



Financial Stability Report

Risk Assessment of the Financial System

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Risk Assessment of the Financial System

Overview

The Malaysian financial system demonstrated a high degree of resilience even as the global financial crisis affected the global economy, including Malaysia, which recorded an economic contraction of 1.7%. Threats to financial stability were identified at the early stages and were well-contained through pre-emptive and coordinated policy responses. Stability of the Malaysian financial system was therefore preserved despite the adverse economic conditions and heightened market volatility in the first half of 2009. The strength and capacity of the Malaysian financial system in weathering and responding to the challenging conditions were put to the test as the system braced for potential widespread delinquencies and further market instabilities. The state of readiness of the Malaysian financial institutions to manage these mounting pressures, reinforced by precautionary measures that were put in place by the Government and Bank Negara Malaysia, were instrumental in enabling the Malaysian financial system to emerge sound and stronger amidst these challenges. The domestic financial markets remained orderly despite experiencing heightened volatility and risk aversion during the initial periods. Against these fundamental strengths and given the ample liquidity, the financial system was able to continue in carrying out the financial intermediation process, payment and settlement, provision of protection against risks and other necessary financial services to the economy effectively and efficiently. The strong aggregate financial positions of the Malaysian households and businesses reinforced the capacity, flexibility and buffer to adjust to the more challenging business and employment conditions, while contributing towards greater overall financial stability in 2009.

The strengthened fundamentals of the Malaysian financial sector, underpinned by strong financial buffers and progressive enhancements to the risk management infrastructure and technical capabilities over the years, enabled financial institutions and the system as a whole to withstand the global financial and economic crisis and other risks. These include concerns on the rising and high public debt levels, build-up in

asset prices and financial imbalances in certain parts of the world, and ample liquidity in the international financial system. Some economies have introduced macroprudential measures to manage the capital inflows, particularly those into the equity and property markets. In the domestic financial system, the level of capitalisation of the financial sector strengthened further as institutions pro-actively boosted the level and quality of capital buffers even prior to the deepening of the global financial and economic crisis.

Financial stability in Malaysia continued to be preserved amidst the more challenging operating environment. There was continued financial intermediation, payment and settlement, and protection against risks to the broader economy

The overall level of loan delinquencies continued to decline during the year, contrary to initial expectations and despite more significant strains on some borrower segments in the first half of the year. The Malaysian banks continued to supply the amount of credit needed by the economy at reasonable costs. This is extremely important as the orderly functioning of financial intermediation activities is a crucial element in supporting economic activity. With the benefits of lessons learnt from the Asian financial crisis more than a decade ago, dedicated resources were allocated by the banks to initiate more timely and pro-active engagements with their borrowers. Such responses have enabled appropriate responses to provide some relief to borrowers facing greater financial burdens during such a challenging environment. This in turn have paved the way for greater repayment flexibility which allowed the borrowers to focus on managing the challenging business operations instead of being overly concerned with the likelihood of banks cutting credit lines or demanding for prompt and full repayment of

debts. These, together with prudent underwriting standards, more sophisticated risk management practices and responsible lending had also led towards preserving the quality of the loan portfolio of the banks.

The greater inter-linkages of the Malaysian economy and financial system with the region and the rest of the world will continue to exert challenges to the maintenance of financial stability on the domestic front. While global economic and financial conditions have improved tremendously towards the second half of 2009, uncertainties relating to the sustainability of this recovery remain. It is therefore vital to continue to enhance the state of readiness of the Malaysian financial system to have the capability to manage the risks moving forward.

Global macroeconomic and financial developments

The international economic and financial conditions deteriorated significantly in the first quarter of 2009. A large number of economies experienced significant declines in real gross domestic product (GDP), prompting the sharpest contraction of the global economy since the Second World War. The global financial crisis led to a sharp decline of private sector demand in the advanced economies, as households reduced consumption and businesses cut back on production and investment activities. The ensuing contraction in demand from the advanced economies led to the collapse of global trade and adversely affected regional economies, through declines in exports and production.

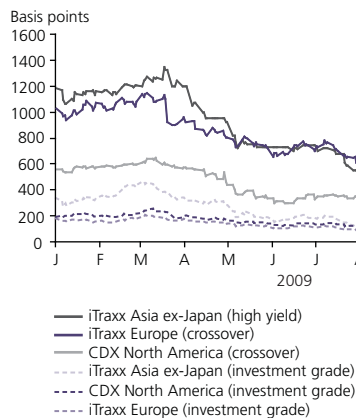
In response to the severe recession, governments and central banks across the world implemented unprecedented monetary and fiscal measures to restore stability in the financial system and provide support to the real economy. As a result, both economic and financial conditions began to stabilise and in the second half of the year, countries gradually emerged from the recession. While the extraordinary policy responses had helped to stabilise the financial markets and arrest the sharp deterioration in real sector activities, economic recovery remained fragile and uneven. Growth experienced by most countries relied heavily on policy support. In the advanced economies, weak labour market conditions and fragile financial systems continued to weigh on

domestic demand. In tandem with the gradual global recovery and a steady rise in commodity prices, deflationary pressures eased and consumer prices in most countries started to edge marginally higher. However, rising equity and property prices in several economies have given rise to concerns on potential asset price inflation.

Uncertainty about the depth and duration of the economic contraction led global equity markets to decline sharply. The Morgan Stanley Capital Index (MSCI) World and Asia (excluding Japan) Indices declined by 18.4% and 12.1% respectively in the first two months of 2009. In the credit markets, the rate for Credit Default Swap (CDS) rose sharply, particularly for non-investment grade papers on concerns of higher defaults (Chart 1.1). The spread between LIBOR and Overnight Index Swap (OIS) for US dollar narrowed by 23.8 basis points in the first quarter of 2009 as conditions in the interbank markets improved slightly supported by various liquidity support measures and government guarantees (Chart 1.2). Nonetheless, levels were still higher than those observed prior to the crisis, reflecting that risk premium on banks has yet to normalise.

In the second quarter of 2009, the turnaround in market sentiments following the series of announcements of better-than-expected macroeconomic indicators and corporate earnings, contributed to the bullish performance of equity markets. By the end of June 2009, losses from the first quarter of the year were fully reversed. Fears

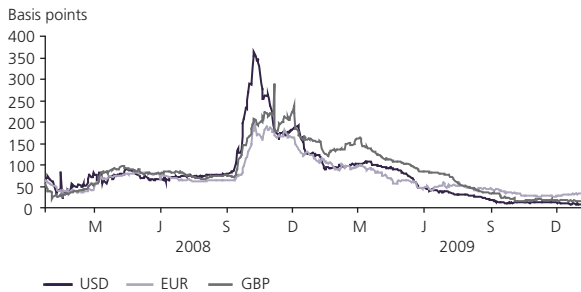
Chart 1.1
Credit Default Swap Indices¹



¹ Index for 5-year tenure

Source: Reuters

Chart 1.2
3-month LIBOR Less 3-month Overnight Index Swap (OIS)



Source: Bloomberg

that the rally in the second quarter outpaced the prospects of economic recovery led to some moderation in the pace of increase in global equity markets in the third quarter. Stronger signs of economic recovery began to emerge in the fourth quarter of 2009, with some economies recorded positive growth. Markets, nonetheless, continued to remain uncertain about the potential unwinding of monetary, fiscal and other exceptional policy measures introduced during the global financial crisis. In the credit markets, cost of protection on bond default subsided as events of default were lower than initially anticipated. Meanwhile, conditions in the interbank markets continued to improve, with spread between LIBOR and OIS reverting to pre-crisis levels.

In the emerging markets, prospects of a stronger economic recovery have led to the surge of capital inflows into these economies, causing equity markets to increase sharply. The MSCI Emerging Market Index rose by 74.1% in 2009, significantly outpacing the performance in the developed markets. In efforts to contain build-up in asset price bubble, some emerging economies have introduced or announced readiness to deploy measures, if warranted, to manage the capital flows and reduce volatilities in the respective markets.

During the year, the increase in issuance of government papers to fund fiscal deficits following the announcement of sizeable economic stimulus and financial sector rescue packages exerted upward pressure on government bond yields, particularly the longer tenured papers. 10-year government bond

yields in the US and Euro area rose by 162.5 basis points and 43.6 basis points respectively whilst yields in Asia (excluding Japan) broadly rose between 14 and 232.7 basis points in 2009. The negative rating outlook and downgrade of some sovereign bonds during the year on concerns about deterioration in fiscal positions also contributed to the upward pressure on government bond yields.

Domestic macroeconomic and financial developments

Experiencing the full impact of the global recession, the Malaysian economy declined by 6.2% in the first quarter of the year. Exports and industrial production recorded double-digit declines, significantly affected by the collapse in external demand. Against this sharp contraction, employment, income and overall business and consumer sentiments deteriorated, given the high degree of openness of the economy. The economy stabilised in the second quarter and subsequently improved further in the second half of the year, benefiting from the accelerated implementation of fiscal stimuli, lower interest rates and comprehensive measures to ensure continued access to financing.

Economic recovery in the second half of the year was further supported by the gradual improvement in the global economy, particularly the regional economies. As a result of the strengthened domestic and external demand, the Malaysian economy turned around to record a positive growth of 4.5% in the fourth quarter of the year. On the supply side, the significant decline in growth in the first quarter was largely attributable to the sharp contraction in the manufacturing sector, particularly the export-oriented industries. Other sectors with the exception of construction, also recorded negative growth in the first quarter of 2009. While the positive growth in the construction sector throughout the year was driven primarily by the implementation of construction-related projects under the Ninth Malaysia Plan (9MP) and the fiscal stimulus packages, the gradual improvement in the growth of the services sector since the second quarter of the year was driven by the improvement in domestic demand. In tandem with the recovery in external demand, the manufacturing sector turned around to register a positive growth in the fourth quarter.

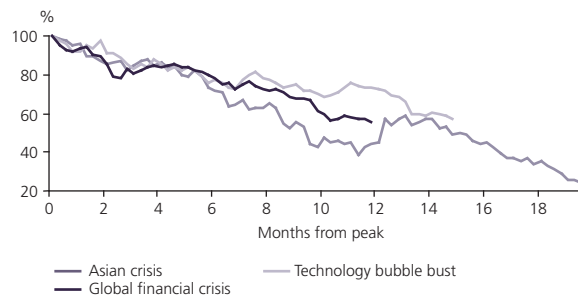
Headline inflation averaged 0.6% in 2009 (2008: 5.4%). Inflationary pressures in Malaysia moderated substantially, in line with the decline in global fuel and commodity prices and the lower inflation in Malaysia's major trading partners. The cumulative reductions in domestic retail petrol prices in the second half of 2008 contributed significantly to the moderating trend of domestic inflation in 2009. Malaysia's external position remained strong in 2009 despite the extremely weak external environment. The overall balance of payments recorded a surplus in 2009, supported by the surplus in current account, which more than offset the net outflows in the financial account.

Overall financial market conditions improved and exhibited resilience

Domestic financial markets continued to facilitate orderly financial intermediation in 2009, supported by ample liquidity and improvements in market confidence. Although heightened risk aversion in financial markets prevailed in the early part of 2009, trading liquidity in the equity and corporate bond markets improved markedly from the second quarter of 2009 onwards amid announcements of improved corporate earnings and signs that global economic conditions were deteriorating less rapidly than earlier expected. Enhanced prospects of recovery of the real sector resulted in improvements in risk appetite and greater optimism. This led to a significant increase in primary market activities in the second half of the year. As for the money market, the average interbank overnight rate continued to track closely the policy rates throughout 2009 as the domestic ringgit money market continued to function smoothly against the backdrop of ample market liquidity.

Equity prices remained volatile in the first quarter of 2009 due to sustained risk aversion and adverse external developments. The FTSE Bursa Malaysia KLCI (FBM KLCI) reached a trough at 838.4 in March 2009 from 876.8 at the beginning of 2009. The equity market proved to be more resilient compared to past declines reflecting a deeper and more liquid market (Chart 1.3). Investors' confidence returned in the second quarter of the year as the market began pricing in the RM67 billion stimulus packages and the measures undertaken to liberalise the financial services sector. This was also reinforced

Chart 1.3
FBM KLCI During Crises



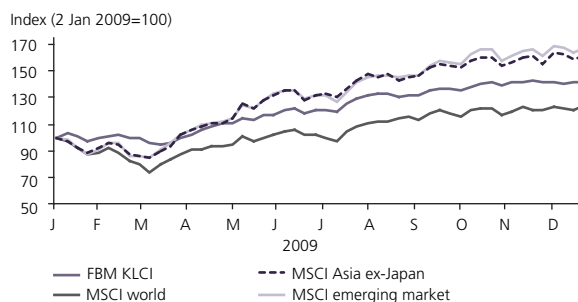
Cumulative decline from peak to market turnaround. Previous peaks were: Asian financial crisis = 28 February 1997; Technology bubble bust = 31 March 2000; Global financial crisis = 11 January 2008

Source: Bloomberg and internal computation

by improved regional economic outlook and the Government's pro-growth policies.

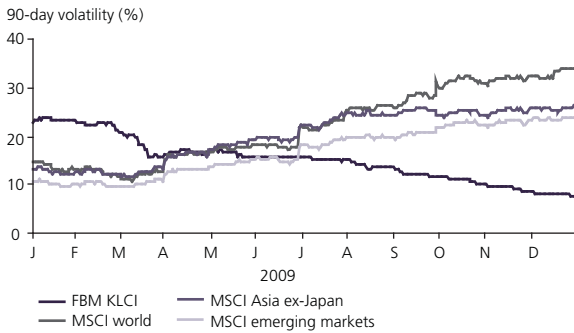
The upward trend in the FBM KLCI in the second half of 2009 was supported by recovery in several economic sectors, namely plantation, which was driven by higher crude oil and crude palm oil prices, as well as financial and property sectors. The sectoral indices for plantation, financial and property counters rose over 50% in 2009. Similarly, the recovery in the index for the construction sector exceeded 35% during the year. Against the backdrop of a broad upturn in equity market across all economic sectors, the FBM KLCI, although rising at a slower pace compared to other emerging markets, concluded 2009 at 1,272.8 points having risen 45.2% for the entire year (Chart 1.4). Accordingly, volatility reverted to pre-crisis level, ending the year at 7.3%, a level that was observed in December 2006 (Chart 1.5).

Chart 1.4
Performance of Global Equity Markets



Source: Bloomberg and internal computation

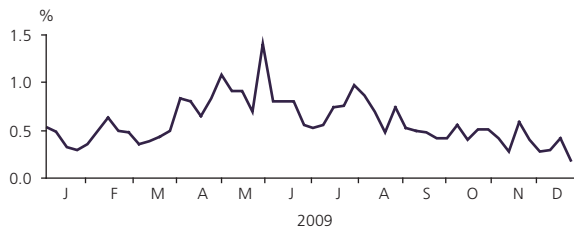
Chart 1.5
Volatilities of Global Equity Markets



Source: Bloomberg

Trading liquidity in the equity market was on average higher than in 2008. Bid-ask spreads narrowed, averaging 93 basis points in 2009 compared to 113 basis points in 2008 whilst the FBM KLCI average weekly turnover ratio was sustained at 0.6% of total market capitalisation (2008: 0.8%) (Chart 1.6). While the surge in buying-interest and strategic investment activities by institutional investors had spurred the domestic equity market, trading activities tapered off in the second half of 2009 as valuations rose, evidenced by the doubling of the price-earnings (PE) ratio of FBM KLCI (2009: 22.4; 2008: 12.2). Moving forward, performance in the domestic equity market is expected to improve further as institutional investors with long-term investment views and strategic foreign investors continue to provide support to the market. Similarly, the measures taken to encourage gradual liquidation of Government-linked institutional holdings would also bolster liquidity in the market.

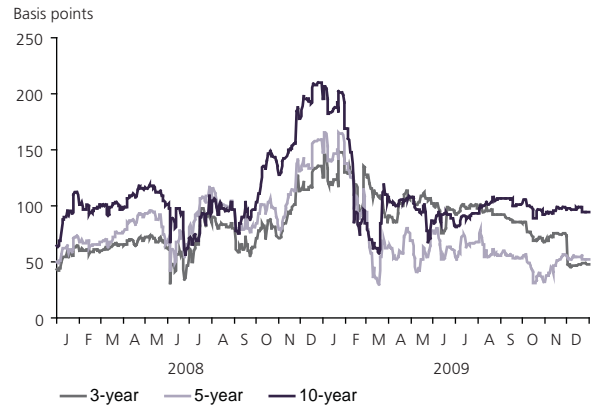
Chart 1.6
FBM KLCI Turnover Ratio¹



¹ Turnover ratio: Ratio of turnover value to market capitalisation

Source: Bloomberg and internal computation

Chart 1.7
Spreads of AAA-rated PDS against MGS

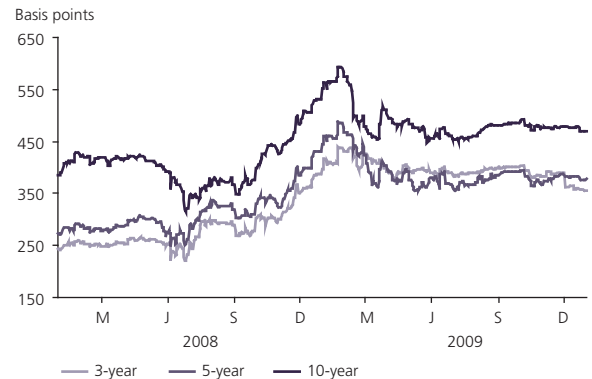


Source: Bloomberg and internal computation

Sentiment in the private debt securities (PDS) market remained subdued in early 2009 following the collapse of Lehman Brothers Inc. (Lehman) in 2008. Credit risk was a major concern early in the year as domestic corporations reported lower earnings. Negative ratings outpaced positive rating actions, with the downgrade-to-upgrade ratio of 18 times in the first half of 2009, well-surpassing the level observed during the Asian financial crisis. Credit spreads moderated since February 2009 but remained elevated across all rating segments (Chart 1.7 and Chart 1.8). Similarly, trading liquidity remained low on lackluster interest and heightened credit risk aversion.

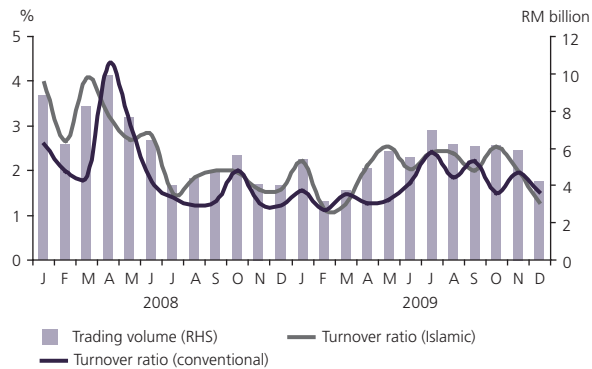
Activities in the PDS market turned around in the second half of 2009. While remaining below

Chart 1.8
Spreads of A-rated PDS against MGS



Source: Bloomberg and internal computation

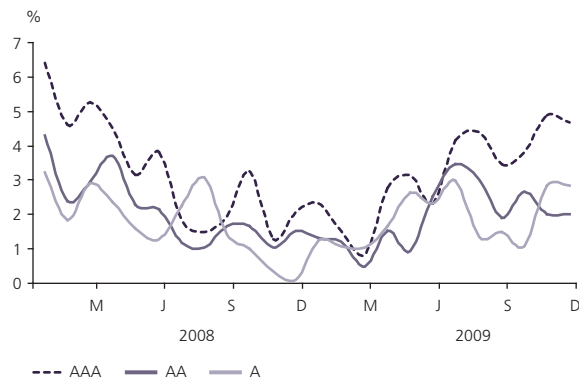
Chart 1.9
Turnover Ratio¹ for PDS (by principle type)



¹ Turnover ratio: Ratio of trading volume to total outstanding
Source: Bank Negara Malaysia and internal computation

the level observed in early 2008, trading liquidity improved across all rating categories and across both conventional and Islamic PDS amid decline in risk aversion (Chart 1.9 and Chart 1.10). Credit spreads eased from the historical high recorded in early 2009 particularly for high quality papers. Given the improving economic prospects and the favourable credit risk outlook, the downgrade-to-upgrade ratio declined significantly to 3.5 times (excludes revision in ratings for bank-guaranteed PDS) towards the end of 2009. Nonetheless, spreads for lower-rated PDS remained above the pre-Lehman failure due to continued credit risk concerns and reduced risk appetite for these credit segments. Meanwhile, a total of 12 issuers with outstanding PDS of RM1.1 billion defaulted in

Chart 1.10
Turnover Ratio for PDS (by credit profile)



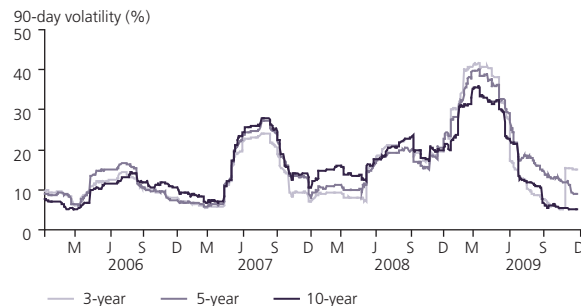
Source: Bond Pricing Agency Malaysia and internal computation

2009, accounting for only 0.5% of outstanding PDS in the market. Concerns on Dubai and Greece in late 2009, had very limited impact on the domestic bond market given the minimal exposures of Malaysian corporations and financial institutions to the two economies.

The government bond market remained generally resilient in spite of concerns over the increase in government borrowings and perceived broad-based increase in sovereign risk globally. Average volatility for Malaysian Government Securities (MGS) rose to 22.2% (2008: 15.6%) amid the sharp increase in issuance of government bonds to fund the fiscal support (Chart 1.11). Yields rose in the first quarter of 2009 despite a cumulative reduction of 125 basis points in the Overnight Policy Rate (OPR) during the same period. This resulted in the average spread between 3-year indicative MGS yields and OPR to widen to 75.3 basis points (2008: 15.1 basis points). The spread remained elevated and increased even further to 124 basis points in the last quarter of the year (Chart 1.12). The negative spread between interest rate swap (IRS) and MGS yields, which continued from 2008, turned positive and stabilised in the second half of 2009, reflecting expectations of no further OPR cuts and lower yield volatility (Chart 1.13).

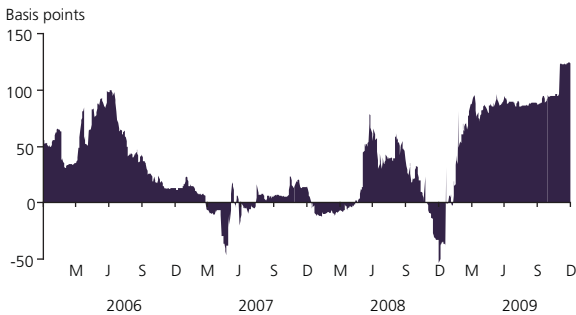
During the year, concerns over the deterioration in fiscal positions of global and regional economies to fund sizeable financial sector rescue and economic stimulus packages caused international rating agencies to revise downward the credit ratings of several sovereign bonds. The revision to Malaysia's long-term local currency issuer default rating to 'A' from 'A+' by an

Chart 1.11
Volatility in MGS Yields



Source: Bloomberg

Chart 1.12
Spread between 3-year MGS Yield and OPR



Source: Bloomberg and internal computation

international rating agency in June 2009 and heightened concerns over sovereign risks globally did not result in increased risk aversion in the MGS market. There was no significant tightening in trading liquidity, both in terms of price and volume. Average bid-ask spreads on benchmark MGS remained tight at an average of 12 basis points (2008: 10 basis points) whilst average monthly turnover ratio (computed as ratio of turnover value to outstanding bond) declined slightly to 10.1% (2008: 10.8%).

Intermediation in the capital markets remained intact

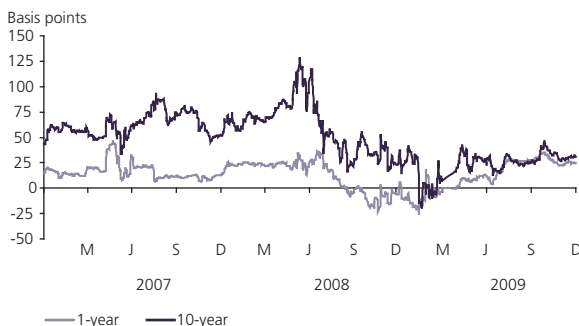
Domestic primary bond and equity markets continued to function smoothly to facilitate financial intermediation for corporations throughout the year. Initial public offering (IPO) activities recommenced in the second quarter after a subdued performance in the latter part of 2008. To a large extent, higher IPO activities were attributable to a number of listings by companies from the People’s Republic of China and the largest

IPO in the fourth quarter of 2009. Consequently, total value of funds raised through IPOs in 2009 rose to RM12 billion (2008: RM1.3 billion). Moving forward, the number of IPOs by non-resident corporations is expected to increase further given the increasing regional financial integration, as well as the conducive environment for fund raising arising from a series of measures introduced in 2009 to enhance the breadth and depth of the equity market.

Lower cost of funding and improvement in the domestic corporate sector outlook from the second quarter of 2009 onwards were fundamental in the recovery of primary activities in the PDS market. PDS issuances recovered from the lows observed in the second half of 2008 (Chart 1.14). Nonetheless, issuances remained skewed towards the higher-rated segment as credit spreads and cost of funding for lower-rated PDS remained elevated. Financial institutions had also tapped the PDS market to raise capital, while foreign issuers were observed returning to the market after months of being on the sideline due to uncertainty. With the sustained interest by non-residents to issue RM-denominated bonds, driven by competitive rates within the region and strengthening domestic demand, the cost of swapping ringgit to US dollar via cross currency swap market was sustained at relatively high levels throughout 2009 (Chart 1.15). In 2009, the amount of long-term PDS issued amounted to RM60.9 billion, slightly higher than the RM55.7 billion issued in 2008.

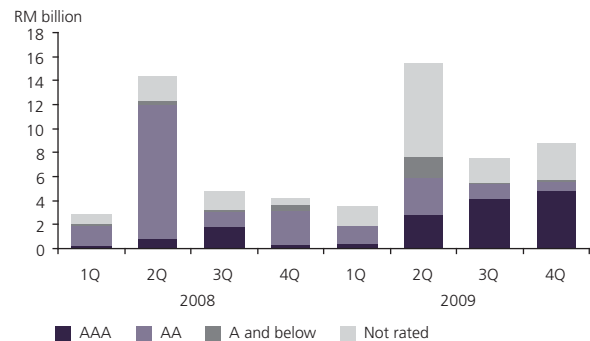
In the government debt securities market, issuances of MGS increased by 47.5% in 2009. Demand

Chart 1.13
Spread between Interest Rate Swap and MGS



Source: Bloomberg and internal computation

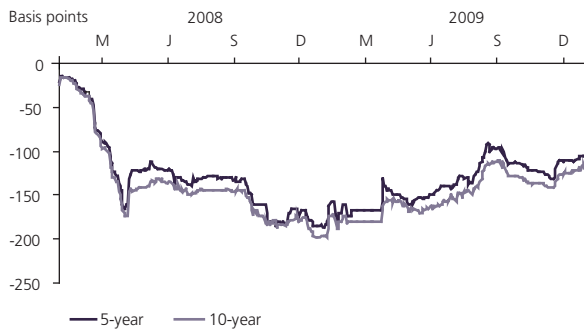
Chart 1.14
PDS Issuance by Credit Profile



Note: Data include only issuances by corporations

Source: Bank Negara Malaysia

Chart 1.15
Cross-Currency Swap



Source: Bloomberg

for MGS remained strong in spite of the supply concern. The bid-to-cover ratio for government bonds remained strong at 1.77 times (2008: 1.95 times). Total issuance of both government Islamic and conventional bonds amounted to RM88.5 billion (2008: RM60 billion) as investors, particularly domestic financial institutions, continued to seek risk-free assets as part of the portfolio rebalancing strategy.

Portfolio investment flows remained manageable throughout the year. Net portfolio outflows in the second half of 2008 continued in the earlier part of 2009 amidst global deleveraging. Nonetheless, inflows of portfolio investments from non-resident investors resumed in the second half of 2009 as prospects of a swifter-than-expected economic recovery in the region led to increased demand for emerging market assets, including those of Malaysia. For the year, portfolio investments registered a small net inflow of RM0.8 billion, compared to a net outflow of RM84.4 billion observed in 2008. While foreign investors continued to accord lower preference to the domestic equity market, non-residents' domestic bond holdings rose to 10.7% of bonds outstanding (2008: 8.1%).

Non-financial sectors

The capacity of households and businesses in managing financial stresses was put to test in 2009. The challenging domestic environment affected the income of some households albeit at varying degrees, due primarily to shorter working hours. Similarly, some businesses struggled to sustain revenue as sales volume declined.

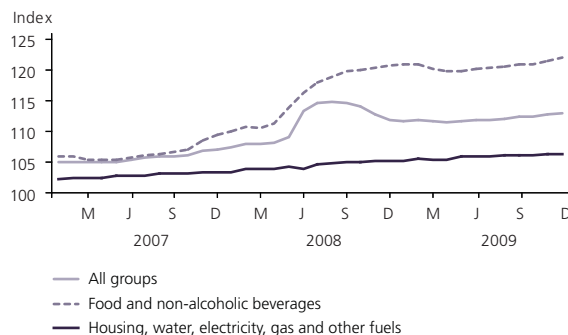
Years of building financial buffers and ensuring manageable level of indebtedness have placed households and businesses on a strong financial position to manage these challenges. Overall, resilience was well-preserved and many demonstrated agility to adjust to the more challenging operating environment. A small segment of the population and businesses was nonetheless faced with severe financial constraints and defaulted on debt obligations.

Households adjusted smoothly to challenges, facilitated by repayment flexibility by banks and supported by strong financial balance sheets and sustained debt servicing capacity

Strong household sector tolerance in bracing employment uncertainties

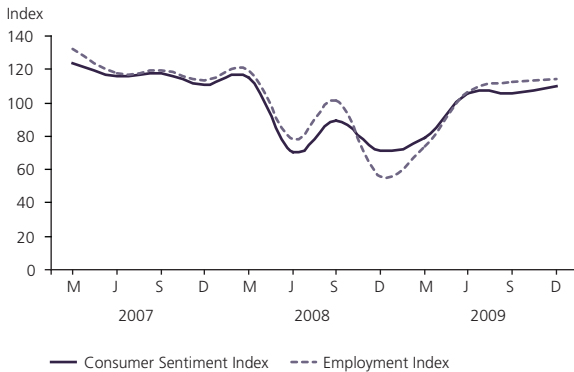
The household sector sailed through the year smoothly drawing on strong financial buffers that have been accumulated over several years. Households adopted a cautious attitude towards spending in the first half of 2009 on concerns surrounding the uncertainty as to the direction of the domestic economy and employment prospects (Chart 1.16). Consumer sentiments in early 2009 reached a low level before the sharp turnaround in the second half of the year in line with more visible signs of improvement in the macroeconomic environment and employment outlook (Chart 1.17).

Chart 1.16
Consumer Price Index



Source: Department of Statistics, Malaysia

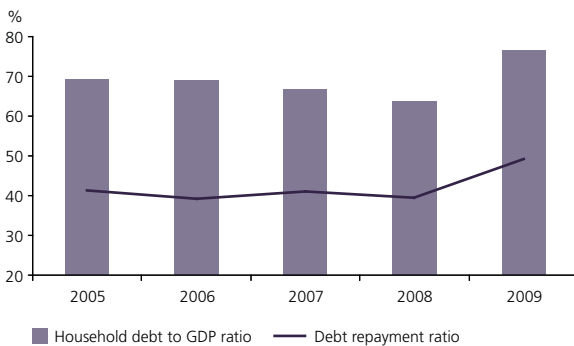
Chart 1.17
Consumer Sentiment Index and Employment Index



Source: Malaysian Institute of Economic Research

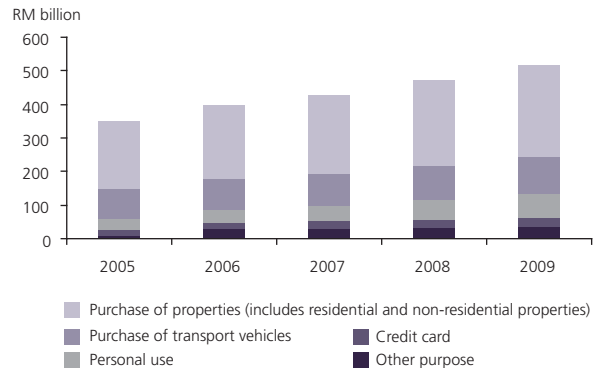
With the economy gaining strength in the second half of the year and the reasonably low borrowing costs, demand for financing began to regain its momentum on the back of improved confidence. Total household debt expanded by 9.4% to reach RM516.6 billion or 76.6% of GDP (2008: RM472.1 billion or 63.9% of GDP) as at end-2009 (Chart 1.18 and Chart 1.19). Almost half of household debts were concentrated in long-term secured borrowings to fund house acquisitions (2009: 46.2%). This resulted in the gradual increase in total household debt-to-personal disposable income from 114.9% in January 2009 to 136% in December 2009 (Chart 1.20). The level of Malaysia's household debt-to-GDP ratio remained manageable given the composition of the debts and the high degree of financial inclusion in Malaysia (Chart 1.21).

Chart 1.18
Household Indebtedness and Debt Repayment Ratio



Source: Department of Statistics, Malaysia, Bank Negara Malaysia and internal computation

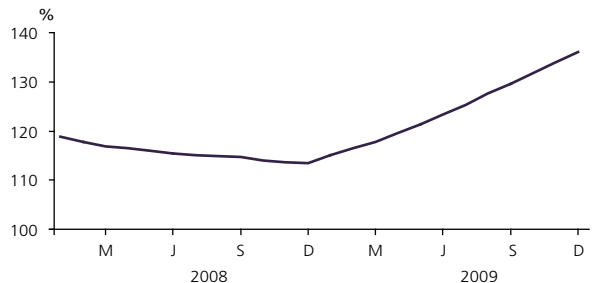
Chart 1.19
Composition of Household Debt by Purpose



Source: Treasury Housing Loans Division and Bank Negara Malaysia

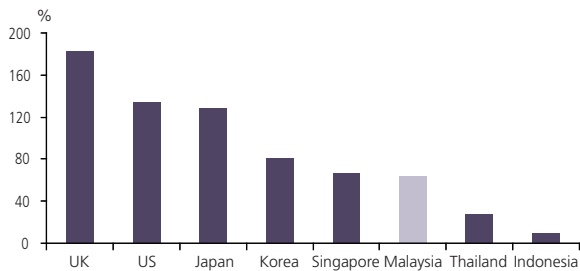
Unsecured financing also began to gain momentum. During the year, demand for equity related financing surged as households attempted to capture the rally in the equity market. The volume of personal financing and outstanding credit card balances also picked up in the second half, expanding at an annual rate of 17.6% to RM98.8 billion at the close of the year. In particular, personal financing expanded strongly at 22.9% in 2009 to now account for 14% (2008: 12.4%) of household debt. Credit card balances grew by 5.4% to RM26.7 billion mainly for consumption and retail purchases under the various flexible payment schemes offered by many card issuers. The volume of card-based purchases for the year rose 6.5%. Despite the continued increase in credit card transactions, the credit card exposures of households continued to be manageable. The amount of revolving balances as a percentage of outstanding balances remained

Chart 1.20
Total Household Debt to Personal Disposal Income Ratio



Source: Bank Negara Malaysia and internal computation

Chart 1.21
Household Debt to GDP Ratio (as at 2008)



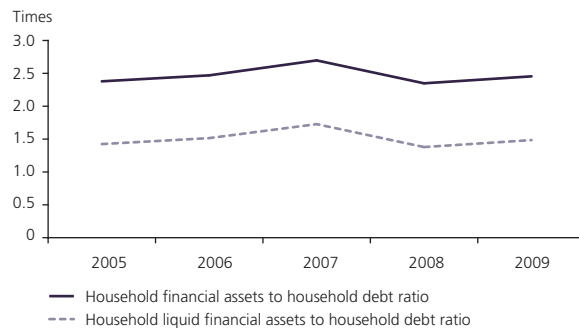
Source: CEIC data, reports on financial stability of respective countries, Department of Statistics, Malaysia and Bank Negara Malaysia

stable at 74.1%. Moreover, credit cards in circulation with revolving balances remained at 48.2% as at end-2009, demonstrating the sufficiency of households' capacity to make timely payments. Despite the income reduction facing some households, the usage of cash advances continued to be marginal, accounting for only 4.3% of total credit card transactions (2008: 4.5%).

Despite the continued growth in debt level, households continued to maintain strong capacity to tolerate adverse shocks. The level of financial assets expanded strongly on an aggregate basis by 19.3%, driven mainly by the higher investment valuation for equity and unit trust. The recovery in risk appetite and the strong FBM KLCI performance during the year tilted the composition of equity and unit trusts investments. As at end-2009, household financial assets were slightly higher at 2.5 times of total household debt (2008: 2.3 times), providing households with adequate flexibility to adjust to the demands of the challenging economic environment. Similarly, household liquid assets remained ample with the ratio of liquid assets-to-debts at a comfortable level of 148.6% (2008: 138.5%). Liquid assets accounted for 60.3% of household financial assets as at end-2009 (Chart 1.22 and Chart 1.23).

The impact of the economic slowdown was more felt by certain segments of the households which began to fall behind the monthly debt repayments. A total of RM13.2 billion of household debt with the banking system turned non-performing in 2009. The overall quality of household debts, however, continued to remain

Chart 1.22
Household Financial Assets to Household Debt Ratio

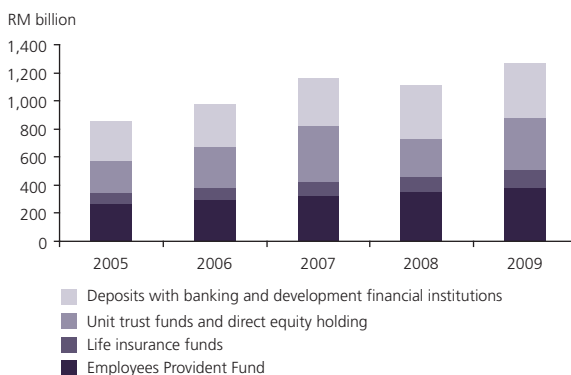


Source: Treasury Housing Loans Division, Employees Provident Fund, Securities Commission Malaysia and internal computation

high with low non-performing loans (NPL) ratio of 3.1% compared to 4.1% as at end-2008 (Chart 1.24). The ability to reschedule part of the debt repayments did help to provide some relief to the financial constraints facing the households.

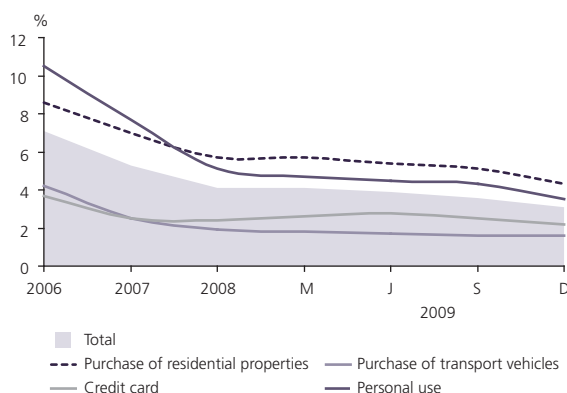
The debt servicing capacity of households is expected to remain favourable going forward. The strong financial buffer will continue to provide households with sufficient cushion to absorb future shocks to income. The prospects for further accumulation of the financial buffer remain positive with the recovery in the real sector. In strengthening the assessment of household sector vulnerability, emphasis will continue to be accorded to strengthen the availability of granular household information

Chart 1.23
Composition of Household Financial Assets



Source: Employees Provident Fund, Securities Commission Malaysia and internal computation

Chart 1.24
Banking System: NPL Ratio of Household Sector



Source: Bank Negara Malaysia

and the development of analytical tools through enhanced collaboration with various government agencies.

Business sector on steady recovery path, riding out the economic turbulence placidly with debt servicing capacity remaining robust on strong financial position

Operational flexibility supported the capacity of businesses in confronting the challenging year

Malaysian businesses, armed with financial buffers built over the years, confronted significant challenges in 2009 amidst slowing business environment and declining consumer confidence. Improvements in operational productivity and efficiency that had taken place in prior years have enabled businesses to brace against earnings erosion in the first half of 2009 and effectively preserved the strength of the balance sheets. Such measures, coupled with the economic recovery in the second half of the year, led to stronger financials that preserved the debt servicing capacity of businesses, as measured by the interest coverage ratio (ICR) (Table 1.1), throughout 2009.

During the first half of 2009, the performance of the 170 companies tracked by Bank Negara Malaysia (representing 86.2% of Bursa Malaysia

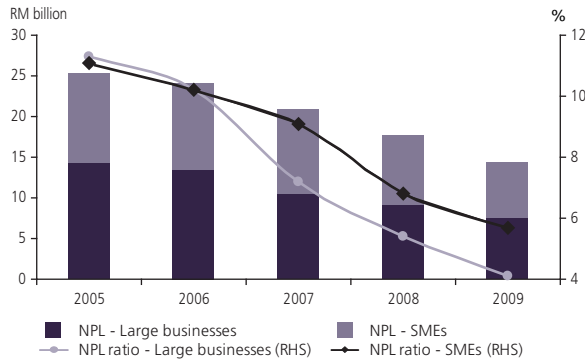
market capitalisation) remained subdued, particularly in the first quarter of 2009. Although the level of ICR for some industries moderated, strong balance sheets and accumulation of retained earnings cushioned the impact of the slowdown and underscored their sustained debt servicing capacity. This was further reinforced by the absence of a surge in bankruptcies and delinquencies. NPLs remained steady with NPL ratio of 4.7% as at year-end (Chart 1.25), the lowest level observed since the 1998 Asian financial crisis. The overall leverage position remained healthy with the median debt-to-equity ratio sustained at around 50% (Chart 1.26) in the first half of the year. Access to financing for large businesses and the small and medium enterprises (SMEs) via the banking

Table 1.1
Interest Coverage Ratio for Selected Industries

	2008		2009	
	1H	2H	1H	2H
Times (Median)				
Diversified operations	5.5	2.5	2.5	2.7
Export-oriented industries				
Plantation & agriculture	12.3	7.1	7.4	12.9
Oil & gas-related	5.8	5.9	5.1	1.3
Electrical and electronics	4.6	3.3	0.9	22.0
Rubber gloves	5.3	6.0	6.6	10.0
Chemicals & chemical products	12.8	1.3	14.9	5.7
Other manufacturing	4.1	2.4	2.5	5.5
Domestic-oriented industries				
Utilities	4.1	3.5	3.7	3.7
Infrastructure	3.9	3.1	3.1	3.3
Transportation	3.7	2.2	1.3	2.0
Telecommunication	4.8	1.3	2.3	3.3
Construction-related industries				
Civil engineering	4.5	0.5	2.4	3.1
Property	3.7	2.8	4.4	6.9
Building & construction materials	9.6	1.1	1.2	9.1
Consumer-related industries				
Automotive	28.4	16.6	10.0	27.2
Food, beverages and tobacco	8.5	9.6	12.2	20.3
Retail	7.8	11.1	9.1	14.6
Hotels and restaurants	1.8	2.4	1.9	1.4

Source: Bloomberg and internal computation

Chart 1.25
Banking System: NPL for Large Businesses and SMEs



Source: Bank Negara Malaysia

system was favourable throughout the year totalling RM127.6 billion with stable rates of loan approvals. Earnings before interest and tax (EBIT) recorded steady improvement beginning the second quarter (Chart 1.27) as business activities revived due mainly to restocking activities and the aggressive measures taken in the early part of the year to protect the balance sheet.

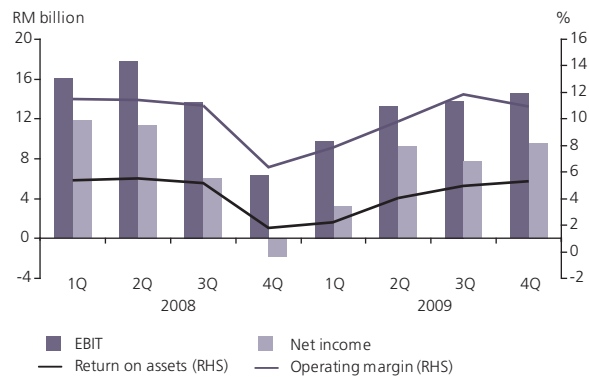
The Malaysian corporations fared better in the second half of 2009 following the global economic recovery, particularly in Asia, reinforced further by the year-end festivities and effects of the Government fiscal stimuli. Improved consumer sentiment leading to relatively higher consumer spending and local demand bolstered the recovery of Malaysian business activities. Profitability and debt repayment capacity in the second half of the year strengthened. Financing approval-to-application ratio for large businesses moderated in the first half

Chart 1.26
Debt-to-Equity Ratio for Selected Industry



Source: Bloomberg and internal computation

Chart 1.27
Profitability for Selected Companies

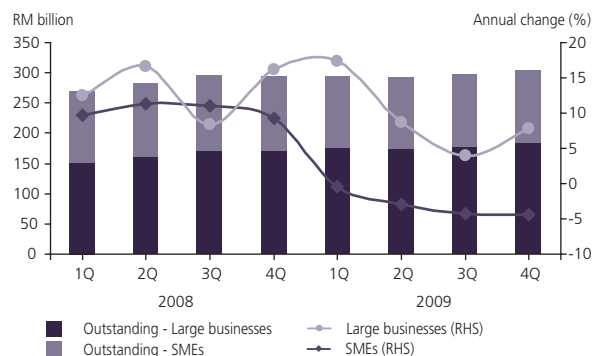


Source: Bloomberg and internal computation

of the year but recovered to 64.7% in the second half of the year in tandem with the economic recovery. Consequently, loans disbursed by the banking system to large businesses increased by 5.3% in 2009 to RM249.4 billion (Chart 1.28 and Chart 1.29).

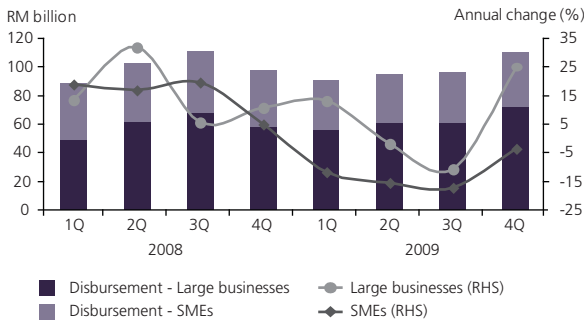
In search of higher yields amidst low global interest rate environment, international investors shifted towards the commodity market as an asset class. The world commodity price index (Chart 1.30) rebounded after experiencing a sharp price correction in the fourth quarter of 2008 and in the first quarter of 2009. While volatility remained low, commodity prices continued to rise throughout 2009 causing higher prices of raw materials and intermediate input.

Chart 1.28
Banking System: Outstanding Loans to Large Businesses and SMEs



Source: Bank Negara Malaysia

Chart 1.29
Banking System: Loans Disbursed to Large Businesses and SMEs

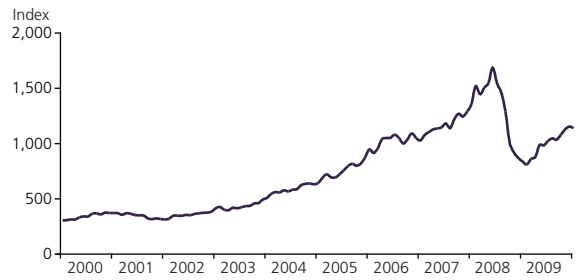


Source: Bank Negara Malaysia

Export-oriented industries were adversely affected in the first half of the year due primarily to sluggish external demand. The performance of the crude palm oil (CPO) industry was impacted by the weak global demand for commodities, resulting in continued decline in CPO prices in the first half of 2009. In addition, the low production volume, attributable mainly to unfavourable weather conditions and biological tree stress, has further weakened the earnings of CPO producers. These developments did not, however, affect the debt servicing capacity of CPO producers (Chart 1.31). The ICR further improved in the second half of 2009, supported by the higher earnings from the stabilised CPO prices and improved yields on fresh fruit bunches against the backdrop of seasonal biological yield up-cycle.

Performance of the oil and gas (O&G) industry remained subdued in 2009 weighed down mainly by the weak business activities in the O&G-related services segment. In the first half of the year, O&G-related service providers faced weak demand as exploration and production (E&P) projects were still in the tender stages. This was further exacerbated by the low charter rates stemming from intense global competition. The subsequent gradual recovery in demand in the second half of the year was insufficient to offset the continued intense competition with oversupply of vessels. Although financial performance deteriorated, the segment was supported by strong financial reserves amassed in previous years. This supported the segment's steady solvency position and debt servicing capacity despite the lower ICR. The refiners and

Chart 1.30
Commodity Price Index

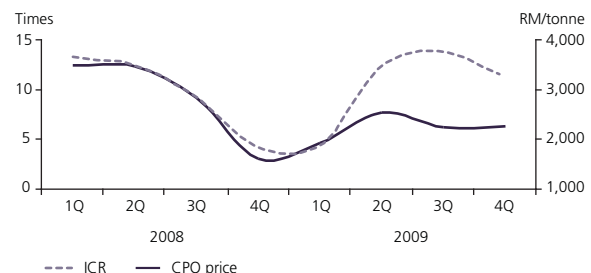


Source: Bloomberg

retailers segment improved in the first half of the year attributable to the normalisation of retail fuel consumption following the reduction in pump prices. Coupled with inventory gains against the backdrop of an upturn in crude oil prices and economic recovery, this segment continued its momentum in the second half of the year. Outlook for the overall industry is positive going forward, underpinned by the growth of the order book among O&G-related service providers and rising E&P activities, whilst sustained crude oil price will further support the refiners and retailers.

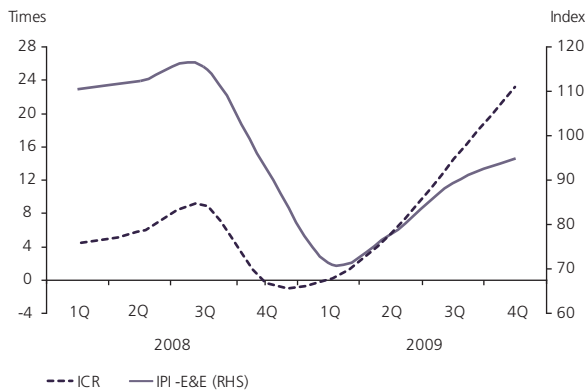
The manufacturing sector was also adversely affected in the first half of 2009, but rebounded subsequently. In particular, the electrical and electronics (E&E) industry experienced further deterioration in the first quarter of 2009 due mainly to rapid selling price attrition and weak external demand. The Industrial Production Index (IPI) for the industry plummeted to a low of 74.5 points in the first half of 2009 (2H 2008: 104.3 points; 1H 2008: 111.4 points). Although the

Chart 1.31
CPO Price and Interest Coverage Ratio of Plantation Industry



Source: Bloomberg, Malaysian Palm Oil Board and internal computation

Chart 1.32
Industrial Production Index and Interest Coverage Ratio for the E&E Industry

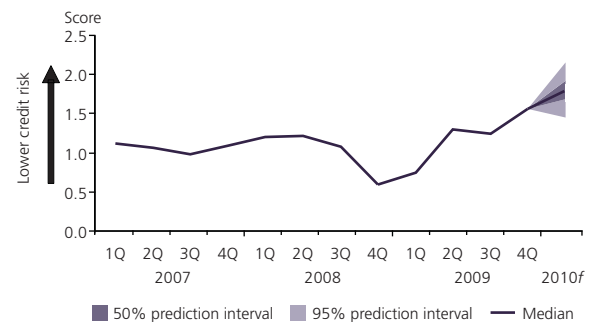


Source: Bloomberg, Department of Statistics, Malaysia and internal computation

industry's ICR was severely affected (Chart 1.32), majority of the players in this industry were financially resilient with low leverage level. The median debt-to-equity stood at 33.3% at the end of the first half of 2009 (2H 2008: 33.4%; 1H 2008: 25.1%). While industry players remained cautious of restocking activities, the demand for E&E products began to resurface in April 2009. External demand was further strengthened in the second half of 2009 as the effects of global stimulus packages began to materialise, spurring the growth in the consumer-related market, especially in the netbook and mobile phone segments, leading to the continued uptrend of global chips sales.

The positive performance in the E&E industry is likely to reduce the level of credit risk of the overall manufacturing sector moving forward. The credit risk level of the manufacturing sector, as measured by the Z-score (Chart 1.33), is expected to be low and likely to remain manageable even if downside risks, as reflected by the lower band of the fan funnel, were to materialise in 2010. This is further supported by the improving trend of the expected default frequency (EDF) for the sector (Chart 1.34). Similarly, the credit risk level in the E&E industry showed a matching trend (Chart 1.35 and Chart 1.36) underpinned by the steady recovery in the global economy and the expansion of the global semiconductor market. The gradual revival of the overall end-demand, led by sales of consumer products such as smartphones including *Nexus*, netbooks and tablets, as well

Chart 1.33
BNM Z-Score¹ for Manufacturing Sector



f Forecast

¹Modified Z-score, computed internally

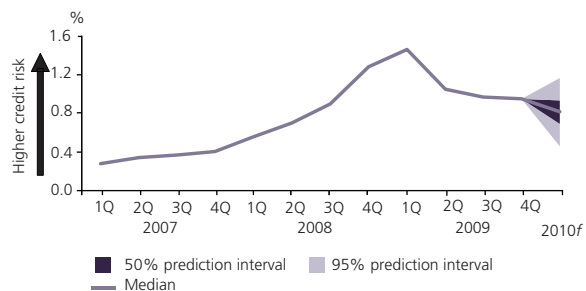
$$\text{BNM Z-score} = -1.4 + 1.2 \frac{\text{Current Assets}}{\text{Total Assets}} + 1.1 \frac{\text{Total Shareholders' Funds}}{\text{Total Liabilities}} + 0.1 \frac{\text{Interest Coverage Ratio}}$$

Source: Bloomberg and internal forecast

as restocking activities and increase in spending by businesses would continue to spur growth in the industry going forward.

The domestic-oriented industries were not entirely insulated from the external environment. Slowdown in overseas demand spilled over into the various industries albeit at varying paces. Property market in Malaysia remained calm for most parts of the year. While the property markets in some economies underwent price corrections due to sharp increases in prior periods, the local property market did not, with the exception of some choiced locations and

Chart 1.34
EDF¹ for Manufacturing Sector

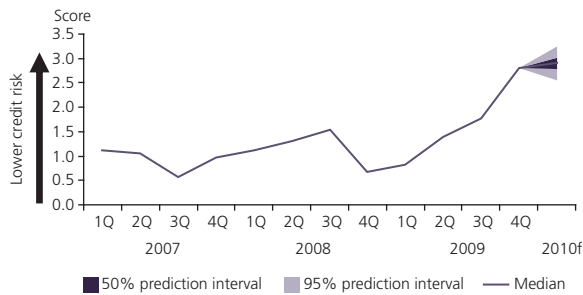


f Forecast

¹ EDF stands for Expected Default Frequency which measures the probability that a firm will default over specified period of time (typically one year). Default is defined as failure to make scheduled principal or interest payments.

Source: Moody's KMV Credit Edge™ and internal forecast

Chart 1.35
BNM Z-Score for E&E Industry



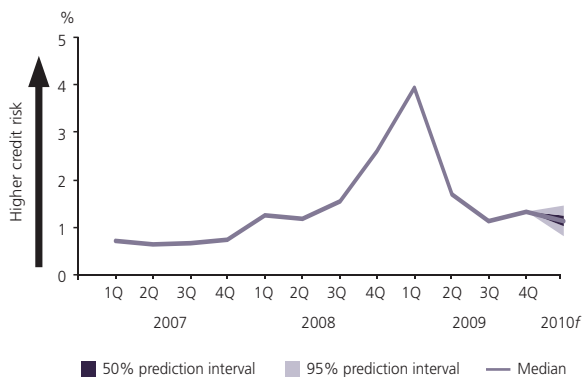
f Forecast

Source: Bloomberg and internal forecast

developments. Prior to the economic downturn, prices of a number of high-end condominiums in selected parts of the Kuala Lumpur area had already experienced some downward adjustments, thereby cushioning further price corrections. The reductions in the OPR in 2009 further bolstered the holding costs for house owners, thereby lending some support to the overall property market.

Profitability of property developers mainly in the residential segment, continued to be very weak in the first half of the year, pressured by the high input cost that was experienced since 2008 (Chart 1.37) and the continued subdued demand in the primary market. Developers responded by employing aggressive cost-cutting measures to moderate the impact on their

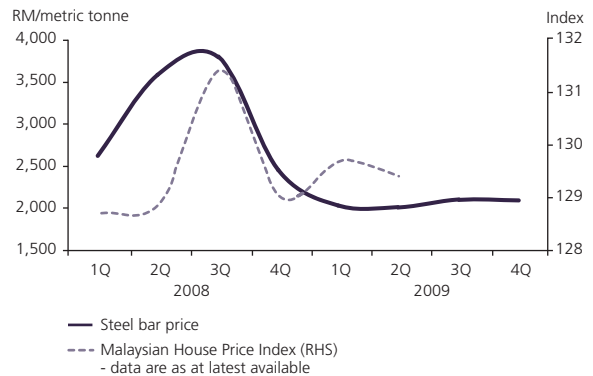
Chart 1.36
EDF for E&E Industry



f Forecast

Source: Moody's KMV Credit Edge™ and internal forecast

Chart 1.37
House Price Index and Steel Bar Prices



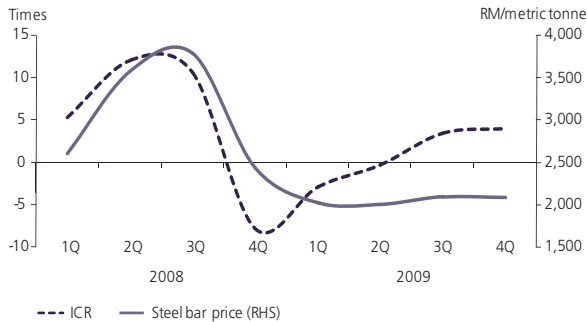
Source: Department of Statistics, Malaysia and National Property Information Centre (NAPIC)

financials, thereby preserving the ability to meet the monthly debt repayment obligations. In the second half of 2009, the leverage ratio declined quite substantially to 42.3% (1H 2009: 47.4%; 2H 2008: 48.2%) thus improving the debt servicing capacity.

The unfavourable economic conditions also posed similar pressures on the debt servicing capacity of the construction and civil engineering companies. Performance of the industry turned around since the second quarter of 2009 due to the implementation of the projects under the 9MP and the stimulus packages. While a small number of businesses were affected by the debt problems facing some Dubai corporations, the overall exposures of the construction industry were limited. The overall debt servicing capacity of the construction and civil engineering industry improved further in the second half of 2009.

Sluggish demand from the subdued performance in the property market, construction and civil engineering activities, impacted businesses involved in the building and construction-related materials (BCM) industry. This was further compounded by intense price competition among the BCM manufacturers (Chart 1.38). Demand for BCM, in particular the iron and steel segment, nonetheless improved starting from the second quarter of 2009 following the increase in construction activities locally, and pump-priming activities globally. This provided support to the debt servicing capacity of this sector.

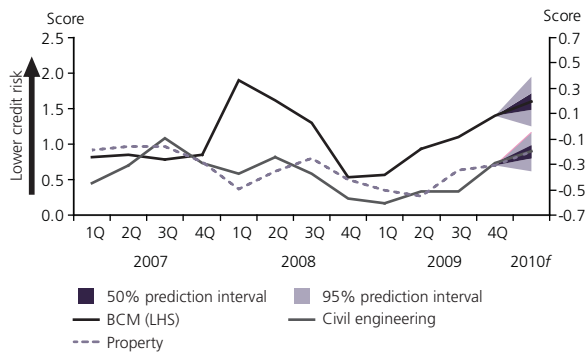
Chart 1.38
Steel Bar Prices and Interest Coverage Ratio for BCM Industry



Source: Bloomberg, Department of Statistics, Malaysia and internal computation

Implementation of government projects associated with the 9MP and stimulus packages are expected to be on its full course in 2010 and will spur activities in the construction and construction-related sectors. The present size of the order book of the players is sufficient to secure cash flows of up to two years. Improving construction activities, both locally and globally, albeit some softening from the Middle East, are expected to increase the demand for the BCM industry. Steel prices are anticipated to experience an upward trend in year 2010 but are unlikely to be as volatile as in 2008. The positive outlook for credit risk in 2010 for the construction and construction-related sectors (Chart 1.39 and Chart 1.40) may somewhat be weighed down by the state of overhang properties in some pockets of location which will continue to pose some

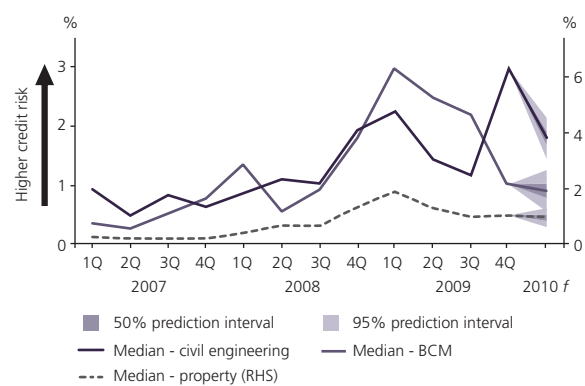
Chart 1.39
BNM Z-Score for Property, Civil Engineering and BCM Industry



f Forecast

Source: Bloomberg and internal forecast

Chart 1.40
EDF for Property, Civil Engineering and BCM Industry



f Forecast

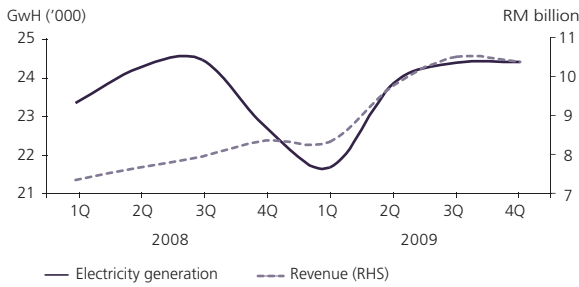
Source: Moody's KMV Credit Edge™ and internal forecast

concerns on the outlook and strength of the property market. In the property market segment, activities have begun to regain momentum since the end of 2009. This period has also observed a rise in new launches with attractive packages.

The early months of 2009 saw continued decline in the usage of electricity (Chart 1.41), driven primarily by reduction in power consumption by industrial users. Being the main contributor to revenue, the lower electricity usage posed some earnings risk on the power producers. This was reversed in the second half of 2009, as economic conditions improved, thereby diminishing downward pressures on earnings. This was further supported by lower input costs following the decline in prices of coal. The debt servicing capacity (Chart 1.42) of the industry reverted to the levels in 2007, as revenue rebounded significantly in the second quarter and was sustained at this level in the remaining quarters of the year.

Performance of the automotive industry was less robust in the early part of the year before gradually improving. Total industry volume (TIV) sales of vehicles in the first half of 2009 contracted by 9.7% compared to the corresponding period of 2008, as consumers were cautious to make large purchases. Despite lower sales volume, the automotive industry remained steady given the strong solvency position, lower cost of steel as well as support

Chart 1.41
Electricity Generation and Revenue for the Power Industry



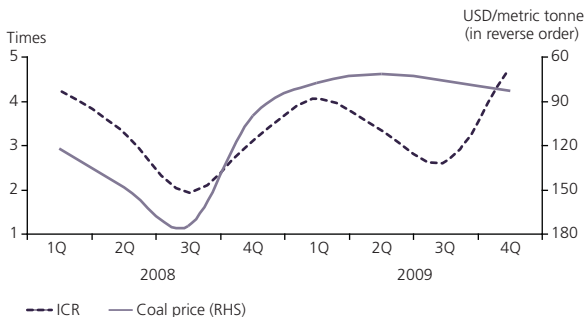
Source: Tenaga Nasional Berhad and Bloomberg

from the Scrapping Policy. Improvements in the second half of the year (TIV sales: 5.7% y-o-y) were led by the national car segment as consumers' preference switched to more economical and smaller capacity engine vehicles (Chart 1.43).

Telecommunications players, food and beverage, tobacco and liquor manufacturers, as well as toll road concessionaires showed robust debt repayment capacity as these industries are inherently recession-proof and not cyclical in nature.

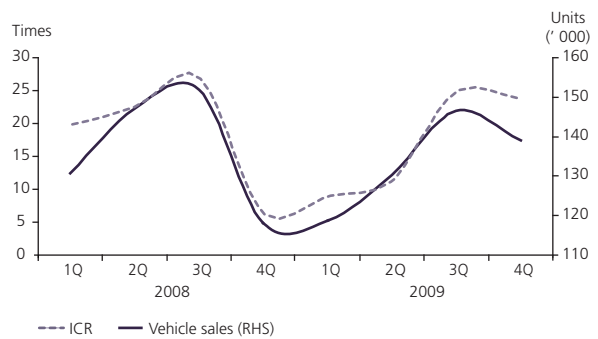
Being part of the business community, the challenging economic conditions have placed increased pressures on the continued growth and sustainability of Malaysian SMEs. Demand shrinkage, payment delays, and significantly higher prices of raw and input materials were some of the key challenges faced by the SMEs. Outstanding financing by the banking system and development financial institutions (DFIs)

Chart 1.42
Coal Prices and Interest Coverage Ratio for Power Industry



Source: Bloomberg, International Monetary Fund and internal computation

Chart 1.43
Vehicle Sales and Interest Coverage Ratio for Automotive Industry



Source: Bloomberg, Malaysian Automotive Association and internal computation

to SMEs contracted slightly in 2009. This was, however, due to the upgrading of SME accounts to large enterprise accounts, the sale of non-performing loans to an asset management company by one banking group in November 2009 and bad debts written-off. Continued demand for financing amidst stable approval rates by the banking institutions spurred the positive developments in the SME sector particularly towards the end of 2009. In the fourth quarter of the year, demand for SME financing surged by 37.1% (3Q 2009: -1.7% y-o-y) whilst approvals improved by 8.8% (3Q 2009: -8.1% y-o-y). NPLs of SMEs of the banking system and DFIs rose marginally to 7.6% of gross loans by September 2009 (end-2008: 7.1%) due to the weaker cash flows and subdued business activities. With the economic recovery in the second half of 2009, the gross NPL ratio of SMEs turned around and improved to 6.6%.

Financial Sector

Stability and functioning of the Malaysian financial sector was well-preserved despite uncertain economic and financial conditions on both the domestic and international fronts

The Financial Stability and Payment Systems Report 2008 highlighted a number of challenges, particularly in relation to earnings outlook and sustenance of financial buffers, as the global crises adversely impacted the domestic economy. In particular, pressures were anticipated to originate from reduced demand for financial services, lower profitability of overseas operations of the domestic banking groups

Financial Stability and Payment Systems Report 2009

and increased insurance claims and benefit payments. Lower corporate earnings and weaker employment conditions were expected to affect the debt repayment capacities of households and businesses, thus increasing the likelihood of rising loan delinquencies and the potential for cross-defaults by corporate borrowers. The competitive condition in the financing market and ample liquidity were expected to pose challenges to the maintenance of profit margins for banks' financing activities, whilst the more volatile financial market conditions were likely to pose challenges to the management of investment returns and asset-liability duration mismatch for insurance companies and takaful operators. Collectively, these downward pressures on revenue sustainability and therefore, preservation of financial buffers, could have perverse effects on the behaviours of financial institutions which could prompt more aggressive business strategies. In addition, financial institutions could potentially face increased market risks arising from the projected continued volatility and uncertainties in financial market conditions, and sustained tightness in US dollar liquidity.

The abovementioned risks to financial system stability did, to some extent, materialise in 2009 although not to the extent as earlier expected. This was due partly to the gradual stabilisation of global economic and financial conditions which limited the extent of adverse spillovers on the regional and domestic economies. More importantly, the build-up of strong financial buffers by domestic non-financial and financial sectors provided the entities with greater capacity and flexibility to withstand the shocks. Compared to the Asian financial crisis, the

Malaysian financial institutions exhibited greater state of readiness, ability and pro-activeness, both in the stronger capitalisation and solvency positions in anticipation of potential shocks, and in responding to the financial needs of borrowers who were faced with financial difficulties as a result of the more challenging operating environment.

Credit continued to be channelled to support the needs of the real sector needs thus supporting the early recovery of the domestic economy. The high degree of resilience of the financial sector was clearly evident. Capitalisation and solvency positions were sustained at strong levels, supported by strengthened institutional structures and financial infrastructure, and enhanced governance and risk management culture. In anticipation of a more challenging economic outlook and growing international consensus to emphasise on increased level and quality of capitalisation, Malaysian banks, since the fourth quarter of 2008, had embarked on measures to bolster capital levels. The higher capital levels would also allow the financial institutions to strategically take advantage of future domestic and overseas business opportunities once the global economy recovers from the crisis. Consequently, as at end-2009, the banking system's risk-weighted capital ratio (RWCR) and core capital ratio (CCR) improved to 14.7% and 13.1% respectively. The banks' leverage position improved to 13.1 times (2008: 14 times) while the equity to total risk-weighted assets ratio was at 11.7% (Table 1.2). The capital raising activities were largely concentrated in equity issuances, thus contributed further to the strengthening of capital quality. Approximately 70% of total

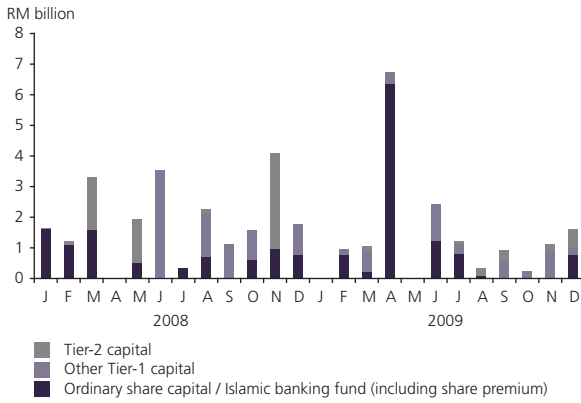
Table 1.2
Capital Adequacy Ratios as at end-2009

	Banking system	Commercial banks		Islamic banks	Investment banks
		Domestic	Foreign		
%					
RWCR	14.7	13.8	15.4	14.7	34.4
Core capital ratio	13.1	12.7	12.8	12.2	32.7
Equity ¹ to asset	7.6	7.7	7.2	7.0	11.6
Equity ¹ to RWA	11.7	10.7	12.4	11.9	34.3

¹ Equity comprises ordinary shares, share premiums, statutory reserves, general reserves and retained earnings (net of unaudited losses) less goodwill

Source: Bank Negara Malaysia

Chart 1.44
Banking System: New Capital



Source: Bank Negara Malaysia

capital of the Malaysian banking industry comprised core Tier-1 capital (Chart 1.44 and Chart 1.45). Similarly, the insurance sector recorded a higher capital adequacy ratio of 230% (2008: 187.6%), where approximately 93% of total capital comprised Tier-1 capital which includes fully paid-up capital and retained profits (Chart 1.46). These contributed to the significant financial buffers for the banking sector and insurance industry of RM58.4 billion (4.1% of total assets) and RM18.6 billion (11.4% of total assets) respectively. The implementation of the Risk-Based Capital (RBC) Framework in January 2009 also had minimal implications on the capital adequacy ratio of insurers as the two years of parallel implementation had helped prepare the insurers

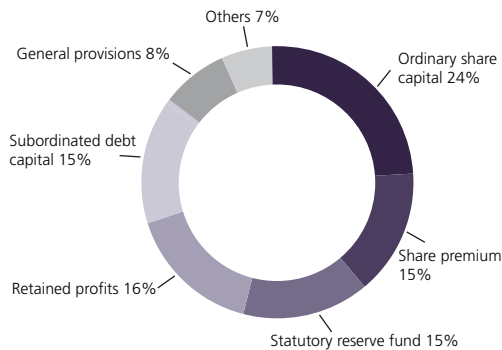
better. Meanwhile, the six DFIs under the purview of the Bank also recorded a strong aggregate RWCR of 21.7% as at end-2009.

The Malaysian financial institutions are expected to remain resilient even under the worst case scenario. The banking system has high quality capital buffers in excess of RM50 billion, supported by high loan loss provisions of nearly 100%

Continued financial intermediation

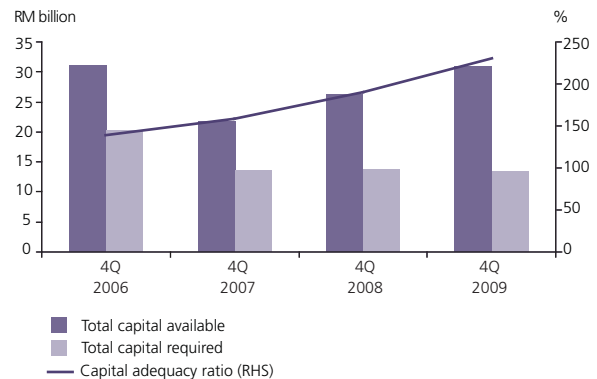
Many years of capacity and infrastructure building have strengthened the risk management and governance practices of banks. Banks today are better equipped to analyse and estimate the potential financial strains and delinquencies of different customer and portfolio segments, thereby enabling appropriate responses to be undertaken at an early stage. This has also led to less generalisation of borrowers' credit quality as banks are able to differentiate between borrowers who have sustainable debt repayment capacity but face temporary financial difficulties due to the macroeconomic environment, from those who are already highly leveraged and indebted. This ability enabled banks to

Chart 1.45
Banking System: Composition of Capital



Source: Bank Negara Malaysia

Chart 1.46
Capital Adequacy Ratio for Insurance Industry



Source: Bank Negara Malaysia

Financial Stability and Payment Systems Report 2009

Table 1.3
Key Financial Soundness Indicators

	As at end				
	2005	2006	2007	2008	2009 ^p
	% (or otherwise stated)				
Banking System					
Risk-Weighted Capital Ratio	13.7	13.5	13.2	12.6	14.7
Core Capital Ratio	10.7	10.7	10.2	10.6	13.1
Return on Assets	1.4	1.3	1.5	1.5	1.2
Return on Equity	16.8	16.2	19.8	18.6	13.9
Liquid Assets to Total Assets	8.0	8.0	9.3	10.3	11.5
Liquid Assets to Short-term Liabilities	10.2	10.3	11.8	13.1	14.5
Net Non-performing Loans Ratio - 3-month	5.8	4.8	3.2	2.2	1.8
Duration Weighted Net Position to Capital Base	8.3	7.5	4.4	3.8	5.0
Net Open Positions in FX to Capital Base	1.1	4.7	5.1	5.2	4.6
Net Open Positions in Equities to Capital Base	2.1	2.5	2.5	0.9	1.0
Insurance Companies					
Capital Adequacy Ratio	n.a.	139.6	158.4	187.6	230.0
Life Insurance & Family Takaful (RM million)					
Excess of Income over Outgo	10,304.7	12,118.3	14,643.0	8,779.6	12,297.3
New Business Premiums / Contributions	7,582.0	8,596.2	9,267.0	9,429.8	9,942.2
Capital Adequacy Ratio (conventional only)	n.a.	119.8	176.9	200.0	256.5
General Insurance & General Takaful (RM million)					
Underwriting Profit	1,105.6	480.9	-75.3	194.2	822.9
Operating Profit	1,715.4	1,491.6	1,301.4	752.4	2,028.0
Gross Direct Premiums / Contributions	10,085.0	10,505.0	10,987.3	11,417.3	12,792.4
Claims Ratio	54.9	60.0	65.0	62.0	60.8
Capital Adequacy Ratio (conventional only)	n.a.	182.8	182.1	181.1	188.9
Household (HH) Sector					
HH Financial Assets to Total HH Debt Ratio	237.3	247.2	269.8	234.6	246.3
HH Debt to GDP Ratio	69.1	68.8	66.9	63.9	76.6
HH Liquid Financial Assets to Total HH Debt Ratio	142.8	151.5	172.3	138.5	148.6
Debt Service Ratio	41.3	39.1	41.2	39.6	49.2
Non-performing Loans Ratio of Household Sector	8.1	7.1	5.3	4.1	3.1
Corporate Sector					
Return on Assets	4.3	5.0	5.7	4.0	4.1
Return on Equity	8.2	9.3	10.9	7.4	7.6
Debt-to-Equity Ratio	49.9	54.0	48.0	52.2	46.0
Interest Coverage Ratio (times)	6.2	4.8	6.5	4.7	5.1
Operating Margin	10.9	11.7	12.0	9.3	10.2
Non-performing Loans Ratio of Business Sector	11.2	10.2	8.0	6.0	4.7
Development Financial Institution¹					
Lending to Targeted Sectors (% change)	29.6	17.5	18.7	16.3	18.1
Deposits Mobilised (% change)	12.4	11.1	12.4	18.5	14.4
Non-performing Loans Ratio - 6-month	10.4	10.0	8.8	6.6	6.8
Return on Assets	3.0	1.5	1.9	2.9	2.3

^p Preliminary

¹ Refers to development financial institutions under the Development Financial Institutions Act 2002

n.a. Not applicable

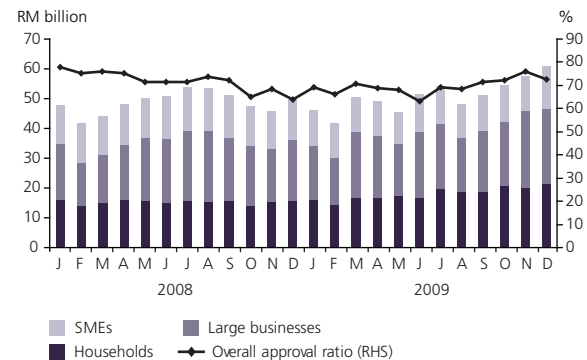
Note: Insurance figures are based on unaudited calendar year, unless indicated otherwise

Source: Bank Negara Malaysia, Bloomberg and internal computation

implement appropriate remedial measures. The competitive environment, particularly in retail financing, has continued to encourage banks to undertake prudent and carefully considered innovations, and to provide customer-centric and customised solutions to cater to the evolving financial needs of the customers. Demand for financing slowed significantly in the first half of 2009 amidst weaker domestic conditions as households and businesses remained cautious and reprioritised expenditure plans in anticipation of the more challenging employment outlook and economic environment. Total applications for new financing only grew by 2.3% in the first half of 2009 (1H 2008: 17.7%). Households' demand for financing also recorded a more moderate growth of 7.6% compared to 38.4% for the corresponding period in 2008. In the second half of 2009, demand for financing rebounded strongly in tandem with the improved prospects for growth, offsetting the more modest position in the preceding period.

For the year, the overall growth in applications for financing was higher at 9.3% (2008: 3.8%). Correspondingly, banks remained supportive of the customers' financing needs with approval rates remaining stable at approximately 70% throughout the year, whilst drawdowns of existing credit lines grew by 2.4% to RM655.7 billion (Chart 1.47). Given the continued expansion of 9.3% in deposits mobilised by the banking sector to reach RM1,062.9 billion or 157.6% of GDP, the loan-to-deposit ratio remained manageable at 77.9% as at end-2009. Furthermore, borrowers also have ample access to funds that can be drawn down for future needs from the RM304.8 billion of undrawn financing (+13.1%). As at end-2009, outstanding financing by banks expanded by 7.8% to RM783.4 billion or 116.2% of GDP. In terms of composition, the financing portfolio continued to be concentrated in the retail segment. Financing extended to households and SMEs accounted for 55.1% and 15.2% of outstanding financing respectively. Improved sentiment and lower risk aversion in the domestic PDS market in the second half of 2009 supported the longer-term financing needs of large businesses. On aggregate, financing by the PDS market and banking system grew by 8.5% as at end-2009 to account for 157.5% of GDP.

Chart 1.47
Banking System: Disbursement of Financing



Source: Bank Negara Malaysia

Stable quality of financing and investment assets coupled with high provisions enabled financial institutions to maintain sound capital buffers

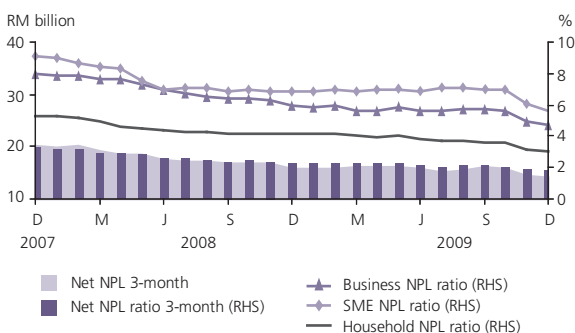
As a key lesson learnt from the Asian financial crisis, Malaysian banks have placed strong emphasis on enhancing risk management infrastructure and practices as well as credit risk assessment processes over the years. The costs of such enhancements are far from negligible, but these investments have yielded strong returns especially in enabling the banks to manage unanticipated shocks to the operations. The earlier expectations of a potential increase in the level of delinquencies of households and businesses, given the slowdown in the domestic economy, did not materialise. In fact, the level of NPLs continued to improve, driven largely by recoveries and continued loan write-offs. It was also attributable to the recovery in economic conditions in the fourth quarter of 2009, coupled with stable and resilient residential property prices and strong accumulated financial buffers of borrowers, as well as strengthened underwriting practices and enhanced credit risk management infrastructure.

The approach by banks in engaging with such borrowers early and providing debt management solutions and advice, such as restructuring and rescheduling of financial obligations, helped to contain the level of new delinquencies that could have been higher in business cycle downturns. At the same time, supervisory assessments were also conducted on-site to ensure that banks continue to

adopt robust and prudent restructuring and rescheduling policies instead of merely “evergreening” distressed loans. The response of the banks, contrary to the approach adopted during the Asian financial crisis, not only avoided premature failures of viable businesses but also ensured that these borrowers continued to have access to sufficient funds to keep the businesses in operation. Consequently, new loans classified as non-performing in 2009 only increased marginally by 5.5% or RM27.6 billion. Loans-in-arrears for one to less than three months only increased slightly by 5.5% to account for 4.8% of gross loans.

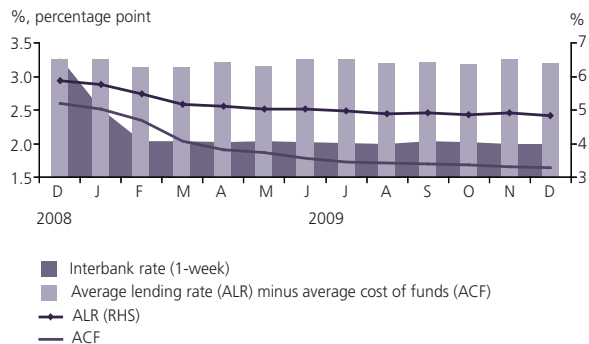
As a result, the downward trend in the level of NPLs was sustained through most of the year. The gross NPLs of the banking system declined by 18% to RM28.7 billion as at end-2009. Consequently, the gross NPL ratio improved to 3.7% (2008: 4.8%) with the ratios for large businesses, SMEs and households declining to 4.1%, 5.7% and 3.1% respectively. Years of strengthened financial capacity and profitability of banks have contributed to high levels of provisions, alongside active balance sheet management via disposal of NPLs to asset management companies and prudent write-offs of impaired loans during the year. The level of gross NPLs, inclusive of loan write-offs of RM8.8 billion, would still record a decline of 14.5% in 2009. The more stringent provisioning policies by banking institutions, particularly those for the legacy loans, contributed to a high level of loan loss coverage ratio of 95.3% as at end-2009. As a result, the level of net NPLs declined by 12.8% to RM13.9 billion, or 1.8% of total net loans (2008: 2.2%) (Chart 1.48).

Chart 1.48
Banking System: NPL Level and Ratio



Source: Bank Negara Malaysia

Chart 1.49
Movements in Interbank Rate, Average Lending Rate and Average Cost of Funds

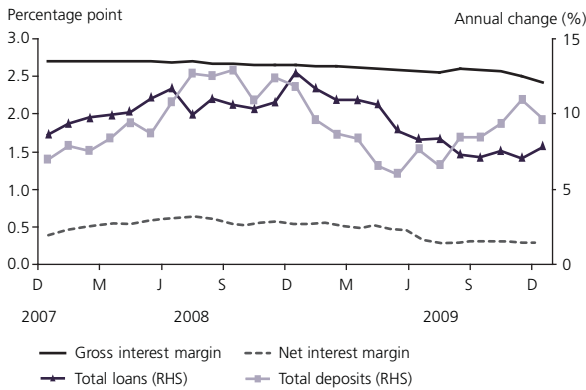


Source: Bank Negara Malaysia

Profitability mainly affected by slower pace in demand and increased competitive pressures

The conventional and Islamic banking systems faced significant downward pressures on profitability, particularly in the first half of 2009, as financial market sentiments were dampened and demand for financing and financial services, particularly from businesses, remained subdued during the period. The increased competition in the financing markets, particularly the retail-based segments continued to pose challenges to banks in sustaining revenue growth of the financing portfolios. While the impact of reduction in the OPR on financing income was partially offset by the adjustment in deposit rates, moderation in the volume of financing caused gross interest margin to narrow to 2.52 percentage points (2008: 2.64 percentage points) (Chart 1.49 and Chart 1.50). The lower volume of financing and higher interest expense also led to lower net interest income (-3.9%) for the commercial banks resulting in a decline in profit before tax (PBT) for the first time since 2001. The profit performance was also affected by a significant one-off impairment provision on valuation losses for the overseas investment of one bank. The unaudited PBT of the overall banking system declined by 11.3% to RM17 billion, with returns on average equity and assets of 13.9% and 1.2% respectively. Excluding this non-recurring item, the banking system unaudited PBT recorded an increase of 3.2% (Chart 1.51).

Chart 1.50
Banking System: Movement in Gross and Net Interest Margins



Source: Bank Negara Malaysia

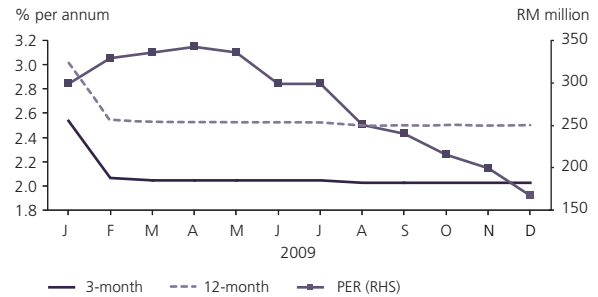
The net financing income of the Islamic banks grew strongly by 43% during the year, partly benefiting from the larger fixed-rate financing portfolio. While the level of displaced commercial risk for Islamic banks moderated following the reductions in the OPR and rates offered on conventional deposits, the level of profit equalisation reserves (PER) continued to decline (Chart 1.52). The decline corresponded with the Islamic banks' strategy to preserve returns competitiveness offered to depositors by drawing down on the PER to partly cushion the effects of the lower revenue generated from trading portfolio and the higher financing loss provisions, especially for the more newly established Islamic banking subsidiaries. The more prudent provisioning practices on the back of softened economic

Chart 1.51
Banking System: Composition of Income



Source: Bank Negara Malaysia

Chart 1.52
Banking System: Movement in PER and Average Quoted FD Rates



Source: Bank Negara Malaysia

conditions, contributed to an increase of 17.2% in net loan loss provisions during the year. This contributed to the decline in the net financing margin of the banking system to 0.45 percentage points (2008: 0.47 percentage points).

The recovery in demand for financing in the second half of the year led to an increase in fee-based revenue from financing-related services, such as loan syndications and provision of commitment and guarantee lines. Although funding conditions in the corporate debt markets revived during the year, particularly for the higher-rated papers, revenue from underwriting and corporate advisory services remained subdued for most parts of the year before bouncing back in the fourth quarter of 2009. Revenue from portfolio management and brokerage activities also improved accordingly towards the latter part of the year. This resulted in a growth of 6.3% of total revenue from fee- and commission-based activities to amount to RM7.9 billion.

Consequently, the gross operating profit (net of provisions and excluding the one-off large impairment provision of overseas investment) of the banking system remained almost unchanged at RM12.3 billion. The sustained profitability of the banking system can be attributed to the enhanced operational capacities and business strategies, as the global financial crisis inflicted minimal impact on the domestic entities. While overhead expenses remained stable during the year, the growth in operating profits was moderated by the higher staff-related expenditures which grew by 5.3% as a result of intense competition to attract and retain a pool of talented and experienced

employees in the financial industry. As a result, the cost-to-income ratio of the banking system increased to 48.4% (2008: 46.4%) and average staff cost per employee was higher at RM86,037 (2008: RM82,624) as at end-2009. Despite the higher costs, the productivity level of the banking system remained stable as measured by the PBT generated per employee of RM172,972.

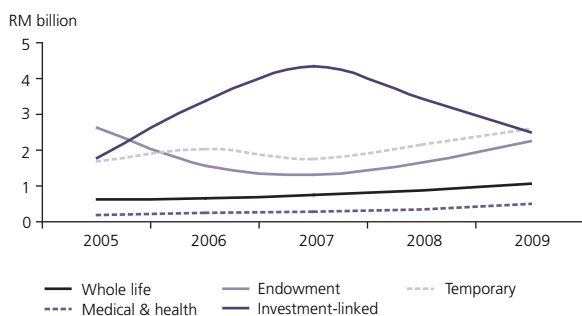
The more challenging external conditions posed limited concerns on the performance of overseas investments of the Malaysian domestic banking groups. This was attributed mainly to the manageable impact of the global crisis on the regional economies, and the sooner-than-expected recovery in most Asian economies where the Malaysian banks operate. Overall, the overseas operations of the six domestic banking groups, with significant operations in regional economies such as Singapore, Indonesia, Hong Kong SAR and Cambodia, generated returns which contributed to approximately 16.7% of total group PBT.

The more volatile financial market conditions in the first half of the year also affected the insurance industry, particularly the life and family takaful businesses. Investment returns of the sector were affected by higher losses from disposal of assets and unrealised capital losses, particularly in the first half of 2009. As equity market rebounded in the latter half of the year, the insurance and takaful industry recorded improved profitability that offset the challenges faced from the lower returns on the fixed income portfolio. Please refer to the box article on "Life Insurers: Strategies in a Low Interest Rate Environment"

for details on the responses of life insurers and takaful operators in managing the challenges associated with the low interest rate environment.

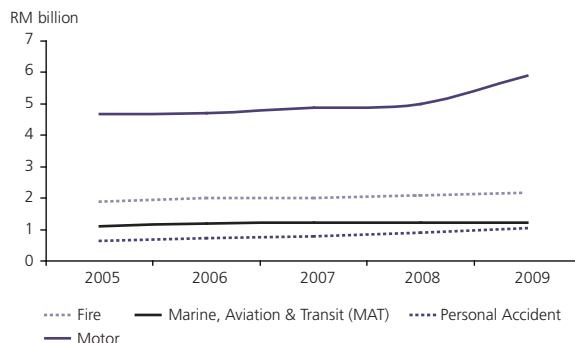
Total net premiums of the insurance industry grew by 8.2%. This was achieved following the more favourable growth of 12% in gross direct premiums under sustained operating costs. New business premiums for life and family takaful businesses recorded an increase of 5.4% to amount to RM9.9 billion (2008: RM9.4 billion) driven by the growth in ordinary life products of 23.9%. The strong increase in the traditional business segment mitigated the softer demand for investment-linked products (Chart 1.53). The revival of the FBM KLCI performance led to higher investment income and unrealised capital gains, which contributed to 25.2% of total income of the industry. This, in turn, translated into 40% improvement in the excess of income over outgo for life insurance and family takaful businesses to RM12.3 billion in 2009 (2008: RM8.8 billion). Driven by growth in fire and motor businesses, gross direct premium for the general business (including general takaful) rose by 12% to RM12.8 billion with broad-based increases in demand for general coverage, with the exception of the marine, aviation and transit business, contractors' all risks and engineering sectors which were affected by the business environment (Chart 1.54). Operating profit of the general segment for 2009 improved 169.5% to RM2.2 billion driven mainly by the exceptionally higher capital gains totalling RM470.9 million (2008: RM175.1 million) and lower claims ratio of 60.8% (2008: 62%) (Chart 1.55).

Chart 1.53
New Business Premiums/Contributions for Life Insurance and Family Takaful



Source: Bank Negara Malaysia

Chart 1.54
Gross Direct Premiums/Contributions for General Insurance and General Takaful Business



Source: Bank Negara Malaysia

Life Insurers: Strategies in a Low Interest Rate Environment

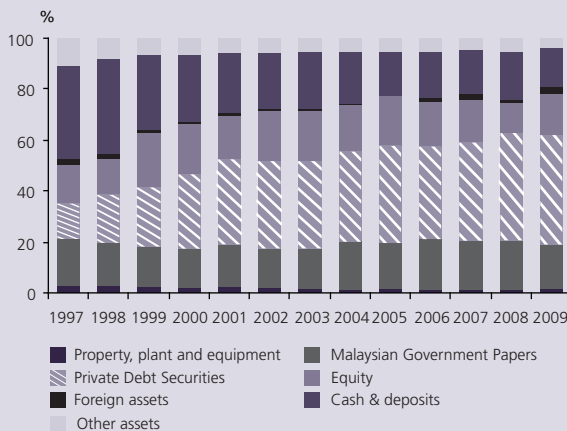
The long-term nature of the life insurance and family takaful business necessitates a long-term view on investment strategy. The apparent mismatch between the long-tailed insurance liabilities and obligations as opposed to the shorter tenures of the insurance fund assets presents an inherent challenge for players in the industry. Specifically, a long period of low interest rates in an environment of weak and bearish equity market will have medium-term implications on performance and capital accumulation of life insurers and family takaful operators (subsequent reference to life insurers include family takaful operators). Such an environment is challenging to life insurers in managing the assets and liabilities. These issues are exacerbated by policy holders' expectations on minimum returns on insurance and takaful policies. This article examines the responses of the life insurers in managing the challenges that surfaced during the low interest rate environment experienced in this recent decade, and in managing the expectations of the policy holders.

Sustaining returns through responsive investment strategy

An active portfolio rebalancing accords insurers with greater flexibility to restructure and reallocate assets in response to changes in the market environment. The dynamics of this process enhance the value of the insurance fund assets and returns on the investment portfolio, hence benefiting the policy holders. While investment in debt securities has consistently dominated the asset portfolio given the nature of the insurance obligations, insurers have continuously rebalanced the composition of the fund assets over the recent 10 years in order to maintain the total returns on investments and thus the ability to meet the expectations of policy holders.

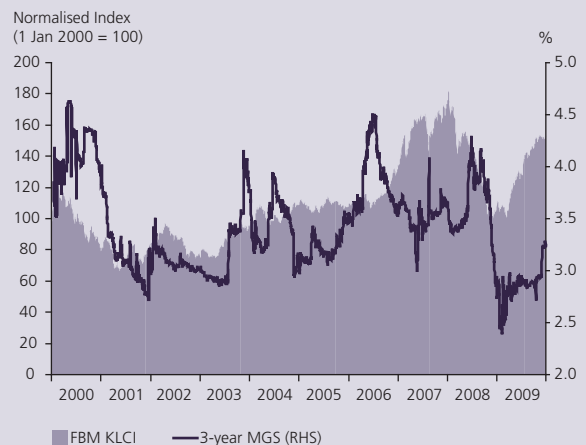
The Overnight Policy Rate was maintained at 3.5% since 1998 to support the recovery and subsequently sustaining the growth of the domestic economy. The rally in the equity market during this period nonetheless provided some cushion to the low returns from investment in bonds. In particular, improved investment conditions between the period of 2003 and 2007 resulted in the domestic equity market to rebound and bond yields to trend upwards. There were nonetheless a few exceptions, i.e. the period following the technology bubble bust earlier in the decade and in 2008 following the global financial crisis, which caused equity prices and bond yields to decline. Investment in equities during these periods were reduced, with higher allocation towards fixed income investments.

Chart 1
Life Insurers' Asset Allocation from 1997-2009



Source: Bank Negara Malaysia

Chart 2
Trends in FBM KLCI and MGS Yield



Source: Bloomberg

Managing duration mismatch through product and pricing strategy

The generally long-term nature of insurance liabilities vis-à-vis the available range of assets and investments raises the issue of negative duration mismatch. The effect of asset-liability duration mismatch is amplified when interest rates are low, as the value of liabilities increases more than the value of the fund assets. This affects life insurers in varying degrees and substantial impact will be experienced by those with larger duration gaps between assets and liabilities. Those with a higher composition of traditional life products, such as 20- to 30-year whole life products, are likely to experience greater pressures in managing the duration mismatch. As at end-2009, the amount of insurance liabilities of life insurers stood at RM120.3 billion. Of this amount, more than 70% of the insurance liabilities have maturities beyond 10 years. In terms of the asset portfolio, only 12% are in the form of debt securities with maturities exceeding 10 years. The large gap in the duration of assets and liabilities partly reflects the limited availability of long-term assets with reasonable returns which is further exacerbated by the intense competition for these assets from other institutional investors. The difficulty in obtaining assets with similar profiles that match the liability cash flows also exposes life insurers to reinvestment risk in an environment of declining interest rates and a bearish equity market. These challenges have heightened the criticality for a more responsive management of the duration gap by life insurers.

Shifts in product strategy can alter the magnitude of the duration mismatch and facilitate better management of the duration gap. Growing demands for wealth management products with protection elements and increasing concerns over health issues by the general public have provided the natural transition towards product rebalancing strategy by insurers.

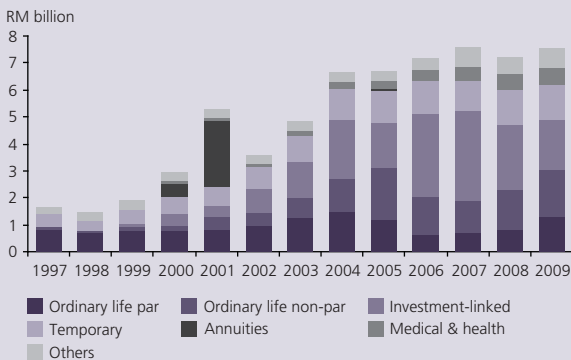
The recent decade has also witnessed the shift from participating life products (where surpluses are distributable to policy holders in the form of pre-specified bonus or dividend payments) to non-participating products. In addition, underwriting of shorter-term investment-linked products with a bank or a third party capital guarantee that capitalised on the strong equity performance during this period also gained momentum since 1999 and, in the more recent period, the growth in medical and health products. Nevertheless, life insurers need to strive to have a fair mix of traditional and investment-linked products in their portfolios in order to provide the flexibility to suit different macroeconomic conditions. From a survey conducted on a sample of life insurers, changes in the product composition have resulted in a more balanced product mix as the size of the duration gap for ordinary non-participating products is 6.6 years while the duration gap for ordinary participating product is 6.8 years.

Chart 3
Example of Life Insurers' Asset & Liability Cash Flow Projection



Source: Eckler Partners Ltd.

Chart 4
Distribution of New Business Premiums for Direct Insurers



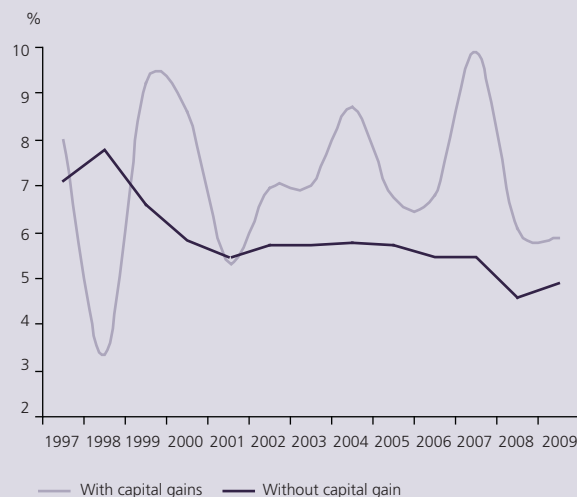
Source: Bank Negara Malaysia

At the same time, these developments have paved the way for new business opportunities for the life insurance industry. Changes in the product mix strategy were also complemented with revision to the pricing structure to better reflect expectations on the future risks and returns, taking into account the structural, financial and demographic changes going forward.

Managing policy holders' expectations

The lower returns on fund assets than that expected by the policy holders present another key challenge for the life insurance industry, particularly for participating products. While the bonus payments or dividend level is not guaranteed, managing the expectations of policy holders is imperative. A well-balanced and appropriately formulated communication strategy that aims to create a better understanding and awareness among the policy holders will avert unnecessary adverse perception on the credibility and resiliency of the insurance players. Managing these expectations is more demanding for participating products underwritten at times when financial market conditions were indeed very favourable and economic growth was strong. The lower total returns experienced during certain periods over the recent decade, and particularly in the recent years, have constrained the ability of a small number of life insurers to maintain the expected bonus rates to policy holders, resulting in the reduction of bonus payments. Mindful of the expectations, the Bank has put in place minimum requirements that must be observed before bonus cuts can be made. This includes a rigorous evaluation by the Appointed Actuary that a bonus cut is an appropriate strategy to preserve the stability of the institution. In addition, detailed assessment on the marketing literature and sales methods will be performed to ensure that the institution has a valid legal basis to undertake the bonus cut i.e. the projected cash bonuses contained in the sales illustration do not tantamount to a contractual obligation on the part of the institution. Reduction in bonuses will also be conducted over a period of time to avoid a sudden and substantial decline in returns to policy holders. Reduction in the bonus payments is also communicated early to the policy holders to provide lead time for the policy holders to make preparations or adjustments to the policies owned. Early notice will enable policy holders to understand the effect of premature termination of policies should they choose to do so and thus allow policy holders to make informed decisions.

Chart 5
Life Insurers: Investment Yield



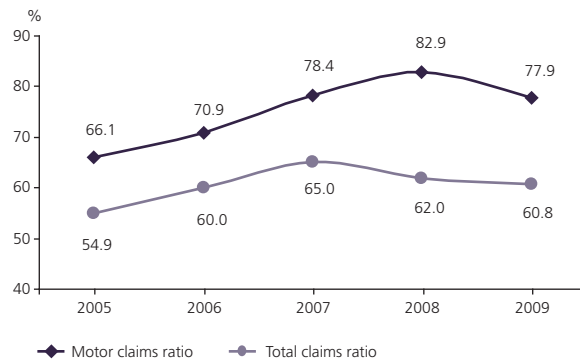
Source: Bank Negara Malaysia

Conclusion

Life insurers have performed considerably well in managing and responding to the challenges of the low interest rate environment. Progress in risk management infrastructure and capability has been fundamental in building the capacity in managing the structural challenges and vulnerabilities facing the industry. It is envisaged that efforts would continue to be devoted towards further strengthening the risk management and investment capability of the industry with specific emphasis on the management of assets and liabilities. The industry is expected to continuously evolve to remain adaptable and responsive to the business and operational challenges faced in different environments and business cycles. As the industry fulfills the needs of the general public, insurance products such as shorter-term endowment, investment and wealth management, as well as medical and health products, are likely to gain greater prominence without crowding out the traditional products, going forward. This direction has the twin benefits of narrowing the duration gap whilst increasing the level of insurance penetration in the country. The use of hedging solutions such as derivative instruments will also contribute towards the improved management of the duration gap either by lengthening the duration of the assets or shortening the duration of the liabilities.

In addition to strengthening the risk management capability, greater expectations will continue to be accorded to the capacity of life insurers in managing financial shocks. These include prudent management of surpluses, accumulation of financial buffers and availability of liquidity to meet unexpected increase in obligations arising from policy surrenders and benefit payments.

Chart 1.55
General Insurance and General Takaful Businesses: Claims Ratios

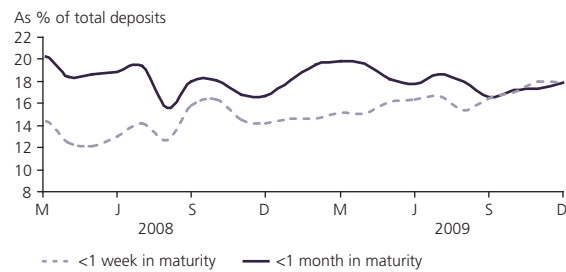


Source: Bank Negara Malaysia

Domestic liquidity remained abundant

The Malaysian financial system remained largely unscathed by the global financial crisis and insulated from systemic liquidity and funding pressures. Ringgit liquidity in the financial system continued to remain ample throughout the global deleveraging process. As at end-2009, the Malaysian banking system maintained strong liquidity buffers of 17.9% of deposits for liquidity needs maturing in less than one month (Chart 1.56). This translated into projected surplus of RM162.5 billion (Table 1.4). The ample liquidity position continued to place the Malaysian banks in a net lender position in the domestic interbank markets, with excess liquidity of RM174.7 billion placed with the Bank. Two factors contributed to the continued strong liquidity position exhibited by the Malaysian banks: (i) robust liquidity risk management by banks, supported by rigorous supervision by the Bank; and (ii) sound funding structure which is predominantly deposit-based (Chart 1.57). The strength of the banking system's liquidity position is reinforced by its holdings of high quality liquid assets, where approximately 73% of the industry's liquefiable assets comprised MGS (Chart 1.58). Likewise, insurers have mainly invested in investment grade corporate bonds and MGS to reduce risk charges imposed in the RBC Framework, and to ensure the availability of adequate high quality liquidity buffers in the investment books (Chart 1.59). Further details of the banks' funding structure are discussed in the box article "Diversity and Stability of the Funding Structure of the Malaysian Banking System".

Chart 1.56
Banking System: Liquidity Buffer

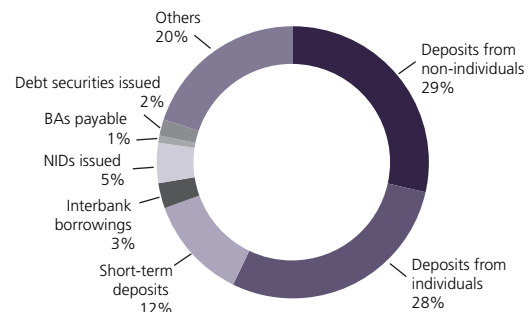


Source: Bank Negara Malaysia

The effects of the global tightening of US dollar liquidity in 2008 led the Malaysian banks to adjust the US dollar-denominated exposures. This was aimed at narrowing the prevailing negative US dollar liquidity mismatch during the period, which comprised mainly direct lending and foreign currency swaps (Chart 1.60). The narrowing of the banking system's US dollar short position continued in 2009, resulting in a very small negative mismatch position by the end of the year. Concerns relating to US dollar liquidity mismatch remained limited, supported by the Bank's commitment and capacity to provide adequate US dollar liquidity, particularly to facilitate trade-related activities.

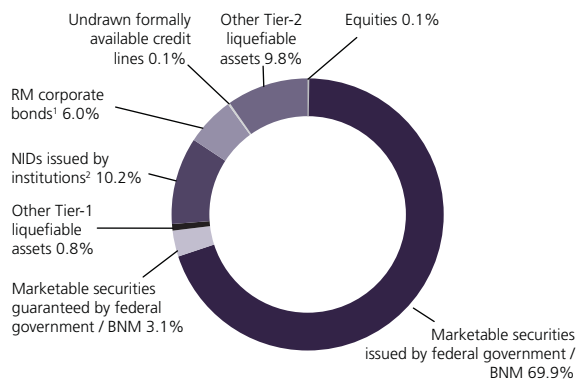
Assessment on the liquidity strength was reinforced by on-going scenario-based tests adopted as part of banks' liquidity risk management and the Bank's liquidity risk supervision. Generally, these tests took into

Chart 1.57
Banking System: Key Sources of Funding



Source: Bank Negara Malaysia

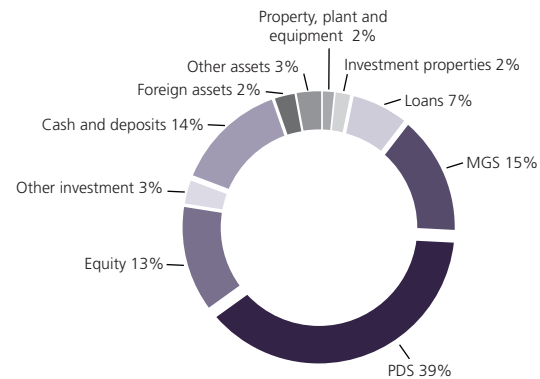
Chart 1.58
Key Components of Liquid Assets



¹ RM corporate bonds with > AAA/P1/MARC1 rating
² NIDs issued by > AA/P2/MARC2 rated institutions

Source: Bank Negara Malaysia

Chart 1.59
Composition of Insurance and Takaful Industry Assets



Source: Bank Negara Malaysia

account the potential strains on the liquidity position of the banks arising from market-wide and institution-specific events. The risks of potential heightened risk aversion and counterparty concerns, particularly among the interbank players, were limited given the improved market sentiments and the low reliance of the Malaysian banks on interbank funding. The two-year period of blanket guarantee on deposits by the Government has reinforced further the stability in deposit movements within the banking sector. In preparation for the expiry of the blanket guarantee on deposits, a Tripartite Working Group between Hong Kong Monetary Authority, Monetary Authority of Singapore and the Bank has been established during the year to map out a coordinated strategy for the exit. Given the close inter-linkages of the

financial systems in Hong Kong SAR, Singapore and Malaysia, a coordinated approach is highly critical to ensure minimal impact on overall financial stability and depositors' interest post upliftment of the blanket guarantee.

More active management of market risk exposures by financial institutions

The Malaysian banks intensified efforts in managing market risk exposures given the volatile market conditions and heightened risk aversion in the first few months of 2009 (Chart 1.61). Net trading and investment gains posted an overall growth of 39.7% for the year to account for 13% of total income (2008: 9.6%). Extending its trend from 2008, the trading portfolio of the banking system downsized further by 23.7% for the first seven months of 2009 before recovering in the remaining months of the year

Table 1.4
Banking System: Liquidity Projection as at 31 December 2009

	Cumulative mismatch (RM billion)		Buffer as % of total deposits	
	≤1 week ¹	≤1 month	≤1 week ¹	≤1 month
Commercial banks	119.1	122.8	16.2	16.7
Islamic banks	33.9	30.9	22.2	20.2
Investment banks	9.4	8.8	45.9	43.1
Banking system	162.4	162.5	17.9	17.9

¹ ≤3 days bucket for investment banks
Note: Numbers may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Diversity and Stability of the Funding Structure of the Malaysian Banking System

The significance of maintaining stable funding sources and strong balance sheet liquidity has long been recognised in Malaysia. This reflects the maturity transformation nature of banking business and its intermediation role in the economy as well as the experience of banking institutions during the Asian financial crisis. The risk of an over-reliance on wholesale funding was clearly demonstrated during the global financial turmoil. The liquidity management framework for banking institutions that has been progressively enhanced since 1998 has created greater recognition of the need for diversified funding structure, forward-looking assessment and robust management of short-to medium-term liquidity needs and availability. More than a decade after the financial crisis in the late 1990s, the Malaysian banking institutions are well-positioned to effectively mitigate inherent vulnerability to liquidity mismatches through robust liquidity management infrastructure and practices.

This article presents the state and key characteristics of the funding structure of Malaysian banking system that contribute to its overall resilience over the years.

Stable deposit-based funding structure

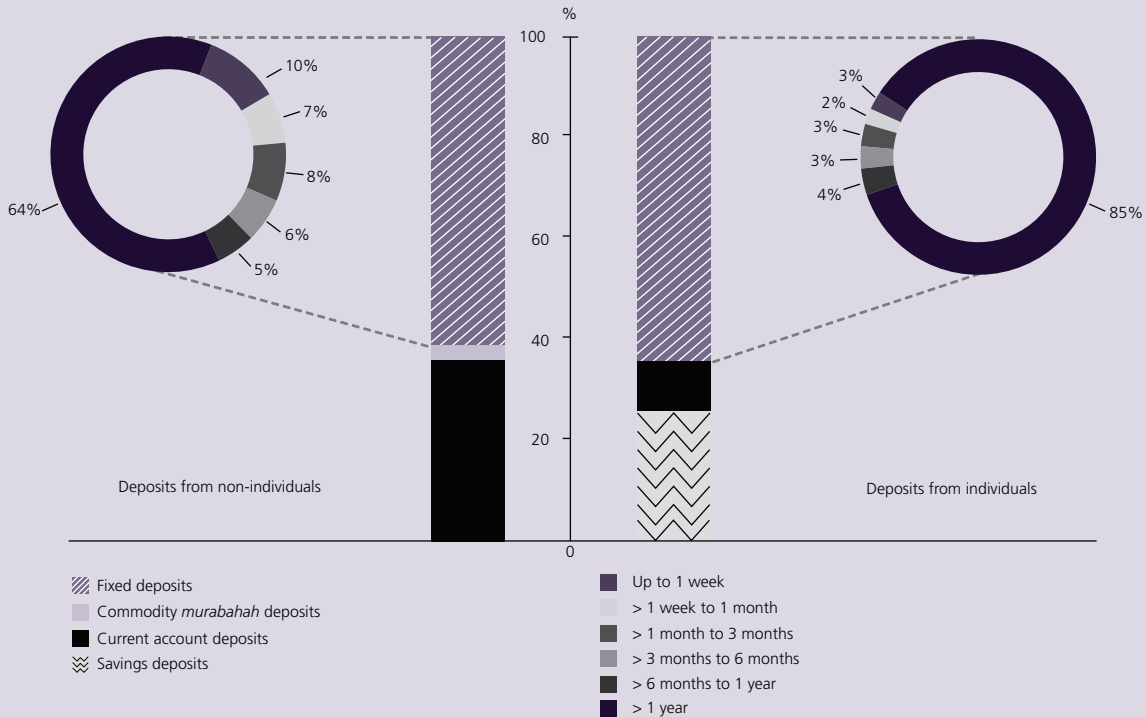
Customer deposits represent the single largest source of funds for banking institutions, accounting for more than 65% of banking system liabilities and 73% of total funding. This reflects the savings culture of Malaysians (gross private and public savings accounted for 31.3% of Gross National Income) and the extensive outreach of financial services to the population. These deposits, which registered a compounded annual growth of 8.5% over the past decade, are mobilised to finance real sector activities and continued to support domestic loan growth (ratio of loans-to-deposits averaged around 87.6% since 1997). The deposit components are fairly distributed between retail and business (35.7% and 37.1% of total deposits respectively as at end-2009) thereby providing diversity and stability to depository funding across the different types of banking institutions. Moreover, fixed deposits constituted 62.4% of total deposits accepted from individuals and businesses, with 74% of these fixed deposits having more than 1 year maturity (Chart 1). Almost half of the deposits placed in Islamic banks comprised General Investment Accounts (GIA). These Islamic instruments are rather stable in nature with analogous characteristics to fixed deposits offered by conventional banks. Although GIA is a type of Islamic profit sharing investment product, the expectations on the recourse of claims on the losses of such investments tend to fall on the deposit-taking institution instead of the investment holders that have no influence on the investment strategy of the funds.

Unlike investment banks in advanced economies that are reliant on market-based and wholesale funding, investment banks in Malaysia have direct access to large corporate deposits with a minimum threshold of RM500,000 and are therefore subject to similar regulatory requirements as the commercial banks. Corporate deposits constituted 46.2% of total funding of investment banks as at December 2009. As these deposits have higher sensitivity to returns and corporate depositors are relatively more sophisticated in the assessment of counterparty risks, corporate placements are inherently more volatile compared to smaller retail deposits and transactional accounts. However, empirical data suggests that corporate deposits have historically been fairly stable and not as volatile as money market funds. In the more recent period, the temporary government deposit guarantee that was put in place in October 2008 has further moderated the volatility of such deposits, hence ensuring greater funding stability for banking institutions.

In addition, the presence of regulatory framework and internal policies for overseas investments by residents ensure that large shifts of wholesale deposits sourced from non-financial corporations, governments and public sector enterprises are unlikely to occur in a fully-synchronised manner. Although such regulatory requirements have been progressively liberalised over time, prudential or internal limits are still applied on the size of foreign currency assets held by institutional funds such as insurers. In addition, some of these institutional funds such as the Employees Provident Fund and Kumpulan Wang Persaraan (retirement fund for government employees) are used to mobilise large portions of household savings through mandatory

Chart 1

Composition of Banking System Deposits and the Behavioural Maturity Profile of Fixed Deposits



Note: Fixed deposits include General Investment Accounts and Specific Investment Accounts

Source: Bank Negara Malaysia

savings programmes, hence making such funds less volatile in nature. Meanwhile, businesses with limited international trading activity may choose to hold assets only in local currency in order to avoid bearing foreign exchange risk.

Limited risk of contagion due to low reliance on interbank funding and securitisation

Drawing from the lessons of the Asian financial crisis, banking institutions are now more cautious in over-relying on interbank and other market-based funding (includes securitisation, bankers’ acceptances, negotiable instruments of deposits and debt securities issued). This form of funding constituted between 10-16% of total liabilities over the past decade. Partly due to the ample liquidity environment and strong growth in savings and deposits, banking institutions also have low reliance on securitisation as a funding source. The domestic securitisation market is mostly driven by Cagamas Berhad from housing loans purchased from financial institutions and the government (employees housing loans). The recent global turmoil also underscored the damaging effects of counterparty concerns on funding and liquidity risks positions. On the domestic front, there were no funding shocks that propagated through the interbank money market. Domestic conventional and Islamic money market rates remained fairly stable across all maturities during the recent crisis. This reflected the minimal interbank borrowings including repos which remained under 6% of total banking system liabilities over the past ten years. The decline of liquidity in the commercial paper market and briefly in the corporate bond market was well-contained with no spillover effects onto the rest of the financial system.

In addition, stress test on bilateral interbank linkages that incorporated simultaneous credit shocks (hypothetical defaults on interbank credit exposures) and funding shocks (inability to replace interbank funding from defaulted institution that subsequently triggers the fire sale of assets) demonstrated the limited scope for interbank contagion domestically. Potential domino effects via the credit and funding channels remained minimal and the interbank stress test results show that the RWCR of potentially affected banking institutions remained well above the minimum level under the most severe scenario.

Limited foreign currency liquidity and funding risks

The exposures of the Malaysian banking institutions to foreign currency assets and liabilities, of which approximately more than 70% were USD-denominated, had been on an increasing trend in the recent decade, albeit accounting for less than 15% of total assets (including off-balance sheet exposures in nominal terms). These low exposures minimise foreign currency funding liquidity risk and the potential direct impact of significant exchange rate fluctuations on balance sheet and profitability. Foreign currency liabilities are essentially managed via currency swaps, interbank market and foreign currency deposits. The dynamic management of liquidity was clearly demonstrated by the swift actions of banking institutions in narrowing the negative foreign currency liquidity mismatches during the period of global tightening of US dollar liquidity in late-2008. Moving forward, the funding needs of banks across various currencies are expected to grow in tandem with the regional expansion of domestic banks and the further deepening of domestic foreign exchange market. In anticipation of this direction, management of liquidity risk will be undertaken in accordance to specific currencies as part of the enhancements to the Liquidity Framework. This will contribute towards a more robust management of liquidity risk.

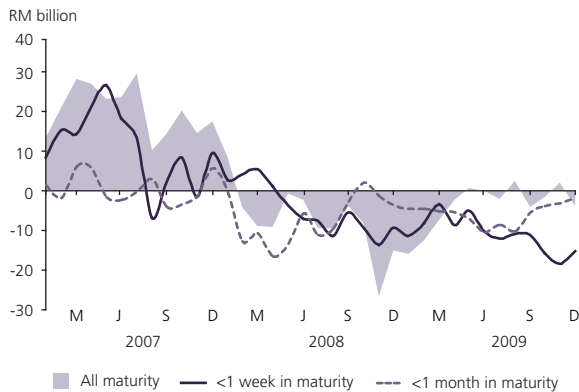
Strong balance sheet liquidity with sizeable holding of liquid assets

Domestic banking institutions maintained strong balance sheet liquidity whereby on aggregate, total liquid assets (comprised Class-1 and Class-2 liquefiable assets¹) could cover more than 8% of total short-term liabilities at any given month. These unencumbered liquid assets (accounting for 11.5% of total assets as at end-2009) can be easily converted into cash at short notice with minimal transaction costs thus providing temporary relief from potential funding pressures. Investment banks naturally held larger proportion of marketable securities for capital market operations which accounted for 26.2% of short-term liabilities as at end-2009. Although Class-2 liquefiable assets and formal credit lines are recognised as a source of reserve liquidity, the core inventories of banks' liquidity reserves continue to largely consist of Class-1 liquefiable assets which accounted for 74% of total liquid assets as at end-2009. Banking institutions have maintained an average of RM128.8 billion of projected liquidity surplus (based on the behavioural profile of cash flows) since 2006 that was adequate to sustain unexpected withdrawals of 12% of total deposits up to a period of one month. Banking institutions also hold liquid assets denominated in foreign currency that commensurate with the modest foreign currency funding liabilities. This portfolio consists mainly of high-rated sovereign and corporate debt securities and accounted for 7.8% of total foreign currency deposits and interbank borrowings as at end-2009. Furthermore, banking institutions are able to convert the large stock of ringgit liquidity surpluses to meet foreign currency liquidity shortfalls during distressed periods.

In summary, the stable and diversified funding structure of the banking system has contributed to its resilience over the years. The ability of banking system to withstand potential liquidity shocks is also underpinned by regulatory and structural factors that have created strong incentives for banks to manage liquidity risk in a dynamic and effective manner. Moving forward, further enhancements to the regulatory requirements on liquidity risk management will take into account the proposals by the Basel Committee on Banking Supervision. The direct and indirect implications of such new requirements will be thoroughly analysed, with due consideration to the different dynamics and characteristics of domestic structure and markets, risk-taking behaviour and liquidity risk management practices of banking institutions as well as the potential balance sheet and structural adjustments arising from such reforms.

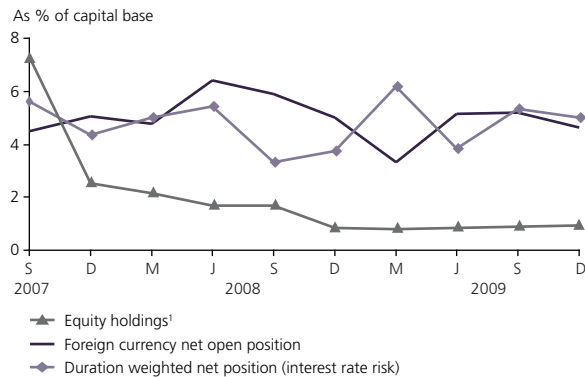
¹ Class-1 liquefiable assets include RM marketable securities/papers issued or guaranteed by Federal Government or the Bank, Cagamas bonds (issued before 4 September 2004), RM-denominated bonds issued by Multilateral Development Banks or Multilateral Financial Institutions and ABF Malaysia Bond Index Fund. Class-2 liquefiable assets include highest-rated Bankers' Acceptances, NIDs, RM corporate bonds, residential mortgage-backed securities and undrawn portion of formally available credit lines.

Chart 1.60
Banking System: USD Liquidity Mismatch



Source: Bank Negara Malaysia

Chart 1.61
Banking System: Market Risk Exposures



¹ Amount of investment in quoted shares

Source: Bank Negara Malaysia

as risk aversion abated. The last five months of the year saw trading securities of the banks enlarged by 17.5% to account for 3.3% of banking system assets (2008: 3.9% of total assets). The composition of trading securities was rebalanced towards the higher-rated or 'safer' assets in response to the market conditions. Holdings of government and Bank Negara Malaysia papers accounted for 49.1% of total trading portfolio of the banking system, having expanded by 8.1% in the year. While equity holdings for proprietary trading doubled in the year, these holdings accounted for less than 1% of total capital base and remained well below the level prior to the global financial crisis. The investment portfolios also adjusted likewise, growing 21.9% on account of significant expansion of 58.9% in the overall holdings of MGS.

The level of aggregate net open position narrowed to account for 4.6% of capital base (2008: 5.2%) as banks trimmed the size of foreign currency-denominated exposures due to more active management of the level of US dollar-denominated exposures. The interest rate risk exposures of the banking system remained manageable at 5% of capital base, despite the continued volatility in the bond market in the earlier half of the year and the subsequent shift towards increased holdings of fixed income securities. This was also partly supported by the continued use of derivative instruments to hedge and manage interest rate risk, where the outstanding notional amount of these contracts

amounted to RM658.1 billion as at end-2009. The basis risk of the banks levelled out towards the latter half of the year as yield movements between MGS and interest rate swaps stabilised.

Market risk is one of the most prominent risks that insurers and takaful operators face mainly through the investment activities of the fund assets. Similar to the banks, the level of market risk for insurance companies and takaful operators rose in the first half of 2009. A large number of the players experienced lower investment income and also higher investment losses. As market performance recovered in the later part of the year, the life insurers and family takaful operators chalked up unrealised gains totalling RM3.1 billion. The level of equity exposures surged as the FBM KLCI rallied. As insurers undertook portfolio rebalancing exercise, the composition of corporate bonds and equity rose to 38.9% and 13.1% of total assets respectively (2008: 37.3% and 9.5%). The extremely minimal exposures of the Malaysian insurers to structured credit products averted concerns on the liquidity position. The high proportion of high quality investment grade corporate bonds and MGS held lowered the risk charges under the RBC Framework while ensuring the adequacy of liquidity buffers.

Manageable risk of contagion particularly from external counterparties

Foreign counterparty exposures from on-balance sheet and notional amounts of off-balance sheet assets continued to remain limited, at

less than 15% of total assets of the banking system. This partly contributed to the low risk of contagion from adverse developments in the external sector on the Malaysian banking system. Earlier concerns over counterparty risks of the locally incorporated foreign banks (LIFBs) subsided by beginning of the year, given the minimal exposures of the LIFBs to foreign counterparties. This was further reinforced by the regulatory framework requiring the operations in Malaysia to be locally incorporated with localised and dedicated shareholders' funds. The Malaysian operations of the foreign banks are also subjected to the same level of rigorous regulation and supervision.

As the concerns in Dubai and some parts of Europe unfolded in 2009, the threat to the domestic banking system remained subdued. Total direct exposures of the banking system (comprising loans and PDS) to the Middle Eastern countries were at less than 10% of capital base, with bulk of the exposures outside the Dubai area. The exposures to the other countries that are confronted with high fiscal deficit, including Portugal, Italy, Ireland, Greece and Spain, only accounted for less than 5% of capital base. The degree of foreign counterparty risk of the insurance and takaful sector was contained by a low level of direct exposures to foreign assets, constituting less than 2% of total assets. The consistently high net retention level of 72.3% for general and general takaful business enabled counterparty reinsurance risks to be kept at manageable level. Majority of the offshore and foreign reinsurers are reputable and strongly rated companies, which further reduced the extent of counterparty risk during this challenging financial climate. Exposures to reinsurance risk as measured by total premiums cessions expanded by 11.1% to RM4.2 billion, to represent 27.7% of total gross premiums. The size of counterparty exposures for reinsurance claims rose to 13% of shareholders' funds.

Outlook for financial stability and focus of surveillance in 2010

The domestic operating conditions are expected to improve as challenges in international economic and financial sectors subside. Nevertheless, downside risks to domestic financial stability stemming from the external environment remain, given the sustainability of

the global recovery process which could adversely affect sentiments and create uncertainties. The commitments and strategies undertaken by other economies in managing domestic vulnerabilities have significant implications on maintaining the overall confidence level both globally and nationally. Nonetheless, the sustainability of the global economic recovery remains to be seen as pressures on international financial stability linger. Of significance is the removal of the unconventional support measures that were adopted at the height of the global crisis and withdrawal of fiscal support in many jurisdictions. These measures have been key in spurring the currently observed improvements in global economic and financial conditions. Hence timely, coordinated, transparent and appropriately communicated exit policies would be key in ensuring a smooth transition process that preserves confidence and minimises adverse spillovers that could derail the current path to recovery. In addition, effective and prompt solutions to the sovereign debt concerns are vital to preserve stability in the international financial system so as to avoid widespread indirect implications on confidence levels and the path to global economic strengthening, given the increased inter-linkages and globalisation and in the event such issues failed to be managed.

The signs of an earlier economic recovery in the Asian region have alleviated concerns relating to weaker credit quality and rising delinquencies within the banking system. Nonetheless, the ensuing expected large capital inflows into the region, in particular to the emerging economies amidst ample global liquidity and low interest rates in the advanced economies, will now pose new challenges in managing the potential translation into non-sustainable financial market rallies, as well as speculative build-up in asset prices and financial imbalances. Businesses in Malaysia have accumulated financial buffers and undergone progressive enhancements to operational efficiencies. Nonetheless, any increase in cost of inputs may exert some pressures on cost of production. Segments which have been more dependent on fiscal stimulus during the weakened economic activities period will need to reassess and re-strategise the capacity in order to remain competitive.

The progressive liberalisation of the Malaysian financial sector in tandem with the more sophisticated financing needs of the growing

economy will contribute towards developing the industry further moving forward, while increasing our inter-linkages. While the domestic financial system has raised its capacity to absorb the increased competition, it would require a more robust and dynamic management of talent and expert resources by financial institutions. Issues such as attractive compensation packages will need to be balanced with the desired level of productivity. In the pursuit of new business strategies and capturing of new market segments, the institutions need to balance between the medium-term objectives to generate higher income and the longer-term goals to achieve greater sustainability and effectiveness in its financial intermediation role. Similarly, the continued financial innovation and marketing of financial products, such as investment-linked deposits and structured products, have elevated the need to intensify focus on the practices and behaviours of the financial institutions. This will require financial institutions to continue to maintain prudent and responsible market conduct practices and have a more active role in promoting greater financial management and knowledge, particularly on the risks and returns of such products. Financial institutions are also expected to adopt a more inclusive approach and enhanced communication in a rapidly changing environment.

Moving forward, the Malaysian financial system is expected to continue to have adequate buffers to withstand the above external risks and domestic challenges. The banking system capitalisation is expected to remain above 10% under the most challenging and extreme scenario in the stress tests conducted on credit and market risks. These scenarios are based on an unexpected and extreme reversal in regional and global economic growth, coupled with bearish sentiments in the financial markets and conditions that are comparable to the Asian financial crisis. Similar stress tests were also conducted on the insurance and takaful industry where smaller institutions exhibited some vulnerability under severe stress test parameters, particularly for the more fragmented general business sector.

The Bank will continue to ensure the readiness of its supervisory and surveillance capacity in detecting, monitoring and assessing emerging risks and threats to the stability of the Malaysian financial system to ensure timely and appropriate

policy responses. With the greater evolution in the domestic financial landscape, the role of intermediation of funds is also increasingly being carried out by other non-bank players and entities that are not under the direct purview of the Bank. On the domestic front, the Bank has enhanced the capacity to extend the outreach of its financial stability surveillance and regulatory framework, where necessary, through enhanced powers in the Central Bank of Malaysia Act 2009. In addition, the Bank has continued to enhance the outreach of its surveillance activities through close engagements with other domestic regulatory authorities, as well as other central banks, monetary authorities and supervisory agencies on the international front.

The Bank continues to strengthen the effective management of the macroprudential, microprudential and monetary policy functions, taking into account the need to carefully assess potential tradeoffs, and will also intensify closer engagement and coordination with other domestic and international regulators, to ensure the highest level of state of readiness in preserving financial stability

The coordination with other regulatory agencies is focused on on-going financial stability surveillance and information sharing, supervisory cooperation, provision of liquidity assistance, as well as crisis management and resolution strategies. Of significance, the Bank also actively contributes and deliberates on issues relating to the global regulatory reforms and financial accounting framework. These include the proposed enhancements to the capital and liquidity requirements by the Basel Committee on Banking Supervision (BCBS) as part of the concerted efforts to strengthen the risk-bearing capacity of financial institutions worldwide. While the Bank recognises

the intentions of these proposed enhancements, the Bank has also raised concerns on the potential implications of the proposed regulatory reforms on the behaviour of financial institutions and players, which could in turn result in a transfer of risks to other forms or other segments of the financial system.

The surveillance and supervisory framework in Malaysia will continue to focus on the following key areas in 2010:

- Further enhancements to the macroprudential approach for assessment of risk transmissions both within the financial system and the economy, including the spillovers of potential vulnerabilities of systemically important entities that are not directly regulated by the Bank, and the developments in the external sectors, particularly the Asian region, and global arena;
- More active and efficient use, and development of surveillance tools and methodologies, particularly in the use of scenario analyses and stress tests at the individual institution and system levels to support risk assessments and undertaking of supervisory actions, taking into account the degree of correlation, relationships and potential mitigation or amplification of risk factors between the financial industry players;
- Continued engagement with stakeholders, including regulatees, business and customer associations, the public and other regulatory authorities via effective communication strategies to facilitate early identification of emerging risks in various segments of the industry and the economy in order to enable timely and pre-emptive implementation of measures to manage and mitigate such risks;
- Ensuring continued enhancements to financial institutions' risk management practices are being undertaken to commensurate with changes in risk appetite;
- More active and closer regional and global cooperation and coordination through established multi-lateral platforms and bilateral arrangements, in areas of financial surveillance, information sharing, regulatory reforms and supervisory colleges, as well as a more formal framework for cross-border crisis management and resolution; and
- Understanding and assessing the impact of changes in the regulatory and accounting environment, including the recommendations of the BCBS, on both financial and non-financial institutions, and the regional economies, as well as ensuring that the relevant information and assessments are made known to the industry, domestic financial markets and the general public.

Macroprudential Approach to Financial Surveillance and Regulation in Malaysia

The use of macroprudential regulations is not new in Malaysia. Macroprudential policy instruments (MPIs) have in the past been deployed to manage excesses and imbalances in the financial system and in managing capital flows. The development of the macroprudential surveillance framework gained momentum after the Asian financial crisis which surfaced two fundamental issues: (i) the need for macro-level risk assessment to complement micro-level supervision; and (ii) the need for assessment on cross-institutional and cross-sector risk transmissions.

Considerations for the design and use of MPIs

In Malaysia, the use of MPIs is generally targeted towards achieving the objectives of ensuring financial system resilience and addressing procyclicality (leaning against the financial cycle). These MPIs were mainly directed towards enhancing financial institutions' resilience against business cyclical variations, through the promotion of enhancements to risk management capabilities and the accumulation of financial buffers during upturns (automatic stabilisers). Bank Negara Malaysia has used MPIs to manage destabilising capital flows, the level of credit growth and risk-taking activities, such as to prevent the build-up of asset price bubbles or other imbalances, or to stimulate financing of economic activities during downturns for particular sectors. In choosing between the different types of MPIs, the Bank ensures a balance between a direct and targeted approach vis-à-vis a more indirect approach to manage credit supply. For example, MPIs imposed on the assets side of banks' balance sheets, such as lending controls or loan-to-value ratios would directly interfere with lending strategies of banks, while MPIs such as capital charges on lending to different segments and counterparties would be an indirect approach in influencing credit supply.

The use of MPIs in Malaysia takes into account the balance between costs of prudence and efficiency, as well as to complement monetary and fiscal policies, in order to achieve an effective equilibrium in preserving financial and monetary stability, and preserving the potential for growth. The use of MPIs to address the "cross-sectional dimension" of macroprudential concerns thus far has been limited mainly to capital and liquidity requirements on individual financial institutions for purposes of maintaining institutional, and consequently, systemic resilience. An example is the minimum risk-weighted capital ratio requirement of 8% for all banks. Such an approach could have less equitable outcome as the requirements are not differentiated according to the systemic importance of the institution, and in fact, the costs associated with systemic risk may be socialised without the benefits. Nonetheless, Malaysia has reinforced the framework through the complementary use of measures to address the "time dimension" of macroprudential concerns. This is achieved mainly through the use of counter-cyclical MPIs to limit the costs of financial distress in the contraction phase and restrain the build-up of risks during the expansion phase of the financial cycle. In the recent two decades, while the introduction of MPIs tend to be "discretionary-based" in nature, as the Bank reacted to pre-empt or manage risks to financial system stability, some of these MPIs have been retained over time and modified from its initial form to become more permanent in nature to manage the accumulation of systemic risks, particularly in the segments that are more prone to the build-up of price bubbles and imbalances. The permanency of some of the MPIs is also in response to structural changes and evolution of the financial sector and the economy.

Malaysia's experiences in the deployment of MPIs

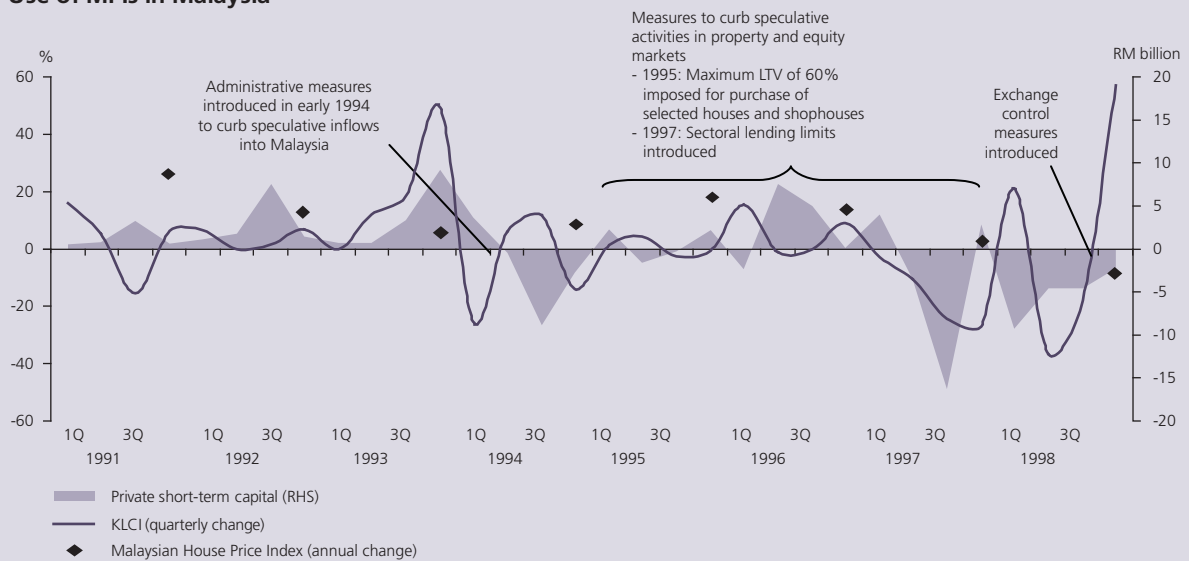
Strong economic growth and buoyant stock market activities in early 1990s had induced massive capital inflows into Malaysia. Such externally induced liquidity created upside pressures on prices of financial assets and real estate. To manage the destabilising effects of such short-term flows on the financial sector and economy, a series of macroprudential measures were implemented during the course of 1993. These measures, namely imposition of limits on non-trade related external liability position of banks, prohibition of forward transactions (on the bid side) and non-trade related swaps by commercial banks with foreign customers, restriction on sales of short-term monetary instruments to non-residents, and limitation on purchases of residential property exceeding RM250,000 by non-residents. These measures were all aimed at discouraging large scale inflows of short-term funds into the country and hence, provided some

calmness in the financial market. These measures were discretionary and temporary and were removed when conditions returned to desired levels. In 1998, a range of selected exchange control measures were implemented to reduce the internationalisation of the ringgit caused by speculative activities where high interest rates of 20%-40% offered by offshore centres for the ringgit had resulted in outflows from the onshore market and had destabilising impacts on the domestic financial markets.

Between 1994-96, macroprudential measures such as loan-to-value ratio limit on the purchase of non-owner occupied residential properties and tighter conditions on lending extended for the purchase of shares were introduced to curb excessive credit expansion that had fed into asset prices. These measures complemented the use of monetary policy. Increasing interest rates too high during periods of formation of asset bubbles would dampen investments in the productive sectors of the economy. The macroprudential measures were implemented in stages to address the specific issues at hand and to avoid an adjustment in the financial markets.

Subsequently, more stringent requirements were introduced in April 1997 to limit bank lending to finance the purchase of shares, and to finance investments in broad property sector. This was in response to concerns of bank lending contributing to the potential formation of an equity and property price bubble¹, and at the same time the adverse impact of a steep correction in these markets on banking system stability². For each of these areas, limits were imposed on different forms of credit exposures such as loans and financing, guarantees and holdings of corporate debt securities issued to finance activities in the broad property sector and equity market. As these limits were targeted at areas only where concerns of speculative activity existed, certain specific sub-sectors were excluded. These include the construction of low-cost residential properties, the development of infrastructure projects, public utilities and amenities, the purchase and construction of industrial buildings and factories, the purchase of owner-occupied

Chart 1
Use of MPIs in Malaysia



Source: Bloomberg, CEIC, Bank Negara Malaysia and internal computation

¹ As at end 1996, the proportion of total outstanding loans allocated to the broad property sector and share markets amounted to 39%. House prices in 1996 rose by 12.9%, while share prices on the Main and Second Boards of the Kuala Lumpur Stock Exchange rose by 24.4% and 93% respectively.

² In 1997, lending to the broad property sector and lending for the purchase of shares were characterised by high non-performing loan (NPL) ratios of 6.3% and 6.5% respectively. By 1998, these worsened to 14.2% and 23.2% respectively.

residential and commercial properties, and the purchase of land for agricultural and industrial activities. In 1995, limits were also introduced to limit the rapid growth on consumer credit, especially lending for purchase of passenger vehicles. The re-imposition of such limits was based on the success of the measures in moderating previous episodes of soaring hire purchase credits between 1990 and 1993. During this period, growth in credit for motor vehicles slowed down to 7.6% at the end of 1992 from a high of 81% in May 1990.

Following the implementation of the limits, the loans to the broad property sector and for the purchase of shares declined to 22% of total loans as at end-1997 from 39% of total loans as at end-1996. Financing for share financing only grew by RM2.3 billion in the second half of 1997, compared to RM12.2 billion in the preceding half year. Property prices plateaued and the annual growth in the Malaysian House Price Index moderated substantially to 1.9% by end-1997 (1996: 12.9%). This alleviated further build-up in property prices which could have had more damaging effects on the economy following the intensification of the Asian financial crisis in 1998. Subsequently, the crisis resulted in a sharp contraction in overall aggregate demand including speculative activities that led to further contraction in banks' lending and decline in financial asset prices. The limits were introduced as part of a broader package of pre-emptive prudential measures³ which worked in concert.

The Bank exercises discretion by making appropriate adjustments to the limits where and when necessary, to ensure its continued relevance and effectiveness while minimising the potential adverse consequences on the financing of economically productive activities. For example, given that the property overhang situation remained substantial in certain sub-sectors, such as high-end properties and commercial real estate, the provision of credit for these sub-sectors was temporarily prohibited in 1999. The price threshold for residential properties exempted from the lending limits was increased to include properties valued up to RM250,000 (previously RM150,000) to meet growing demand for medium-cost properties in tandem with the higher income levels and house prices. Similarly, the continued pressure in the consumption credit segment led to upward adjustment in the limit in margin of financing for the purchase of passenger vehicles from 75% in 1995 to 70% in 1997.

Continued enhancement of the macroprudential framework in Malaysia

The macroprudential framework in Malaysia has evolved substantially over the years and the strategy adopted has been all-encompassing in terms of the framework and infrastructure development, capability enhancement, governance structure and communication. These changes are aimed at ensuring that the macroprudential framework remains dynamic and relevant in addressing the present and future challenges. More recently, as a by-product of the global financial crisis, international debates on the use of the macroprudential regime to dampen cyclical "overshooting", as well as to assess, manage and mitigate contagion risks from unregulated entities and markets, have also provided new insights into the conduct of the macroprudential policy framework in Malaysia. In relation to this, the Bank places significant emphasis to ensure robust governance structures and processes in the conduct of the framework, including considerations of the relationship between macroprudential functions and monetary policy. The Bank is cognisant of the importance of effective coordination between the macroprudential, microprudential and monetary policy framework to facilitate holistic and comprehensive deliberation of the identified risks and issues, as well as formulation of appropriate policy responses.

In addition, the increasing regionalisation of the financial system also saw greater collaboration and knowledge sharing in efforts to manage macroprudential issues and risk of contagion at the regional level. The Monetary and Financial Stability Committee (MFSC) of the Executives' Meeting of East Asia-Pacific (EMEAP) Central Banks have raised the level of regional cooperation in information exchange and joint monitoring of the impact of the recent global crisis on regional economies. In addition,

³ For example, the issuance of guiding principles for banking institutions extending loans to the property sector.

Table 1
Types and use of macroprudential policy instruments in Malaysia

Asset side	Quantity	<ul style="list-style-type: none"> • Sectoral lending limits, or ceiling on loan growth to specific sectors (1997: to curb lending to the broad property sector and for the purchase of shares and unit trust funds) • Loan growth targets (1998-99: stimulate bank lending) • Investment limits (Islamic banks are subjected to a limit on exposures to property development projects and property investment activities of 25% of eligible capital base) • Loan-to-value (LTV) or loan-to-income limits <ul style="list-style-type: none"> o 1991: Maximum margin of financing of 75% for purchase of motor vehicles (lifted in 1993) o 1995: Maximum LTV of 60% for the purchase of houses above RM150,000 and shophouses above RM300,000 (not used for own dwelling or conduct of own business) to curb speculative activities o 1995: Maximum margin of financing of 75% for the purchase of passenger cars (1997: 70%) • More stringent loan loss provisioning or collateral valuation rules for specific types of loan or risk-profiles (e.g. legacy loans, high LTV, etc.)
	Price	<ul style="list-style-type: none"> • Controls on lending/financing rates <ul style="list-style-type: none"> o Floor rate: to dampen demand for credit or address underpricing under intense competition to capture and retain business market share o Ceiling rate: to influence the supply of credit by restricting lending to high risk customers
Liability side (capital and debt)	Quantity	<ul style="list-style-type: none"> • Capital requirements – e.g. higher capital charges for specific types of loans (by sectors, risk profile, etc.) • Under Pillar 2 of Basel II, higher capital requirements and other supervisory actions can be undertaken when banking institutions fail to address credit risk concentrations • Funding requirements (to limit the use of less stable sources of funding e.g. loan-to-deposit ratio limit) • Liquidity requirements (1998: to increase commercial banks' loanable funds)
	Price	<ul style="list-style-type: none"> • Deposit ceiling rate can be used to constrain financial institutions' ability to fund rapid credit expansion with high deposit rates to attract retail and institutional depositors

the Bank has also fostered closer regional cooperation in the formulation of exit strategies through the establishment of a Tripartite Working Group with the Hong Kong Monetary Authority and the Monetary Authority of Singapore to map out a coordinated strategy for the exit from the full deposit guarantee by the end of 2010.

The effectiveness of the Bank's macroprudential functions was augmented with comprehensive legislative powers with the coming into force of the Central Bank of Malaysia Act 2009 since November 2009. The Act enhances the Bank's capacity to undertake macroprudential surveillance and to act pre-emptively to avert risks to financial stability. Of importance, are the expanded powers to undertake surveillance and resolution on entities that are not regulated by the Bank but are likely to pose threats to financial stability, and powers to engage with and to collaborate with other domestic and international authorities to achieve greater coordination via a more macro approach towards maintaining financial system stability. The Act and other legislations relating to the regulation and supervision of financial institutions also provides the Bank with the powers and flexibilities to instil strong discipline through a robust governance framework to ensure a sufficiently systematic, transparent and accountable policy regime.

Conduct of macroprudential functions within the Bank

There is a dedicated division in the Bank that is accountable for financial stability mandate, with functions distributed across several departments. In 2006, a transformation exercise was undertaken to facilitate a more integrated, holistic and harmonised approach to regulation and supervision and thereby

further strengthen the conduct of financial stability within the Bank. This transformation exercise has now yielded positive results. The macroprudential orientation and conduct of surveillance in the Bank was further enhanced with the setting up of the Financial Surveillance Department in late 2006. The department is entrusted to undertake comprehensive and integrated identification of vulnerabilities and the calibration of assessment methodologies via collaborative mechanisms within the Bank and with other domestic regulators to facilitate robust assessment of the risks emanating from domestic and international developments on the overall stability and functioning of the financial system. As part of its overall surveillance framework, the department also works closely with the supervisors to ensure that risk assessment incorporates and integrates both macroprudential and microprudential perspectives.

The reorganisation of the financial stability division of the Bank was also complemented with strengthened governance and processes. Depending on the sources and nature of the emerging threats or issues, macroprudential policy assessment and recommendations can be spearheaded by any of the 10 regulatory and supervisory departments under the financial stability arm of the Bank. These issues will first be deliberated among the departments at a technical level, prior to escalation to the Financial Stability Policy Committee (FSPC) for deliberations and approval where necessary. The FSPC is chaired by the Governor, with membership comprising the Deputy Governors and selected Assistant Governors involved in financial stability functions. With the coming into effect of the Central Bank of Malaysia Act 2009, the role and responsibilities of the FSPC has now been enhanced further in relation to the microprudential and macroprudential framework that is now in place. Specifically, the FSPC also serves as the forum to deliberate and decide on macroprudential policies to address risks to financial system stability, including on microsurveillance responses and on resolution measures. Another enhancement relates to the decision on the imposition of macroprudential measures on any person/institution not regulated by the Bank. The extended powers of the Bank in dealing with emerging risks from outside the Banks' regulatory perimeter, including the resolution powers, are overseen by the Financial Stability Executive Committee (FSEC). The FSEC consists of the Governor, one Deputy Governor and three to five other members appointed by the Minister of Finance upon the recommendation of the Bank's Board of Directors. The FSPC, being the highest level decision making forum in the Bank will also be entrusted with recommendations to the FSEC on matters relating to financial stability, including the provision of liquidity assistance to and resolution of institutions not regulated by the Bank.

The forward-looking approach to surveillance accords an important priority on the development of forward-looking quantitative tools to aid coherent and integrated analysis as part of the macroprudential surveillance framework. In 2007, the Vulnerability Indicator for the Banking Sector was developed to measure the intensity of the banking system distress at a particular point in time. This was followed by the development of Z-score and modified distance to default models in 2008 to assess and forecast the level of credit risk of corporations. On-going efforts are being undertaken to enhance the use of scenario analyses and macro stress testing to facilitate more robust forward-looking assessments. This includes enhancements in assessing the dynamics of interbank linkages, the potential contagion paths and the degree of liquidity spillovers within the banking system.

Focus is also accorded to ensure effective communication of financial stability issues to the various key stakeholders. The conclusions of the Bank's macroprudential analyses are communicated to its various stakeholders through various channels. Since 2007, the Bank has begun to publish an annual Financial Stability and Payment Systems Report that communicates the outcome of its macroprudential risk assessment and to highlight emerging sources of vulnerabilities. The publication seeks to promote greater awareness and understanding of issues relevant to the safeguarding of overall financial system stability, and where appropriate, to induce adjustments in behaviours of financial players and market participants to better manage the build-up of systemic risks. The Report also contains the implementation of risk mitigating measures by the Bank that aim to strengthen the resilience of the system against any threats to its stability.