3. Domestic Macroprudential Assessment

The domestic economy performed relatively well considering the global economic environment and the mild pace of recovery in main export markets, in particular. Financial markets were not significantly affected by the US Fed tapering, with continuing capital inflows, stable rupee exchange rate, and buoyant stock market. The country's external reserves were considered to be adequate. Private sector credit growth decelerated but, the large accumulation of credit as a result of substantial credit growth in previous quarters is a matter of concern for certain sectors. Some sectors, like construction, appear particularly vulnerable in view of rising NPL. The banking sector remained resilient, well-capitalised and profitable. Implementation of Basel III started with phased-in increases in capital and the introduction of counter-cyclical buffers. Overall, risks to financial stability remain - a potential source being the expected normalisation of interest rates in some advanced economies - but the Bank has taken several actions to mitigate those risks. The Bank remains vigilant to adverse developments that may have a negative bearing on the financial system.

3.1 Macro-Financial Conditions

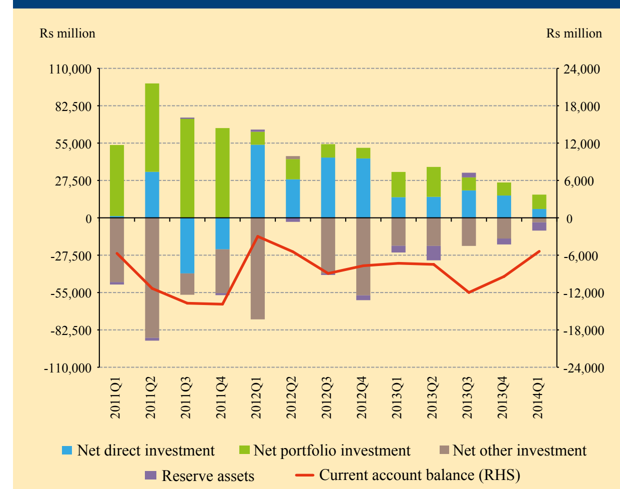
The performance of the domestic economy was considered to be rather fair against the global backdrop, recording y-o-y real GDP growth of 2.4 per cent in 2014Q1 compared with 3.8 per cent in 2013Q1. Statistics Mauritius projected growth to be slightly higher at 3.5 per cent in 2014 as main export markets gradually recover. It anticipated that the improvement in economic activity would be mainly led by the *'accommodation and food service activities'*, *'manufacturing'* and *'financial services'* sectors, while *'construction'* is expected to continue being a drag on growth.

As a small open economy, Mauritius is subject to a number of external vulnerabilities that may have a bearing on its growth path and domestic financial conditions. The anticipated normalisation of interest rates in some advanced economies, which may have financial stability implications domestically, warrants monitoring.

Unlike several emerging market economies, the impact of the US Fed tapering on domestic financial markets and the external sector has been minimal so far. The current account deficit, inclusive of cross-border transactions of GBC1s, narrowed to 6.1 per cent of GDP in 2014Q1. The deficit continued to be largely financed by inflows on the direct and portfolio investment accounts (Chart 3.1). Nonetheless, the persistent large current account deficit poses sustainability concerns considering the low savings rate, the more so as a reversal in investor sentiment towards Mauritian assets is possible as normalisation gets initiated elsewhere. This underscores the importance of adopting structural reforms to enhance competitiveness and reduce reliance on external financing.

Volatility in the domestic stock market was relatively low during 2014H1. Foreign investors were net purchasers of domestic stocks, with net inflows of Rs132.0 million as against net outflows of Rs256.0 million during 2013H2 (Chart 3.2). They showed a preference for banking stocks, with net purchases of Rs196.0 million, whilst they disinvested a net amount of Rs179.0 million from the leisure and hotel sector. The SEMDEX, which had trended upwards and tracked major indices during 2013H2, stabilised at around 2,100 points during 2014H1. Banks' and hotels' share prices, on average, went down by 0.7 per cent and 1.2 per cent, respectively, while those of insurance companies increased by 5.9 per cent (Chart 3.3).

Chart 3.1: Financing of the Current Account

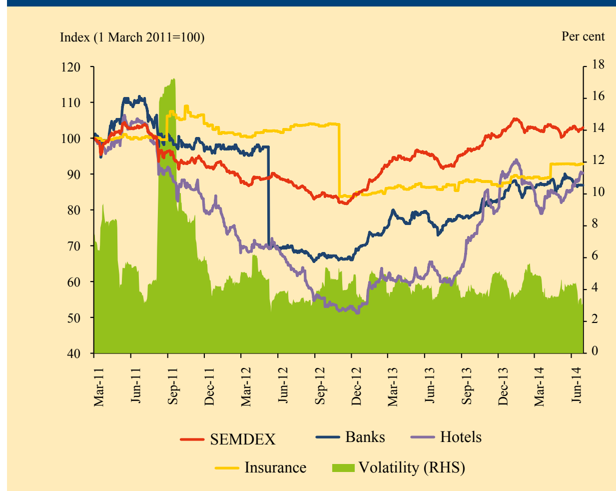


The nominal effective rupee exchange rate, as measured by MERI2, remained fairly stable during 2014H1, reflecting international currency movements as well as domestic demand and supply conditions. As part of its Operation Reserves Reconstitution (ORR) programme, the Bank intervened quite substantially on the domestic foreign exchange market to purchase foreign currencies. This helped to reduce exchange rate volatility and contain rupee appreciation against the euro. On a dealt basis, the rupee depreciated marginally by 0.1 per cent against this currency. It also depreciated against the US dollar in 2014Q2 as the latter recovered in international markets and maintained a depreciating trend against the Pound sterling, which was supported by firming growth in the UK, for the past year or so (Chart 3.4).

Reserve Adequacy

The implementation of the ORR programme led to a significant increase in gross official international reserves, which stood at Rs121.4 billion as at end-June 2014. Import cover, based on the value of imports of goods f.o.b. and non-factor services for the year 2013, increased from 5.2 months as at end-December 2013 to 6.0 months (Chart 3.5). Reserves accumulation is deemed important as it cushions the economy against external shocks and supports financial stability. In its 2014 Article IV Mission Report, the IMF assessed that the levels of reserves appeared comfortable against traditional thresholds. Box II gives an overview of different methods used to assess the adequacy of international reserves.

Chart 3.3: SEMDEX and Share Price Indices



Source: Stock Exchange of Mauritius.

Chart 3.4: Exchange Rate Movements

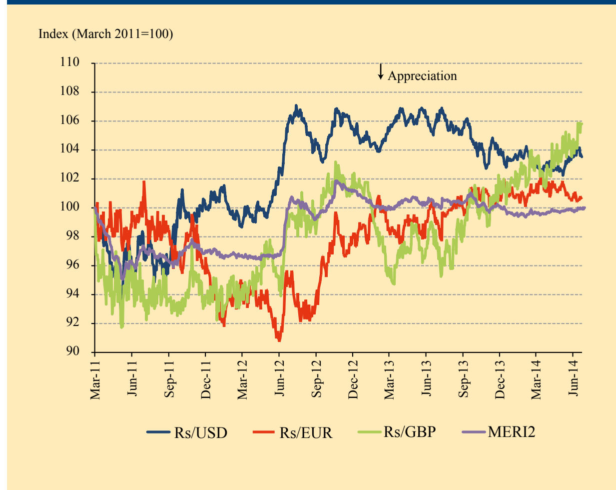
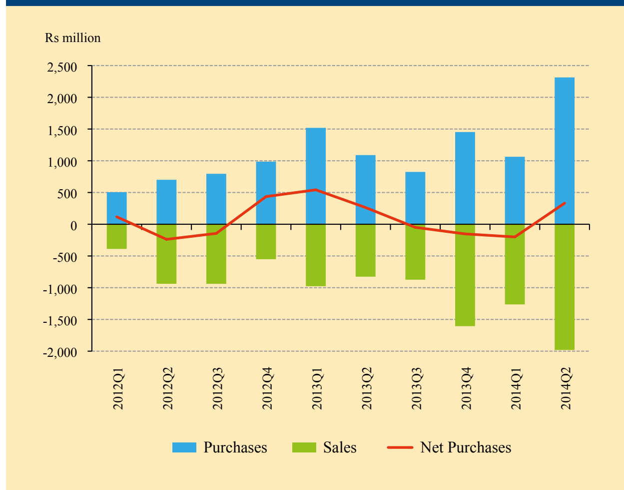
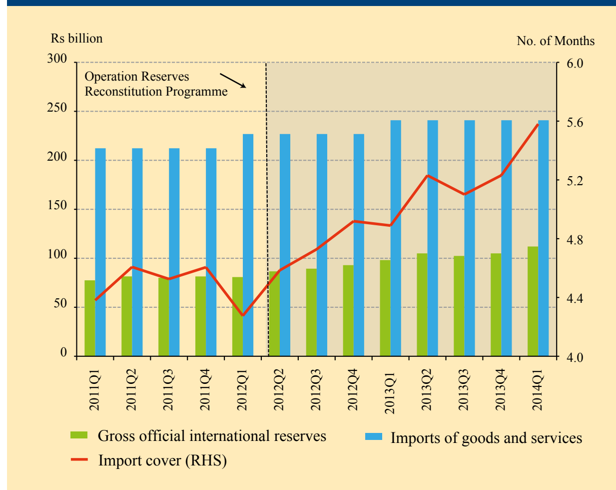


Chart 3.2: Transactions by Foreign Investors on the SEM



Source: Stock Exchange of Mauritius.

Chart 3.5: Gross Official International Reserves and Import Cover

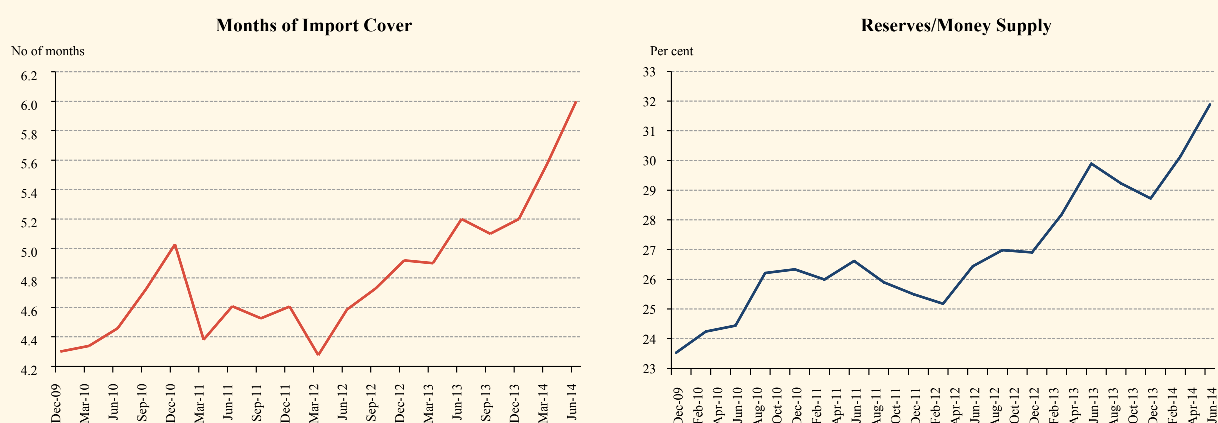


Box II: The Adequacy of Reserves in Mauritius

Gross official international reserves have grown rapidly since the Bank embarked on the Operation Reserve Reconstitution (ORR) programme in June 2012. Since then, the import cover has moved from 4.5 months to 6.0 months of import of goods and services as at end-June 2014. This Box assesses reserves adequacy through various methods.

Traditional measures of reserves adequacy suggest that international reserves should at least be equal to three months of imports of goods and services, or around 15-20 per cent of the money supply. In Mauritius, the level of reserves comfortably meets these two benchmarks (Chart I). Both ratios increased significantly in the wake of the ORR programme.

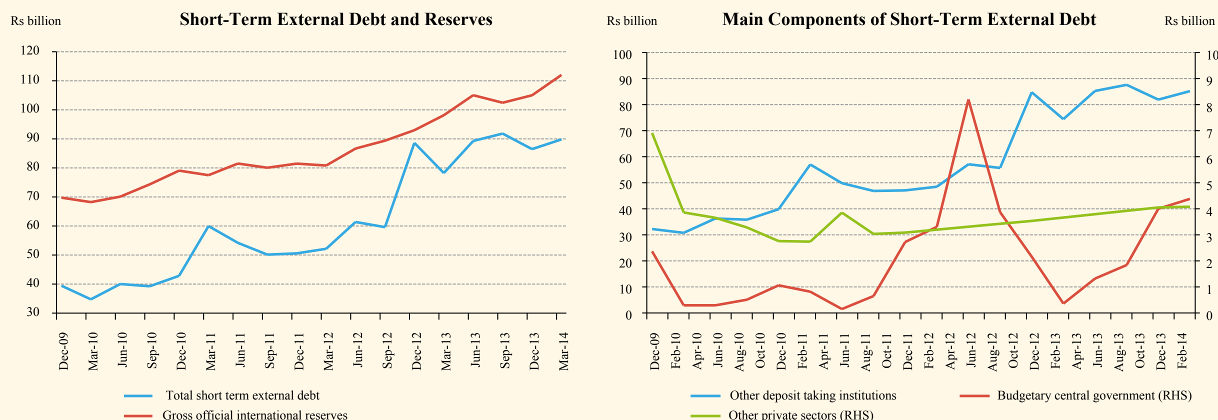
Chart I: Import Cover and Reserves to Money Supply



The Guidotti ratio, which measures the level of reserves relative to short-term external debt, is another useful indicator of the adequacy of reserves. It provides a means to assess whether a country is able to meet its foreign currency obligations in the absence of capital inflows. As a rule, a Guidotti ratio of at least unity, which implies that international reserves are at least equal to total short-term external debt, indicates that reserves are adequate.

In Mauritius, short-term external debt has grown quite significantly over the past few years, driven mainly by debt of banks and non-bank deposit-taking institutions, which account for around 95 per cent of total short-term external debt. The short-term external debt of the Budgetary Central Government makes up around 1 per cent of the total (Chart II).

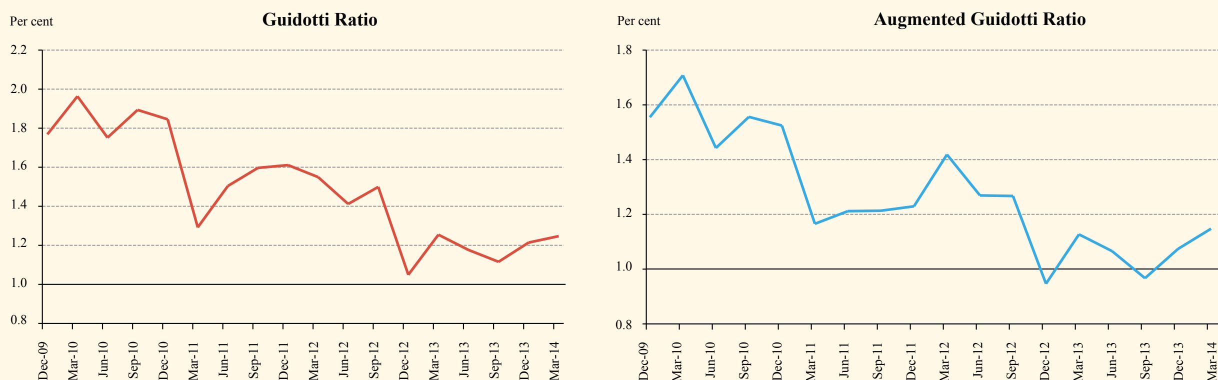
Chart II: Short-Term External Debt and Gross International Reserves



Note: Total short-term external debt comprises those of general Government, public corporations, monetary authorities, private sector, other deposit taking institutions and extra budgetary units.

Notwithstanding the increase in short-term external debt, the Guidotti ratio has remained above unity, providing some assurance that, in the absence of capital inflows, the country would have sufficient reserves to meet its short-term foreign currency obligations. However, given the relatively faster pace of increase in short-term external debt, the Guidotti ratio has trended downwards (Chart III).

Chart III: Guidotti Ratios



The concept of the Guidotti ratio could be extended to assess whether reserves would be adequate to cover other external financing needs, like the current account deficit and servicing of external debt, in addition to short-term external debt. This Augmented Guidotti ratio would thus provide a supplementary gauge of the adequacy of reserves. Including the current account deficit and servicing of external debt in the computation of the Guidotti ratio did not fundamentally change its overall trend. The Augmented ratio declined over the past few years, but stayed mostly above unity.

The different indicators of the adequacy of reserves suggest that international reserves of the country may be comfortable. The rapid increase in short-term external debt which translated into declining trends in the Guidotti and Augmented Guidotti ratios may pose some concerns. However, a large portion of the short-term external debt of other deposit taking institutions consist of borrowings from parent banks and affiliated companies to finance their cross-border activities. This type of borrowing is considered to be rather balanced.

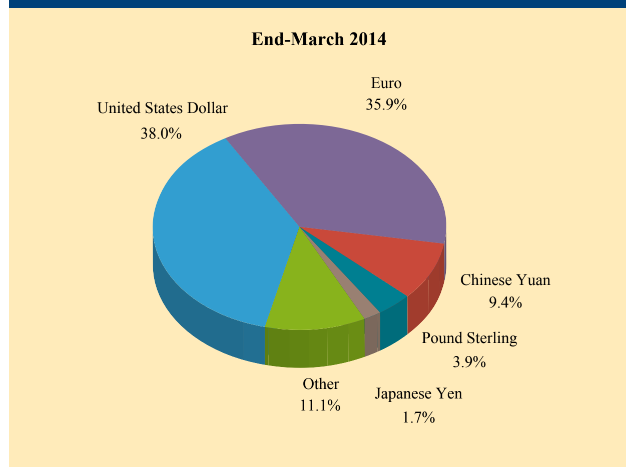
Sources: Bernard K.M (2011), "International Reserve Adequacy in Central America" IMF Working Paper No. 11/144; Greenspan A (1999), "Currency Reserves and Debt" Speech at the World Bank Conference on Recent Trends in Reserves Management, Washington D.C.

Public Sector Debt

Financial stability encompasses sustainable levels of public debt and prudent management of debt. As at end-March 2014, public sector debt, comprising debt of general Government and public enterprises, stood at 60.6 per cent of GDP. Fiscal consolidation is on-going to meet the statutory debt-to-GDP ratio of 50 per cent by 2018. It is expected that public sector debt would decrease to 56.3 per cent and 54.0 per cent of GDP in 2015 and 2016, respectively. In March 2014, Moody's maintained its credit rating of Baa1 for Mauritius, citing the *"resilience and diversification of the local economy and robust institutional capacity"*. It considered that a considerable and permanent reduction in the country's vulnerability to external volatility and shocks could exert positive pressure on the rating.

In parallel, Government continued its efforts to lengthen its debt maturity profile, and reduce rollover risks and costs. Long-term domestic debt (by original maturity) as a proportion of total domestic Government debt increased from 51.7 per cent as at end-March 2013 to 54.7 per cent as at end-March 2014.

Chart 3.6: Currency Composition of Central Government External Debt



Central Government external debt rose to 13.2 per cent of GDP as at end-March 2014, from 10.7 per cent a year earlier. It is projected to grow steadily to 15.1 per cent and 14.9 per cent by end-2015 and end-2016, respectively. The proportion of central Government external debt, denominated in US dollar and euro increased slightly to 38.0 per cent and 35.9 per cent, respectively, over the year (Chart 3.6).

Around 78.5 per cent of central Government external debt carried floating interest rates, 18.2 per cent fixed rates, and 3.3 per cent was interest-free. The external debt-service ratio, which was 3.6 per cent in 2013, is expected to hover in the range of 4.2 per cent to 4.7 per cent between 2014 and 2016. Given this profile, Government external debt might be subject to interest rate and foreign exchange risks, especially as the US and UK are poised to gradually start reversing their accommodative monetary policies while the euro area may need to keep an easier stance.

3.2 Credit Growth and Credit Risks

Total credit extended by other depository corporations and other financial corporations is computed from returns submitted to the Bank and from the MCIB database, respectively. This figure presently excludes facilities extended by credit unions and hire-purchase companies. It is expected that the recent amendment to the Banking Act 2004 with regard to credit unions will enhance data coverage (Box III).

Total credit stood at around Rs541.8 billion as at end-March 2014. Banks play a dominant role in the allocation of credit as they account for around 97 per cent of total credit. Credit extended by other financial corporations, including insurance companies, represented 2.2 per cent of total credit (Chart 3.7). Around 75 per cent of credit extended by other financial corporations was channeled to households while total arrears amounted to some Rs2.5 billion.

Box III: Credit Unions

In December 2013, the Banking Act 2004 was amended to require credit unions, registered under the Co-operatives Act 2005 and having total assets exceeding Rs20 million, to be licensed by the Bank in order to accept and deploy deposits. A period of 6 months was granted under section 14E(2) of the Act for existing credit unions to submit an application for a licence from the Bank. The Bank issued a Communiqué in May 2014 inviting qualifying credit unions to apply for a licence. Twenty-nine applications were received by the deadline, in June 2014. In August 2014, a Memorandum of Understanding was signed between the Bank and the Registrar of Co-operative Societies, setting out the framework of their co-operation to ensure effective supervision of credit unions.

Banking Sector Credit

Credit extended by banks grew by 1.0 per cent as at end-March 2014 compared with 9.2 per cent a year ago. This slowdown reflected a deceleration in credit extended by banks to the private sector in Mauritius and a contraction in cross-border credit, possibly due to uncertainties surrounding the DTAA with India (Chart 3.8). Despite moderate credit growth, banks in Mauritius remain substantially exposed to credit risk as loans and advances represent the major share of banks' total assets.

Credit to the private sector, which represented for 44.3 per cent of total bank credit, grew by 5.2 per cent compared with 13.1 per cent in the preceding year. The major share of private sector credit was channelled to corporates. Households borrowed 28.3 per cent of banks' credit to the private sector (Chart 3.9).

Chart 3.7: Credit by Type of Institutions

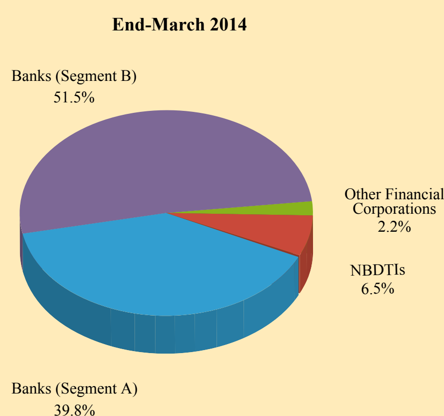
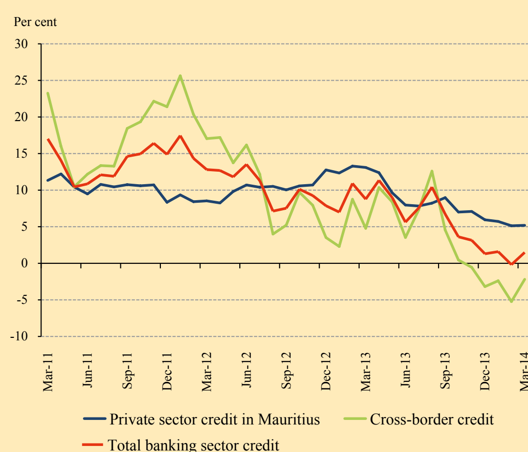
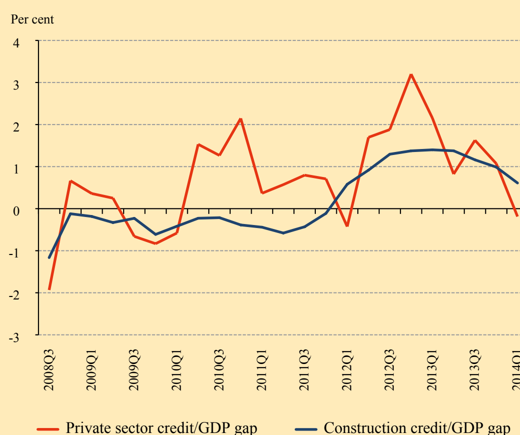


Chart 3.8: Y-o-y Credit Growth



Credit to the private sector represented 73.2 per cent of GDP. The decline in private sector credit growth was reflected in a fall in the credit to GDP gap (Chart 3.10). From a sectoral perspective, the concerns that had been raised regarding the significant accumulation of credit to the construction sector remained though there was a decrease in credit growth and construction credit to GDP gap. Notwithstanding excess liquidity in the system and the low interest rate environment, it would appear that the implementation of macroprudential policy measures announced by the Bank in October 2013 may have already started to impact positively on credit allocation to the construction sector.

Chart 3.10: Private Sector Credit to GDP Gap



Non-Performing Loans

Reflecting difficulties faced by some economic operators, asset quality of banks deteriorated further since the February 2014 FSR, reaching around 4 per cent of total bank credit as at end-March 2014. The ratio of NPL to private sector credit stayed above 5 per cent over the year while the ratio of NPL to cross-border credit increased to 2.5 per cent, from 1.9 per cent a year ago (Chart 3.11). The continued rise in NPL over the past quarters is a matter of concern. The Bank remains vigilant about rising NPL in the banking sector.

Chart 3.11: Non-Performing Loans of Banks

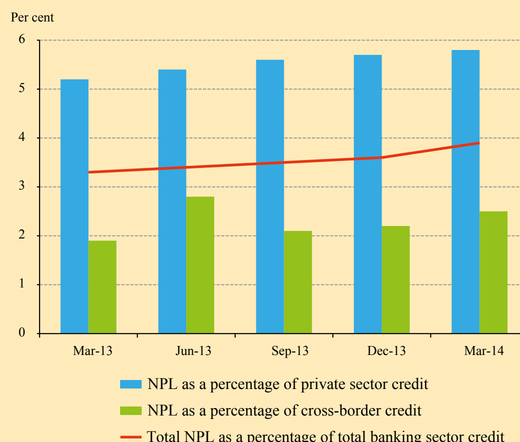
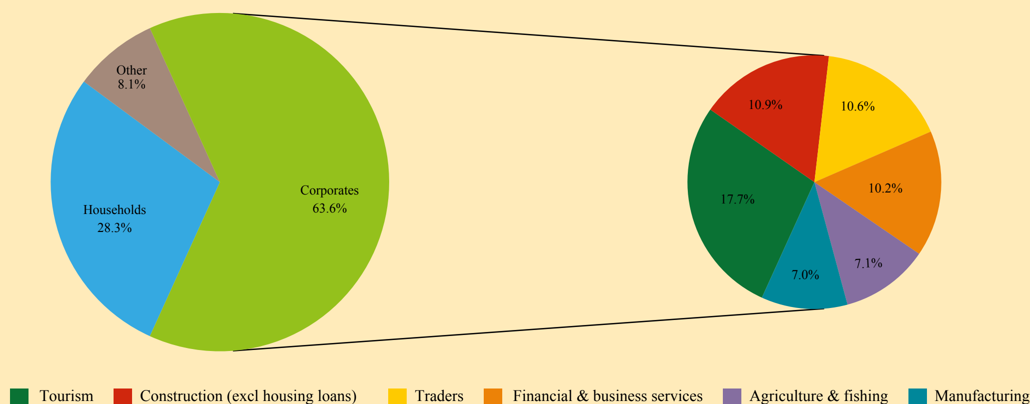


Chart 3.9: Credit Allocation to Households and Corporates



Rising NPL are generally accompanied by a higher level of specific provisions, which depend on the realisable value of collaterals. Over the year to end-March 2014, loan loss provisioning by banks increased by 14.1 per cent compared to an increase of 21.5 per cent in NPL. The relatively lower rise in loan loss provisioning resulted in a decline in the coverage ratio to 44.8 per cent, from 47.7 per cent a year earlier (Chart 3.12). To ensure adequate portfolio provisioning in some sectors against potential rise in NPL and, as part of the set of macroprudential measures, banks have been required to make additional portfolio provision in the *housing, commercial, residential and land parceling* segments of the construction sector as well as in the tourism and personal sectors effective 1 July 2014.

Household Sector Credit

The household sector witnessed rapid growth over the past years and represents a key component of banks' balance sheets. Between March 2009 and March 2014, the ratio of household credit to GDP increased from 13.9 per cent to 20.7 per cent. Growth in credit extended to households moderated recently, but remained robust. As at end-March 2014, credit grew by 12.9 per cent compared with 17.1 per cent a year earlier (Chart 3.13).

The momentum in housing credit continued to decline but growth was still higher than in several other sectors. As at end-March 2014, growth reached 9.1 per cent, from 17.1 per cent a year earlier. While access to housing credit eased through relatively low interest rates and competitive mortgage schemes offered by banks, appetite for housing loans may have been affected by rising construction costs and anecdotal evidence that property prices may be overvalued. The recent decline in residential building permits tends to corroborate the fall in housing credit growth, though there may a lag of some quarters between the time when permit is granted and when credit is disbursed (Chart 3.14).

Concurrently, households have showed a preference for consumption loans, which grew by 19.3 per cent as at end-March 2014 compared with growth of 17.2 per cent a year earlier. This type of credit may constitute a higher risk for banks, particularly when they are not adequately collateralised or unsecured. NPL in the *personal* sector, as an indicator of the quality of consumption loans remained high despite a drop to 9.1 per cent as at end-March 2014, from 9.8 per cent a year earlier. The growing switch from housing into consumption amid signs of lower growth of household disposable income calls for greater vigilance. The implementation of macroprudential measures since January 2014 is expected to reinforce the resilience of the banking sector to potential risks that may arise from the housing market.

Chart 3.12: Non-Performing Loans and Coverage Ratio

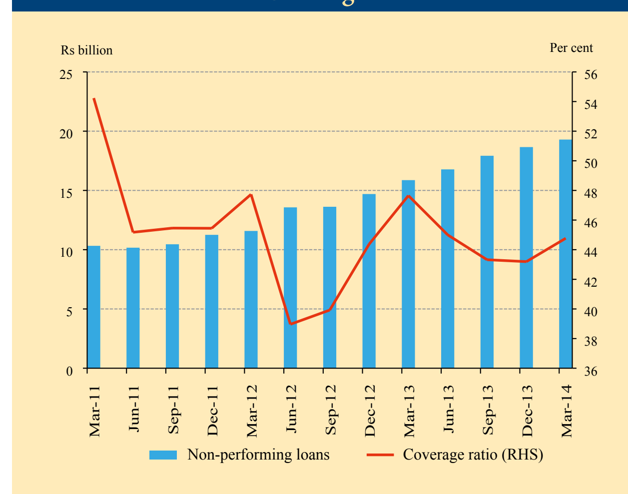
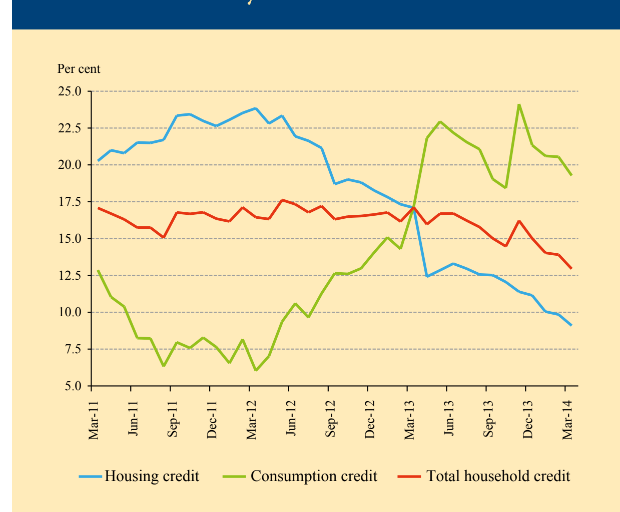


Chart 3.13: Y-o-y Growth of Household Credit



Corporate Sector Credit

Credit growth to the corporate sector was on a declining trend over the past year, falling to 3.1 per cent as at end-March 2014 (Chart 3.15). Despite this decline, the accumulation of credit over the years resulted in high outstanding credit in some sectors. A number of large corporates had recourse to the restructuring of their debt. Credit remained concentrated among a few large conglomerates. Most corporates in Mauritius borrow from banks operating in the domestic market, though some of them have issued bonds – total issuance is estimated at around Rs3.5 billion. In the current economic environment, highly leveraged corporates represent a risk to financial stability.

The slowdown in corporate credit growth mainly reflected a deceleration in the *construction (excluding housing loans)* sector. From a high of around 35 per cent recorded in the last quarter of 2012, growth in credit to *construction* fell to 7.3 per cent as at end-March 2014. Conditions remained subdued for construction, which is expected to contract for the fourth consecutive year. A few commercial property developers have encountered

Chart 3.14: Housing Credit and Residential Building Permits

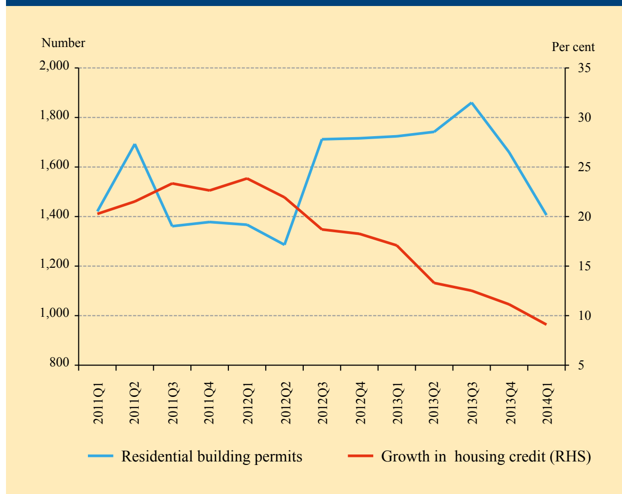
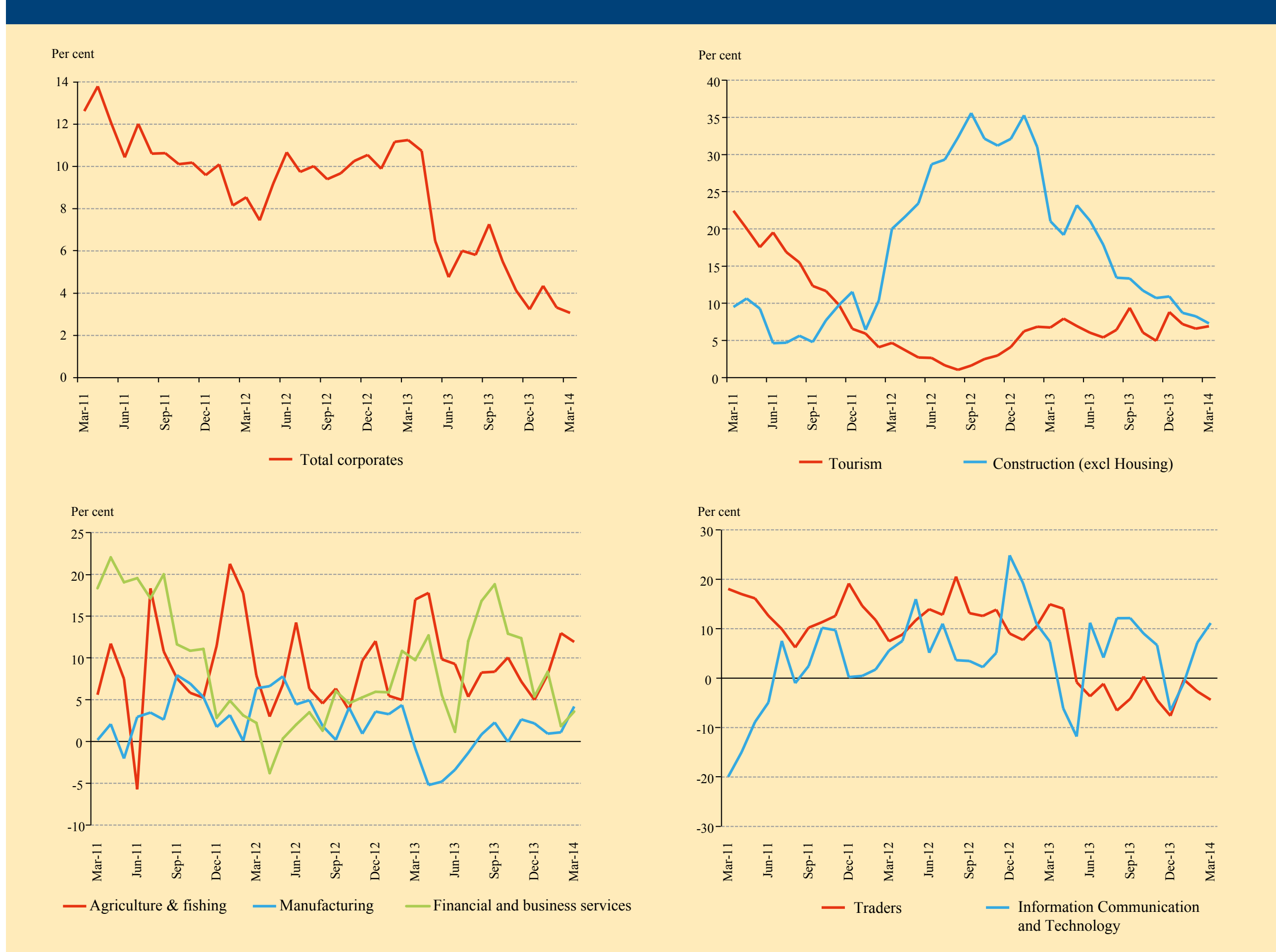


Chart 3.15: Y-o-y Growth of Credit to Corporates



financial hardships as they were unable to sell their properties. There is anecdotal evidence of excess supply in the market as demand continues to be buffeted by external headwinds. The NPL ratio for the *construction* sector increased to 8.2 per cent as at end-March 2014, from 7.9 per cent a year earlier. The implementation of macroprudential measures induced banks to adopt a more cautious approach to lending to this sector. The LTV ratio provides a buffer for banks against the risk of contraction in property prices.

Credit to the *tourism* sector grew by 6.9 per cent as at end-March 2014, from 6.7 per cent a year earlier. A large portion of outstanding corporate credit, representing about 25.5 per cent, was channelled to this sector. This was the result of substantial credit growth prior to, and in the immediate aftermath of the crisis as the hotels increased their capacity and upgraded their infrastructure. As the crisis endured, some hotels also had to restructure their debt. Overall, the sector was able to withstand the downturn but, with weak cash flows and low profitability, the ability of some hotels to service their debt has somewhat come under pressure. The NPL ratio doubled to 2.8 per cent as at end-March 2014.

Credit data on other sectors was mixed. *Manufacturing* sector credit rebounded, with growth of 4.2 per cent as at end-March 2014 as against a contraction of 0.8 per cent in the preceding year. Credit growth to the *financial and business services* sector dropped from 9.7 per cent to 3.6 per cent while credit to traders contracted by 4.4 per cent as against growth of 14.9 per cent a year earlier. These sectors represented 10.0 per cent, 14.7 per cent and 15.2 per cent of total corporate credit, respectively. *Manufacturing* and *traders* recorded the largest expansion in NPL ratios, with respective increases of 1.4 percentage points and 1.2 percentage points (Chart 3.16).

Foreign currency loans, used mainly for the import of raw materials and consumption goods, accounted for 21.7 per cent of corporate sector credit. The *tourism* sector borrowed 37.9 per cent of its credit facilities in foreign currency. Foreign currency denominated loans in the *manufacturing* , *construction* and *traders* sectors accounted for 24.1 per cent, 4.3 per cent and 9.7 per cent, respectively, of their total credit. Foreign exchange risk arising from these exposures is considered to be manageable as revenues are, in most cases, also denominated in foreign currencies.

Rising NPL pointed to deterioration in asset quality in some key sectors where banks also have relatively large credit concentration. The introduction of sectoral limits, effective July 2014, is expected to mitigate these risks gradually over time. Based on March 2014 data, it is estimated that banks have reasonable leeway to support development of these sectors (Chart 3.17).

Chart 3.16: NPL as a percentage of Sectoral Credit

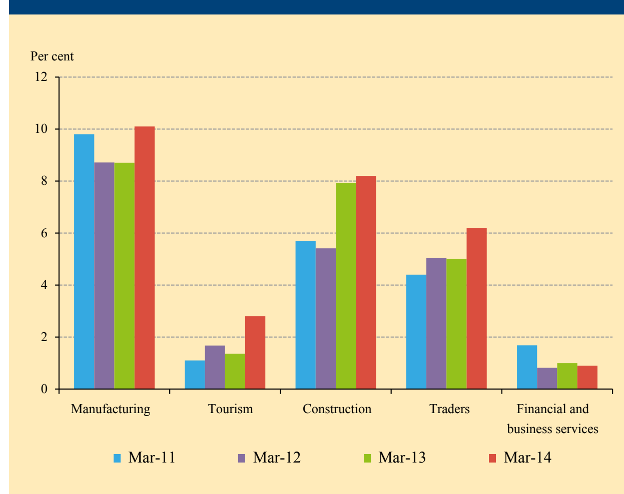
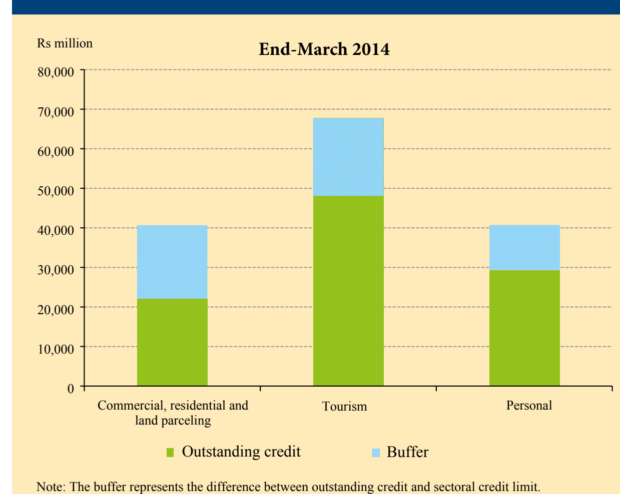


Chart 3.17: Sectoral Credit Limits and Buffer

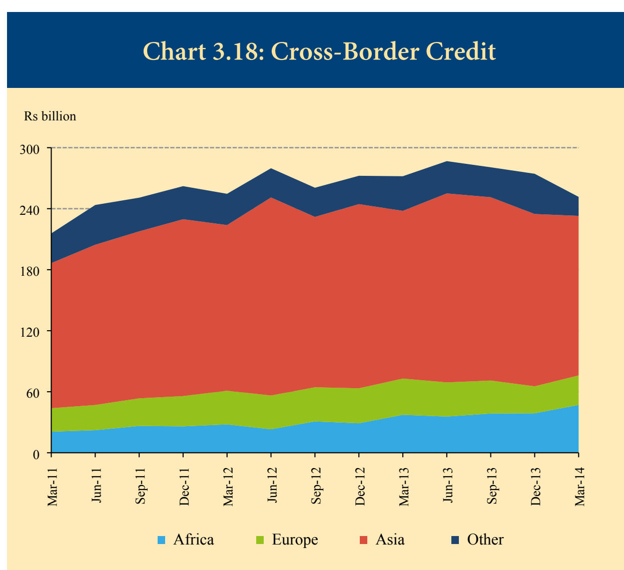


Note: The buffer represents the difference between outstanding credit and sectoral credit limit.

Cross-Border Exposures

Cross-border exposures of banks operating in Mauritius (excluding GBLH) constituted around 49.6 per cent of banking sector credit. As at end-March 2014, a significant share of cross-border credit (60.2 per cent) was channeled to Asia (Chart 3.18). Although attempts were made to diversify cross-border activities towards other jurisdictions, cross-border loans remain concentrated in India, which represented around 89.7 per cent of the total credit to Asia. Recently, concerns have been raised about credit quality in India and banks would have to exercise caution. Data from the Reserve Bank of India pointed towards declining asset quality as NPL in the Indian banking sector almost doubled and the amount of restructured loans increased significantly.

Chart 3.18: Cross-Border Credit



Credit granted to the African continent went up steadily over the past years given increasing opportunities to invest there and the conclusion of a number of double tax avoidance treaties. Cross-border credit gives rise to country and foreign exchange risks, which need to be managed carefully. Although the asset quality of banks' offshore portfolios remained sound, a mild deterioration was noted recently. NPL as a percentage of credit extended outside Mauritius increased to 2.5 per cent as at end-March 2014, from 1.9 per cent a year earlier. Excluding GBLH, the ratio of impaired loans to total cross-border loans stood at 1.0 per cent in Asia, 2.4 per cent in Europe and 1.1 per cent in Africa.

Concentration of Credit

Large credit exposures refer to total exposures to a customer or a group of closely-related customers that are above 15 per cent of the capital base of a bank. As a percentage of total banking sector credit, large exposures increased to 31.7 per cent as at end-March 2014 compared with 25.0 per cent in the preceding year. Correspondingly, the overall credit concentration - computed as the ratio of aggregate large exposures to the capital base of all banks - increased from 182.4 per cent to 207.4 per cent (Table 3.1). As at end March 2014, credit extended to the ten largest borrowers accounted for 33.9 per cent of total large credit exposures, down from 40.0 per cent a year earlier. This credit represented 70.3 per cent of banks' total capital base (Table 3.2).

Table 3.1: Concentration Risk

	Percentage of aggregate large exposures to capital base	Percentage of aggregate large exposures to total credit facilities
Mar-13	182.4	25.0
Sep-13	200.3	28.3
Dec-13	209.9	30.5
Mar-14	207.4	31.7

Although credit concentration indicators remained below prudential limits, the upward trend in the volume of large credit exposures in the banking sector suggests a potential source of risk. The Bank remains vigilant to credit concentration risk, the more so as the balance sheets of some large entities operating in the domestic sector have shown signs of vulnerabilities.

3.3 Banking Sector

3.3.1 Balance Sheet Structure

The domestic banking sector is large in relation to the size of the economy. The rise in banks' total assets as a percentage of GDP from 272.1 per cent to 279.7 per cent over the past five years provides an indication of the systemic importance of that sector. Assets held by domestic-owned banks represented 41.9 per cent of total banking sector assets while subsidiaries and branches of foreign-owned banks held 51.4 per cent and 6.6 per cent of total assets, respectively. (Chart 3.19). The two largest domestic-owned banking groups hold a major share of banking sector assets. To reduce their complexity and provide a mechanism to

Chart 3.19: Banking Sector Assets

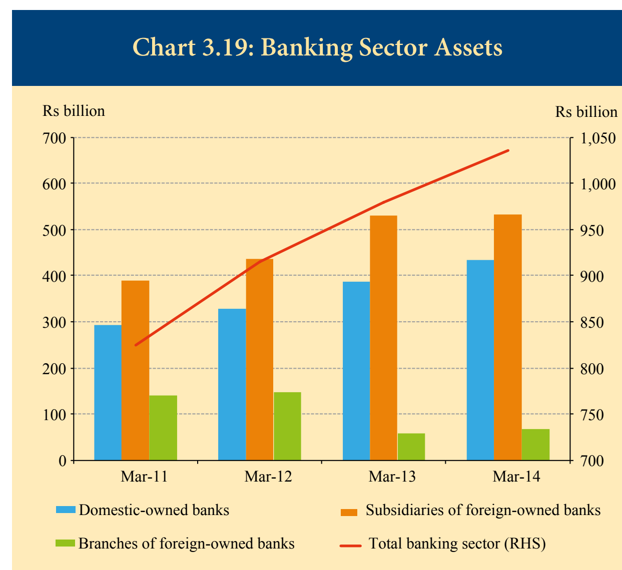


Chart 3.20: Components of Banks' Assets and Liabilities - March 2014

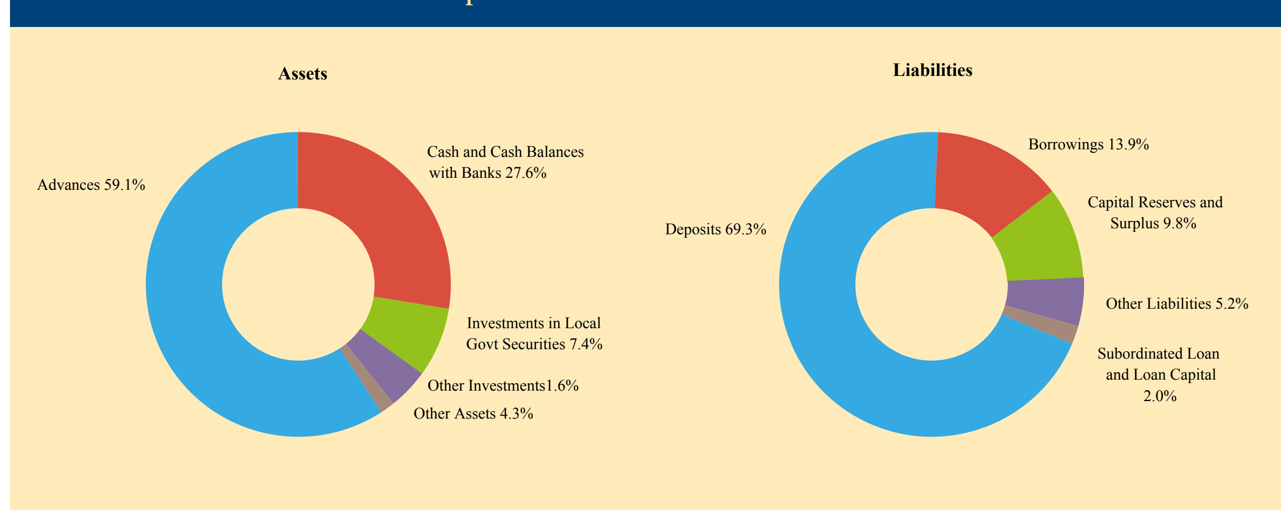


Table 3.2: Exposure of Banks to Ten Largest Borrowers

	Ten largest borrowers (Rs million)	Ten largest borrowers to total large exposures (Per cent)	Ten largest borrowers to total capital base (Per cent)
Mar-13	69,315	39.8	73.0
Sep-13	71,271	35.5	71.0
Dec-13	72,434	33.5	70.7
Mar-14	74,833	33.9	70.3

facilitate their orderly resolution, an amendment was brought to the Banking Act 2004 in April 2013 (Box IV).

Total assets of banks increased by 5.8 per cent as at end-March 2014, from 7.1 per cent a year a year ago. Segment A and Segment B assets, which represented 41.4 per cent and 58.6 per cent of total assets, grew by 9.7 per cent and 3.1 per cent, respectively. Over the year to end-March 2014, banks shifted slightly out of advances into cash and cash balances. The share of advances to total assets declined to 59.1 per cent while the proportion of cash and cash balances with banks increased to 27.6 per cent (Chart 3.20). These changes in balance sheet structure reflect the declining trend in credit as well as the significant amount of excess liquidity in the banking system.

Box IV - Factors Motivating the Restructuring of Banks

As part of reform initiatives taken to strengthen the domestic banking sector, the Bank examined the corporate form adopted by banking groups in Mauritius. Some banks were organised under the Bank-Subsidiary model whereby the bank was the parent of all subsidiaries of the group. It was observed that a potential vulnerability under such a corporate form arose as a result of the commingling of financial and non-financial activities within the group. These banks were therefore called upon to undertake a restructuring of their operations with a view to segregating these two types of activities.

Banks with significant interests in non-banking activities are exposed mainly to the primary risks of their business namely credit and market risks. However, these banks also assume the business risks of their non-financial activities. In the case where the non-financial activities face financial strain, these banks might be compelled to support them beyond normal commercial considerations to safeguard their own reputation. In so doing, the banks may undermine their own financial soundness.

Additionally, problems faced by the affiliates may trigger a loss of confidence in the bank itself because of the close association. The Bank-Subsidiary model has an implicit safety net which is extended to the non-bank operations of the group. If failure of an associate non-bank threatens the financial soundness of bank, the regulator may be forced to rescue both the bank and its associate.

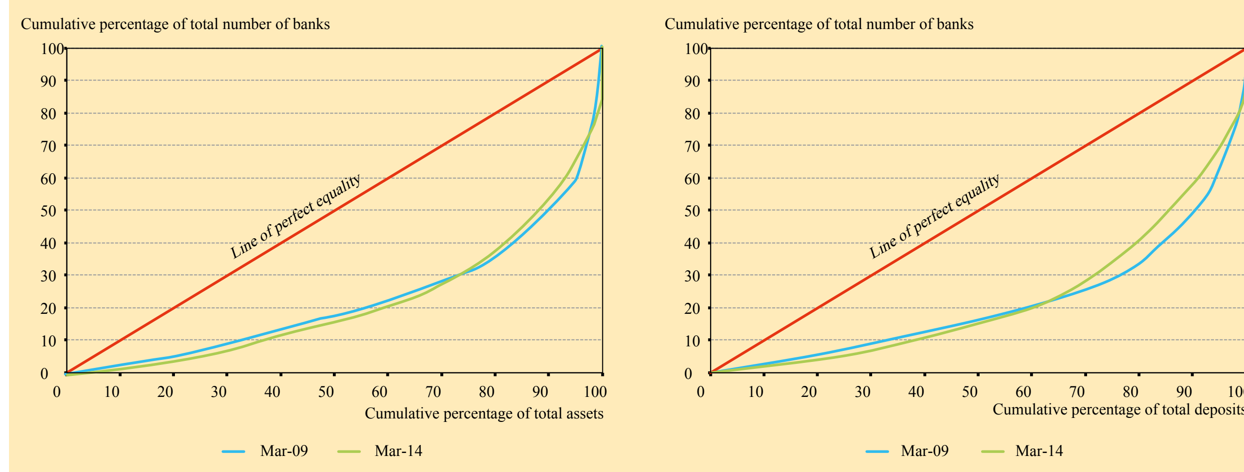
The separation of banking activities from non-banking activities will limit the risk of contagion from non-banking business to the bank, and will allow management to focus on their core business of banking. Above all, this measure is expected to enable efficient resolution of financial institutions by reducing the complexity of structures.

3.3.2 Market Concentration

The banking sector in Mauritius displays a relatively high degree of concentration despite an increasing number of banks in operation. Market concentration, as measured by the HHI Index for total assets, remained high at 1,083 as at end-March 2014. The four largest banks in Mauritius hold more than 50 per cent of total assets, reflecting an oligopolistic structure. As depicted in the Lorenz curve, this is again found in the distribution of deposits mobilised by banks (Chart 3.21).

Banks can have a systemic impact on financial stability and the real economy because of their size, interconnectedness, and complexity. In this perspective, the Bank issued a guideline for dealing with domestic-systemically important banks (Box V).

Chart 3.21: Distribution of Banks' Total Assets and Deposits



Box V: Domestic-Systemically Important Banks

The failure of a large bank, with a high degree of interconnectedness, can have substantial adverse impact on the stability of the domestic financial system. In this context, the Basel Committee on Banking Supervision (BCBS) recommended that all national authorities should undertake an assessment of the systemic importance of banks operating in their jurisdiction.

In recognition that some large banks in Mauritius are 'too-big-to-fail', the Bank has, effective 30 June 2014, issued a *Guideline for dealing with Domestic-Systemically Important Banks* (D-SIBs). The guideline sets out the assessment methodology used by the Bank for classifying an institution as being systemically important. Institutions identified as D-SIBs would be required to hold an additional capital surcharge depending on the degree of systemic importance. Only banks with total Segment A assets representing at least 3.5 per cent of GDP would be considered for assessment.

The Bank will use an indicator-based measurement approach to identify D-SIBs and determine the applicable capital surcharge. This approach is calibrated on the methodology developed by the BCBS to evaluate the capital surcharge for Global-Systemically Important Banks (G-SIBs) as well as work

undertaken by the Financial Stability Board. It also takes into account the specificities of the local jurisdiction. Five equally-weighted parameters have been chosen to identify D-SIBs and determine the magnitude of the capital surcharge:

1. **Size**: to measure the market share of a bank relative to the sector.
2. **Interconnectedness**: to evaluate the connection between a bank and other financial institutions.
3. **Substitutability/financial institution infrastructure**: to determine the degree to which the services provided by a single bank can be substituted by another bank.
4. **Structure and complexity**: to assess the costs and time needed to resolve a complex bank in case of failure.
5. **Large exposures**: to appraise the extent to which a bank has significant exposure to large groups.

The fifth parameter 'Large exposures' replaced the parameter 'Cross-jurisdictional activity' that forms an integral part of the determination of the capital surcharge for G-SIBs as the Bank sought to focus on the domestic market. This parameter would supplement existing regulatory measures on credit concentration used to mitigate the risk to financial stability posed by the level of exposures to large groups.

Banks which are assessed as D-SIBs would be required to hold a loss absorbency capital surcharge ranging from 1.0 to 2.5 per cent of risk-weighted assets, depending on the bucket where the sum of the weighted scores of the five parameters would be situated. The capital surcharge would be implemented in a phased manner starting January 2016 and would consist entirely of Common Equity Tier 1 capital (Table I).

Table I: Loss Absorbency Capital Surcharge for D-SIBs

Bucket	1 January 2016	1 January 2017	1 January 2018	1 January 2019
5				3.5%
4	0.625%	1.25%	1.875%	2.5%
3	0.5%	1.0%	1.5%	2.0%
2	0.375%	0.75%	1.125%	1.5%
1	0.25%	0.5%	0.75%	1.0%

3.3.3 CAMEL Rating

The latest published CAMEL ratings showed that the performance of individual banks operating in Mauritius remained stable and sound. As at end-December 2013, a majority of banks maintained their ratings. Two banks were upgraded compared to their end-June 2013 position whilst three banks were downgraded (Chart 3.22). Overall, fourteen banks were classified in the 'satisfactory' category and six banks were assigned a 'fair' rating, while one bank remained in the 'marginal' category.

3.3.4 Regulatory Capital

The banking system was considered resilient and well capitalised. Banks strengthened their capital positions, with total regulatory capital rising by 10.2 per cent during the year to end-March 2014. Tier 2 capital accounted for most of the rise in regulatory capital, as some banks issued new subordinated debt to finance their expansion. Tier 1 capital, the main component of banks' capital base and composed mainly of common equity, increased by 4.2 per cent due to accumulation of retained earnings. As a proportion of risk-weighted assets, Tier 1 capital, dropped from 15.5 per cent to 14.9 per cent. Branches of foreign-owned banks maintained the highest regulatory Tier 1 capital, followed by subsidiaries of foreign-owned banks and domestic-owned banks (Chart 3.23).

The aggregate capital adequacy ratio (CAR) stood comfortably above the minimum statutory requirement of 10 per cent. As measured under Basel II, CAR rose by 200 basis points to 17.2 per cent as at end-March 2014. At this level, it is estimated that a majority of banks hold reasonable capital buffer to withstand adverse conditions. The Bank started the shift to the Basel III framework after extensive consultation with the banking sector. As a first step, capital standards were reviewed for implementation in a phased manner effective July 2014 (Box VI).

Chart 3.22: CAMEL Rating of Banks

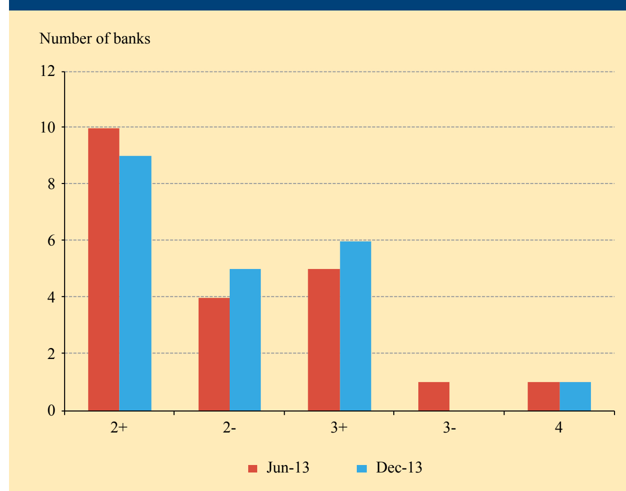
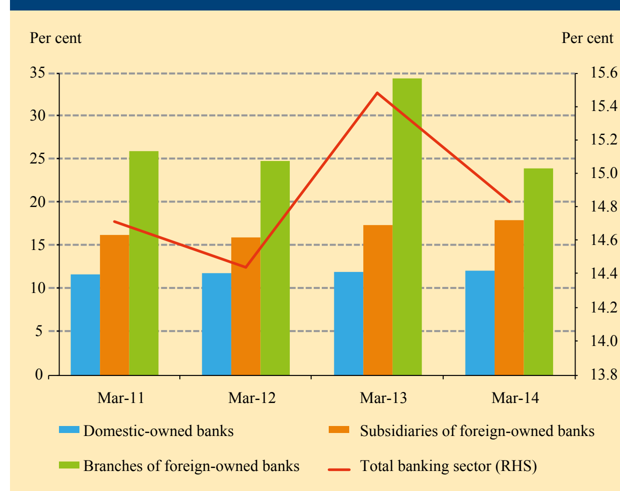


Chart 3.23: Tier 1 Capital Ratio



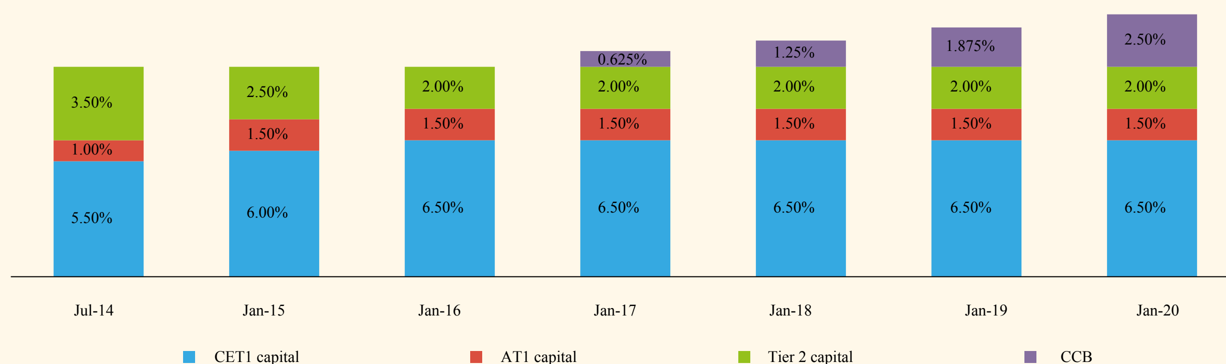
Box VI: Implementation of Basel III in Mauritius

In the context of the implementation of the Basel III framework, banks in Mauritius are required to maintain higher capital standards effective 1 July 2014. The new framework is aimed at making banks sounder and strengthening financial stability. It targets individual banks from a microprudential perspective and, at the macroprudential level, it addresses system-wide risks that can build up across the banking sector, as well as the procyclical amplification of these risks over time.

Basel III would bring significant changes to the amount and quality of capital that banks hold. Under its new definition, Tier 1 capital would be composed predominantly of Common Equity Tier 1 (CET1) capital and a thin portion of Additional Tier 1 (AT1) capital. In general, Tier 1 capital would allow an institution to continue its activities and help prevent insolvency. Components of Tier 2 capital are being simplified and reduced to ensure that senior creditors would have priority on their claims if a bank fails.

The capital standards of Basel III would be implemented in a phased manner (Chart I). The following objectives are set for 1 January 2020: capital adequacy ratio would remain at 10 per cent of Risk-Weighted Assets (RWA); CET1 capital adequacy ratio would be set at 6.5 per cent; AT1 capital adequacy ratio would be set at 1.5 per cent. The combined CET1 and AT1 capital adequacy ratios would bring the Tier 1 capital adequacy ratio to 8.0 per cent. Tier 2 capital would be reduced to 2 per cent of RWA. Capital instruments that no longer qualify as AT1 capital or Tier 2 capital would be phased out over a ten-year horizon beginning 1 July 2014.

Chart I: Phase-in Arrangement for the Implementation of Basel III in Mauritius



Banks would also be required to build up a capital conservation buffer (CCB) during normal times, to be used during periods of stress when banks could incur losses. The CCB would be composed solely of CET1. Any drawdown from the CCB would have to be replenished by reducing discretionary distributions of earnings, which include retaining dividend payments, share buybacks, and eliminating discretionary bonus payments to staff. Banks may choose to raise new capital from the market as an alternative to conserving internally-generated capital.

The CCB would be phased in gradually beginning 1 January 2017 at 0.625 per cent of RWA and would be increased by an additional 0.625 percentage points each year to reach its final level of 2.5 per cent of RWA on 1 January 2020. The minimum capital adequacy ratio, inclusive of CCB, would be brought to 12.5 per cent by 1 January 2020.

As a primary exercise, the *Guideline on the Scope of Application of Basel III and Eligible Capital* sets out transitional arrangements for implementing those elements of the Basel III capital framework, as well as the limits and minima of the different components of capital. The focus of the guideline has been to raise the quality, consistency and transparency of the capital base. Guidelines on other components of Basel III would be rolled out at a later stage.

The leverage ratio of the banking sector increased to 7.4 per cent compared with 5.8 per cent a year ago, indicating that banks kept a reasonable balance between the size of their balance sheets and equivalent risk-weighted assets. Branches of foreign-owned banks maintained the highest leverage ratio in terms of Segment A assets, followed by domestic-owned banks and subsidiaries of foreign-owned banks.

3.3.5 Financial Performance

Despite a challenging operating environment, the banking sector remained broadly profitable, with pre-tax profit - measured as the sum of pre-tax profit of the preceding four quarters - rising by 14.4 per cent to Rs16,342 million as at end-March 2014 (Chart 3.25). A few banks that had previously reported losses returned to profitability. Overall, the improvement in banks' profitability was supported by increases in revenue from both segment A and B activities.

Banks conducting mainly Segment A activities have generally earned high and stable profits for the past years. High profits have provided shareholders with a satisfactory return on their investment and have enabled banks to build up more equity capital through retaining earnings. During the year to end-March 2014, the level of pre-tax profits generated from Segment A activities rose by 10.4 per cent to Rs6,835 million (Chart 3.26). Several factors contributed to this improvement. On the revenue side, the increase in profit in segment A was largely supported by robust growth in net fees and commission income (5.6 per cent), followed by increases in net interest income (3.7 per cent). On the expenses side, a significant decline of 54.1 per cent in impairment charges was partly offset by higher staff costs. Reflecting the oligopolistic market structure, the two largest domestic banking groups recorded more than 80 per cent of total Segment A profits (Chart 3.27).

Chart 3.24: Leverage Ratio

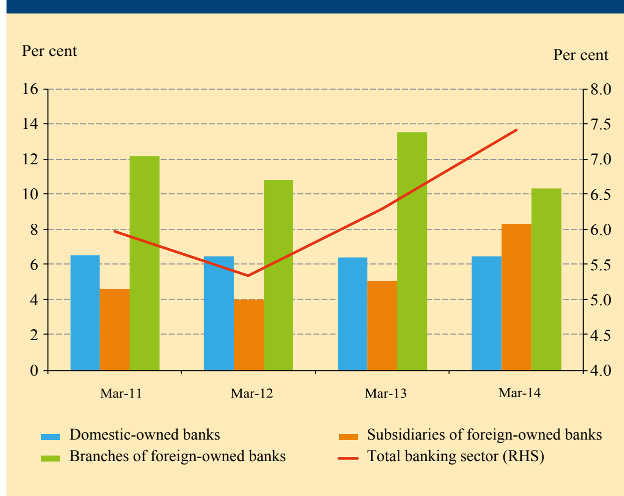
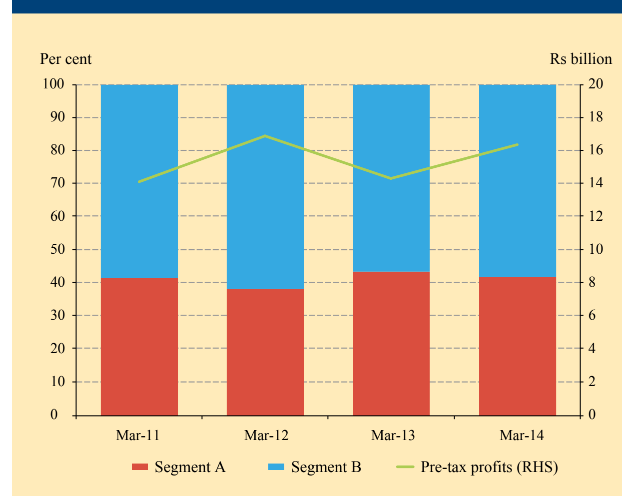


Chart 3.25: Pre-Tax Profits



The level of pre-tax profits generated from segment B activities rose by 17.4 per cent to Rs9,507 million over the year to end-March 2014, after a contraction of 22.8 per cent in the preceding year (Chart 3.28). The improvement in Segment B profits resulted mainly from a reduction of 50.5 per cent in credit impairment charges. Net interest income and non-interest income rose by 1.2 per cent and 16.6 per cent, respectively, whereas on the expenses side, non-interest expenses rose by 13.1 per cent. The growth in Segment B profits was uneven across banks. Some foreign-owned banks operating mainly in the global business sector recorded a strong rise in profitability while others saw their profits being pulled down by the low level of interest rates prevailing internationally and the contraction in their cross-border activities.

Return on Assets

The annualised pre-tax Return on Assets (ROA) for the banking sector, as measured by the ratio of pre-tax profit to average assets, improved marginally to 1.3 per cent as at end-March 2014, from 1.2 per cent as at end-March 2013 (Chart 3.29). A number of subsidiaries of foreign-owned banks primarily involved in cross-border activities posted higher ROA. Despite a decline in the ROA of domestic-owned banks, the additional revenue generated through net interest income and fees and commission income continued to bolster their earnings. Branches of foreign banks recorded a decline in their ROA.

Chart 3.27: Cumulative Distribution of Segment A Profits

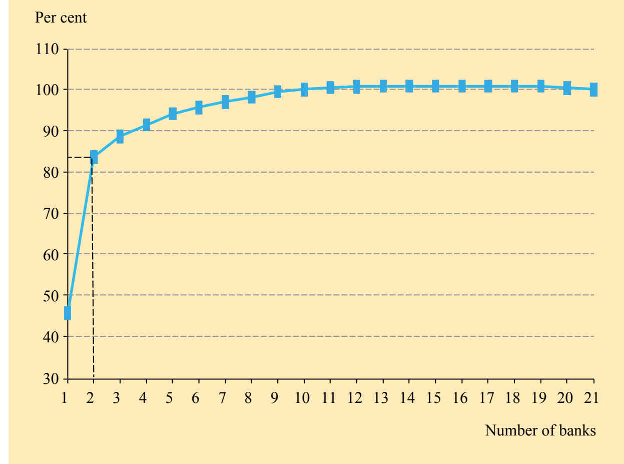


Chart 3.28: Components of Segment B Profits

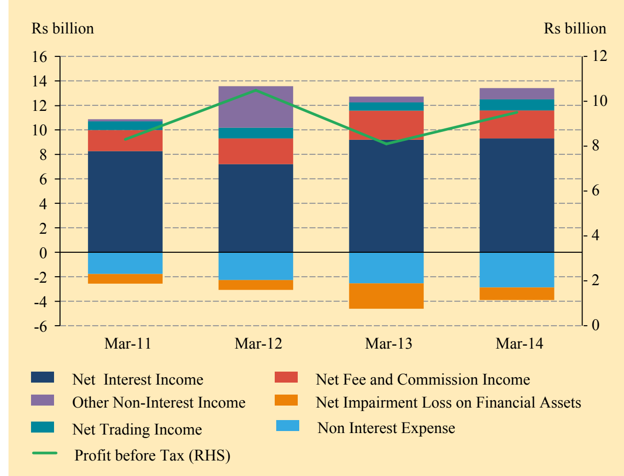


Chart 3.26: Components of Segment A Profits

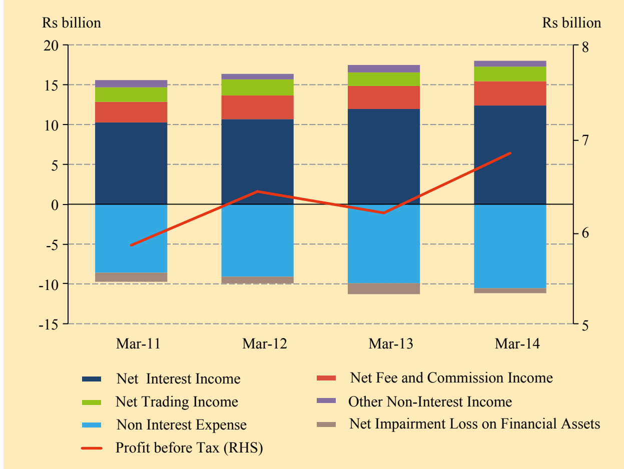
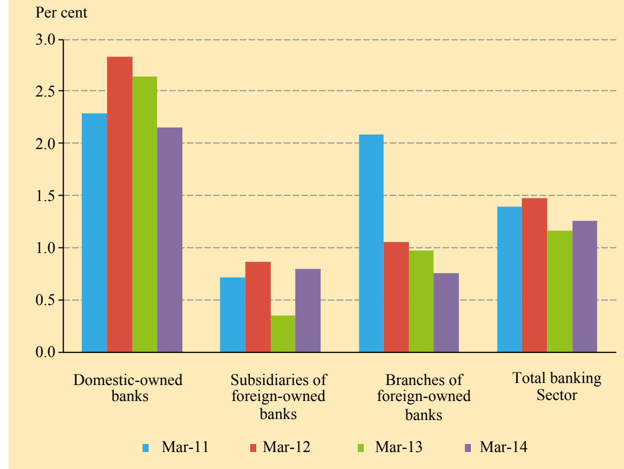


Chart 3.29: Return on Assets



Return on Equity

Banks' Return on Equity (ROE), as measured by the ratio of pre-tax profit to average equity, declined marginally from 15.4 per cent as at end-March 2013 to 15.2 per cent as at end-March 2014 as the increase in shareholders' funds was relatively higher than the rise in profitability. Domestic-owned banks generally continued to post higher ROE than their foreign-owned counterparts (Chart 3.30).

As at end-March 2014, 41.1 per cent of banks' total assets (excluding branches of foreign owned banks) contributed to generate an ROE of more than 20 per cent compared with 44.5 per cent a year earlier (Chart 3.31).

3.3.6 Funding and Liquidity

Funding and liquidity risks were considered low as banks operated with ample funding from domestic and international sources during 2014H1. In the domestic market, excess liquidity rose substantially to Rs10.2 billion compared with Rs4.9 billion, on average, during 2013H2 (Chart 3.32). Several factors contributed to this build-up, notably the decision to accumulate foreign exchange reserves through the ORR programme; Government's recourse to external financing; and Government deposits with banks. The slowdown in credit growth also contributed to the rise in excess reserves.

Excess liquidity exerted downward pressure on banks' cost of funding. In the interbank money market, the weighted average overnight rate dropped to 1.27 per cent as at end-June 2014, from 3.0 per cent as at end-December 2013. Weighted yields at primary auctions of Government securities also trended downwards. The overall weighted yield on Treasury Bills fell by 116 basis points to 2.48 per cent, while the weighted yield on 3-Year Treasury Notes decreased by 90 basis points to 4.06 per cent.

From a financial stability perspective, the increase in excess liquidity might not represent a positive development since it distorted the monetary transmission mechanism and created other sources of vulnerability in the financial system.

Chart 3.31: Dispersion of Total Assets of Banking Sector by ROE

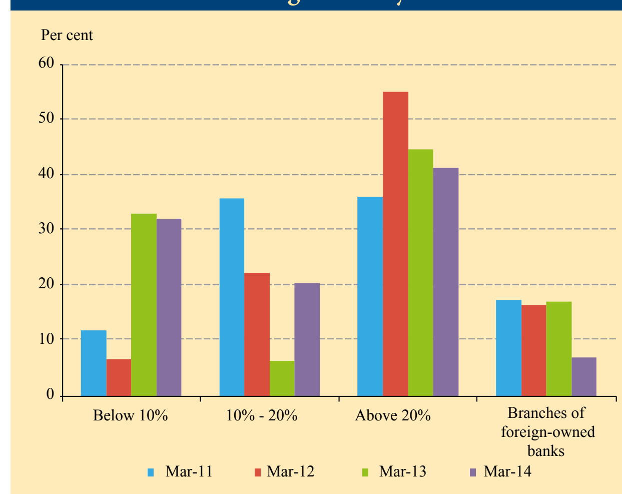


Chart 3.30: Return on Equity

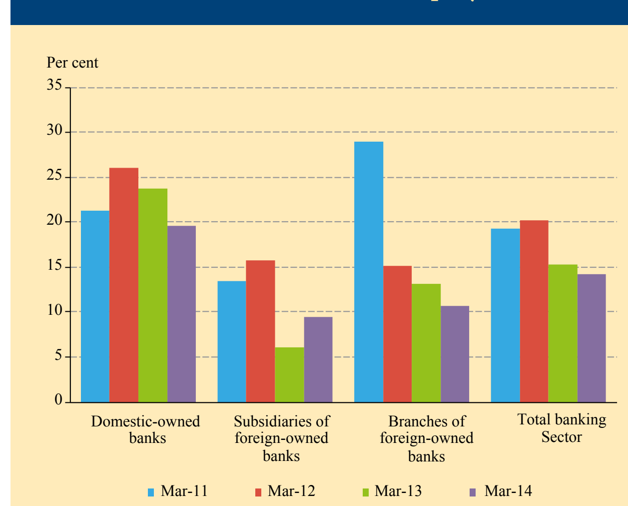
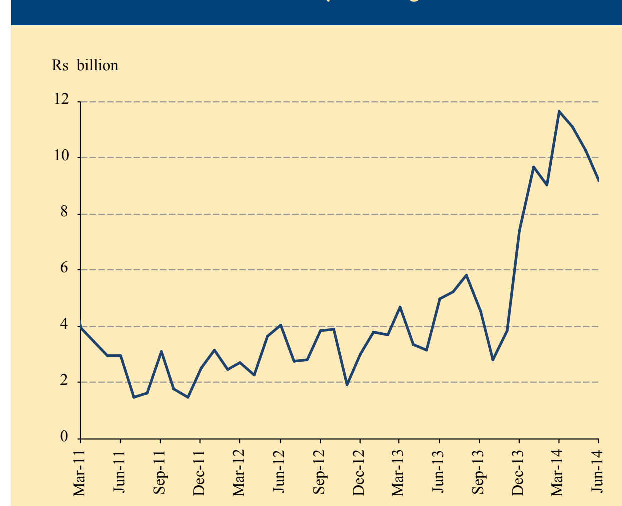


Chart 3.32: Banks' Monthly Average Excess Reserves



In response to the risks associated with persistently high excess liquidity, the Bank took corrective actions by lifting the cash reserve ratio requirement on rupee deposits from 8.0 per cent to 9.0 per cent; it issued Bank of Mauritius securities for a total of 17.3 billion, it conducted a reverse repurchase transaction with banks for Rs1.0 billion; coordinated actions with the Ministry of Finance and Economic Development resulted in an amount of Rs4.0 billion of government securities being front-loaded in 2014H1; while and savings and inflation-linked savings bonds were introduced to encourage national savings.

Banks' balance sheets showed that they relied mainly on deposits from customers rather than short-term wholesale funding to finance their core lending business. Deposits mobilised from customers rose by 3.5 per cent over the year to end-March 2014. They represented 65.6 per cent of total liabilities in the banking sector (Chart 3.33). Wholesale funding, notably deposits and borrowings from banks which rose by 18.7 per cent and 36.2 per cent, respectively, together represented 17.2 per cent of banks' total liabilities. Recently, the two largest domestic banks had recourse to the issuance of subordinated instruments to fund some of their cross-border activities. As at end-March 2014, subordinated debt accounted for 2.0 per cent of banks' funding.

Cross-Border Funding

Funding conditions in overseas financial markets remained stable and liquid as banks were able to source sufficient funding in foreign currency from abroad to finance their international business. Excluding deposits mobilised from GBLH, banks' cross-border deposits as a percentage of total liabilities rose from 7.0 per cent as at end-March 2013 to 12.2 per cent as at end-March 2014 (Chart 3.34). Most of the cross-border deposits originated from Europe although the shares of cross-border deposits from Africa and America are rising. To mitigate foreign exchange risk, cross-border deposits are mainly invested in assets denominated in the same currency.

Cross-border borrowings represented 12.9 per cent of banks' total liabilities as at end-March 2014 compared with 13.3 per cent a year earlier. Most of these borrowings were sourced from parent banks and related entities of foreign-owned banks as part of their treasury operations. Domestic-owned banks also borrowed from their correspondent counterparts to take advantage of low interest rates prevailing in major international markets. As a percentage of total liabilities, borrowings from banks in Europe dropped to 6.8 per cent, from 7.6 per cent a year ago, while borrowings from Asia increased from 3.2 per cent to 3.6 per cent (Chart 3.35).

Chart 3.33: Changes in Banking Sector Liabilities

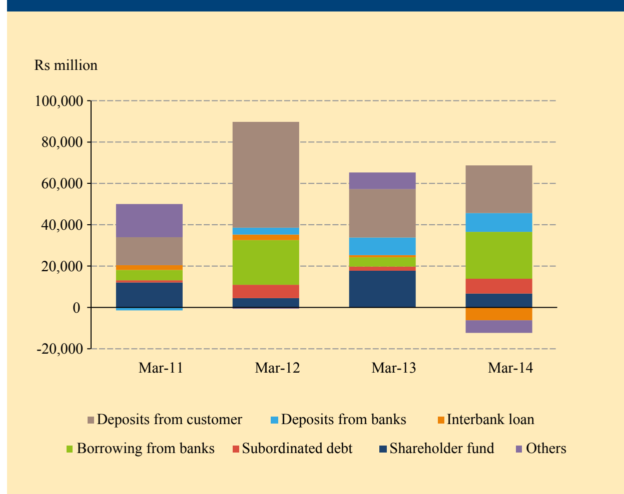
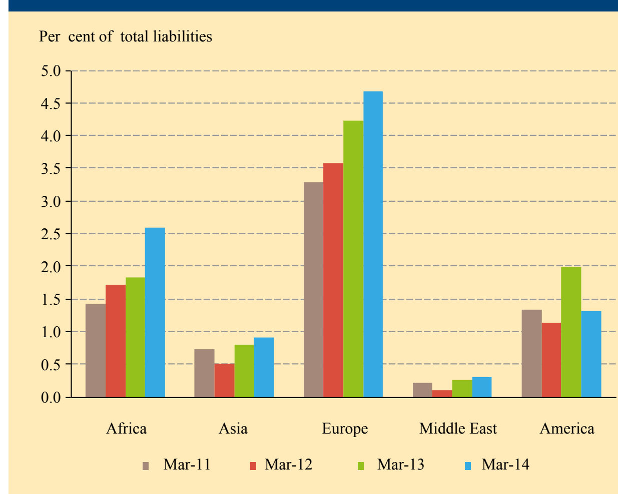


Chart 3.34: Cross-Border Deposits



Stress Testing

As at end-March 2014, the distribution of credit exposures in key sectors of the economy was generally concentrated among banks with CAR of above 12 per cent (Chart 3.36). A stress test was conducted to assess the ability of banks (excluding branches of foreign-owned banks) to absorb potential shocks on their credit portfolio in the event of a general economic downturn under a baseline and an adverse scenario. The impact of the stress test varied among banks, depending on the composition and quality of their credit portfolios as well as the amount of capital they hold.

The baseline scenario assumed a mild deterioration in economic environment and financial conditions of banks whereby banks would incur loan losses on their credit portfolios ranging between 2 per cent and 5 per cent, depending on assessment of vulnerability in specific sectors. Under this scenario, banks' CAR is estimated to fall from 17.2 per cent to 16.3 per cent.

The adverse scenario simulates the impact on capital adequacy of a sharp deterioration in economic environment and a significant increase in NPL, ranging between 10 per cent and 15 per cent in key sectors of the economy. Under this scenario, banks' large losses resulted in a drop in their CAR to 11.2 per cent.

Given that domestic-owned banks as well as subsidiaries and branches of foreign-owned banks operate above the minimum capital requirement, it would appear that a majority of banks might not require additional capital injection under the baseline and adverse scenarios (Chart 3.37).

As at end-March 2014, the ratio of liquid assets to deposits rose to 50.1 per cent, from 40.5 per cent a year earlier. A liquidity stress test indicated that most banks would, on average, sustain a drawdown of more than 15 per cent from their deposit base. Therefore, in the short- to medium-term, the risk that banks would run short of liquidity is assessed as low. Moreover, system-

Chart 3.36: Sectorwise Distribution of Credit by CAR

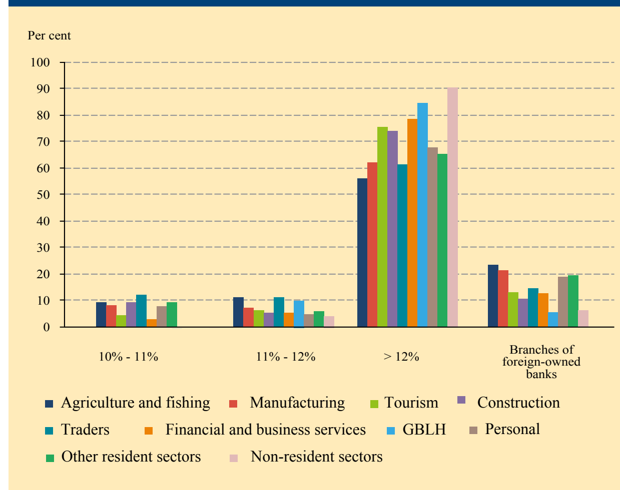


Chart 3.35: Cross-Border Borrowings

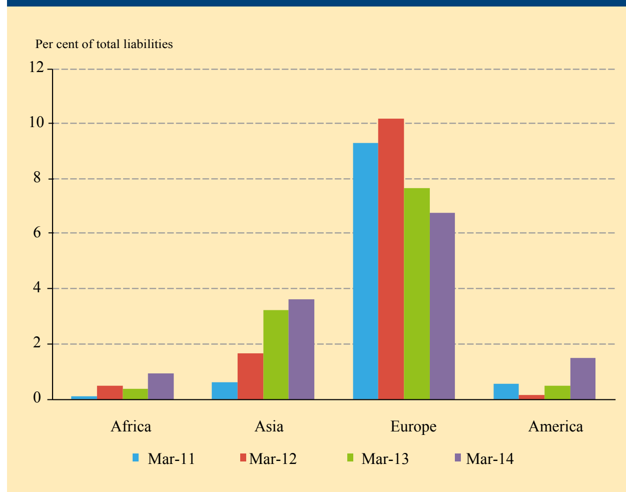
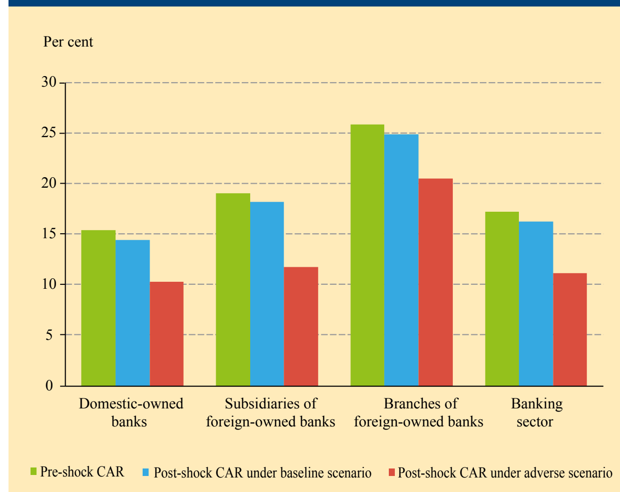


Chart 3.37: Pre and Post-shock CAR



wide risk arising from interbank contagion would be limited given the low volume of transactions conducted in the interbank money market.

3.4 Non-Bank Deposit-Taking Sector

As at end-March 2014, there were eight NBDTIs mainly engaged in mobilisation of deposits and granting of leasing and loan facilities to individuals and corporates. Since the February 2014 FSR, the overall performance of NBDTIs has remained sound and stable. Activities grew steadily and, as at end-March 2014, their total assets were equivalent to 5.7 per cent of total banking sector assets and represented 15 per cent of GDP.

Balance Sheet Structure

As at end-March 2014, total assets of NBDTIs grew by 10.0 per cent compared with 5.4 per cent a year earlier, led by increases of 15.7 per cent and 13.4 per cent in loans and leasing facilities, respectively. These two components made up 74.7 per cent of total assets. Deposits, which accounted for 61.3 per cent of total liabilities, recorded a lower growth of 5.1 per cent compared with 6.3 per cent a year earlier (Chart 3.38).

Liquidity

Over the year to end-March 2014, NBDTIs maintained liquidity ratios above the statutory minimum of 10 per cent. The overall ratio of liquid assets to total assets dropped from 14.2 per cent to 11.9 per cent and the ratio of liquid assets to total deposits fell to 19.3 per cent, from 22.1 per cent a year ago (Chart 3.39). The decline in the liquidity ratios primarily reflected faster growth in total assets, led by growth in credit extended to *personal*, *tourism* and *traders* sectors, relative to liquid assets.

Chart 3.38: Y-o-y Growth of Total Assets and Deposits

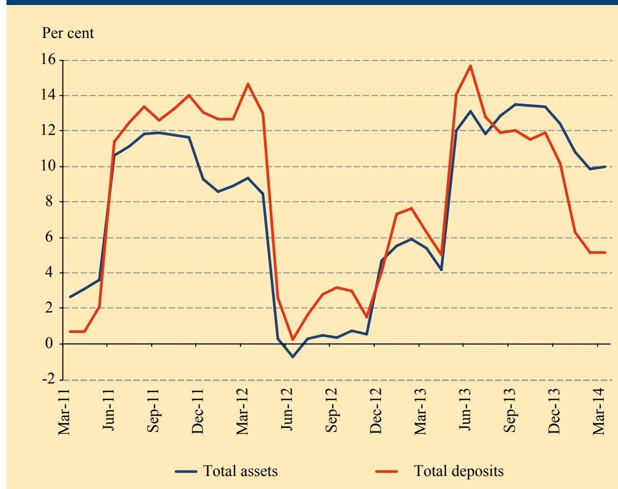


Chart 3.39: Liquidity Indicators of NBDTIs

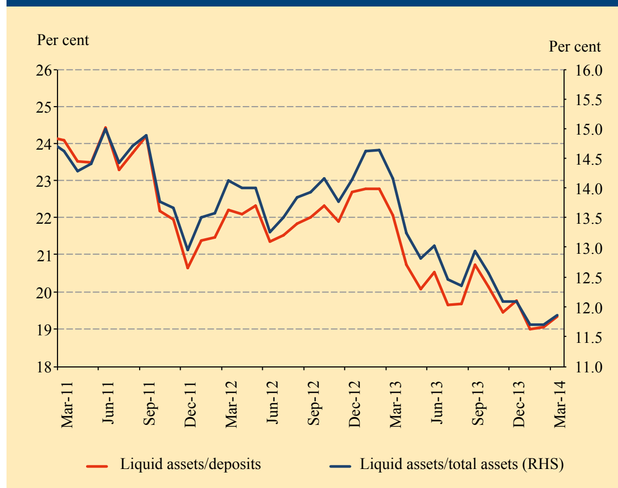
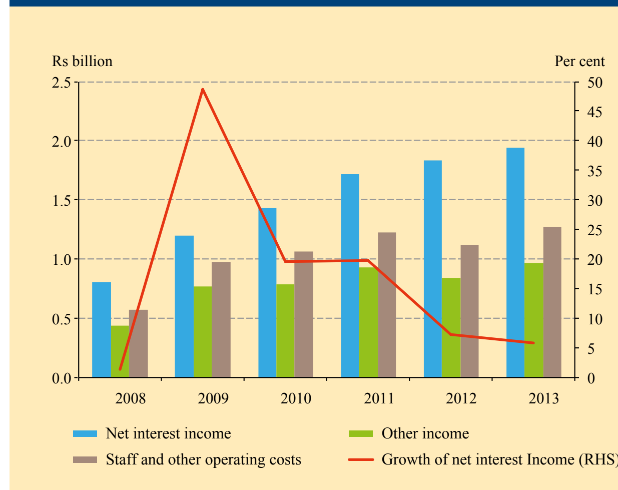


Chart 3.40: Revenue and Expense of NBDTIs



Profitability

Net profit of NBDTIs increased by 7.7 per cent in 2013 compared with 18.4 per cent in 2012. Interest income, derived mainly from loans and leases, increased by 4.8 per cent in 2013 as against a contraction of 0.3 per cent in 2012. Interest expense, incurred mostly on deposits and borrowings from banks and financial institutions, rose by 4.0 per cent compared with 5.2 per cent. As a result, growth of net interest income fell from 7.1 per cent to 5.7 per cent (Chart 3.40).

The ROA of NBDTIs fell marginally by 0.1 percentage point to 3.1 per cent, while their ROE increased by 1.2 percentage points to 19.1 per cent (Chart 3.41).

Capital Adequacy

NBDTIs are well-capitalised, with a CAR of 25.2 per cent as at end-March 2014 compared with 24.3 per cent a year earlier. At the current level of capitalisation, it is considered that NBDTIs will be able to withstand moderate shocks to their balance sheets and absorb losses that may arise from NPL. Assets of NBDTIs remained concentrated in the 50 per cent and 100 per cent risk-weight buckets, which accounted for 46.9 per cent and 22.6 per cent of total assets, respectively

Sectoral Credit and NPL

Credit extended by NBDTIs, which accounted for 7.6 per cent of total credit extended in Mauritius, grew by 12.9 per cent as at end-March 2014, from 7.3 per cent a year earlier. Credit was channelled mainly to the *personal* and *construction* sectors, which represented 66.3 per cent and 17.1 per cent, respectively, of total NBDTIs' credit. *Traders*, *manufacturing*, *tourism* and *financial and business services* sectors were collectively allocated 9.2 per cent of total NBDTIs' credit.

Asset quality improved, with the overall ratio of NPL to total credit falling by 0.4 percentage point to 5.1 per cent as at end-March 2014. The NPL ratio in the *construction* sector dropped compared to a year ago, but remained the highest among all sectors, at 21.4 per cent. The *personal* sector recorded an NPL ratio of 0.6 per cent (Chart 3.42). Loan loss provisioning went down over the year, leading to a lower coverage ratio of 40.5 per cent, from 45.7 per cent as at end-March 2013.

3.5 Insurance Sector

The insurance sector is an important component of the domestic financial system. It recorded sound performance in 2013 and accounted for 32.8 per cent of GDP. Total assets in the insurance sector grew significantly by 14.5 per cent to Rs120.3 billion in 2013. This represented a penetration rate of around 5.8 per cent. Gross premium grew by 9.8 per cent to Rs22.1 billion.

Chart 3.41: ROA and ROE of NBDTIs

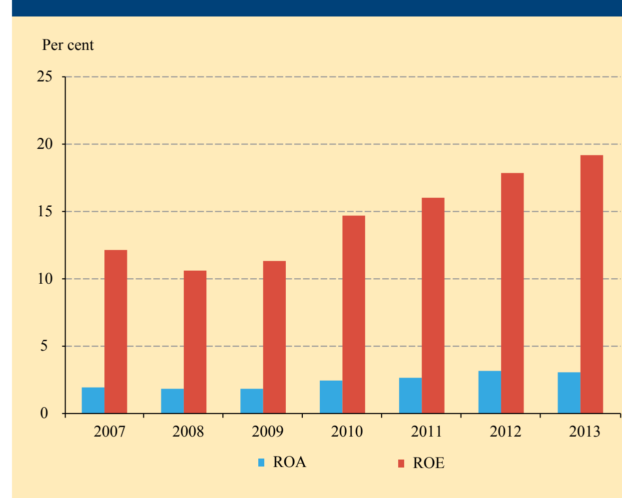
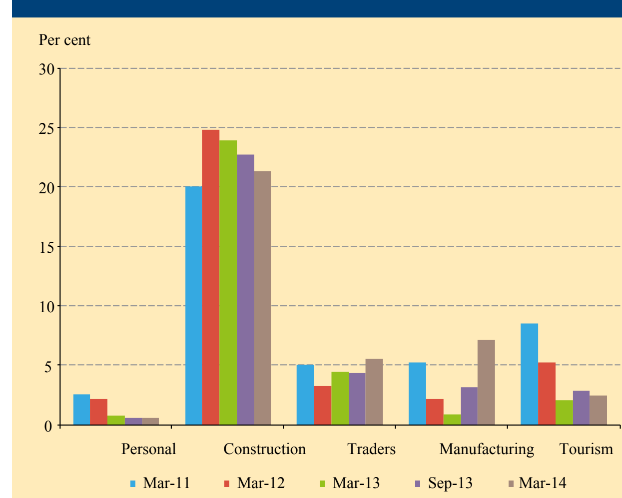


Chart 3.42: NPL as a ratio of Sectoral Credit

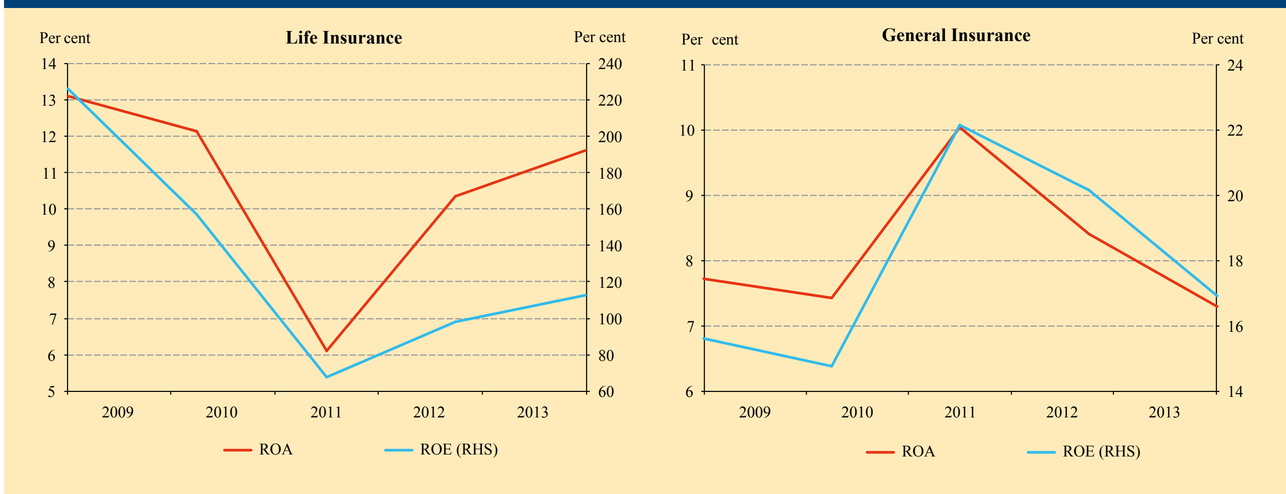


Life insurance is the main constituent of the insurance business. Total assets in this cluster increased by 14.9 per cent to Rs106.4 billion; net premiums went up by 7.1 per cent to Rs14.5 billion; however, investment in equities and debt securities dropped to 18.7 per cent and 12.5 per cent of total assets, respectively. Slightly more than one third of life insurers' investment was in Government debt securities. Profitability improved, with increases in ROA and ROE to 11.6 per cent and 112.6 per cent (Chart 3.43). The claims and expense ratios edged up, indicating that insurers were collecting more premiums to cover claims/expenses (Chart 3.44).

The combined ratio measures claims losses and operating expenses against premiums earned for general insurance. The combined ratio increased by 3 percentage points in 2013, reaching 87 per cent (Chart 3.44). This is explained by the higher growth in total expenses (14 per cent) than in net earned premium. A combined operating ratio over 100 per cent indicates unprofitable underwriting results.

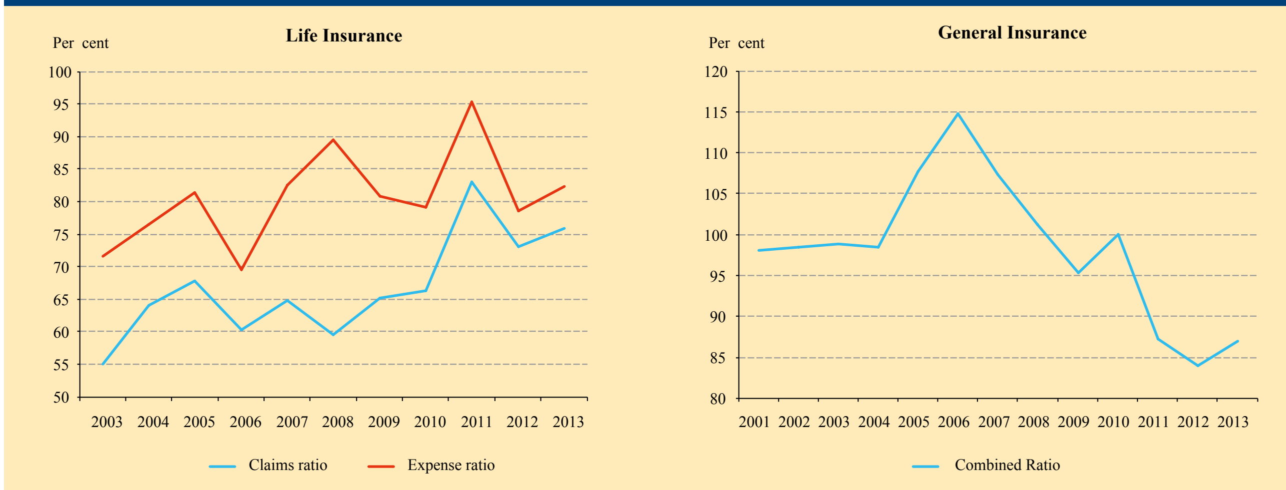
In the general insurance sector, total assets increased by 12.0 per cent to Rs13.9 billion; total net premiums rose by 10.9 per cent to Rs4.3 billion. The investment portfolio of general insurers was largely unchanged, with more than half invested in locally-listed securities. The ROA and ROE declined to 7.3 per cent and 16.9 per cent, respectively (Chart 3.43).

Chart 3.43: ROE and ROA



Source: Financial Services Commission

Chart 3.44: Claims and Expense Ratios



Source: Financial Services Commission

Concentration remained high in the insurance sector. In the life insurance industry, market share was concentrated among three insurance companies, with one of them holding almost 50 per cent of market share. The general insurance sector was concentrated among four insurance companies.

Both the general and long term insurance segments were solvent in 2013. The sector appeared to be well capitalised, with ample buffer to weather shocks that might affect its soundness. The average solvency ratio for general insurance declined from 318 per cent in 2012 to 282 per cent in 2013, whilst it went up from 182 per cent to 218 per cent for life insurance.

Reinsurance ceded marginally compared with the previous year. General insurers reinsured 38 per cent of gross premium, with the most reinsured classes being engineering, property and guarantee.

Financial stability also involves assessing the interlinkages between banks and insurance companies. Relative to the size of the banking sector, assets of insurance companies held with banks are not considered significant, and contagion risks are deemed to be moderate. In 2013, insurance companies held Rs10 billion in terms of cash and deposits at banks and invested Rs5 billion in the equity of locally-listed banks. Their loans and overdrafts from banks amounted to Rs613 million and Rs280 million, respectively.

3.6 Key Challenges Ahead

The financial system is assessed to be robust and sound. However, there are a number of risks that may potentially jeopardise financial stability. The expected normalisation of interest rates in some advanced economies and its spillover effects on global financial markets may represent a source of vulnerability for the domestic financial system. In particular, the likelihood for increased volatility in capital flows and in major currency exchange rates could adversely impact on current account financing and evolution of the rupee. Moreover, the weak performance in the euro area may continue to drag down growth of export-oriented sectors.

The rise in household debt and balance sheet vulnerabilities of some large corporates could have direct effects on the soundness of banks through a rise in NPL. Excess liquidity could accentuate credit risk in the banking sector if banks lower their credit standard. While the implementation of the LTV and DTI limits would help to mitigate credit risk associated with housing loans, the recent tendency for households to shift to consumption loans, which are often unsecured, may become a source of concern if sustained. In the same vein, accumulation of credit and rising NPL in the construction sector remain a major risk that the Bank has addressed through the introduction of macroprudential measures. The subdued outlook for this sector indicates that continued vigilance is required.

Cross-border exposures of domestic banks remained significant. The recent increase in NPL from exposures to some Indian corporates as the Indian economy slowed down suggests that banks should remain prudent in their cross-border activities.

The Bank continues to monitor global and domestic developments. In light of potential sources of vulnerabilities, the Bank has taken several initiatives to reinforce the resilience of the banking system, including phasing in Basel III capital standards, addressing the issue of domestic-systemically important banks, and simplifying the corporate structure of complex banks. Work is on-oing to strengthen the regulatory framework and maintain financial stability.