



BANK OF MAURITIUS



# Financial Stability Report

February 2009 | Issue No.2



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# **FINANCIAL STABILITY REPORT**

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This report refers to information as at 31 December 2008 unless otherwise stated.

The Bank of Mauritius welcomes any comments or suggestions on this publication.  
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## **List of Acronyms**

<b>BOM</b>	Bank of Mauritius
<b>CPI</b>	Consumer Price Index
<b>CSO</b>	Central Statistics Office
<b>ECB</b>	European Central Bank
<b>FDI</b>	Foreign Direct Investment
<b>FSC</b>	Financial Services Commission
<b>GDP</b>	Gross Domestic Product
<b>IMF</b>	International Monetary Fund
<b>IRS</b>	Integrated Resort Scheme
<b>JCC</b>	Joint Coordination Committee
<b>MACSS</b>	Mauritius Automated Clearing and Settlement System
<b>MERI</b>	Mauritius Exchange Rate Index
<b>NBDTIs</b>	Non-Bank Deposit Taking Institutions
<b>NPL</b>	Non-Performing Loans

## Overview

The global economic outlook has strongly deteriorated as the financial turmoil, triggered by the crisis in the US subprime mortgage market in 2007, spread. The IMF has, in its January 2009 World Economic Outlook Update, revised world growth down to just 0.5 per cent, from its November 2008 forecast of 2.2 per cent. The world faces a deepening economic crisis, with the slowdown in advanced economies now spreading to major emerging markets such as China, India, and Brazil. Advanced economies are now projected to contract by 2 per cent in 2009 and lower growth rates have also been announced for major emerging economies. In many advanced countries, failures of banks and other financial institutions have necessitated interventions by Governments and central banks through massive capital and liquidity injections as well as other measures.

The current global financial turmoil is indeed an unprecedented one. By all reckoning, it is the worst crisis since the Great Depression. Clearly, despite the wide-ranging policy actions by Governments and central banks around the world, financial strains remain acute, pulling down the real economy. The January 2009 Global Financial Stability Report (GFSR) update of the IMF also notes that the risks to financial stability have intensified since October 2008 and that macroeconomic risks have risen as global growth has fallen precipitously alongside a sharp slowdown of global trade.

In Mauritius, the GDP growth rate for 2009 is estimated by the Central Statistics Office at 4 per cent, lower than the 5.2 per cent growth registered in 2008. There are already indications that the global financial crisis and economic downturn are impacting negatively on the textile and tourism sectors. The risks of a further deterioration in the trade balance and current account balance have increased, with potential downward pressures on the exchange rate of the rupee and the level of foreign exchange reserves.

In the conduct of monetary policy in 2008, the Bank was confronted with the combined challenge of combating inflation and preserving the competitiveness of the export-oriented sectors. During 2008, the key Repo Rate was cut by a total of 250 basis points to stand at 6.75 per cent at the end of December 2008. Conducting monetary policy against the backdrop of the global financial crisis and economic slowdown is indeed a challenging task for central banks, particularly in small open economies like Mauritius. At the same time, inflation is still a source of concern in Mauritius. Headline inflation rate stood at 9.7 per cent at the end of December 2008, compared to 8.8 per cent at the end of 2007. However, on a year-on-year basis, a methodology commonly used by central banks, CPI inflation has declined to 6.7 per cent in December 2008 from 8.7 per cent in December 2007. Recent declines in food and energy prices, if sustained, and sluggish real economic activity abroad and at home, hold out some prospects of a reduction in the inflation rate.

The global financial and economic crisis has also brought about a high level of coordination between the Bank and the Ministry of Finance and Economic Empowerment, recognising the fact that the monetary tool kit alone is inadequate for dealing with the emerging problems. The Bank has provided inputs in the Additional Stimulus Package of Rs10.4 billion, equivalent to 3.8 per cent of GDP, unveiled in mid-December 2008 by the Government to shore up the performance of the economy. As part of this package, the Bank of Mauritius reduced its Cash Reserve Ratio, from 5 per cent to 4.5 per cent with effect from the fortnight beginning 19 December 2008, and, for the first time in its history, made available to banks operating in Mauritius, a Special Foreign Currency Line of Credit aggregating USD125 million. This decision had been taken to facilitate access to foreign currency





credit lines in view of difficulties faced by some local banks due to non-availability, or inadequacy, of foreign exchange credit facilities from their usual sources. Normal conditions continue to prevail in the domestic money market, and there is no credit crunch in Mauritius.

The global financial crisis has brought financial stability issues to the forefront of policy considerations. The crisis highlights the need for strengthening financial sector regulation to ensure stability. All the banks operating in Mauritius have, so far, shown considerable resilience in terms of capital adequacy, balance sheet growth, profitability and loan delinquencies. The system has not witnessed any serious liquidity crunch either, part of which can be explained by the non-dependence of banks on large scale inter-bank borrowings to fund their operations and much less reliance on extra-territorial sources for meeting domestic asset build up. The foreign funds used for domestic deployment was as low as 2 per cent of total domestic assets thus providing the insulation from the liquidity crunch in the global financial markets. Banks in Mauritius maintained an estimated average capital adequacy ratio of 15.8 per cent at the end of December 2008 against the regulatory minimum of 10 per cent. There are no indications that the Mauritian banking sector has any direct exposure to the toxic debt that has affected global financial markets, and banking soundness indicators are healthy. The banks in Mauritius do not have significant exposure to equities either by way of their investments or loans against the collateral of shares. As macroeconomic risks increase, financial strains, associated with an increase in credit risks and reduced risk appetite of banks, are likely to emerge in banks' balance sheets.

The Bank has been reviewing its existing banking guidelines to bring them in line with international best practices, taking into consideration the recent financial turmoil and the measures taken subsequently. The Bank's aim is to ensure that the banking system grows robustly and continues to conduct business consistent with sound risk management standards. During 2008, the Joint Coordination Committee (JCC) between the Bank of Mauritius and the Financial Services Commission (FSC) pursued its exchange of supervisory information considered vital for avoiding regulatory gaps in the system. The Bank has also pursued its efforts to modernise the payment and settlement system as the smooth operation of the financial system hinges on an efficient payment and settlement system.

As with other sectors of the financial system in the country, the insurance and Non-Bank Deposit-Taking Institutions sectors also did not witness any direct impact of the global financial crisis.

# 1. GLOBAL ECONOMY

## 1.1 Overview

The global economic outlook has strongly deteriorated as the financial turmoil triggered by the crisis in the US subprime mortgage market in 2007 spread. Growth in world output in 2009 is now forecast by the International Monetary Fund to fall to only 0.5 per cent, its lowest rate in over 60 years. The advanced economies are actually expected to shrink, in real terms, at rates of about 1.5 per cent in the US, 2 per cent in the euro area and 2.5 per cent in Japan. This will be reflected in a general slowdown in the growth of economic activity in developing and emerging economies to an expected average rate of 3 to 3.5 per cent.

The collapse of Lehman Brothers, the fourth largest US investment bank, in September 2008 was the direct cause of a major loss of confidence among investors, which had already been shaken by the problems in the subprime market. In spite of government and central bank actions aimed at restoring confidence, this loss of confidence caused equity prices and other asset values, which had already been weak in the first half of the year, to drop sharply in many parts of the world. This implied a major decrease in household wealth, which was reflected in downward pressure on consumer spending. The increase in uncertainty also prompted businesses to curb investment spending. On top of that, the loss of confidence caused money markets in the advanced economies to essentially come to a standstill, cutting off banks as well as other financial firms from access to funding. At the same time, banks' capital base shrank, owing to accumulating mark-to-market losses on their assets. Banks were thus forced to curtail lending. In these circumstances, global economic activity and world trade fell sharply in the fourth quarter of 2008.

## 1.2 Advanced Economies

The US economy had already been slowing down in late 2007. However, the financial crisis turned this into a more pronounced downturn. The US government had to take Freddie Mac and Fannie Mae, two of the country's leading mortgage finance institutions, into conservatorship in September 2008. Shortly after, Lehman Brothers

filed for bankruptcy. In addition, the world's largest insurance company, the American International Group (AIG), had to be bailed out by the government to avoid its collapse. The US financial sector underwent extensive restructuring via corporate takeovers aimed at saving financial institutions in trouble. In addition, two of the major investment banks applied for a banking licence, voluntarily subjecting themselves to stricter regulation and supervision. A third major bank has decided to split itself up into a bank and an investment firm, with the latter containing all the bad assets of the old company.

In Europe, financial institutions which showed signs of refinancing difficulties received government support. As from early September 2008, the EU member countries took a number of initiatives to restore confidence among banks as well as among banks and their customers first at national levels and subsequently as part of a coordinated action for EU member states. These included increases in deposit guarantees, direct government guarantees for bank liabilities, capital injections into banks, as well as outright bank nationalisations.

## 1.3 Emerging and Developing Economies

The economic downturn in the advanced economies has been causing weak demand for emerging and developing economies' export products and services, including tourism. In Asia and Africa, the IMF expects economic growth in 2009 to slacken to 5.5 per cent and 3.5 per cent, respectively, down from an estimated 7.75 per cent and 5.25 per cent in 2008.

The weak demand for Asian export products is expected to be only partly offset by domestic demand and the regional momentum. In China, the authorities have announced budgetary measures and an easing of monetary policy in an attempt to offset slack demand in export-driven industrial sectors. India is also expected to experience subdued growth as a result of lower export growth as well as investment spending, the latter reflecting suppressed lending and a falling capital market.



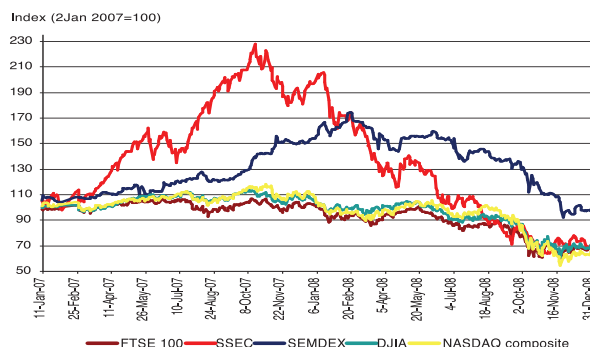
As in many developing economies, the financial system in South Africa has so far apparently been largely protected against the global financial turmoil. Most banks in developing economies have no significant exposures to the type of assets that were first to be affected by the financial crisis, such as mortgage-backed securities. However, the authorities in South Africa and elsewhere are remaining vigilant as financial markets are highly integrated and second-round effects may become more apparent.

In Seychelles, the economy had already been under pressure before the onset of the global crisis due in part to an overvalued exchange rate. As the Seychelles economy relies heavily on the tourism industry, it is likely to be seriously affected by the global crisis, as the main countries of origin of tourists have now entered recession.

## 1.4 Major Equity Markets

Over the year 2008, the major equity markets were unusually volatile as a result of growing uncertainties in mature economies. The major markets indices Dow Jones Industrial Average (DJIA) and NASDAQ regressed by about 34 and 41 per cent, respectively. In November, increasing fears that the financial crisis would stifle the broader economy led the DJIA to fall to its lowest level in six years. European equity markets were also on a negative trend during most of the year. As in the advanced economies, emerging market assets also experienced broad-based price declines, as economic pressures in the industrialised world spilled over to emerging financial markets.

Chart 1: Stock Market Indices



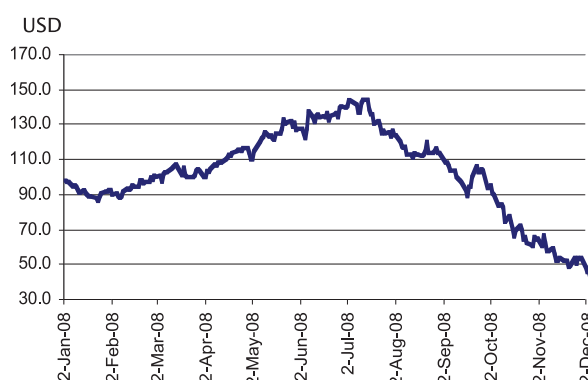
Source: Reuters

Stock prices in many countries showed some recovery in the course of the final quarter as major central banks reduced interest rates and injected liquidity.

## 1.5 Commodity Prices

The surging oil prices over the first six months of 2008 hit hard on developing and emerging economies building upside risks to inflation. Over that period, oil prices hiked by around 46 per cent on a monthly average basis, to reach a daily peak of USD 146 per barrel in July 2008. However, as concerns grew about a global economic downturn and an ensuing reduction in demand by the main oil-consuming countries, oil prices nosedived in the second half of 2008. The prices of major food staples such as rice and wheat showed a similar pattern. With inflationary pressures receding, the scope for expansionary monetary policy actions increased.

Chart 2: Evolution of Brent Oil Prices

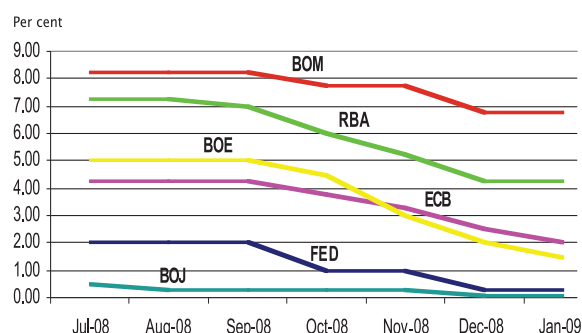


Source: Reuters

## 1.6 Interest Rates of Major Central Banks

The unfolding financial turmoil coupled with signs of faltering domestic demand and drastic reductions in food and energy prices led to a shift in emphasis by central banks, from maintaining price stability to supporting domestic demand. In the later part of 2008, there has been a drastic easing of monetary policies in most developed countries as restoring confidence by supplying the financial system with ample liquidity became one of the priorities of central banks.

Chart 3: Interest Rates Movements



Source: Central Banks' websites

The Federal Reserve Bank, the European Central Bank (ECB), the Bank of England and the Reserve Bank of Australia, partly in concerted efforts, adopted expansionary monetary policies and scaled down their base rates significantly. In the US, the signalling rate has been brought down to a historically low range of 0-0.25 per cent in December 2008. In October and November, with the scope for reducing interest rates already nearly exhausted, the Federal Reserve Bank announced in successive steps its willingness to buy commercial paper and other assets directly from non-banks in order to support the markets for these assets and inject liquidity into the economy. In the euro zone, the ECB reduced the interest rate on its main refinancing operations from 4.25 per cent in July 2008 to 2.00 per cent in January 2009 as inflation dropped sharply. In the UK, the Bank of England brought down its base rate vigorously from 5.00 per cent in October 2008 to an all-time low of 1.00 per cent in early February 2009.

## 1.7 Government Measures

With confidence in the continued viability of key parts of the international banking system collapsing, the authorities in many countries embarked on an unprecedented wave of policy initiatives to arrest the loss of confidence and contain systemic risks. Until September, governments had injected capital into individual institutions to avoid their failure and facilitate mergers. However, it turned out that this alone could not stop the rapid erosion of confidence, partly as a consequence of second-round effects on the value of banks' assets. Governments in virtually all advanced economies therefore

announced more comprehensive initiatives to stabilise banking systems in late September and early October. One type of measures aimed at ensuring bank funding through explicit government guarantees on retail deposits and other bank liabilities, while another type aimed at reducing bank leverage through capital injections (including by means of nationalisation) or government purchases of distressed assets. Whether these measures will be sufficient to restart financial intermediation to a more normal state remains to be seen.

In addition to measures aimed directly at relieving problems at banks, many governments, including those of the US and of EU member states, have announced substantial budgetary packages aimed at supporting domestic demand. These packages generally include both additional government spending, e.g. on infrastructure projects, and tax relief measures. Such initiatives, as well as expansionary monetary policies, low inflation rates and structural reforms undertaken in the past years, may provide a basis for a resumption of economic growth, which should in turn over time help underpin the value of banks' assets. The IMF, for example, projects a rebound of world output growth to 3 per cent in 2010.

## 1.8 International Initiatives

At the international level, regulatory and supervisory initiatives are being coordinated by the Financial Stability Forum (FSF). The framework for policy responses to the financial turmoil was set up in April 2008, i.e. before the financial crisis suddenly deepened, when the FSF published its "Report on Enhancing Market and Institutional Resilience". The report called for action in the following five main areas:

- (i) strengthening capital, liquidity and risk management in the financial system;
- (ii) enhancing transparency and valuation;
- (iii) changing the role and use of credit ratings;
- (iv) strengthening the authorities' responsiveness to risks; and
- (v) putting in place robust arrangements for dealing with stress in the financial system.



In some of these areas concrete steps have already been taken, while other steps are in the process of being prepared, drawing on the ongoing work of relevant international bodies such as the Basel Committee on Banking Supervision. However, the unforeseen severity of the unfolding crisis overtook any positive effects that the steps already taken could have been expected to have in less disruptive circumstances.

Looking further ahead, the reassessment of the scope of financial regulation is considered to be a priority by policy-makers around the world. In

this process, the leaders of the Group of Twenty developed and emerging market countries agreed in November 2008 on a comprehensive action plan to implement certain common principles for reform, including strengthening the regulatory regimes, prudential oversight and risk management, as well as ensuring that all financial markets, products and participants are regulated or subject to oversight, as appropriate to their circumstances.

## 2. DOMESTIC ECONOMY

The domestic economic environment was characterised by fairly robust growth in 2008, on the back of the strong performance of the tertiary sector, namely, 'construction', 'wholesale and retail trade', 'transport, storage and communications', 'real estate, renting and business activities' and 'financial intermediation'. The economy is estimated to have grown at a slightly lower pace of 5.2 per cent in 2008 as compared to the growth rate of 5.4 per cent registered in 2007. The economy has thus demonstrated some degree of resilience to the global economic downturn.

As the economy diversified further over the years, the links with the international environment also increased through key sectors, namely Tourism, Export-oriented enterprises and the IRS sectors. Growth in the textile and tourism industries slowed down sharply in 2008 as consumers in main markets have retrenched.

### 2.1 Sectoral Performance

The tourism industry, which is one of the pillars of the Mauritian economy, recorded an exceptional growth of 14 per cent in 2007 compared to a 3.5 per cent growth in the previous

year. With the intensification of the financial crisis, tourists from Europe – our main market – are increasingly choosing holiday destinations closer to home. Stakeholders in the tourism industry have expressed worries over the adverse impact of the crisis as already, industry indicators such as hotel bookings have shown a decrease. The number of tourists visiting Mauritius in 2008 stood at 930,456 compared to 906,971 in 2007, representing a growth of 2.6 per cent. It may be noted that the initial estimate for tourist arrivals in 2008 by the Central Statistics Office (CSO) was 975,000. Sectoral real growth rates for 2007 and successive estimates for 2008 are shown in Table 1.

The 'manufacturing' sector has been adversely affected by the drop in consumer spending in our main export markets. The textile industry contracted by 0.3 per cent and 3.2 per cent, in annual terms, in the second and third quarters of 2008, respectively. Latest external trade data from the CSO indicated that exports by Export Oriented Enterprises for the nine months ended September 2008 were less than those for the corresponding period in 2007 by 8.9 per cent.

Table 1: Real Growth Rates-2007 and Successive Estimates for 2008 \*

	2007	March 2008 National Accounts Estimates	June 2008 National Accounts Estimates	September 2008 National Accounts Estimates	December 2008 National Accounts Estimates
GDP**	5.4	6.0	5.7	5.6	5.2
Construction	15.2	7.0	10.3	11.0	11.0
Sugarcane/Sugar Milling	-13.6	19.3	4.4	5.5	5.5
Hotels and Restaurant	14.0	7.1	7.1	5.6	3.1
Wholesale and Retail Trade	4.4	5.3	5.1	4.7	4.5
Manufacturing	2.2	4.1	3.6	3.1	1.8
Financial Intermediation	7.5	7.6	7.6	7.8	10.1
Total Investment	8.6	4.7	7.1	6.5	3.0
Consumption Expenditure	3.9	4.2	4.2	4.1	4.1

\* Percentage change over previous year

\*\* Inclusive of sugar

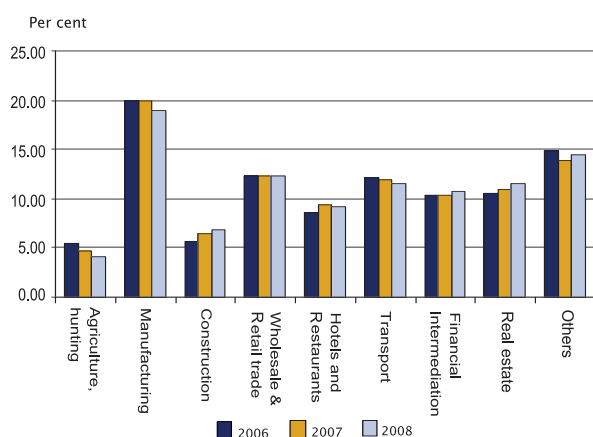
Source: Central Statistics Office



This was associated with a fall in demand in the United Kingdom (-4.4 per cent) and US (-24.1 per cent) while exports to France increased by a slight 1.8 per cent over the first 9 months of 2008. The contribution of the 'manufacturing' sector in GDP fell from 20.1 per cent in 2006 to 19.4 per cent in 2008.

Reflecting the robustness of our financial system and its resilience to the global financial crisis, the 'financial intermediation' sector recorded buoyant growth of 10.1 per cent in 2008 compared to 7.5 per cent in 2007, as a result of growth of 12.9 per cent and 5.0 per cent in the banking and insurance sectors, respectively. Over the past four years, the contribution of 'financial intermediation' to GDP has increased from 10.3 per cent in 2005 to 11.0 per cent in 2008. Chart 4 shows the contribution to GDP by industry group.

Chart 4: Sectoral Contribution to GDP



Source: Central Statistics Office

## 2.2 Imports and Exports

Total exports of goods amounted to Rs42.3 billion over the period January to September 2008, representing a decline of 7.7 per cent over the same period last year. The main market for our export products remains Europe, which accounted for 67.1 per cent of total exports over the period January to September 2008. On a country-wise basis, the United Kingdom is our main export market with a share of 31.5 per cent of total exports, followed by France, United States and Madagascar with market shares of 14.2 per cent, 7.1 per cent and 6.4 per cent, respectively.

Imports, which originate mainly from the Asian countries (54.8 per cent) and European countries

(24.3 per cent), have grown by 4.8 per cent in 2007. The nine months of 2008 recorded total imports of Rs97.2 billion representing a growth of 15.1 per cent over the corresponding period of the previous year.

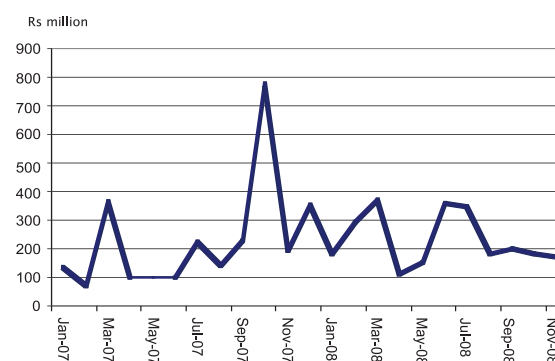
The outlook for exports in 2009 is bleak in view of the projected contraction of our main export markets. Thus, risks for a further deterioration in the trade balance and the current account balance have increased, with potential downward pressures on the exchange rate of the rupee and the level of foreign exchange reserves.

## 2.3 Foreign Direct Investment

Over the period January through September 2008, Foreign Direct Investment (FDI) into Mauritius amounted to Rs7.2 billion, compared to Rs9.1 billion over the same period in 2007. FDI emanating from developing countries in the first nine months of 2008 was higher compared to the whole of 2007. Looking ahead, the recession and persisting credit strains in advanced economies in conjunction with dampened growth prospects of the domestic economy could have a negative impact on the inflow of FDI in 2009.

Investments in Integrated Resort Scheme (IRS) projects, an important component of FDI, have followed an erratic path in 2008. The IRS is a scheme under which non-nationals in the upper end of the market are allowed to purchase residential property in Mauritius. Foreign investment in the IRS sector amounted to Rs0.23 billion over the period January to November 2008, slightly up from Rs0.22 billion over the corresponding period of 2007. Chart 5 shows the evolution of foreign investment in IRS.

Chart 5: Foreign Investment in IRS

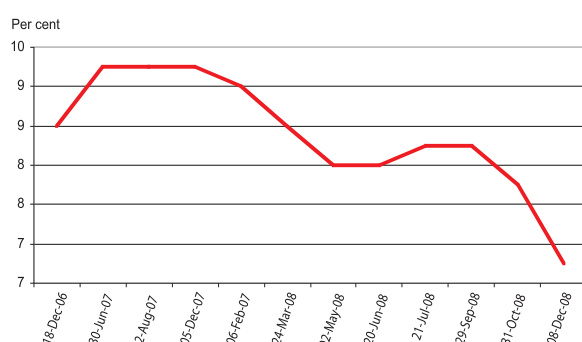


Source: Bank of Mauritius

## 2.4 Monetary Policy

In the conduct of monetary policy in 2008, the Bank was confronted with the combined challenge of combating inflation and preserving the competitiveness of the export-oriented sectors. During 2008, the key Repo Rate was cut by a total of 250 basis points to stand at 6.75 per cent at the end of December 2008 (see Chart 6).

Chart 6: Movements in key Repo Rate



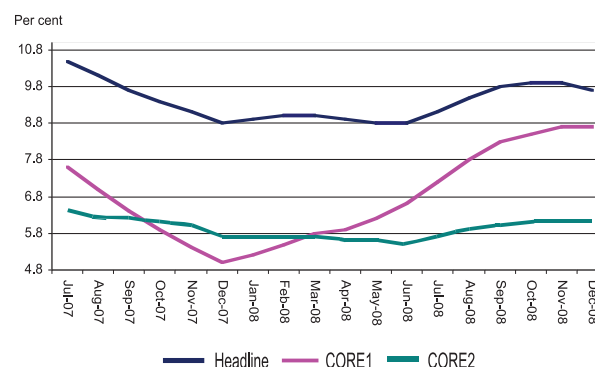
Source: Bank of Mauritius

On one occasion, namely, at a special meeting held in July 2008, the MPC decided to raise the key Repo Rate by 25 basis points on the worsening inflation outlook and risks of a wage-price spiral following the implementation of the Pay Research Bureau report. The various cuts in the key Repo Rate were effected as the downside risks to domestic growth stemming from the worsening outlook in the main trading partners of Mauritius were considered as more serious than the upside risks to inflation. During the last quarter of 2008, policy actions were coordinated with Government with a view to shoring up the economy from the adverse impact of the global economic downturn.

The key inflation indicators have taken a generally rising path from January 2008 to December 2008 as depicted in Chart 7 below. Headline inflation rate which stood at 9.7 per cent in December 2008 is still a source of concern in Mauritius. However, on a year-on-year basis, inflation has declined to 6.7 per cent in December 2008 from 8.7 per cent in December 2007. Recent declines in food and energy prices, if sustained,

together with sluggish real economic activity abroad and at home, hold out prospects of a reduction in the inflation rate.

Chart 7: Headline, Core 1 and Core 2 Inflation

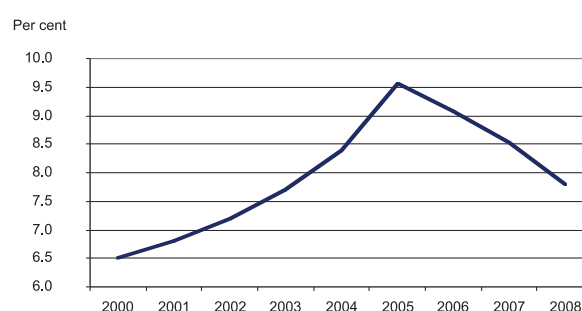


Source: Bank of Mauritius

## 2.5 Unemployment

The unemployment rate declined from 8.2 per cent in the third quarter of 2007 to 7.2 per cent in the third quarter of 2008 and is estimated at an annual average of 7.8 per cent for 2008. However, latest data show that employment in export-oriented enterprises fell by 4,319 in the year to September 2008.

Chart 8: Unemployment Rate



Source: Central Statistics Office

The recession in our main export markets, if prolonged, could lead to job losses in industries dependent on external demand, such that the decline in the unemployment rate over the past years could be reversed in 2009. The evolution of unemployment rate is depicted in Chart 8.





## 2.6 Outlook 2009

With key export-led sectors inevitably slowing down, the spillover effects of the global crisis on the rest of the economy could enhance downside risks to economic growth in 2009. Except the 'sugarcane/sugar milling' sector, which is likely to expand by 13.0 per cent due to higher sugar production and increased exports of refined sugar, and 'food processing', most sectors are projected to record a slowdown in activity. According to the latest CSO forecasts, growth in the 'construction' and 'financial intermediation' sectors would sharply slow down while the tourism and textile sectors would register zero growth. Thus, economic growth is projected at 4.0 per cent in 2009, below potential output, implying downward pressures on wages and prices.

Although pessimism is likely to persist in some key economic sectors in 2009, risks to financial stability are considered to be moderate as the additional stimulus package of Rs10.4 billion, equivalent to 3.8 per cent of GDP, unveiled by the Government in mid-December 2008, is expected to contain, to some extent, the adverse effects of the global recession on the economy. Broadly, the

focus of the additional stimulus package is on fast-tracking and frontloading public infrastructure, new investments in public infrastructure, accelerating private sector investment, building human resources capacity and supporting vulnerable sectors of the economy. The package includes a provision for direct equity participation by Government in the financing of the restructuring schemes for units in the textile and hotel sectors affected by the crisis. As part of this package, the Bank of Mauritius also reduced its Cash Reserve Ratio from 5 per cent to 4.5 per cent with effect from the fortnight beginning 19 December 2008, and, for the first time in its history, made available to banks operating in Mauritius, a Special Foreign Currency Line of Credit aggregating USD125 million. This decision has been taken to facilitate access to foreign currency credit lines in view of difficulties faced by some local banks due to either non-availability, or inadequacy of foreign exchange credit facilities from their usual sources. It is expected that this additional stimulus package will unlock an extra 1 to 1.5 per cent growth annually.

## 3. FINANCIAL SECTOR

The Financial Services Sector, with a share of 11 per cent in the Gross Domestic Product for the year 2008 plays a significant role in the economy. The banking sector, accounting for 64 per cent of the financial sector, is the dominant component followed by the insurance sector which accounts for 24 per cent while the non-bank deposit taking institutions (NBDTIs) hold a share of 3 per cent.

The financial system of Mauritius has been protected from the first-round effects of the global financial crisis. The banking system is soundly regulated, with banks which are well capitalised and highly liquid. Local banks have been quite conservative in their investment strategy, with their loans financed principally through local deposits. There is no evidence that local banks have purchased or traded US subprime mortgage backed securities or associated credit default swaps. In fact, growth rate for the financial intermediation sector is estimated at 10 per cent for 2008, up from 7.5 per cent in 2007.

Considering the unprecedented turmoil in the global economy and its possible ramifications for Mauritius, the Bank has set up a multi-disciplinary cell to capture the developments in various segments of the financial market on an ongoing basis to view the market movements holistically and consider proactive policy responses. Benchmarks have been established for different markets to trigger further investigation and identify possible inter-linkages. The cell monitors developments on a daily basis and appraises the Bank's management of its assessment. The special cell has found the overall picture so far to be comforting.

### 3.1 Banks

#### 3.1.1 Overview

A stable and sound banking system is critical for the financial stability of an economy having a predominance of banks in the financial sector. An important feature of the banking system is its composition. The sector comprises 18 banks of which 12 banks are either branches or subsidiaries of foreign banks/financial institutions.

The banking sector has so far weathered the financial crisis successfully. All the banks operating in Mauritius have shown considerable resilience in terms of capital adequacy, balance sheet growth, profitability and loan delinquencies. The system has not witnessed any serious liquidity crunch either, a part of which can be explained by the non-dependence of the system on large scale inter-bank borrowings to fund its operations and much less reliance on extra-territorial sources for meeting domestic asset build up. The foreign funds used for domestic deployment was as low as 2 per cent thus providing the insulation from the liquidity crunch in the global financial markets. In general, the banks did not have exposure to toxic assets like Mortgage Backed Securities. The share prices of the two banks that are listed on the exchange have declined to a lower extent than SEMDEX, the main index on the Stock Exchange of Mauritius.

#### 3.1.2 Share of Foreign Banks

The foreign banks and their subsidiaries witnessed a growth of 4.7 per cent in their balance sheets from Rs506 billion at the end of the year 2007 to Rs530 billion at the end of 2008. Foreign assets of these banks amounted to Rs416 billion constituting 78.6 per cent of their total assets at the end of December 2008. The share of this bank group in the total assets of the banking sector was 70.2 per cent. However, the domestic banks accounted for 65.1 per cent of the assets held by the banking sector within Mauritius.

The large share of foreign banks in the assets of the banking system of the country and the difficulties confronted by some global banks have highlighted the need for being alert to the risk of their vulnerability triggering instability in the Mauritian banking system. Therefore, while consolidated supervision addresses the financial strength of domestic banks having cross-border presence, the current scenario underscores the need for greater global supervisory vigilance on part of the Bank. The Bank uses its formal and informal arrangements with foreign bank supervisors to be apprised regularly of the global health of the foreign banks having a presence in Mauritius.



### 3.1.3 Business Concentration

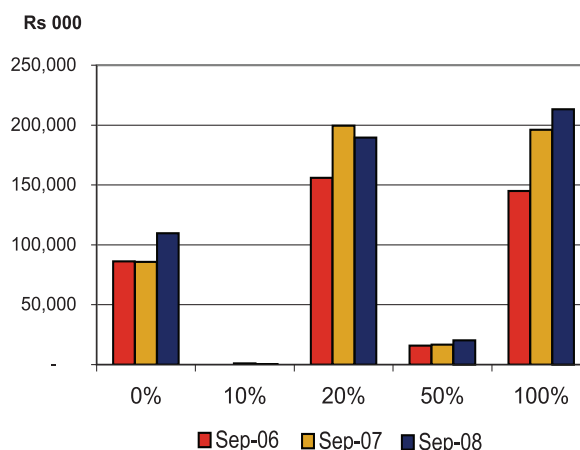
A high concentration of business in a few banks is less conducive to financial stability than if it is dispersed across a large number of entities. The top four banks in Mauritius accounted for 62.1 per cent of the assets of the banking sector at the end of December 2008. The Herfindahl–Hirschman Index (HHI), a measure of concentration in the industry, is also an indicator of competition among banks. HHI for the banking system continued to be high albeit showing a declining trend indicating high concentration which is gradually coming down.

### 3.1.4 Risk Diversification Matrix

The evolution of the risk diversification matrix is a useful indicator of the impact of the crisis on the banking system business. A shift in the assets from higher risk weight baskets to lower ones would indicate higher risk aversion. Chart 9 indicates the risk matrix of the banks up to

September 2008. It is evident that there has been no marked shift in the risk preference of banks in favour of low risk assets as yet.

Chart 9: Risk Diversification Matrix of Banks



Source: Bank of Mauritius

Table 2 below gives some selected indicators on the performance of banks.

Table 2: Selected Financial Indicators

	Dec. 03	Dec. 04	Dec. 05	Dec. 06	Dec. 07	Sept. 08
<b>Capital adequacy</b>						
Regulatory capital to risk-weighted assets <sup>1</sup>	14.2	15.0	15.4	15.8	13.3	14.7
Regulatory Tier I capital to risk-weighted assets	13.7	13.7	13.5	13.7	11.5	13.4
Total (regulatory) capital to total assets	8.0	7.8	7.8	7.3	6.0	7.0
<b>Asset composition and quality</b>						
Foreign currency loans to total loans	10.9	12.2	51.5	50.7	56.3	64.4
NPLs to gross loans - excluding accrued/unpaid interest	9.6	8.1	4.0	3.0	2.5	2.1
NPLs net of provisions to capital	28.1	22.4	11.4	7.0	9.1	9.6
Large exposure to capital	220.9	200.0	250.3	380.0	493.2	404.9
<b>Earnings and Profitability <sup>2</sup></b>						
ROA (Pre-tax net income/average assets)	2.1	2.1	1.9	1.7	1.9	2.0
ROE (Pre-tax net income/average equity)	19.2	19.2	21.1	22.4	26.4	24.1
Interest margin to gross income	32.1	34.7	36.3	31.2	27.6	27.6
Noninterest expenses to gross income	23.9	27.7	20.1	16.4	15	15.6
Expenses/revenues	10.6	10.2	8.1	7.7	6.8	7.3
Earnings/employee - in 000s of rupees	2,212	2,433	2,904	2,817	3,402	3,533.0
<b>Liquidity</b>						
Liquid assets to total assets	36.6	37.9	44.1	52.8	47.7	41.8
Liquid assets to total short-term liabilities	71.0	71.7	88.6	118.8	104.2	92.2
Funding volatility ratio	13.9	14.0	-20.1	-51.6	-33.7	-19.5
<b>Sensitivity to market risk</b>						
Net open positions in FX to capital	20.8	1.9	4.2	6.4	3.2	0.6

Source: Bank of Mauritius

<sup>1</sup> Total of Tier I and Tier 2 less investments in subsidiaries and associates.

<sup>2</sup> Figures reported under September 2008 relate to June 2008

### 3.1.5 Capital Adequacy Ratio

The Capital Adequacy Ratio which was 14.7 per cent at the end of September 2008 is provisionally estimated to have risen to 15.8 per cent at the end of December 2008 against the regulatory minimum of 10% indicating that the banks are well capitalised. The ratio of Tier 1 capital to risk-weighted assets has been rising and stood at 14.1 per cent (provisional) at the end of December 2008, implying a bias in favour of the more permanent sources viz., equity and retained earnings, in the regulatory capital. While the current level of capital adequacy points to availability of headroom to absorb future risks, the continued deepening of the global crisis could put the balance sheets of banks under pressure through the real economy.

### 3.1.6 Non-Performing Loans

The strong performance of the banking system has been aided by a benign level of Non-Performing Loans (NPLs) which stood at 2.1 per cent of the gross loans as at 30 September 2008. The progressive decline in the levels of NPLs (Table 3) is a clear sign of the general improvement in the risk management standards at the banks and partly can be explained by the overall stable growth the economy witnessed over the last few years.

The Mauritius Credit Information Bureau functioning under the aegis of the Bank captures all credit data of banks and supplies credit information to banks. Its coverage is being progressively extended to all players in the financial sector and utilities to provide a one-stop window on credit information. This is expected to strengthen credit granting standards further, thereby aiding to keep the NPL at low levels.

### 3.1.7 Sectorwise Distribution of Credit

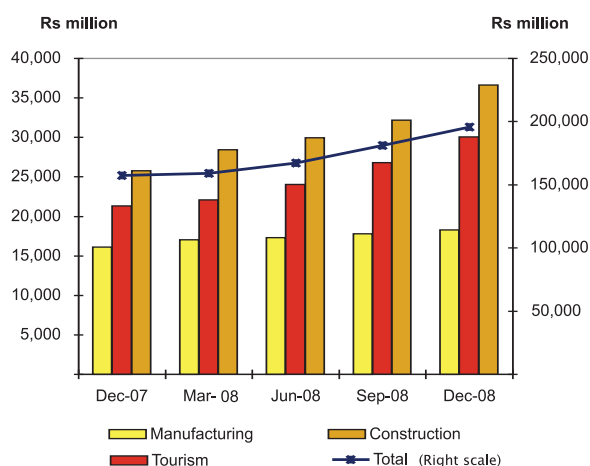
The sectorwise distribution of credit to the private sector in Mauritius over the past five quarters is shown in Chart 10. The banks' exposure to the three sectors that are more vulnerable to the knock-on effects of the crisis - manufacturing, construction and tourism - aggregated Rs85 billion, representing 43.5 per cent of their total loan portfolio as at end-December 2008. The recent stimulus package amounting to Rs10.4 billion announced by Government includes a provision for its participation in the financing of the restructuring schemes of units in the textile and hotel industry affected by the crisis. This notwithstanding, the need for continued vigilance on the part of the banks has assumed greater significance than ever before.

Table 3: Non-Performing Loans

	Non-performing loans as a percentage to credit extended in Mauritius	Non-performing loans as a percentage to credit extended outside Mauritius	Total non-performing loans as a percentage to total loans by the banking sector
June 2007	4.9	0.2	2.4
September 2007	3.1	0.7	1.9
December 2007	4.4	0.2	2.2
March 2008	4.7	0.1	2.2
June 2008	4.4	0.6	2.4
September 2008	4.0	0.5	2.1

Source: Bank of Mauritius

Chart 10: Sectorwise Distribution of Credit



Source: Bank of Mauritius

As on 30 September 2008, NPLs in the three sectors, namely, manufacturing, construction and tourism accounted for 8.3 per cent, 4.4 per cent and 0.8 per cent of their respective portfolio as against 9.5 per cent, 4.8 per cent and 0.9 per cent respectively in June 2008. While NPLs in these three sectors witnessed a decline in percentage terms in September 2008 *vis-à-vis* June 2008, in absolute amount too they came down in respect of construction and manufacturing while almost unchanged in the case of tourism.

Exposures to the personal sector is also a source of concern as they could witness delinquencies in the event of a major decline in economic activities. Exposure to this sector was Rs16.4 billion as at end-September 2008 as against Rs15.9 billion in June 2008. In the year to September 2008, this sector registered a growth of 15 per cent, as against the overall growth of over 25 per cent. The NPLs in the personal sector also registered a marginal decline from 9.7 per cent to 9.5 per cent. The overall decline in the NPLs during the quarter ended 30 September 2008 was thus spread across all sectors.

The construction sector is one of the most vulnerable sectors of the economy in the wake of the ongoing global economic crisis. This sector comprises, among others, hotel development, commercial real estates and construction projects

under the IRS. Exposures of banks to the IRS projects consist on the one hand, of exposures to the promoters, and on the other hand, of residential mortgages to the buyers.

The last report has highlighted the need for greater vigilance on the exposure of banks to the IRS sector as it was more vulnerable to sharp asset price decline in the wake of the global developments after the subprime crisis. The Bank therefore expanded the prudential reporting to capture these exposures separately, which revealed that the banks in Mauritius have an exposure of 2.2 per cent of their total advances to this segment. The quality of those assets are so far stable.

Under the Guideline on Standardised Approach to Credit Risk issued under the Basel II framework, loans secured by residential mortgages receive a preferential risk weight of 35 per cent for the purpose of calculating the capital adequacy ratio of a bank. The risks associated with exposures to IRS are however materially different from ordinary mortgage loans. As such, the Bank considered it prudent to introduce a monetary ceiling of Rs5 million for loans to be eligible for a 35 per cent risk weight and of Rs12 million to qualify for the 75 per cent risk weight. Exposures to IRS fell in the 100 per cent risk weight basket, for all such exposures were *ipso facto* above these two limits. The prudent approach adopted by the Bank would stand the banking system in good stead should the exposure to buyers of IRS properties witness delinquencies.

### 3.1.8 Credit Concentration

High levels of concentration of loans in a few customers are a serious threat to the balance sheets of banks, for defaults of a few exposures could undermine banks' viability. The levels of large advances as a percentage of capital base have been generally declining, (Table 4); as at end-September 2008, aggregate large exposures (i.e. exposures to a single or group of closely related borrowers in excess of 15 per cent of the capital base) stood at 408 per cent of the capital base.



Table 4: Large Exposures as a Percentage of Capital Base

	Aggregate large exposure	Percentage of aggregate large exposure to capital base
	Rs million	Per cent
June 2007	204,129	519
September 2007	180,782	443
December 2007	200,993	493
March 2008	173,433	374
June 2008	190,285	396
September 2008	199,555	408

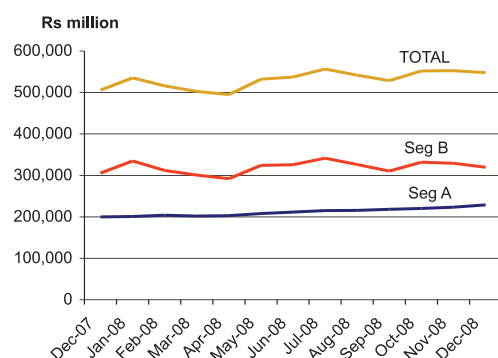
Source: Bank of Mauritius

While this points to a certain extent of regulatory comfort, the presence of a few large industrial houses having a presence in a plethora of industry sectors in the business landscape of the country and having large exposures with the banking system as a whole could pose serious systemic risks in the event of a group-wide distress.

### 3.1.9 Global Crisis and Banks in Mauritius

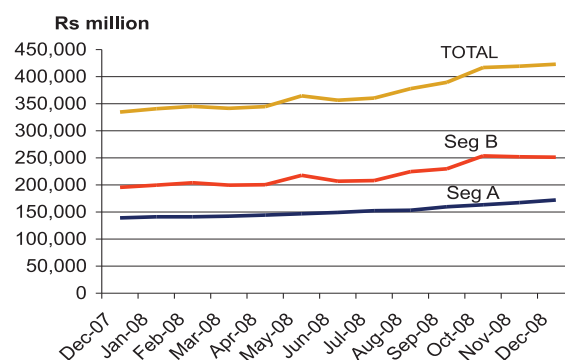
The levels of deposits and advances of the banking system witnessed steady growth during the year (Charts 11 and 12). The banks in Mauritius, in general, do not rely on wholesale market borrowings to fund their operations. The deposits to assets ratio of banks operating in the local market over the six months ended 31 December 2008 is depicted in Chart 13.

Chart 11: Evolution of Deposits



Source: Bank of Mauritius

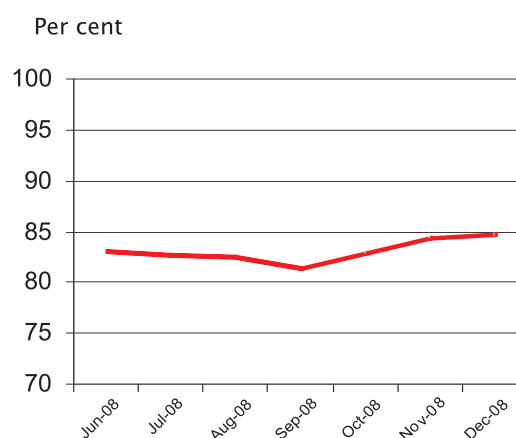
Chart 12: Evolution of Advances



Source: Bank of Mauritius

Note: Segment A relates to banking business carried out with residents of Mauritius while Segment B relates to the provision of international financial services that give rise to foreign source income.

Chart 13: Deposits to Assets Ratio



Source: Bank of Mauritius

The system has not witnessed any liquidity crunch; the banks held 28.8 per cent of their deposits in liquid or near liquid assets as at the end of December 2008. Though there is a marginal decline in the liquid assets to deposits ratio, it is more an indication of better balance sheet management. The Basel Committee on Banking Supervision has issued a paper on Principles for Sound Liquidity Risk Management and Supervision in June 2008 to address the lessons drawn from the subprime crisis. The Bank is reviewing its existing guideline on liquidity risk taking into consideration the recommendations in the above paper.



### 3.1.10 Profitability

The Mauritian banking system continues to be highly profitable. Banks recorded an aggregate pre-tax profit of Rs12.6 billion over the past year, representing an annual increase of 21.6 per cent. One measure of profitability, return on average assets, remained stable at around 2 per cent and the return on average equity maintained its upward trend with a ratio of 24.1 per cent as compared to 22.8 per cent a year earlier. Profitability continued to be underpinned by strong balance sheet growth and rising interest income on the back of a low level of NPLs.

Total income of banks increased by Rs10.7 billion during the year ended 30 June 2008, representing an increase of 28.2 per cent over the previous year. Advances, investments in securities and placements with other banks continued to be the main sources of income for banks and accounted for 83.4 per cent of their total income. The growth

in profits was driven mainly by higher revenue from lending activities.

Total interest income rose by Rs8.6 billion to Rs41.9 billion in 2007/08. Interest earned from loans and advances increased by Rs5.0 billion while interest earned on securities increased by Rs0.8 billion. On the other hand, total interest expense, comprising interest paid on deposits and borrowings rose by Rs 6.4 billion during 2007/08. Consequently, the net interest income of banks increased by Rs2.2 billion or 19.9 per cent. Pre-tax profits derived by banks from the local markets amounted Rs5.6 billion whereas profits of Rs7.0 billion were realised from foreign sources.

### 3.1.11 Initiatives of the Bank to Reinforce Confidence in the Banking System

The Bank regularly reviews its guidelines to align them with international best practices in

#### Box 1: Implementation of Basel II in Mauritius

The Basel II framework makes the capital of banks more risk sensitive through better alignment of the regulatory capital with risks. The current global crisis has highlighted the scope for further refinement in the framework but Basel II represents a clear improvement over the capital regime under Basel I. The Bank, therefore, decided to implement Basel II in Mauritius and adopted a prudent approach in the move over to the new capital accord taking into consideration the need for balance between keeping up with the latest developments in regulation and supervision, and the degree of sophistication of the banking sector. In the first place, the Bank decided that all banks, irrespective of their size and of whether they are internationally active or not, would be subject to the new norms. Secondly, Working Groups comprising representatives of banks and the Bank were constituted to develop various proposal papers on the standardised approaches of the Basel II. Those proposal papers were circulated to the industry for consultation and finalised after further deliberations. A timetable for implementation was drawn up in consultation with banks and progress closely monitored to ensure adherence to the timelines. The major benefit of the consultative approach to Basel II implementation in Mauritius has been the strengthening of the risk management framework and capacity building in the overall banking sector, resulting in a more resilient banking system. After nearly a year of parallel run during which the performance of banks under the new framework was monitored, the Bank has decided to move over to full implementation of the standardised approaches of Basel II with effect from 31 March 2009. All banks meet the minimum Capital Adequacy Ratio requirement of 10 per cent of risk weighted assets based on standardised approaches of Basel II. A decision on allowing banks to adopt the advanced approaches would be taken at an appropriate time.

The flexibility of the Basel II framework allowed the Bank to adapt it to the specificities of the banking sector and the domestic economic conditions while at the same time reinforcing its regulatory and supervisory framework for strengthening the balance sheet of banks. The Bank, for instance, took a more conservative stance on applying the preferential risk weight for residential mortgages. Conscious of investments in real estate being prone to asset bubble and the higher-end assets in this category being more susceptible in the event of fall in prices, the Bank placed a monetary ceiling of Rs5 million, apart from a few other conditions, for residential properties to be eligible for the lower risk weight. Similarly, the implementation of Basel II was used to strengthen the prudential requirement in the area of recognition of revaluation of fixed assets in the Tier 2 Capital by prescribing a higher discount of 55 per cent as opposed to the then prevailing haircut of 25 per cent.

supervision and regulation so as to address emerging risks arising from financial innovation. The Bank has decided to implement the standardised approaches of the Basel II framework effective quarter ending 31 March 2009 (Box 1). The Joint Coordination Committee (JCC) of the Bank of Mauritius and the Financial Services Commission pursued its exchange of supervisory information considered vital for avoiding regulatory gaps in the system. Currently the JCC is working towards establishing a lead regulator for each financial conglomerate.

### 3.2 Insurance

The insurance industry in Mauritius is regulated and supervised by the Financial Services Commission. The regulations require the assets to be adequately spread. A large part of the assets is deployed locally.

The insurance sector comprised 21 insurers in the short-term and the long-term segments. In the short-term segment, 80 per cent of the market was held by 6 companies in terms of gross premium and accounted for 85 per cent of the assets in the segment. In the long-term segment, concentration was even more significant with 3 insurers accounting for 82 per cent of the total gross premium and more than 80 per cent of the total assets in the segment. The four smallest insurers together generated less than 1 per cent of the total gross premium.

As with other sectors of the financial system in the country, the insurance sector also did not witness any direct impact of the global financial crisis. However, vulnerabilities arising from re-insurers could be a potential source for concern. The fact that the global reinsurance industry has remained largely unaffected by the financial crisis provides reasonable assurance of this being a less likely possibility. The current global scenario, clear indications of the crisis deepening and staying longer with possible ramifications for the real economy could have a bearing on the valuation of the assets held by the sector thereby underlining the need for continued vigilance to ensure that all potential threats are identified and mitigated in time.

### 3.3 Non-Bank Deposit Taking Institutions

The non-bank deposit taking sector is also involved in financial intermediation and is characterised by companies which raise public deposits (other than demand deposits) to fund their activities. As on 31 December 2008, there were 13 Non-Bank Deposit Taking Institutions (NBDTIs) of which 11 were in leasing business. Of the remaining two institutions, one is involved in mortgage finance while the other in the granting of personal loan facilities to closed group- namely, serving and retired civil servants.

The deposits mobilised by NBDTIs as at 31 December 2008 stood at Rs25 billion. The relative significance of NBDTI sector *vis-à-vis* the banking sector can be gauged from the fact that the former's deposits were only about 10 per cent of the total deposits mobilised by banks from the local market. Similarly, credit including lease facilities extended by them aggregated was Rs31 billion as against Rs196 billion extended by banks to the private sector in Mauritius. The NBDTIs do not hold any foreign currency assets as they deal only in the domestic currency.

Total assets of the NBDTIs increased by Rs7 billion or 20.4 per cent from Rs35 billion at the end of December 2007 to Rs42 billion at the end of December 2008. On the profitability side, as at end June 2008, NBDTIs realised net profit after tax of Rs611 million against Rs584 million the previous year.

While non-bank deposit taking sector has been fairly insulated from the financial markets turmoil, the need for closer monitoring has assumed greater importance in order to mitigate the spillover effects of the downturn in the real economy as a consequence of the intensified global economic crisis. However, as the regulatory requirements for the NBDTIs are getting strengthened pursuant to the legal framework on prudential requirements having been brought on par with those of banks, greater resilience is being built into the system.





### 3.4 Overall Conclusion

The second round effects of the global downturn are yet to be felt in full in the real sector in Mauritius and even much less on the financial sector; these could be more visible in the current year. External demand-led sectors are hit by the recession in our major export markets. This could translate into rising loan delinquencies and non-performing loans, impacting on the profitability of banks. Branches or subsidiaries of foreign banks operating in Mauritius could face growing difficulties to obtain funds from their headquarters, as credit strains persist. Reduced

flows to and through Mauritius also could have negative implications on the activities of the global business sector. It is thus evident that the financial sector is stable but there are vulnerabilities and therefore uncertainties about the future remain. Given the rather unprecedented speed with which global developments are unfolding, continued vigilance and readiness to take exceptional measures are called for.

#### Box 2: BOM-FSC Joint Coordination Committee

As financial institutions increasingly operate globally and diversify their businesses, it had become important in the interest of financial stability for supervisory bodies to oversee the safety and soundness of these institutions on a consolidated basis. While the Bank of Mauritius has the lead supervisory responsibility for the banking and non-bank deposit-taking sectors, apart from Money Changers and Foreign Exchange Dealers, the Financial Services Commission has the supervisory responsibility in respect of the other segments of the financial services.

The responsibilities of the two regulators overlapped as in the case of certain institutions, namely, deposit-taking entities engaged in leasing. There are also a few financial conglomerates having a presence in the areas of jurisdiction of both the regulators. There was therefore an urgent need for coordination between the two regulators to complement the supervision of licensed entities on a solo basis. This contributes to a more accurate assessment of the risks to which a financial institution is exposed.

To address this need, a formal mechanism for collaboration between the Bank and the FSC was put in place through a Protocole D'Accord (POA) signed in July 2007 between the two regulators, which *inter alia* provided for the setting up of a Joint BOM/FSC Coordination Committee. The POA also envisages that the parties agree on the extent of their responsibilities and harmonise their procedures with respect to financial institutions which are regulated by both institutions. It is thus a framework for co-operation between the Bank and the FSC in their common pursuit to maintain a safe, efficient and stable financial system in Mauritius.

## 4. THE DOMESTIC FINANCIAL MARKET

### 4.1 Foreign Exchange Market

The global financial crisis, which traces its origins to the US subprime market, has snowballed into a full-fledged economic crisis with a number of advanced economies already in a recession and several emerging economies facing a severe downturn. In this regard, central banks throughout the world have been reducing interest rates significantly to mitigate the adverse impact of the financial crisis and support recovery from the economic recession.

As the crisis amplified internationally and showed signs of being more severe and prolonged than initially anticipated, the Bank of Mauritius has taken preventive measures to mitigate the adverse impact on the economy with various cuts in the key Repo Rate and the Cash Reserve Ratio and the introduction of a Special Foreign Currency Line of Credit.

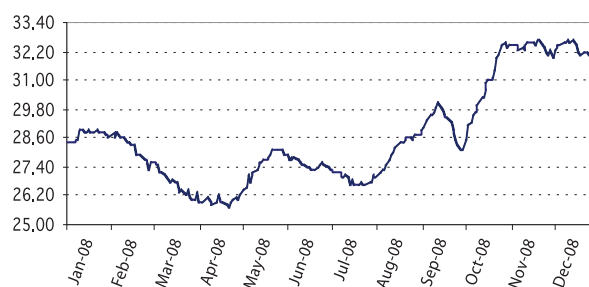
The Bank was concerned that banks' operations may be affected due to non-availability, or inadequacy, of foreign exchange credit facilities, from their usual sources, which may adversely affect banks' ability to finance the country's requirements in trade. As a result, the Bank decided to make available to banks operating in Mauritius a Special Foreign Currency Line of Credit aggregating USD125 million, equivalent to Rs4 billion, from its own reserves to assist them in maintaining the financing of the country's trade requirements and at the same time ensuring the stability of the domestic financial system.

Intervention by the Bank of Mauritius in the domestic foreign exchange market aims at smoothing out volatility in the rupee exchange rate and improving the functioning of the market. Against a backdrop of surplus liquidity prevailing on the domestic foreign exchange market at the start of the year 2008, stemming mainly from proceeds of Integrated Resort Scheme (IRS) and portfolio investments, the Bank of Mauritius intervened and purchased foreign exchange equivalent to USD240.6 million, during the period January to April 2008. Subsequently, the

supply of foreign exchange slowed down in the market and with a view to easing the market, during the period June to December 2008, the Bank injected USD217 million in the system. Table 5 depicts the intervention by the Bank and Chart 14 gives the evolution of the dealt rates.

Chart 14: Daily Dealt Rates of the Rupee against Major Currencies

Rs/USD



Rs/Euro



Rs/GBP



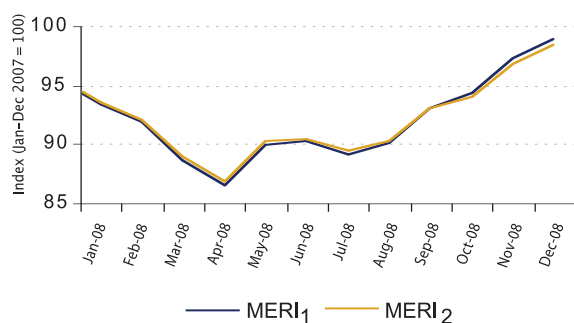
Source: Bank of Mauritius

Table 5: Intervention by the Bank of Mauritius in the Domestic Foreign Exchange Market

Period	Sale of US dollar (US\$ Mn)	Range of Intervention (Rs/US\$ Ask Rate)	Purchase of US dollar (US\$ Mn)	Range of Intervention (Rs/US\$ Bid Rate)	Purchase of EURO (EUR Mn)	Range of Intervention (Rs/EUR Bid Rate)	Purchase of GBP (GBP Mn)	Range of Intervention (Rs/GBP Bid Rate)
Jan-08	0.0	-	21.0	28.20-28.50	0.0	-	1.0	56.62
Feb-08	0.0	-	35.0	27.20-27.75	0.0	-	0.0	-
Mar-08	0.0	-	120.0	26.29-26.95	5.5	40.65-41.25	0.0	-
Apr-08	0.0	-	54.0	25.90	0.0	-	0.0	-
May-08	30.0	27.60-27.75	0.0	-	0.0	-	0.0	-
Jun-08	15.0	27.25	0.0	-	0.0	-	0.0	-
Jul-08	0.0	-	0.0	-	0.0	-	0.0	-
Aug-08	25.0	27.95	0.0	-	0.0	-	0.0	-
Sep-08	22.0	29.00	0.0	-	0.0	-	0.0	-
Oct-08	70.0	29.00-31.90	0.0	-	0.0	-	0.0	-
Nov-08	55.0	31.75-31.90	0.0	-	0.0	-	0.0	-
Dec-08	0.0	-	0.0	-	0.0	-	0.0	-
<b>Total</b>	<b>217.0</b>	<b>-</b>	<b>230.0</b>	<b>-</b>	<b>5.5</b>	<b>-</b>	<b>1.0</b>	<b>-</b>

Source: Bank of Mauritius

In terms of the nominal effective exchange rate, two measures of an effective exchange rate, namely MERI<sub>1</sub> (Mauritius Exchange Rate Index) based on the currency distribution of merchandise trade as weights, and MERI<sub>2</sub> based on the currency distribution of merchandise trade combined with the currency distribution of tourism receipts as weights, have been used. During 2008, the rupee, on average, appreciated in nominal effective terms by 8.82 per cent according to the MERI<sub>1</sub> and 8.76 per cent according to the MERI<sub>2</sub> compared to 2007. Movements of MERI<sub>1</sub> and MERI<sub>2</sub> during 2008 are shown in Chart 15.

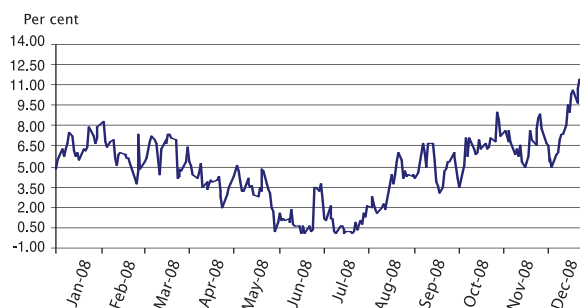
Chart 15: Movements of MERI<sub>1</sub> and MERI<sub>2</sub>


Note: An increase (decrease) in the index indicates depreciation (appreciation) of the MERI.

Source: Bank of Mauritius

Against the backdrop of increasing uncertainties in the global financial environment, banks have adopted a conservative approach as indicated by the exposure limits that they have maintained over the year. In fact, as per the Bank's guidelines, banks are permitted to maintain an exposure limit of, at most, 30 per cent of their Tier 1 capital. It was, however, noted that banks, have in general, maintained an average daily foreign exchange exposure in the range of 0.08 per cent to 12.62 per cent. Chart 16 provides the evolution of the average daily foreign exchange exposure of banks during 2008.

Chart 16: Average Daily Foreign Exchange Exposure of Banks as a Percentage of Tier 1 Capital



Source: Bank of Mauritius

## 4.2 Domestic Money Market

In April 2008, the Bank announced a series of operational changes in the management of liquidity. Thus, the auctions of BOM Bills were separated from those of Government of Mauritius Treasury Bills. Moreover, the Bank has widened the corridor of the key Repo Rate from +/- 50 basis points to +/-125 basis points and introduced an overnight collateralised facility available to banks at 150 basis points above the key Repo Rate.

Following the increase in the Cash Reserve Ratio of banks from 4.0 per cent to 6.0 per cent with effect from the fortnight beginning 15 August 2008, some tightening emerged in the domestic money market. This drained significant amount of liquidity in the system and on 14 August 2008, the Bank intervened in the domestic interbank money market and proceeded with the early redemption of Bank of Mauritius Bills for an amount of Rs1.7 billion and the purchase of Government of Mauritius Treasury Bills for an amount of Rs2.3 billion. The tightness experienced by the domestic inter-bank market from around end-September 2008 was unrelated to the liquidity crunch that had manifested in developed economies but was mainly due to the tax payments accentuated by the facility of on-line payments introduced last year.

During the year 2008, the Bank has reactivated its repo operations and extended the maximum period of repo transactions from 14 to 21 days. The Bank injected liquidity into the system through the conduct of fifteen repo transactions for periods ranging between 7 to 21 days for a total amount of Rs24.4 billion during the period September to

December 2008. Details are given in Table 6. It should be noted that there was no repurchase transaction from January to August 2008.

With a view to shoring up the economy and strengthening its resilience against the backdrop of the global economic downturn, the Cash Reserve Ratio was decreased from 6.0 per cent to 5.0 per cent with effect from the fortnight beginning 7 November 2008 and further revised downwards to 4.5 per cent with effect from the fortnight beginning 19 December 2008.

During 2008, movements of overall weighted average yields of Government of Mauritius Treasury Bills generally reflected changes in the key Repo Rate. The overall weighted average yields of Government of Mauritius Treasury Bills increased steadily from 7.18 per cent at the beginning of April 2008 to a peak of 9.49 per cent on 17 October 2008 followed by a declining trend thereafter to reach 8.83 per cent at the end of December 2008. Similarly, the overall weighted average yields of Treasury Notes increased from 10.30 per cent at the beginning of the year to reach a peak of 10.81 per cent in October 2008 and declined to 9.79 per cent in December 2008. Yields on other medium to long term Government Securities have followed the same trend.

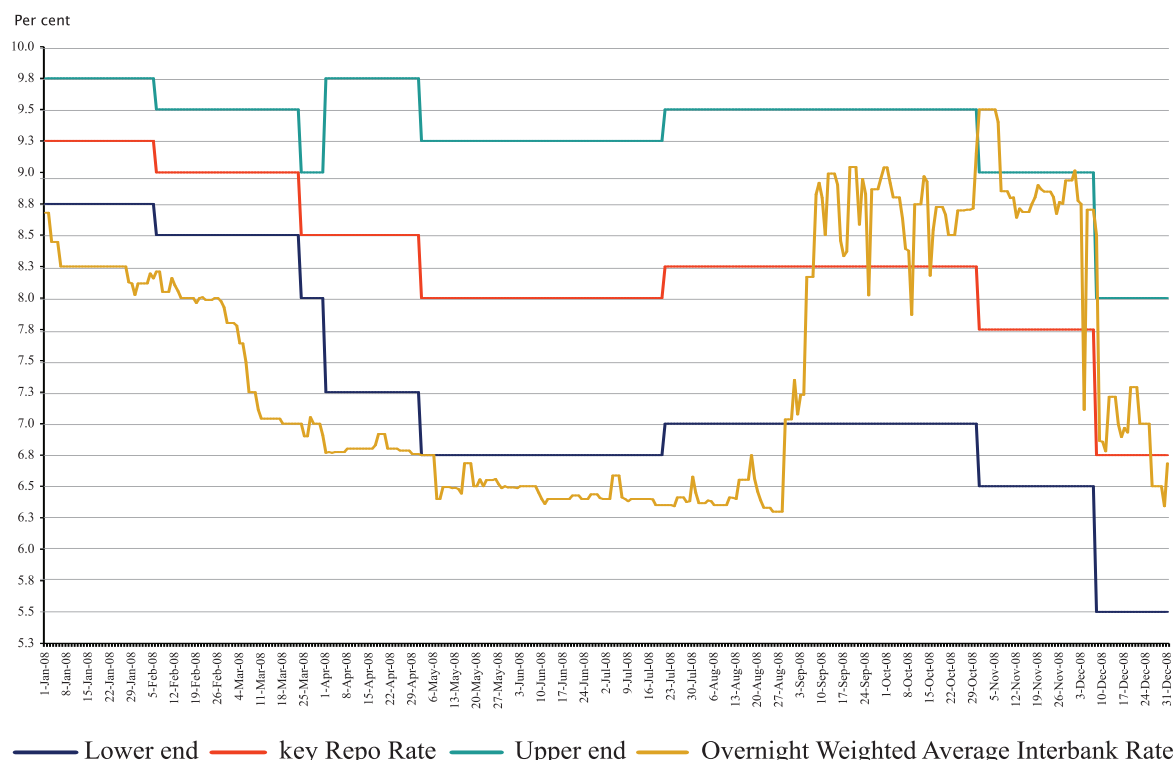
The volume of inter bank transactions during the year 2008 amounted to Rs195.5 billion compared to Rs122.4 billion during 2007, with a daily average of Rs0.54 billion. The overnight interbank interest rate which peaked at 9.50 per cent on 3 November 2008 fell to 6.25 per cent at end of December 2008. Similar trends have been observed in the short notice rates which dropped

Table 6: Repurchase Transactions between Bank of Mauritius and Banks: September-December 2008

	Repurchase Transactions Held					
	Number of Transactions	Amount Accepted	Repurchase Period	Range of Yields on Bids Received	Lowest Yield Accepted	Weighted Yield on Bids Accepted
		<i>Rs mn</i>	<i>(Days)</i>	<i>(Per cent per annum)</i>		
Sep-08	4	3,500	7 - 14	9.50	9.50	9.50
Oct-08	5	12,255	4 - 14	9.50	9.50	9.50
Nov-08	3	5,590	7	9.00	9.00	9.00
Dec-08	3	3,050	7 - 21	8.00-9.00	8.00	8.52

Source: Bank of Mauritius

Chart 17: Overnight Money Market Rates



Source: Bank of Mauritius

from a high of 9.50 per cent reached on 12 September 2008 to 7.00 per cent at the end of December 2008. The overnight interbank interest rate, which was trading below the lower bound of the corridor as from November 2007, has since the end of August 2008 again moved within the corridor of the key Repo Rate. Chart 17 depicts the movements of overnight weighted interbank rates and the key Repo Rate.

Normal conditions continue to prevail in the domestic money and foreign exchange markets. Despite the intensification of the financial crisis which clogged credit in many countries, there are no signs of any credit squeeze in the domestic market. However, the Bank remains vigilant to unfolding developments on the international arena.

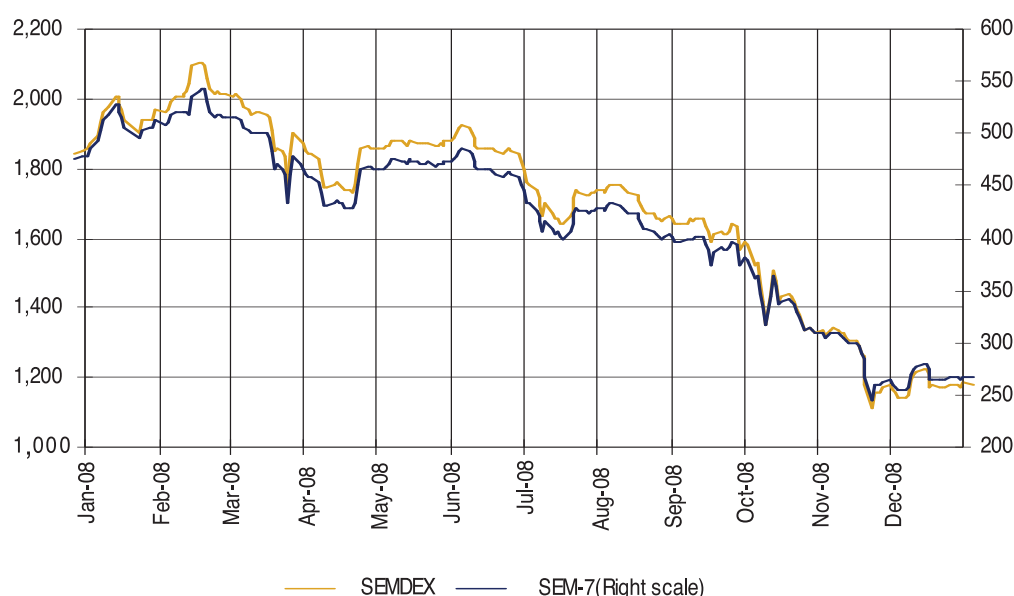
### 4.3 Evolution of Local Stock Market

The domestic stock market was significantly affected in the year 2008 with the broadening and intensification of the international financial crisis which heightened risk aversion, moving largely in tandem with major foreign stock markets.

Despite fundamentals of local companies staying reasonably sound, the SEMDEX and the SEM-7 tumbled in the second half of the year (see Chart 18). In 2008, the SEMDEX and the SEM-7 lost 36.1 per cent and 44.0 per cent, respectively, in contrast to the year 2007 when they moved higher by 53.8 per cent and 80.6 per cent, respectively. Reflecting the movements in market indices, banks' share prices, on average, declined by 31.0 per cent in 2008, as against an increase of 77.8 per cent in the previous year. By December 2008, the SEMDEX was below the 1200 points, a level last seen in December 2006. Market capitalisation tumbled by 36.9 per cent in 2008. Transactions by foreign investors on the Stock Exchange of Mauritius showed net purchases of Rs1.2 billion during the period January through September 2008. However, with the intensification of the global crisis in September 2008, a reversal was noted and foreign investors disinvested a total amount of Rs0.43 billion in the last quarter of 2008.

In sum, the domestic stock market was also hit by investors' increased risk aversion, against the backdrop of weaker growth prospects for external demand-led sectors. Looking ahead,

Chart 18: Evolution of SEMDEX and SEM-7



Source: Stock Exchange of Mauritius

disinvestment by foreign investors, if sustained, could exacerbate pressures on the domestic foreign exchange market and impact on the exchange rate of the rupee.

#### 4.4 Derivatives Market in Mauritius

The spectrum of financial markets in Mauritius widened with the establishment of a Commodity Derivative Market in November 2008, the first pan-African derivatives exchange and a gateway to serve the African continent. The Commodity Market will offer trading on electronic platform to the global investing community in a wide range of commodities including precious and base metals, energy and freight derivatives.



## 5. FINANCIAL SYSTEM INFRASTRUCTURE

A well supervised payments system is essential for financial stability. Under the Bank of Mauritius Act 2004 the Bank is vested with the responsibility for the payment system. The Mauritius Automated Clearing and Settlement System (MACSS), which works on the principles of Real Time Gross Settlement System is at the centre of all payment and settlement transactions in the country. It is the main infrastructure for other transactions like settlement for the Central Depository System and card payments as well as for payments to the revenue authority.

At present, only banks and the Accountant General's Office are authorised to participate in MACSS. The MACSS Participant Procedures lay down the framework for the participants. The oversight function presently undertaken by the Bank comprises the collection of information from daily reports on the movement of liquidity among participants of MACSS and data from other sources, the analysis of the information and initiation of actions as appropriate. The Procedures further require participants to report to the Bank all disaster recovery and business continuity plans on a yearly basis besides reporting immediately on occurrence any technical or operational problem that prevents banks from processing payments.

In 2008, although there have been some incidents of a technical nature, payment operations on the market were smooth and all payment instructions were settled within the same value date. Participating banks were closely monitored to ensure that their systems were available and contingency plans were reported as per MACSS rules. In recognition of the impact of operational risks in the payment systems, the Bank took steps to ensure that the system parameters on the MACSS were continuously monitored.

The Bank also took strategic decisions to ensure that in the long-term its statutory obligations to provide stable payment system infrastructure were maintained. The Bank decided to replace the MACSS application which was in operation for

the past nine years. Furthermore, the Bank has worked on a Cheque Truncation System to carry out clearing through a technologically secured system. The project will be deployed within the next quarter.

### 5.1 The Mauritius Automated Clearing and Settlement System

The MACSS was set up in 2000. It was the first phase of the modernisation of the payments system. It has fulfilled its objective of containing systemic risks in the payment system by providing a fast, secure and reliable means of funds transfer. However, pressing demands of a growing financial sector and increasing cross-border transactions pose new and complex challenges to the current payment system infrastructure. In recognition of the need for a more dynamic, flexible and business-friendly payment system capable of better resisting systemic shocks and providing for international exposure, the Bank decided to replace the existing MACSS application.

The new application meets higher standards of performance. For instance, it

- is based on best international practice
- is built on a more resilient architecture
- supports multi-currency transactions
- has extended settlement windows
- provides for low-cost messages.

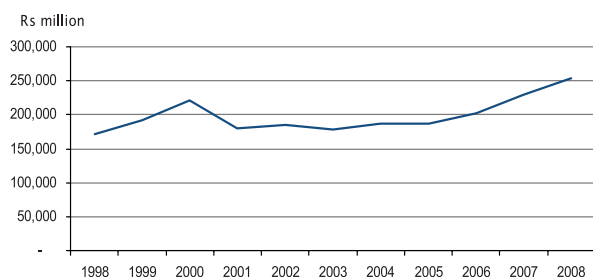
The core application is operational as from 14 January 2009 and all advanced features will be implemented after discussions with stakeholders during the first quarter of 2009.

### 5.2 Cheque Truncation Project

The value of cheques dealt at the clearing house has been growing consistently. In 2008, the value registered a 14 per cent growth over the previous year (Chart 19). As cheques carry intrinsic credit and settlement risks which expose the whole



Chart 19: Value of Cheques



Source: Bank of Mauritius

system to potential systemic risks, it was deemed imperative to upgrade the payment system. The cheque truncation system will substantially mitigate such risks with the added possibility of allowing participating banks to further reduce the risk by agreeing on large-value settlements.



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