7. Risk Analysis

This section presents the Bank's analysis of the main risks to the stability of the domestic financial system. Consistent with earlier sections of the Report, the analysis identifies risks stemming from: (i) the external and domestic macroeconomic environment; (ii) trends with household and corporate debt, (iii) trends with the domestic banks' and non-banks' financial soundness indicators, including results from stress testing. The graphical presentation below presents a summary of the risks identified in this section, focusing on their likely impact on the financial stability of the country, should they materialise.

Table 7.1: Risks to Financial Stability for the Upcoming Six Months

	Risk Probability	Change Probability[1]
Global Economy		
Global economic slowdown		Unchanged →
Oil price		Down ↓
Food prices		Unchanged →
Volatitlity (ViX)		Down ↓
Domestic Economy		
Economic growth		Unchanged →
Inflation		Unchanged →
Terms of trade		Down ↓
Domestic savings		Unchanged →
Investment/GDP		Unchanged →
Exchange rate[2]		Down ↓
Household Debt Risks		
Household debt-to-disposable income		Unchanged →
Household debt service-to-disposable income		Unchanged →
Corporate Debt Risks		
Corporate debt-to-GDP		Down ↓
Return on equity		Unchanged →
Leverage		Unchanged →
Banking		
Large exposures		Unchanged →
Return on equity		Unchanged →
Asset quality (domestic market)		Unchanged →
Cross-border exposures		Unchanged →

Risk analysis key

High		Medium		Low	
6	5	4	3	2	1

[1] *Change between December 2014 and June 2015.*

[2] *Down refers to a depreciation of the rupee.*

Source: Bank of Mauritius staff estimates.

Risks Stemming from the Macroeconomic Environment

A small open economy like Mauritius is affected by instability in global trade and finance. While the fall in international oil prices is likely to boost private consumption in the short-term, the registered sustained decline in the ratios of investment to GDP does not augur well for medium-term growth. Further, enduring economic and financial weaknesses in the euro area are likely to reduce income from tourism, which has been an important source of external financing of Mauritius' large deficits in external trade. Leads and lags in GBC international flows (i.e., net FDI and portfolio investment) have also provided an important source of external funding. Going forward, it will be important to carefully monitor the variations of these large critical financial flows.

Risks Stemming from Household Debt

Household indebtedness (as a share of disposable income) and household debt service costs are relatively low by international standards, but warrant monitoring, nonetheless. Macroprudential policies and credit limits are now in place on housing lending, thus providing standard conditions with banks in mortgage financing. Case-by-case analysis and monitoring of NPL is still needed to secure a proper implementation of the policy measures, and to continuously assess the impact of those measures on the economy as a whole and on financial stability.

Risks Stemming from the Corporate Sector Debt

Corporate indebtedness, as a share of GDP, is also relatively low by international standards, but poses a risk in terms of the high leverage ratios affecting leading corporations in the economy. Leverage ratios in tourism, construction, real estate, traders and financial services are more than 100 per cent, which are multiples of the ratios found in comparator countries. The financial risks stemming from this situation depend on each sector's ability to reduce its indebtedness (deleveraging), accompanied by greater equity infusion or higher revenue growth, in a reasonably short period of time. Failure to do so carries a risk of further reducing private investment and overall growth of the Mauritian economy.

Risks Stemming from Implementation of Macroprudential Measures

Macroprudential policies and credit limits appear to have provided useful benchmarks for the extension of banks' residential and commercial mortgage credit and containment of credit risk (Table 7.1). In particular, the measures have supported standard financial conditions for banks. These policies are also intended to curb a perceived increasing risk appetite by banks regarding commercial mortgage lending, in the face of declining demand. For some banks, however, the credit limits (loan-to-value and debt-to-income ratios) were already in place in line with international practices, and this may not significantly affect existing lending practices.

Following international experience, macroprudential policies and credit limits are likely to have differential effects on small and big borrowers of mortgage finance. This warrants surveillance. Loan-to-value ratios may have distinct effects on credit demand depending on the residential housing market segment. Lower income housing borrowing may benefit from: (i) existing subsidised mortgage financing schemes, such as the Housing Empowerment Scheme, for example, and (ii) aggressive marketing of mortgage financing targeted at first-time house owners. Also, the caps on loan-to-value ratios applicable on the purchase of second and subsequent residential housing may have had stronger effects on credit growth of high-end housing than in other market segments. Furthermore, there may be different impact on the demand for large and small commercial property lending. The demand for loans for major projects, specifically above Rs75 million, may be somewhat sheltered where there are long-term customer relationships between borrowers and lenders, and accompanied by collateral.

Risks Stemming from the Banking Sector

Banks are generally well-capitalised, although declining profitability of domestic-owned banks appears to have triggered some portfolio reallocation between domestic and foreign assets, as well as increases in provisioning against NPL. Going forward, however, a number of risks need to be carefully monitored by the regulator:

- **Relatively large banks' net foreign asset positions merit monitoring of underlying credit and possible foreign exchange risk.** About 30 per cent of banks' gross external assets represent lending abroad of GBC funds held with banks, while the differences are mainly loans and other placements in India, Europe, South Africa and other frontier markets in Africa such as Nigeria and Tanzania. While credit risk information on those loans and placements (including trade finance) is not readily available, several external and idiosyncratic factors are likely to heighten credit risk, if borrowers are unable to pay their loans, together with possible foreign exchange rate risk, depending on the currency denomination of the loans.

- **Strong regulatory frameworks of banks' external positions need to be developed**. While guidelines on banks' currency and country exposures are in place,[10] banks' exposures to frontier markets in Africa warrant surveillance of foreign asset quality and a strengthening of financial group regulations to secure proper securitisation of banks' foreign assets, if any.

Table 7.2 Mauritius: Credit Limits and Macroprudential Measures (As of January 2015)

Scope	Objective	Measure
Debt-to-Income ratio (Effective January 1, 2014)	Concern about level of household indebtedness; avoid overleveraged when borrowing for purchase/construction of residential facilities.	Debt service (interest plus amortization) should not exceed 40% of borrower's monthly gross income below Rs200k (50% for income more than Rs200k). Measure does not apply to borrowers under low cost housing projects promoted by Government; bank employees.
Loan-to-Value Ratio on credit facilities for purchase/construction of residential/commercial properties (Effective January 1, 2014)	Restrict losses in event of default and/or decline in property prices. Discourage speculation, prevent excessive leverage & reduce systemic risk related to rapid expansion of credit to construction sector.	<u>Residential properties:</u> **First housing units:** 90% of property value (V); loans up to Rs5 million 80% of V; loans up to Rs12 million 70% of V; loans above Rs12 million **Second or any subsequent property:** 70% of property value <u>Commercial properties:</u> 70% of V; loans up to Rs75 million 60% of V; loans above Rs75 million Measure does not apply to loans granted under SME Financing Scheme (also Small and Micro Financing enterprises); residential property loans granted to bank employees; commercial loans to Public Sector Enterprises (PSEs); and borrowers holding financial guarantee by Government.
Risk-weighted Assets (Effective July 1, 2014)	To address systemic risk due to loans to the construction sector	Bank should risk-weight its fund-based and non-fund-based credit collateralized by residential and commercial properties
Additional Portfolio Provision (Effective July 1, 2014)	Ensure early provisioning against future credit losses due to rising corporate indebtedness & non-performing loans	Additional portfolio provisions effective July 1, 2014 and (July 1, 2015). Housing: 0.5% (0.5%) Construction sector (i.e., commercial, residential and land parceling): 0.5% (1.0%) Tourism & Personal sectors: 0.5% (1.0%)

10 See Guidelines for Calculation and Reporting of Foreign Exchange Exposures of Banks and the Guideline on Country Risk Management issued by the Bank of Mauritius.

- **Relatively high leverage ratios support the development of strong re-structuring frameworks of corporate bank debt to address companies' underlying cash problems.** Recurrent corporate debt rescheduling may be initially tackled with hikes in bank capital. Yet, over the long run, there may be a need to develop restructuring that would allow companies to service their debt, while investing and growing. As noted above, sectors such as tourism, construction, trade and financial services - all of them highly leveraged - account for a large portion of GDP and total bank credit.
- **Concentration of bank credit warrants monitoring.** The underlying risks include those stemming from a sudden failure of a relatively large borrower (i.e., counterparty risk) or a group of connected borrowers to service their debt. Contagion risk could be even higher if the counterpart is another bank.

Risks stemming from Non-Bank Financial Intermediaries

Insurance companies hold sizeable deposits and equity with domestic banks. The overall envelope of insurance companies' claims on the domestic banking sector is about Rs15 billion (compared against total bank deposits of about Rs365 billion). This said, while insurance deposits could potentially experience volatility, this has historically not been the case.

Risk Stemming from Payment Systems Infrastructure

Financial system risks stemming from the payment systems are contained and unchanged from earlier FSRs' assessments. The Bank remains embarked on a strategy to secure real time settlement of high value interbank transactions and it is advancing with the implementation of cost-effective clearing systems for small value transactions. These developments embrace an improved direct debit system; the implementation of the National Payment Switch for all card-based payments; and the application of these to mobile devices and the internet. These enhancements will be major milestones in further modernising the payment systems for the country and reducing the cost of retail payments.