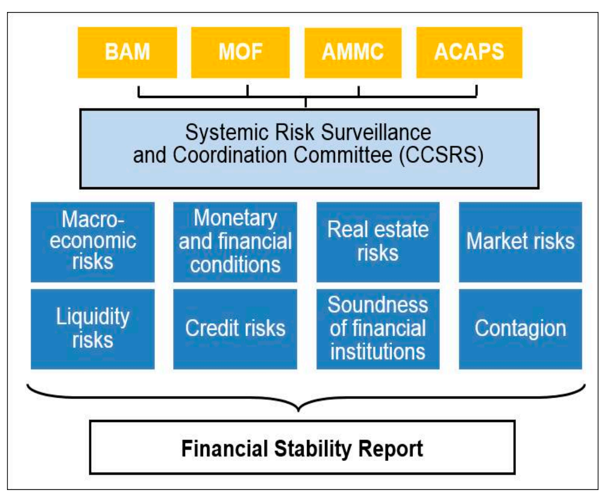
A. Mandate, Power and Institutional Setup

36. The new banking law has set up a macroprudential policy committee in which BAM plays a leading role. Composed of the supervisors for banks, capital markets, and pension and insurance funds, as well as the Ministry of Economy and Finance (MOF), the Systemic Risk Surveillance and Coordination Committee (CCSRS) is responsible for identifying, assessing, and addressing systemic risks. Supervisors also meet (without the MOF) to coordinate their actions regarding supervision and crisis management, including in the cross-border context. The committee further serves as a forum for information exchange. The Governor of BAM chairs the committee, whose secretariat is provided by BAM's Financial Stability Unit.

37. The new central bank law is expected to expand BAM's mandate to include contributions to financial stability. Under the new law, BAM would contribute to the stability of the financial system directly by proposing to the Government any measure intended to maintain financial stability and through its representation in the CCSRS. The Minister of Finance and the Governor consult each other regularly on the systemic issues and macroprudential policy.

38. The institutional setup of the CCSRS is sound, and a few enhancements would help increase its effectiveness. Taken together, these should promote the "ability and willingness to act" of the CCSRS, which should be in a position to implement the right instrument at the right time, thereby avoiding bias towards inaction or inappropriate use. Specifically:

- The implementation decree of the banking law should clarify the powers available to CCSRS in discharging its macroprudential mandate, including the power to issue opinions and recommendations to its members or systemic institutions, with application of the "comply or explain" principle.
- The decree would need to specify a decision-making process, at least including a majority rule.
- The laws governing the ACAPS and AMMC need to include considerations of financial stability in their mandates.
- It should be clarified that the CCSRS is accountable as a collective body reporting to the MOF (which would in turn report to the Parliament) and as the collection of CCSRS members, each of which remains accountable to its own reporting line.



B. Mapping Systemic Risks

39. In 2012, BAM introduced an eight-pillar risk mapping system to support the functions of the CCSRS. Each pillar monitors different dimensions of possible systemic risks, drawing data from relevant supervisory agencies that each prepares sectoral assessments for the CCSRS Monitoring Committee. The pillars are scored from 1–5 in increasing severity, guided by expert judgment, which allows prioritizing potential systemic risks. This analysis is used as the basis for the annual Financial Stability Report, which has been published twice since 2013.

40. The risk-mapping framework has greatly enhanced systemic risk analysis and interagency coordination within the CCSRS. Improvements could be made to further strengthen data coverage. More granular data could be collected for existing pillars (for example, on housing assets). Data coverage could be further extended to less-monitored nonfinancial sector (households, SMEs, shadow banking, pension and insurance funds), to address potential migration of financial activity from the more strongly regulated banking sector. In view of a transition to a more flexible exchange rate, the framework would need to cover exposures to exchange rate risks. Internal risk assessment exercises by various supervisory agencies could be conducted on a quarterly basis (or more regularly if required) to provide more timely and preventative risk warnings supporting preemptive policy responses. Finally, the framework should remain forward-looking and flexible to anticipate potential emergent risks.

C. Macroprudential Toolkit

41. Preparatory steps have been taken to develop the macroprudential toolkit. With the help of IMF TA, work has begun to introduce a countercyclical capital buffer (CCB), a macroprudential leverage ratio to supplement risk-weighted buffers, a capital surcharge for systemically important banks—to be implemented in 2019—and loan to value (LTV) and debt to income (DTI) ratios for households, based on a dataset of 100,000 households.

42. Several prudential tools have been used to manage systemic risk. A code of ethics was adopted by banks in 2008 to tighten lending standards for real estate. In addition, an increased tax on nonprimary housing was used to discourage speculative house purchases in 2006–08. Credit growth decreased from 24.4 percent in 2008 to 10.4 percent in 2009, although quantifying the effectiveness of these measures is not straightforward as the following years coincided with the European crisis, and the minimum solvency ratio was also increased from 8 percent to 10 percent in 2008 (and again to 12 percent in 2013).

43. Identifying a set of early warning indicators is key to the appropriate use and release of macroprudential instruments. These could include credit gaps at the aggregate or sectoral level, indicators for market volatility and bank funding stress, and measures for household and corporate indebtedness. The selected indicators should be transparent to avoid market surprises while constraining incentives to mitigate excessive risk taking and policy inaction bias. The selection of market price-based indicators would need to ensure that policy actions based on these indicators do not setting off a downward asset price spiral.

44. The broad-based tools could be complemented by more targeted sectoral tools. The implementation of the CCB should be a priority at the current juncture, given the expected pick-up in credit growth and CCB would work well with existing capital adequacy regulations. The sectoral tools could include variable risk weights and exposure limits for real estate, and capital surcharges for cross-border institutions. The planned capital surcharge for SIBs could put higher weights for cross-border exposures, with possible variation for specific sectoral exposures. Limits on real estate development exposures would complement the LTV/DTI ratios in managing real estate risks. Further, with the LCR already in place for supervisory purposes, differentiated liquidity requirements as described in the circular could be applied to address liquidity shortages in distress periods in 2012.

CRISIS MANAGEMENT AND FINANCIAL SAFETY NET

45. Significant progress has been made since 2007 to improve crisis management and the financial safety net. Early intervention mechanisms are now available to all supervisory agencies, allowing for coordination in the CCSRS. A special bank resolution regime has been established in the new banking law and in BAM's internal "Manual of Resolution of Failure of Banks of Systemic Importance". Bilateral agreements with foreign supervisory agencies have been concluded to exchange supervisory information in normal times and work is underway to organize the coordination of bank resolution in addition to supervision. Crisis simulation exercises were conducted in 2009 and more recently in 2014. The former led to the introduction of the special bank resolution regime as well as the 2012 MOU between MOF, BAM and other supervisory agencies on coordinating crisis management actions. The 2014 exercise tested the effectiveness of interagency coordination and communication strategy in crisis times but not the robustness of the bank resolution framework and the safety net itself.

A. Emergency Liquidity Assistance (ELA)

46. Currently both BAM and the Deposit Guarantee Fund (DGF) can extend emergency liquidity assistance to banks. Although ELA has never been used in practice, maintaining two parallel streams of liquidity assistance could be problematic in a crisis situation, since there is no clear order of priority and it may prove counterproductive for BAM to determine the conditions of liquidity support provided by DGF. This is especially true because the financial support provided by DGF to distressed banks creates an inherent conflict of interest with the protection of depositors, which should be the DGF's primary mandate.

47. The amended central bank act should formalize the ELA function to segregate it clearly from bank solvency support. The terms and conditions for ELA, currently described in internal guidelines, should be explicitly included in the new central bank law, stating that ELA is only for solvent institutions, the access is based on a punitive interest rate and against good collaterals, and BAM is the sole judge of when illiquidity crosses into insolvency. The fiscal authorities may provide temporary support to insolvent banks (or banks whose solvency is doubtful) during a systemic crisis when private sector solutions are not feasible, and should do so with a clear exit plan. When funding by the fiscal authorities is not immediately available, BAM may extend credit to these banks provided that any losses from such an operation will be covered by a government guarantee in accordance with the Organic Budget Law.[16]

48. Crisis preparedness would also require boosting BAM's balance sheet by improving the framework governing BAM's capital, in general. For example, recapitalization of the central bank could be strengthened with the introduction of a deadline for the recapitalization (taking into account the need for approval by the Parliament). Moreover, the profit distribution rule should be reviewed to allow BAM greater flexibility in setting aside reserve funds.

B. Early Intervention Mechanisms

49. The new banking law grants BAM additional powers for early intervention and prompt remedial actions. Besides the standard powers of a supervisor (warning, injunction, order, sanction, and suspension and withdrawal of the license), the new banking law provides the central bank with a very broad spectrum of additional early intervention measures, including (i) the request for a recovery and resolution plan by banks of systemic importance as well as other credit institutions; (ii) stricter prudential requirements for systemic credit institutions; (iii) the call for capital injection from shareholders with a stake of 5 percent or more; (iv) the requirement that the credit institution strengthen its financial situation or remedy internal control deficiencies; (v) the appointment of a provisional administrator (which may be the DGF); and (vi) the prohibition or limitation of dividends to the shareholders.

50. The supervisory agencies for insurance, pension funds, and financial markets have early intervention powers but lack exceptional powers. They may (i) suspend any payment of purchase values or payment of advances in respect of contracts stipulating such advances; (ii) require a financing program be drawn up to fund additional solvency margin; (iii) prohibit the subscription of new agreements; and (iv) require a recovery plan. A provisional administrator can be appointed with all management powers in a resolution process.

C. Bank Resolution and Deposit Preference

51. A special bank resolution regime for systemic banks was put in place in 2010 though remains untested. The resolution regime includes various tools (including P&As, bridge bank, and asset management companies). BAM's internal "Manual of Resolution of Failure of Banks of Systemic Importance" describes the banking resolution process, including the triggers and the methodology of assessing the bank and its viability, as well as the implementation of the resolution process. The new banking law focuses on the bank resolution mechanisms, though less so on the

[16] The Organic Budget Law allows the Government to spend beyond the budget under exceptional circumstances without Parliament approval.

objective criteria of bank resolution. The new banking law also empowers BAM to enter agreements with foreign supervisors organizing, in particular, cross-border banking resolutions.[17]

52. To ensure effectiveness, the legal basis for the bank resolution framework needs to be strengthened. First, the objectives of the bank resolution regime should to be disclosed in a law, thereby providing a transparent yardstick for BAM and the courts in assessing the adequacy of the banking resolution tools with the objectives pursued. Second, the hierarchy of creditor claims need to be formalized in the law, with exhaustive references to privileges, dissociation of the rank of secured, unsecured, and subordinated creditors (including depositors) as well as shareholders. Third, the law needs to entrust the resolution authorities with the "bail-in" powers to write down equity, unsecured and uninsured creditors' claims and/or convert into equity all or parts of unsecured or uninsured creditor claims.

53. The law should also clearly appoint a bank resolution authority. Despite numerous references made in the banking law to the active involvement of BAM (or its Governor) as well as the DGF in the bank resolution mechanisms, BAM and DGF have not been formally appointed as bank resolution authorities. This, in turn, creates confusion on the status and governance of BAM and DGF when acting in the context of the resolution, including regarding the internal allocation of powers between the Governor, the BAM Management Committee and the BAM Board. While other options might be envisaged (including a stand-alone resolution authority or the DGF), the complementarities between corrective measures and early intervention under the BAM supervisory mandate would be good arguments in favor of BAM as a formal bank resolution authority, assisted by the DGF, which could act as a service provider. To address conflicts of interest, BAM's mandate acting as a monetary policy maker, supervisory agency and resolution authority could be exercised through separate, independent decision-making bodies within BAM.

54. BAM's operational independence needs to be buttressed when acting as the bank resolution authority. BAM needs adequate financial and human resources in this regard. The availability of qualified staff and experts in this complex area is a key factor for the proper discharge of this new mandate. BAM's legal liabilities when acting as a bank resolution authority should be limited.

D. Depositor Protection

55. The deposit guarantee fund, which is a pre-funded guarantee scheme financed by non-risk based bank contributions, provides a good level of protection of depositors' interests. It can issue debt instruments and ex-post funding with additional bank contribution is also possible. DGF funds currently covers about 2 percent of eligible deposits and a bank's annual contribution is limited to 0.25 percent of its total deposits. The maximum coverage is DH 80,000 per depositor and can be increased up to DH 100,000. DGF The new banking law creates two

[17] Agreements have been signed with Madagascar and Djibouti that address the cross-border aspects of bank resolution mechanisms.

autonomous compartments in DGF. One is for the existing DGF, which covers conventional banks; and the other for the future Islamic banks. The DGF for Islamic banks will be funded by bank contributions and may issue Sukuk. A draft circular is being prepared to determine the contribution rate and the maximum coverage.

56. Nonetheless, some weaknesses in the current deposit insurance framework need to be addressed. The funding model of Moroccan banks accentuates the crucial importance of effective deposit insurance, whose objective should be protecting small depositors and helping promote financial stability by making prompt reimbursement. The banking law allows the DGF to extend liquidity or take participation in a troubled bank in systemic cases. Such a function is not in line with best practice, as experience suggests that open bank assistance can entail greater cost and risk for the DGS than initially anticipated and thus could deplete the fund. In addition, under the banking law, all claims of depositors toward the failing bank rank pari passu. DGF should be granted a higher priority ranking over uninsured depositors and general creditors, and depositor preference could be introduced in bank resolution for the amounts over the covered deposits.

FINANCIAL INCLUSION

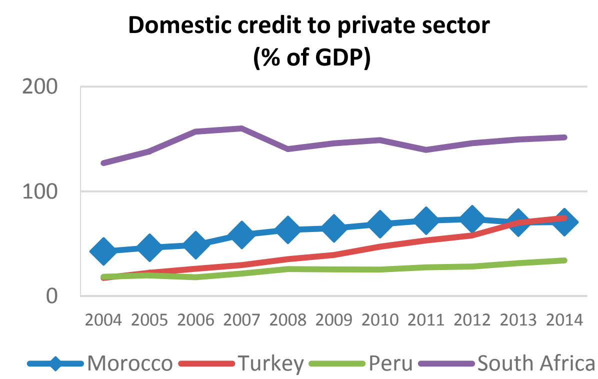
57. Morocco has made good progress since the 2007 FSAP (Figure 9). Sixty-three percent of the total population has a bank account, compared to 43 percent in 2008, and the number of SMEs with access to bank credit has doubled since 2007. Several reforms have underpinned Morocco's progress. The transformation of the postal financial service into a commercial bank and the development of banking products for low-income families (for examples, prepaid cards and simplified savings accounts) have increased household access. The microfinance sector has been strengthened by a combination of reforms of governance, risk management, financial infrastructure and supervision. Mechanisms targeting SMEs—such as credit guarantees, public-private funds for equity and quasi-equity financing, and a central bank refinancing facility—has increased lending to low-income housing and SMEs. The modernized credit reporting system has improved the availability and quality of credit information.

58. Efforts are being made to extend accessibility and affordability to the bottom of the income pyramid (Figure 10). The new banking law provides a framework for new non-bank payment service providers to expand the use of transaction accounts and achieve universal financial access, and the secured transaction framework is being revamped. The authorities should revisit the global ceiling (about 14 percent) on lending rates, which hinders the adequate pricing of high-risk loans. Efforts to strengthen of market conduct regulation and supervision, consumer protection and financial literacy should be considered as alternative measures to the current cap on lending rates.

59. The authorities are pursuing various strategies (for examples, BAM's 2013–2015 Strategic Plan, MOF's 2013–2016 Development Plan for the CCG), but coordination could be improved. The forthcoming National Financial Inclusion Strategy (NFIS) will help align the various strategies and improve coordination among key stakeholders. The NFIS should include a solid governance structure and adequate resources to ensure commitments from all key public and private sector stakeholders and high visibility for the financial inclusion agenda. An effective implementation of the NFIS would a robust monitoring and evaluation framework to track progress and draw timely lessons.

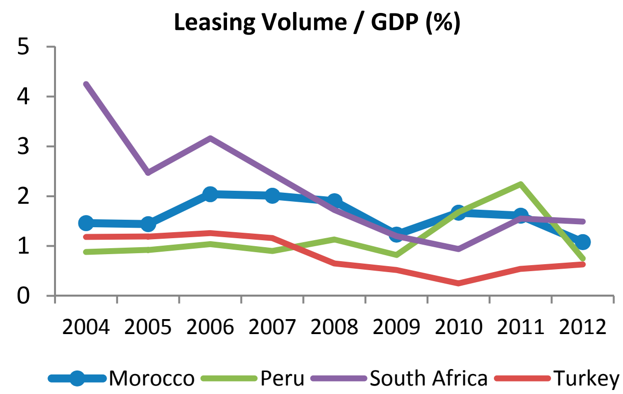
Figure 9. Financial Inclusion: Achievements

Steady growth in credit to the private sector …



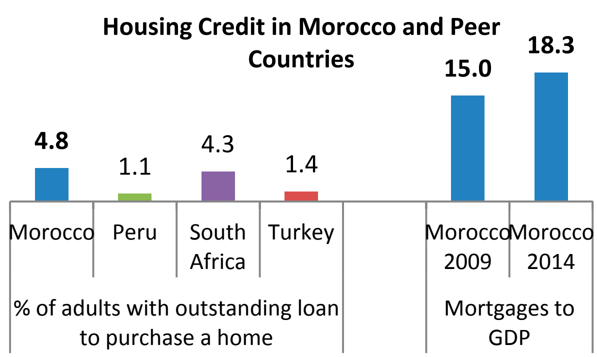
Source: The World Bank World Development Indicators (2015)

… alternative financing such as leasing also ranking well.



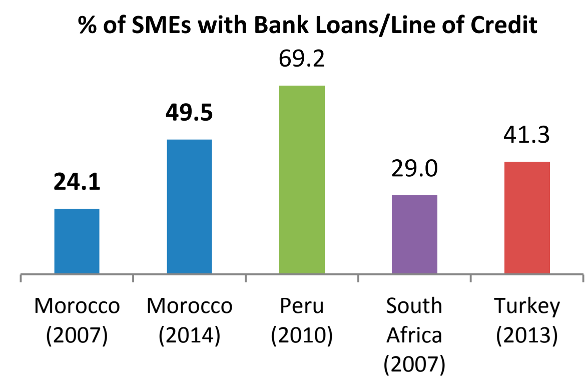
Source: WBG instats.

Access to housing finance compares favorably to peers …



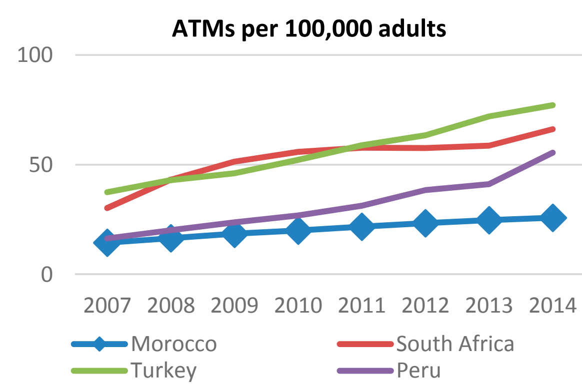
Sources: 2011 World Bank Global Findex and BAM.

… while SMEs report having increasingly access to bank credit.



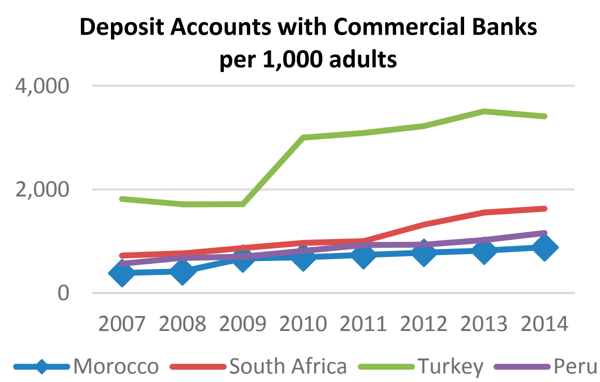
Source: World Bank Enterprise Surveys.

Expansion of financial access points …



Source: IMF Financial Access Survey.

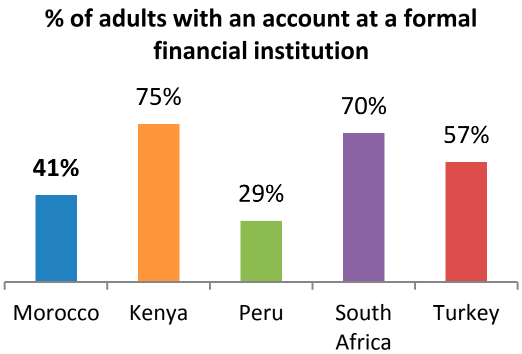
… higher density of deposit accounts, though not as much progress as peers.



Source: IMF Financial Access Survey.

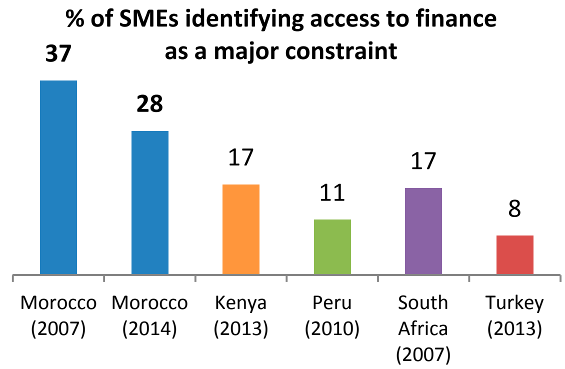
Figure 10. Financial Inclusion: Challenges

Large segments of the population remain excluded …



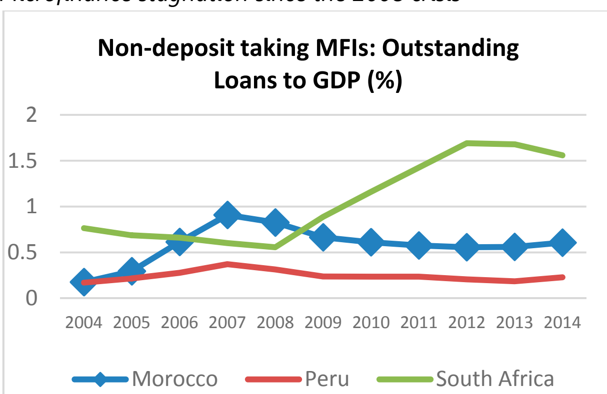
Sources: 2014 World Bank Financial Capability Survey (Morocco), 2014 Global Findex (Kenya, Peru, South Africa, Turkey)

… and a significant proportion of SMEs still identify access to finance as a barrier.



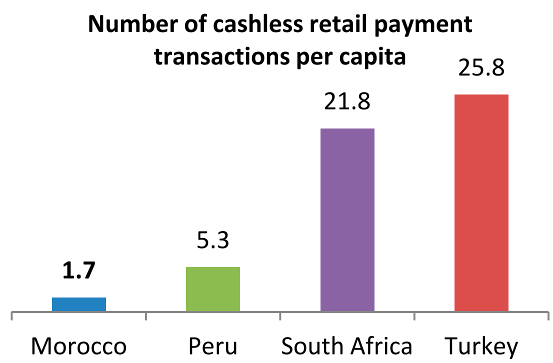
Source: World Bank Enterprise Surveys.

Microfinance stagnation since the 2008 crisis



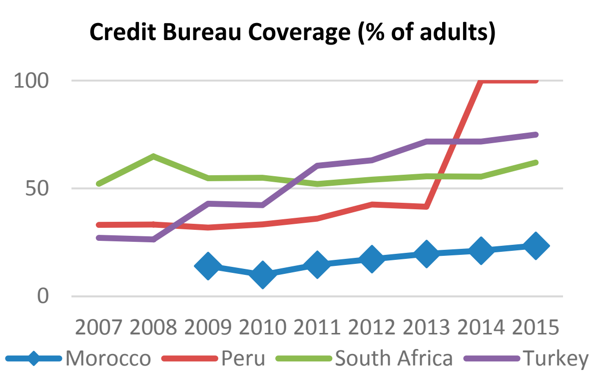
Source: IMF Financial Access Survey (2015).

Use of electronic payment instruments remains low



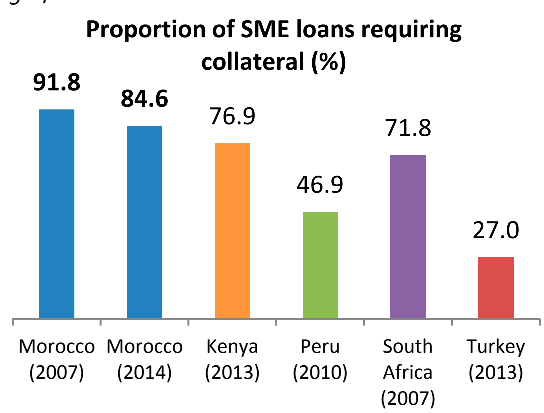
Source: WB Global Payment Systems Survey (2010)

Coverage of the credit information system lags peers significantly …



Source: World Bank Doing Business Database.

… while collateral requirements to access financing remain high for SMEs.



Source: World Bank Enterprise Surveys.

ANTI MONEY LAUNDERING AND COMBATING THE FINANCING OF TERRORISM (AML/CFT)

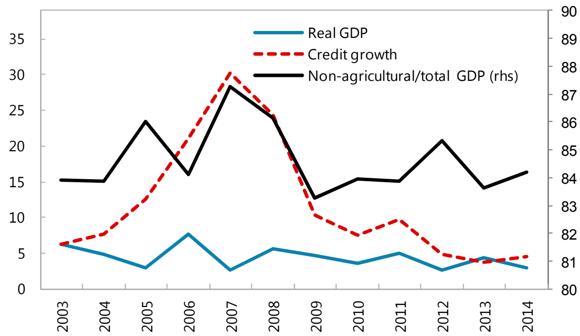
60. A desk review was conducted focusing on: (i) the risk-based implementation of preventive measures for banks, focusing on identifying and verifying the identity of customers and beneficial owners, including politically exposed persons; (ii) the AML/CFT supervision of banks, and in particular, the implementation of risk-based supervision; and (iii) the implementation by the authorities of targeted financial sanctions related to terrorism and terrorist financing.

61. The review identified positive developments together with remaining shortcomings. BAM now conducts risk-based AML/CFT inspections of Moroccan banks. However, it should further strengthen the monitoring of banks at a higher risk of money laundering and terrorist financing (ML/TF), notably in SSA countries with high ML/TF threats and domestic corruption. BAM's legal and regulatory framework for AML/CFT supervision is sound, but standards regarding transactions and business relationships with politically exposed persons could be improved. BAM conducts on average three inspections—comprehensive and thematic—each year, which suggests that the inspection cycle of Morocco's 19 banks is too long. Current risk identification tools should clearly identify higher risk banks, and enable BAM to increase the frequency of its inspections of higher risk banks. More focused inspections and improved reporting of suspicious transactions would help BAM take adequate remedial actions. Morocco has developed sanction mechanisms in compliance with the United Nations Security Council Resolutions for the prevention and suppression of terrorism and TF, but needs to address the requirements on imposing designation and/or freezing of funds and other assets.

Figure 11. Macroeconomic Developments 2003–14

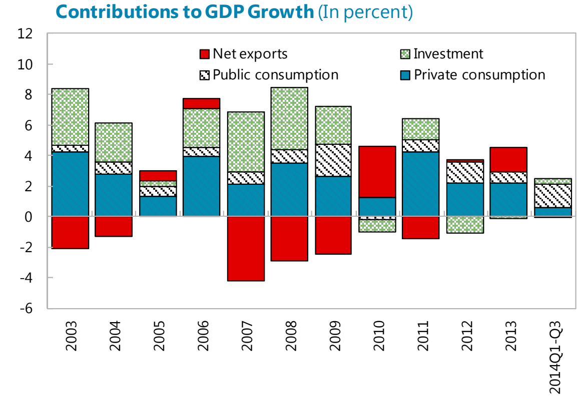
Real GDP growth has been relatively stable, while credit has been more volatile in line with non-agricultural growth.

GDP Growth



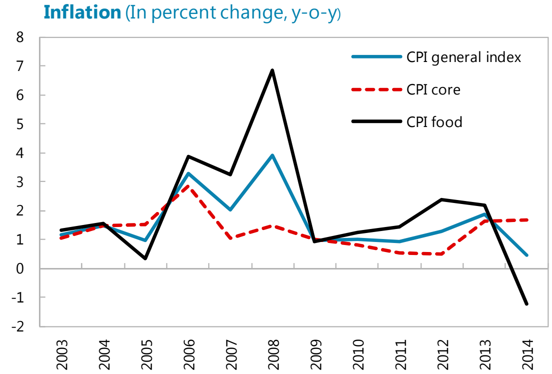
Growth, until recently, has been mainly supported by domestic demand.

Contributions to GDP Growth (In percent)



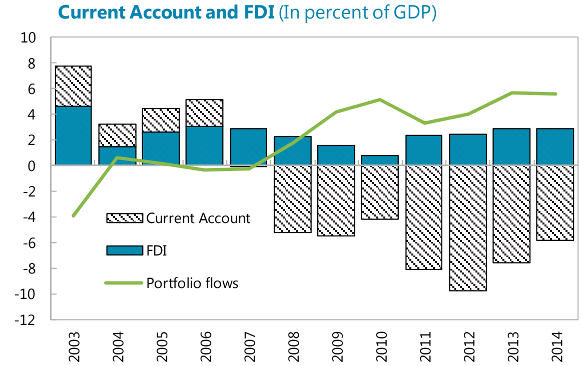
Inflation has remained low.

Inflation (In percent change, y-o-y)



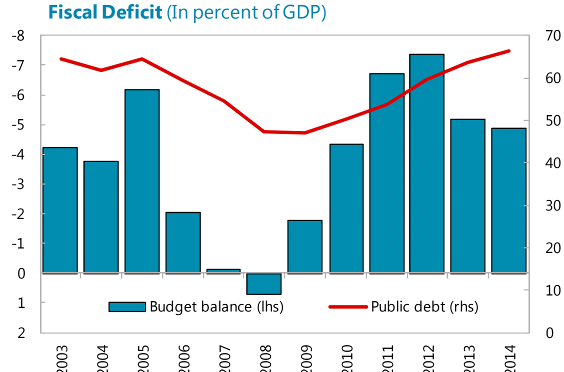
The current account deficit has been offset by FDI inflows which remained strong.

Current Account and FDI (In percent of GDP)



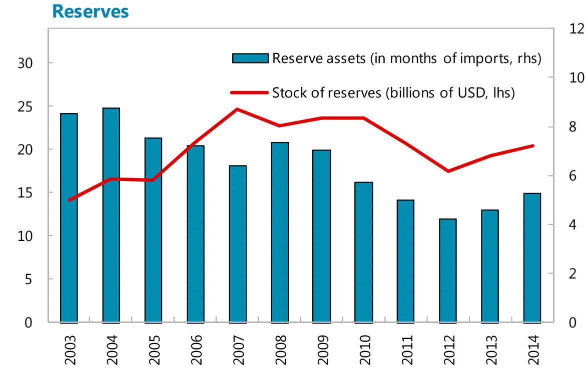
The fiscal deficit decreased after peaking in 2012.

Fiscal Deficit (In percent of GDP)



Lower fiscal and current account deficits have helped support reserves recently.

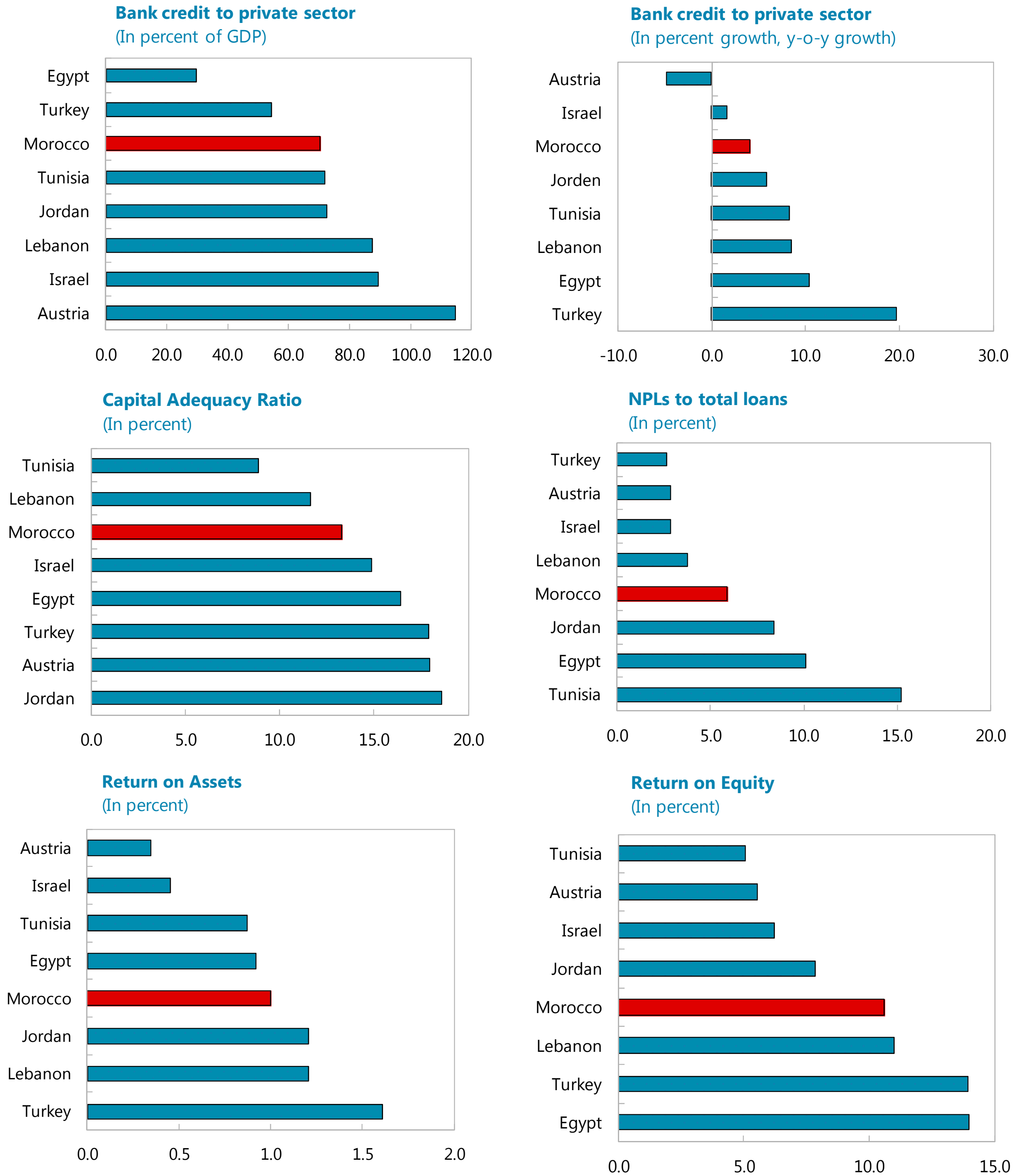
Reserves



Sources: Moroccan authorities and IMF staff estimates.

Figure 12. International Comparisons

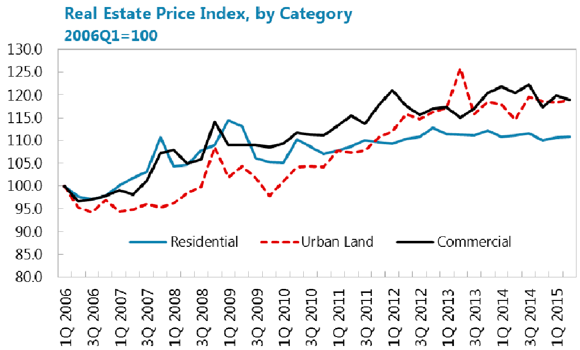
(As of end 2014 or latest available)



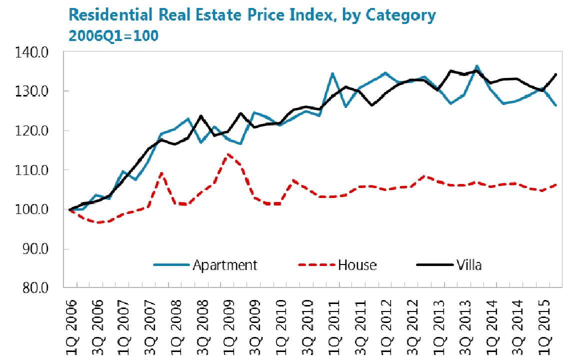
Sources: Country authorities and IMF staff calculations.

Figure 13. Real Estate Market Developments

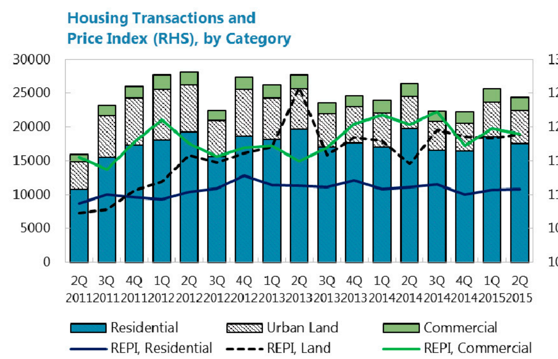
Driven by residential demand, the Real Estate Price Index (REPI) increased rapidly until early 2009, followed by a correction during the Euro Crisis…



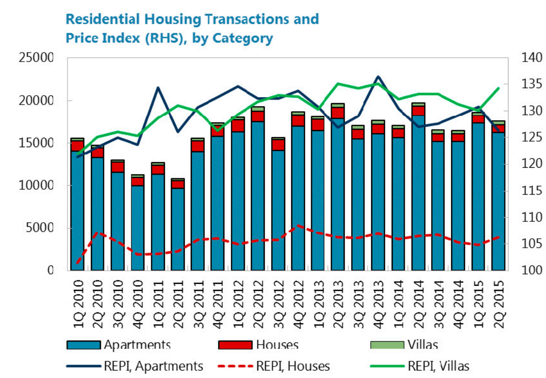
Within the residential market, houses (dwellings without gardens) have exhibited sluggish price growth relative to apartments and villas (riads).



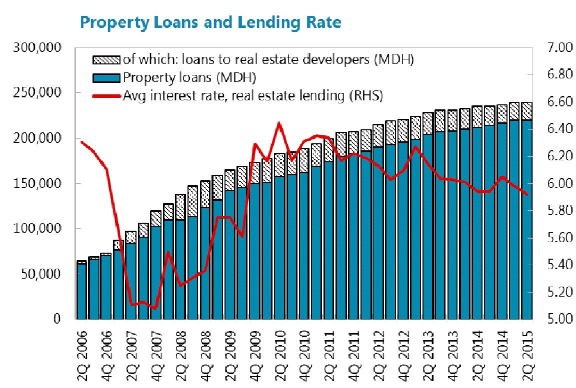
Overall transaction growth, driven by residential transactions, has slowed…



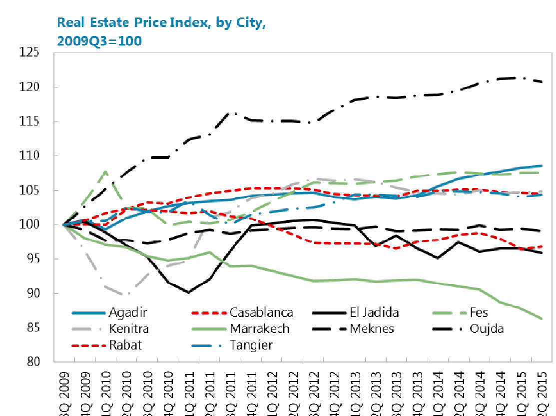
… and apartments, bolstered by domestic demand from lower/ middle income groups, dominate transactions in the residential market.



Bank property lending has slowed as interest rates increased since the correction…



Prices growth has slowed in the major cities.



Sources: Moroccan authorities and IMF staff estimates.

Appendix I. Risk Assessment Matrix

Nature/Source of Main Threats	**Overall Level of Concern** **Likelihood of Severe Realization of Threat in the Next 1–3 Years** *(high, medium or low)*	**Expected Impact** *(high, medium or low)*
1. Structurally weak growth (Euro area) in advanced economies	**High** • Weak demand and persistently low inflation from a failure to fully address crisis legacies and appropriately calibrate macro policies, leading to a "new mediocre" rate of growth.	**High** • Slow growth in Europe would reduce the demand for Moroccan exports, slow down remittances from abroad, tourism revenues and FDI inflows, and exert downward pressure on the central bank's international reserves.
2. Heightened risk of fragmentation/state failure/security dislocation in the Middle East, leading to a sharp rise in oil price volatility, and migrant flows, with negative global spillovers	**Medium** • Geopolitical tensions in the Middle East could cause disruptions in oil supply and push prices up; however, persistently low energy prices may be triggered as well by supply factors, reversing only gradually, and weaker demand.	**High** • The current account deficit in Morocco remains relatively large and the country is highly dependent on oil imports.
3. Increased volatility of energy prices due to uncertainty about the persistence of the oil supply shock and the underlying drivers of the price decline	**Medium**	**Medium** • Oil and energy supply disruptions could raise oil prices, with consequences for fiscal and external positions.
4. Tighter and more volatile global financial conditions as investors reassess underlying risk	**High** • Prices of risky assets drop abruptly as investors reassess underlying risk and move to safe assets, associated with a rise in actual and expected volatility. Global growth would be impacted negatively as some countries face a tight policy mix, given higher financing costs and fiscal sustainability concerns, and constraints on accommodative monetary policies.	**Medium** • Financial volatility, triggered by the prospective exit from unconventional monetary policy in certain advanced countries, would result in an increase in Morocco's borrowing costs. This could result in the cutback of growth-enhancing expenditure, jeopardize growth prospects, and bring about a reduction in domestic banking liquidity, as well as a rise in banks' funding costs and lending rates.
5. Slower-than-needed pace of reforms	**Medium** • Political risks have receded with the recent appointment of a coalition government, but regional socio-political tensions could continue to affect the ability to sustain the delivery of an ambitious reform program.	**Medium** • A gap in the sustained implementation of reforms would endanger the economic resilience and would affect potential growth.

Appendix II. Banking Sector Stress Testing Matrix

Domain		Assumptions		
		Bottom-Up by Banks	**Top-Down by Authorities**	**Top-Down by FSAP Team**
Banking Sector: Solvency Risk				
1. Institutional Perimeter	Institutions included	• 8 banks	• 8 banks	• 8 banks
	Market share	• 90 percent of the banking sector's assets	• 90 percent of the banking sector's assets	• 90 percent of the banking sector's assets
	Data and baseline date	• Bank proprietary data • Baseline date: end-December 2014 • Bank solo level data	• Supervisory data • Baseline date: end-December 2014 • Stress tests used bank-by-bank balance sheet, income statement and prudential data on a solo basis as of December 2014.	• Supervisory data • Baseline date: end-December 2014 • Stress tests used bank-by-bank balance sheet, income statement and prudential data on a consolidated basis as of December 2014. Due to time series data limitations, credit risk satellite models were estimated using data on a solo basis • Market data
2. Channels of Risk Propagation	Methodology	• Guidelines issued by the FSAP team	• Satellite models developed by the Authorities	• Satellite models developed by the FSAP team • Balance sheet-based approach • Contingent claim analysis
	Satellite Models for Macro- Financial linkages	• NPL projections under 3 scenarios provided by BAM	• Methodology to calculate credit losses in response to changes in macroeconomic conditions	• Methodology to calculate losses from bonds and money market instruments (sovereign and other issuers). Haircuts are calculated based on a modified duration approach. • Net fee income and commission income, and operating

				expenses, projected based on nominal GDP growth • Impact of increased NPL ratio on net interest income taken into account.
	Stress test horizon	• 3-years (2015-17)	• 3 years (2015-17)	• 3 years (2015-17)
3. Tail shocks	Scenario analysis	• Scenario-based tests, which assess the impacts on the entire portfolio including the loans and, if applicable, the trading book, were conducted in the TD exercise. • Variables in the scenarios include domestic macro- financial variables (e.g., GDP, inflation), world GDP, and GDP for key trading partners, and interest rates. • In the V-shaped adverse scenario, the GDP growth rate declines in 2015 to -2 percent, then recovers in 2016 and 2017 to +2.4 percent and +5.2 percent, respectively. • A set of market shocks, including large and sudden changes in interest rates and exchange rates, is calibrated to magnitudes close to those observed in 2008-09.		
	Sensitivity analysis	• Sensitivity analyses were conducted in the BU and TD exercises. • They evaluate *domestic* shocks: direct effects of interest rate shocks; interest rate shock on credit quality; direct effects of exchange rate shocks; a decline in the prices of domestic bonds; and failure of the top 3 largest corporate exposures.		
4. Risks and Buffers	Risks/factors assessed.	• Credit risk on the banking book and trading book; loan migration • Market risk and bond losses: direct effects of interest rate shocks; direct effects of exchange rate shocks; shocks to domestic bond yields.	• Credit losses • Losses from bonds and money market instruments (sovereign and other issuers) in the banking and trading books. • Funding costs • Market risk, including foreign exchange risk	• Credit losses • Losses from bonds and money market instruments (sovereign and other issuers) in the banking and trading books. • Funding costs • Market risk, including foreign exchange risk
	Behavioral adjustments	• Constant balance sheet assumption aimed at making results more	• Balance sheet grows with nominal GDP with a floor at 0. • Dividends are paid out by banks that remain adequately capitalized throughout the stress.	• Balance sheet grows with nominal GDP with a floor at 0. • Dividends are paid out by banks that remain adequately capitalized

		comparable between banks and at avoiding balance sheet optimization across years.		throughout the stress.
5. Regulatory and Market-Based Standards and Parameters	Calibration of risk parameters	• Point-in-time risk parameters for credit risk parameters or proxies	• Point-in-time risk parameters for credit risk parameters or proxies	• Point-in-time risk parameters for credit risk parameters or proxies
	Regulatory, accounting, and market-based standards	• National regulation for total regulatory capital and Tier 1 capital • Basel II standardized approach		
6. Reporting Format for Results	Output presentation	• System-wide capital shortfall • Number of banks and percentage of banking assets in the system that fall below certain ratios		
Banking Sector: Liquidity Risk				
1. Institutional Perimeter	Institutions included	• n.a.	• 8 largest banks in the system	
	Market share	• n.a.	• 90 percent of banking sector's assets	
	Data and baseline date	• n.a.	• Latest data: December 2014 • Source: supervisory data • Scope of consolidation: perimeter of individual banks	
2. Channels of Risk Propagation	Methodology	• n.a.	• Basel III-LCR type proxies, cash-flow based liquidity stress test using maturity buckets by bank • Reverse liquidity test by banks	
3. Risks and Buffers	Risks	• n.a.	• Funding liquidity (liquidity outflows) • Market liquidity (price shocks)	
	Buffers	• n.a.	• Counterbalancing capacity • Central bank facilities	
4. Tail shocks	Size of the shock	• n.a.	• Run-off rates calculated following historical events and LCR rates • Bank run and dry-up of wholesale funding markets, taking into account haircuts to liquid assets	
5. Regulatory and Market-Based Standards and Parameters	Regulatory standards	• n.a.	• Basel III standards (revision as of January 2013). See Committee on Banking Supervision (2013), "Basel III: The Liquidity Coverage Ratio and Liquidity Monitoring Tools," Basel, January 2013	
6. Reporting Format for Results	Output presentation	• n.a.	• Liquidity gap by bank, and aggregated • Survival period in days by bank, number of banks that can still meet their obligations	

Banking Sector: Contagion Risk			
1. Institutional Perimeter	Institutions included	• n.a.	• 8 banks • 5 insurance companies
	Market share	• n.a.	• 90 percent of total banking system assets
	Data and baseline date	• n.a.	• Latest data: December 2014 • Source: supervisory data • Scope of consolidation: perimeter of individual banks
2. Channels of Risk Propagation	Methodology	• n.a.	• Network interbank model by Espinosa-Vega and Solé (2010)
3. Tail Shocks	Size of the shock	• n.a.	• Pure contagion: default of institutions
4. Reporting Format for Results	Output presentation	• n.a.	• Number of undercapitalized and failed institutions, and their shares of assets in the system

Appendix III. 2007 FSAP: Main Recommendations and Follow-Up

Recommendation	**Government Counterparts**	**Suggested Timing**	**Status of Implementation**
Banking Sector Soundness and Vulnerability			
Carry out more regular multi-factor and more extreme stress tests; base risk hypotheses on relevant macroeconomic scenarios.	BAM	Short-term	Largely implemented. BAM now conducts stress tests based on two macroeconomic scenarios using a credit risk model and is further strengthening its stress tests through the collaboration with the FSAP team and the ongoing IMF TAs.
Continue to closely monitor banks' on- and off-balance sheet foreign exchange (FX) risk, counterparty risk, as well as compliance with exposure limits, hedging and other risk management techniques.		Short-term	Implemented. BAM monitors the on- and off-balance sheet FX exposures of commercial banks on a daily basis, including their positions on FX forward contracts, currency swaps and options.
Capital Account Liberalization, Monetary Policy, and Liquidity Management			
Maintain transparency and disclosure of capital account liberalization, as well as exchange rate and interest rate policy reforms and their sequencing, to enable financial institutions to prepare adequately.	BAM	Medium-term	Ongoing. BAM publishes on its website regulations and circulars detailing the modalities of its intervention and has strengthened its policy communication framework. In 2011, BAM expanded the range of eligible collaterals and introduced longer-term repo operations. BAM is working with the Ministry of Finance for the transition to a more flexible exchange rate regime.
Insurance Sector			
Consider review of the by-laws of the insurance supervisor by designating it an independent authority or entity analogous to an independent public entity, in order to increase its independence.	MOF	Medium-term	Implemented. A new insurance and pension authority (ACAPS) was established in 2015 and will become fully functional upon the appointment of its president and the board of directors. The new by-laws should strengthen the supervisor's independence.
Access to Finance			
Ensure open entry to the financial sector to deepen financial intermediation and stimulate competition.	BAM/MOF	On-going	Ongoing.

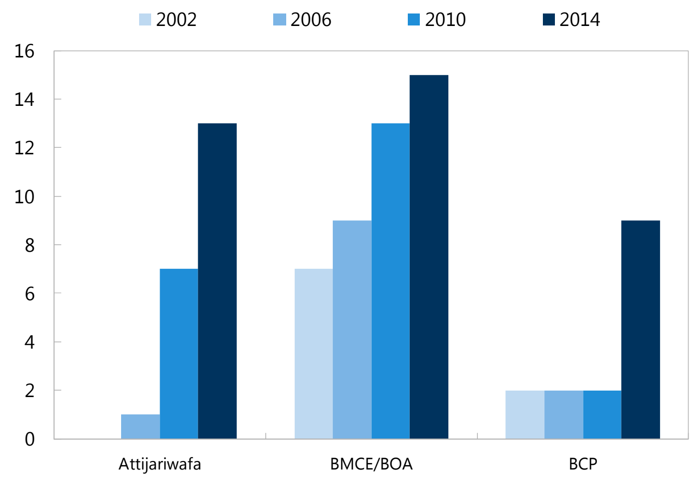
Include clients of non-bank financial institutions and utilities in Credit Bureau coverage.	BAM	Medium-term	Ongoing. Work underway, with assistance from the IFC to integrate non-financial data providers (telecommunication, water and electricity), and appoint a second credit bureau.
Through household and enterprise surveys, identify unserved segments of the population to better target and monitor financial access programs.	BAM/MOF	Short- to medium-term	Ongoing. Work underway to set up a reporting system on indicators of financial inclusion. A survey of financial services to households was conducted, with the World Bank, and the results were released in 2014.
Banking Supervision			
Continue to improve knowledge levels of off-site and on-site supervision staff, to match growing sophistication of the regulatory and operational environment (e.g., Basel II, IFRS, market risk).	BAM	On-going	Ongoing. An annual training plan adopted to improve staff's knowledge levels.
Issue a new regulation on country and transfer risks and ensure that banks have country and transfer risk management tools	BAM	Short-term	Implemented. A 2008 directive on the country risk defined the minimum standards to be observed by banks in the management of cross-border risks. Thematic audits are planned in 2015 to assess banks' cross-border risk-management framework.
Continue to monitor closely and reduce NPL levels in former public banks	BAM	Short-term	Implemented. Public banks NPLs declined from 21.2 percent in 2007 to 6.5 percent in 2014 (CIH, CAM, FEC, CDG Capital and Al Barid Bank). Close monitoring by BAM continues.
Monitor banks' management of exchange risk and interest rate risk.	BAM	Short-term	Implemented. BAM monitors banks' FX exposures daily; a reporting system on interest rate risk was set up in 2008.

Appendix IV. Moroccan Banks' Cross-Border Exposure in Africa

The three largest Moroccan banks have accelerated expansion in Africa over the past several years (Appendix Figure 1). Moroccan banks built up their presence in francophone Africa mainly through acquiring existing banking groups: BCP bought Banque Atlantique in 2012 and BMCE became the major shareholder in the Bank of Africa (BOA) in 2010. The retrenchment of French banks also contributed to this process, as Attijariwafa bought Credit Agricole's African operations in 2008, increasing its operations to six countries and further expanded in recent years. Increasing trade flows to West Africa has entailed the opportunity to provide the finance to corporate clientele in host countries. Saturation in Moroccan domestic markets has also driven the cross-border expansion.

Appendix Figure 1. Morocco: Expansion of Moroccan Banking Groups in Africa, 2002–2014

(Number of operations)



Sources: Bank websites and annual reports.

Moroccan banks exhibit a considerable degree of geographical diversification in their balance sheets compared to other pan-African banks. Moroccan banks' balance sheets are geographically diversified, as foreign subsidiaries' assets contribute 18 percent of three pan-African banks' assets. Compared to other pan-African banks, Moroccan banks' share of overseas operations is higher in the consolidated balance sheet but more evenly distributed among their subsidiaries, mitigating cross-border risks.

Stress test results indicate Moroccan banks' cross-border exposure in Africa do not pose systemic risks at present. Stress tests found that direct lending and deposits between the Moroccan banks and subsidiaries are limited. This is the first time BAM has collected such data and it aims to continue monitoring direct exposure risk. Stress tests also examined the spillover channel of direct capital loss from failed subsidiaries. When the test simulated a scenario where Moroccan banks step up to provide 50 percent capital loss of three major subsidiaries for each bank, impact is still limited because capital invested in each subsidiary is a small fraction in total capital (most subsidiaries' share is less than 1 percent of total capital). Only one bank had its CAR decline, from 12.2 percent to 11.9 percent, in this scenario. This test revealed that Moroccan banks have adequate levels of capital to absorb severe loss from subsidiaries, and that they have the capacity to implement an orderly resolution to minimizes the impact on regional financial stability.

Despite prudent guidance from BAM, lack of crisis resolution on oversight and legislative framework poses risks. Most of the bilateral Memorandums of Understanding (MOUs) have not included provisions on cross-border banking resolutions, which shows inadequacies in risk management. Differences in accounting frameworks and deposit insurance schemes in home and host countries raises concerns.

Ex-ante steps should be taken to put in place an effective cross-border crisis management framework. An MOU should define the specific roles and responsibilities of the main institutions and authorities in the event of a systemic crisis in the region. Authorities in the region should develop a single supervisory mechanism for funding the rescue of systemic banks in the region in advance of any crisis to mitigate risks to systemic financial stability. A regional legal framework needs to be initiated to ensure that the single supervisory mechanism has sufficient legal authority to undertake actions envisaged in the MOU.

Appendix Table 1. Morocco: Differences in Supervision Standards in the Region

	Accounting Standard	Capital Adequacy Standard 1/	BCPs /2	Deposit Insurance	Asset Classification 3/
Morocco	IFRS	Parts of Basel III	>80%	Implemented	90 days
Burundi	IFRS Plan	Basel II in progress	<50%	No Dep. Ins.	> 90 days
CEMAC	IFRS Plan	No Basel II yet	N/A	Implemented	> 90 days
Dem. Rep. of Congo	National	No Basel II yet	N/A	No Dep. Ins.	90 days
Ethiopia	IFRS Plan	No Basel II yet	N/A	No Dep. Ins.	90 days
Ghana	IFRS	No Basel II yet	<50%	No Dep. Ins.	90 days
Guinea	National	No Basel II yet	N/A	No Dep. Ins.	N/A
Kenya	IFRS	Parts of Basel II/III	50-80%	Implemented	90 days
Madagascar	National	No Basel II yet	N/A	No Dep. Ins.	90 days
Uganda	IFRS	No Basel II yet	50-80%	Implemented	90 days
Tanzania	IFRS	No Basel II yet	>80%	Implemented	90 days
Tunisia	National	No Basel II yet	50-80%	No Dep. Ins.	90 days
WAEMU	IFRS Plan	No Basel II yet	50-80%	No Dep. Ins.	> 90 days

Source: Pan-African Banking: Opportunities and Challenges for Cross-Border Oversight," edited by Charles Enoch, Paul H. Mathieu, and Mauro Mecagni, 2015.

1/ The Financial Stability Institute conducts a survey on the current status report on implementation of Basel II, 2.5, III for non-BCBS/non-EU jurisdictions and publishes unedited responses. The column is based for Basel II on answers to Pillar 1 (Standardized approach for credit risk, basic indicator approach and standardized approach for operational risk), Pillar 2 and Pillar 3.

2/ This category shows percentage of compliant or largely compliant BCPs and is based on assessments against the 2006 Basel Core Principles methodology undertaken as part of FSAPs during 2007–12.

3/ This category indicates the threshold of "number of days in arrears" after which loans are classified as NPLs.