Financial Stability Report

Risk Assessment of the Financial System

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OVERVIEW

Stability in the Malaysian financial system continued to be preserved despite the challenging financial markets and economic environment, against the backdrop of the deepening global financial and economic turmoil. The failure or near-failure of a few large global financial institutions, which triggered a crisis of confidence in the global markets and caused sharp tightening in global liquidity and credit conditions, had no major systemic impact on the Malaysian financial system. This has been reinforced by pre-emptive and precautionary measures undertaken by the Government and Bank Negara Malaysia to preserve confidence and financial system stability. Overall liquidity remained ample. Financial markets remained orderly despite experiencing greater price volatility, higher outflows and lower trading volume during the year.

Financial system stability remains intact. The Malaysian financial institutions are well-placed to withstand the more testing times ahead, having entered the challenging operating environment on stronger fundamentals

The financial sector and financial markets continued to facilitate the intermediation of funds throughout the year. At the aggregate level, the household and business sectors demonstrated high degree of capacity and flexibility to adjust to the challenges that surfaced during the year, supported by strong aggregate financial buffers that were accumulated during the periods of favourable economic, business and labour market conditions.

The Malaysian financial sector exhibited strong capacity and higher degree of adaptability, both at the system and micro level, to withstand the rapid shifts in external and domestic risk factors that emerged during the year. The impact of the global financial turmoil on the domestic financial sector remained well-contained given the limited direct and indirect exposures to affected assets linked to the global financial turmoil as well as to the affected financial institutions. The level of capitalisation of the banking system remained high whilst the solvency position of the insurance and takaful industry was sustained at a comfortable level. Meanwhile, improvements in the quality of the banking system's financing portfolio continued with declining levels of non-performing loans (NPLs) underpinned by risk management capabilities and credit assessment processes which have been strengthened over the years and complemented by strong debt servicing capacity of borrowers.

Moving forward, the Malaysian financial system is expected to remain resilient despite being confronted with greater downside risks. Whilst the economic and financial conditions are expected to be increasingly challenging, the series of stress tests conducted at both the system and institutional levels confirmed that the risk-bearing capacity of the domestic financial system remains sound. The financial system has the capacity and flexibility to adjust to the changing environment and cope with the stresses that may surface from the economic slowdown. Of importance, is that the financial sector is well-positioned to continue meeting the financing and financial needs of the economy as well as its financial obligations at all times. In addition, the financial sector remains poised to be a key growth catalyst for the Malaysian economy.

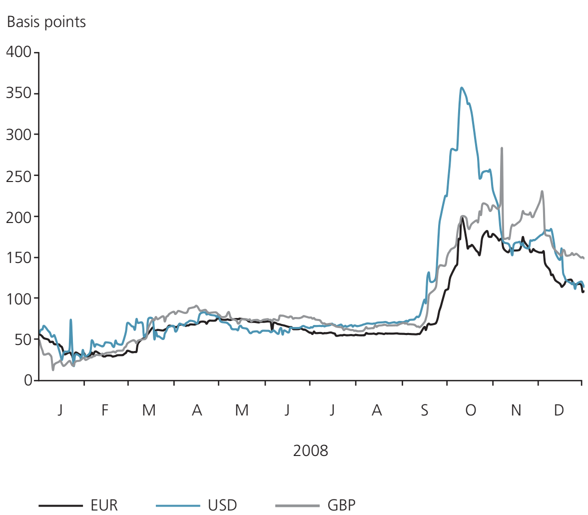
GLOBAL MACROECONOMIC AND FINANCIAL DEVELOPMENT

Global economy experienced a rapid shift from inflationary concerns to a sharp deterioration in growth conditions following further deepening of global financial crisis

The global economy was supported by robust growth in the emerging economies whilst the advanced economies experienced moderation in the first half of 2008. Growth in the emerging economies, led by PR China and India, were less affected by the international financial market turbulence. The rapid increases in commodity prices to high levels by mid-year, led to burgeoning inflationary pressures especially in the Asian region. The global economy, however, experienced a major and sharp turnaround in the second half of 2008 as these concerns dramatically shifted towards the risks to growth. The intensification of the global financial turmoil and the ensuing credit crunch led advanced economies into a synchronised global recession. The spillover effects on the emerging economies were swift and evident. The more open economies in Asia experienced an export-led slowdown. These developments, together with the unwinding of speculative activity in the commodity market, precipitated a rapid correction in commodity prices, resulting in large disinflationary pressures in most economies. Towards end-2008, most economies worldwide had embarked on large fiscal stimulus packages and monetary easing.

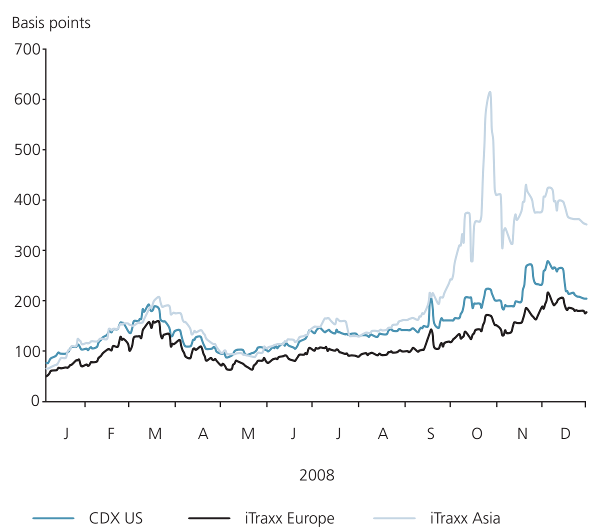
The year saw further deterioration in market sentiment and confidence as total write-downs and credit losses recognised by financial institutions worldwide escalated. With liquidity in international credit and money markets remaining tight and equity prices fluctuating in a bearish mode, financial institutions' access to interbank funding was strained considerably, thus threatening the solvency of some institutions. After a brief period of calm following measures in the US and Europe to ease stress in the global interbank markets, the international financial markets came under severe and destabilising stress towards the end of the third quarter, triggered by the collapse of a few large international financial institutions. As risk aversion magnified and fear of counterparty risks intensified, tightness in liquidity conditions in the global money markets became more acute (Chart 1.1). While the ensuing unorthodox actions and unprecedented policy initiatives to contain systemic risks and restore market confidence appeared to have eased the tight liquidity, conditions remained far from normal by end-2008. Market confidence was further undermined by concerns on the economic outlook. Global equity prices continued to decline whilst cost of default protection on investment-grade and high-yield corporate debt remained elevated amidst risks of significantly weaker business profitability and deterioration in credit quality (Chart 1.2).

Chart 1.1
3-month LIBOR less 3-month Overnight Index Swap (OIS)



Source: Bloomberg

Chart 1.2
Spreads on CDX and iTraxx for Investment-Grade Credits



Source: Bloomberg

Key Global Policy Measures

- **Guarantee schemes**
  - o Introduction of a blanket guarantee or expansion in the amount covered for existing guarantee on retail deposits.
  - o Provision of guarantee on financial institutions' new and existing short- and medium-term debt instruments and interbank borrowings.
- **Inter-central bank swap lines**
  - o Global central banks established reciprocal currency swap facilities to address any foreign currency liquidity shortages in the banking systems, particularly the US dollar.
- **Capital injections**
  - o Direct capital injection measures, with varying conditions and instrument-types across jurisdictions, were employed to support balance sheets of financial institutions. Some countries established funds and expressed commitments to recapitalise financial institutions should the need arise.
- **Direct purchase of commercial papers**
  - o The US Federal Reserve established Commercial Paper Funding Facility (CPFF) to purchase highly-rated unsecured and asset-backed commercial papers in efforts to ease liquidity problems in the US commercial paper market.
- **Monetary policy easing**
  - o Global central banks and monetary authorities adopted aggressive monetary easing in efforts to lower borrowing costs, ease cash flows and avert a sharp slowdown in economic activities.

DOMESTIC MACROECONOMIC AND FINANCIAL DEVELOPMENT

The Malaysian economy registered a favourable growth of 4.6% in 2008 amidst the international financial turmoil and rapid deterioration in global economic conditions

Robust domestic demand, in particular sustained private consumption and strong public spending, supported growth during the year. The economy expanded strongly by 7.1% in the first half of 2008 supported by strong performance of the services sector, expansion in trade and tourism activities, robust external demand from the non-US markets and higher exports of resource-based products which also benefited from the rising commodity prices. In the second half-year, the sharp and rapid deterioration in global economic conditions and major correction in commodity prices led to a contraction in Malaysia's export performance by the end of the year. Given the high degree of openness of the Malaysian economy, the contraction in exports adversely affected income and domestic demand. On the supply side, export-oriented manufacturing industries weakened in line with the deterioration in global demand and the sharp correction in commodity prices. While the services sector continued to support the economy, growth moderated due to the slowdown in the services sub-sectors that were dependent on trade and capital market-related activities. Private investment activities slowed significantly while private consumption moderated in the fourth quarter of 2008.

Headline inflation averaged 5.4% for the year. Inflation was already on an uptrend in the first five months of 2008, as supply-related factors led to the steady increase in global food and fuel prices. The inflation rate, however, rose sharply in the third quarter following the 40.4% adjustment to retail fuel prices in June and the revision to electricity tariffs in July. Inflation peaked at 8.5% in July before moderating as domestic food and fuel prices declined in the fourth quarter following the correction in global commodity prices. Meanwhile, the external position remained strong in the first half of 2008 amidst large current and financial accounts surpluses. Nevertheless, the overall external position recorded a net deficit in the second half-year due to large net outflows in the financial account arising from intensification of the deleveraging activities by foreign financial institutions, which more than offset the surplus in the current account. The Overnight Policy Rate (OPR) was reduced by a total of 150 basis points in 2008 (November) and early-2009 (January and February). The Statutory Reserve Requirement was also lowered concurrently to 1%

effective 1 March 2009. These adjustments were aimed at providing the monetary stimulus to support domestic demand, given the increased downside risks to growth in an environment of rapidly diminishing inflationary pressures. Please refer to the Bank Negara Malaysia Annual Report 2008 for a more detailed account on the domestic macroeconomic developments.

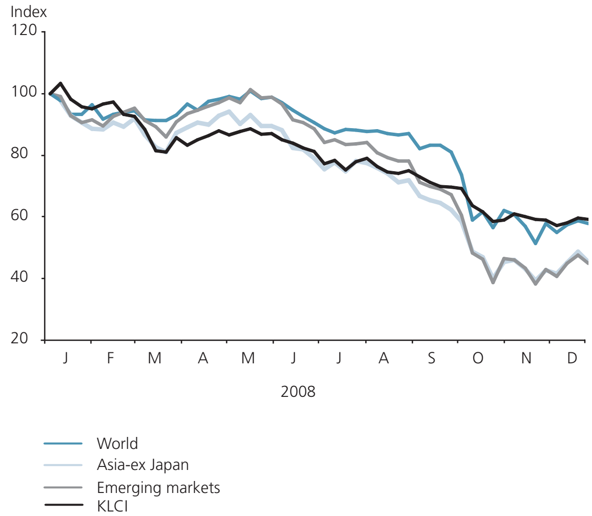
Financial markets remained orderly despite heightened volatility and lower trading liquidity

The domestic financial markets were not insulated from the higher asset price volatility and lower trading liquidity that were driven by rapid shifts in the domestic and global risk factors. Despite the challenging environment, funding liquidity for ringgit remained ample, with the domestic financial markets continuing to facilitate financial intermediation, whilst liquidity in the US dollar market remained consistent with the global tightening situation.

In the domestic equity market, the upward momentum from the second half of 2007 continued in the early part of 2008. The Kuala Lumpur Composite Index (KLCI), which was supported mainly by the plantation counters following increasing commodity prices, peaked at 1,516.2 points in January. The trend reversed as global and domestic developments unfolded in the ensuing months. As commodity prices escalated, market sentiments were further exacerbated by concerns on implications of rising cost pressures on cash flows of businesses.

The domestic equity market was not insulated from the global events in September and October, which caused massive indiscriminate sell-offs in global equity markets. These events led to significant downward pressure on the KLCI. Easing inflationary pressures and the various international and domestic stimulus packages as well as the measures introduced by several major central banks to avert a sharp slowdown in the global economy had somewhat improved sentiments. The KLCI stabilised towards the end of 2008 to conclude the year at 876.8 points. Market capitalisation contracted by 39.3%, a relatively better performance within the region (Chart 1.3). Volatility in the equity market, however, remained elevated amidst heightened risk aversion and uncertainty. Equity market volatility averaged 20.5% for the year (2007: 16.3%) (Chart 1.4).

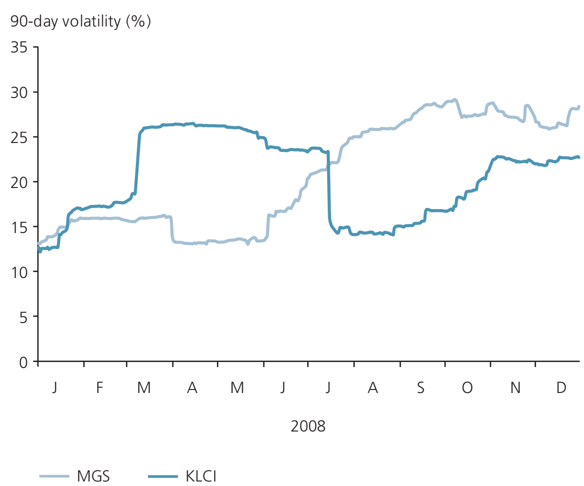
Chart 1.3
Performance of Global Equity Markets



Source: Bloomberg

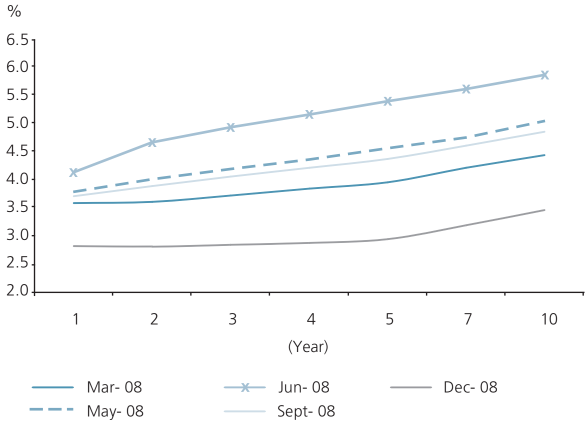
The government bond market remained generally resilient despite experiencing some swings in yield movements during the year. Average volatility in benchmark Malaysian Government Securities (MGS) yields rose slightly to 20.8% in 2008 (2007: 20.1%) (Chart 1.4). In the early part of the year, the MGS saw a brief rally due largely to rebuilding of

Chart 1.4
Volatility in KLCI and MGS



Source: Bloomberg

Chart 1.5
Interest Rate Swap Curve

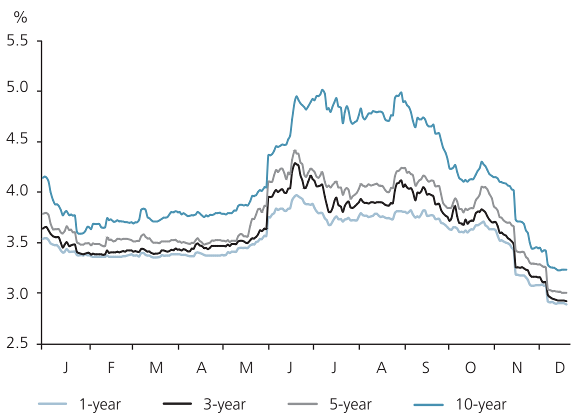


Source: Bloomberg

portfolios. As inflationary pressures rose, interest rate swaps and MGS yields trended upwards on expectations of possible tightening of monetary policy (Charts 1.5 & 1.6). The yield curve also steepened, reflecting increased inflation premium, particularly for longer-tenured papers. Expectations of increased government borrowings to finance a revised fiscal position for 2008 led to some concerns of potential oversupply in government bonds, exerting further upward pressures on yields. Such concerns nonetheless gradually eased as intensified risk aversion in September and October quickly induced flight-to-quality demand for government papers. In the primary market, demand for government bonds remained strong in spite of significantly higher net issuances (2007: RM25.8 billion, 2008: RM36.6 billion) during the year. The bid-to-cover ratio for MGS remained favourable at 1.95 times (2007: 1.97 times). At the same time, domestic inflationary pressures abated as crude oil prices retreated from the peak since mid-July, leading to several downward adjustments in retail fuel prices. The reduction of the OPR in November, meanwhile, saw increased expectations of further easing in monetary policy. Reflecting these developments, interest rate swaps and MGS yields normalised in the last quarter of the year.

In the Private Debt Securities (PDS) market, movements in yields for the first half of the year were generally in tandem with that of MGS yields. Mid-year, sentiments in the PDS market weakened following announcements of the imposition of windfall tax on the independent power producers (IPPs), potential reduction of toll rates and cap on water concessionaires' profits. PDS yields consequently rose on account of uncertainty. Sentiments subsequently improved, particularly on higher-rated bonds, following the withdrawal of the windfall tax and as concerns over inflationary pressure subsided. Nonetheless, yield spreads of PDS against MGS widened significantly in the last quarter of the year, reflecting flight-to-quality (Chart 1.7). Yields on lower-rated segments remained elevated on concerns over possible weakening in corporate credit quality.

Chart 1.6
MGS Yields



Source: Bloomberg

Chart 1.7
Spreads of AAA-rated PDS against MGS

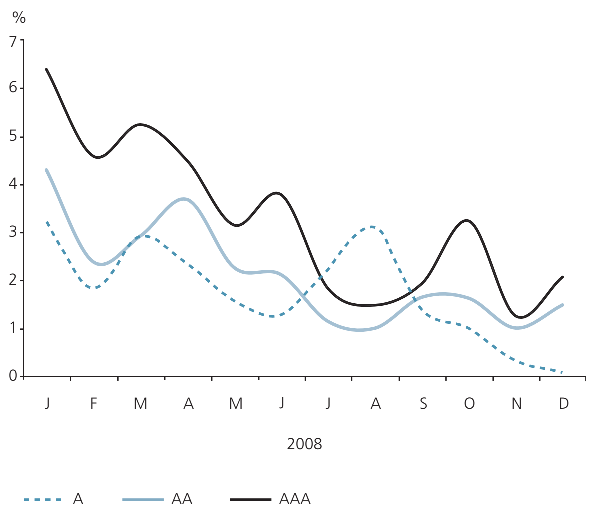
Source: Bloomberg

The accelerated global deleveraging process and heightened investors' risk aversion, which led to some indiscriminate unwinding of investments by non-residents, contributed further to volatility in the domestic financial markets. Portfolio investments registered a net outflow of RM92.4 billion in 2008 (2007: net inflow of RM18.4 billion). The unwinding of investment positions nonetheless did not result in any material destabilising implications on the domestic financial markets, which continued to function in an orderly manner.

Asset price volatility in the domestic PDS and equity markets was also accompanied by lower trading liquidity amidst diminishing risk-taking appetite and accelerated deleveraging process. The decline in liquidity manifested both in terms of trading volume as well as prices. The monthly ratio of turnover value to market capitalisation for KLCI averaged at 3% in 2008, lower than the 3.8% posted in 2007 (Chart 1.8). In the PDS market, the average monthly turnover ratio (computed as ratio of turnover value to outstanding bonds) declined significantly to 2.2% (2007: 4.4%). The decline in trading liquidity was broad-based. Lower turnover ratio was observed across all credit profiles including in the Islamic debt market (Charts 1.9 & 1.10). Whilst AAA- and AA-rated papers saw some improvement in trading volumes towards the end of the year, conditions remained tight for A-rated credits. Amidst contraction in volumes transacted and re-pricing of risks by market participants, there was also widening of the bid-ask spreads (Charts 1.11 & 1.12).

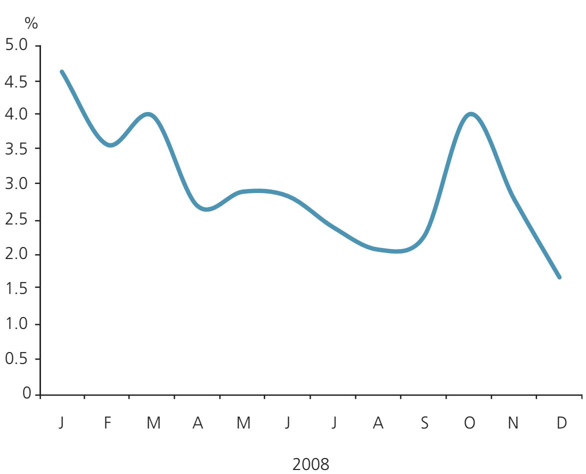
The domestic cross-currency swap market also experienced a marked increase in basis spreads. Early-2008 witnessed Asian financial institutions and corporations seeking alternative financing in Samurai bond markets amidst sustained tightness and increased borrowing costs in the US dollar

Chart 1.9
Turnover Ratio for PDS (by credit profile)



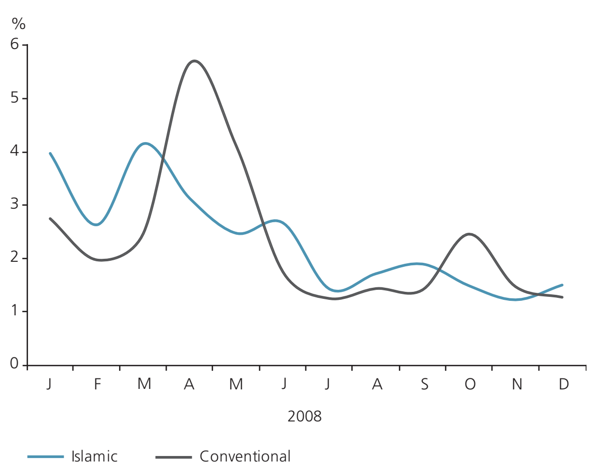
Source: Bond Pricing Agency Malaysia and internal computation

Chart 1.8
KLCI Monthly Turnover Ratio



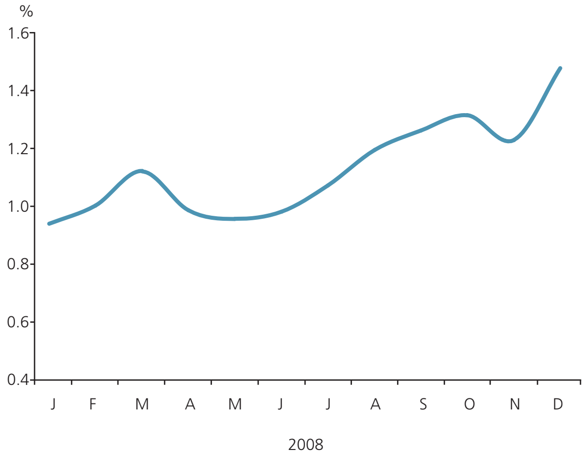
Source: Bloomberg

Chart 1.10
Turnover Ratio for PDS (by principle type)



Source : Bond Pricing Agency Malaysia and internal computation

Chart 1.11
KLCI Monthly Bid-Ask Spread[1]

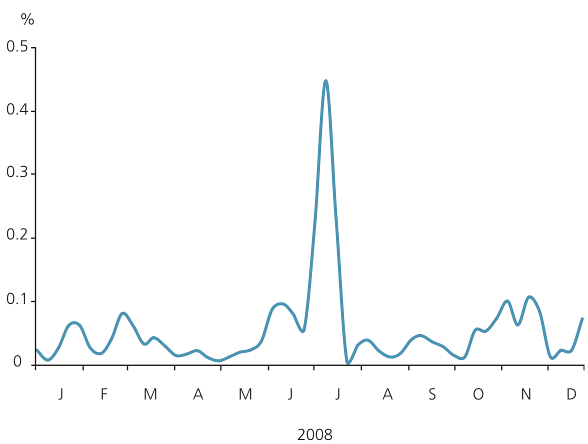


[1] Computed as ratio of difference between bid and ask price to mid price (average of bid and ask price)

Source: Bloomberg

bond markets. Given the attractiveness of the relatively untapped market and the narrow basis spreads for cross-currency swap in early-2008 (Chart 1.13), the domestic PDS market saw increased interests from a number of Asian financial institutions in raising ringgit-denominated bonds and thereafter swapping the ringgit proceeds into US dollars.

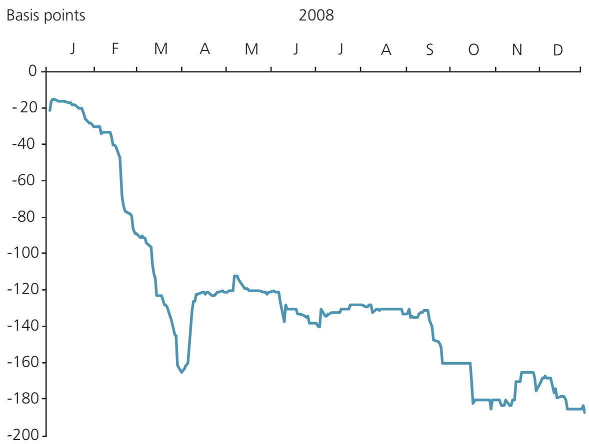
Chart 1.12
Intraday High-Low Spreads[1] for AAA-rated PDS



[1] Computed as ratio of difference between high and low price to mid price (average of high and low price)

Source: Bloomberg and internal computation

Chart 1.13
5-year Cross-Currency Swap



Source: Bloomberg

Basis spreads widened significantly since January, reflecting increased demand for cross-currency swaps. Basis spreads normalised subsequently in April following the postponement of PDS issuances by some non-residents. In September and October, the accumulation of US dollar assets by global financial institutions and rapid deleveraging as a result of portfolio rebalancing contributed to marked tightening in US dollar liquidity in international markets. Thus, basis spreads in cross-currency swap market widened, reflecting a general increase in global US dollar funding costs, rather than shortages of onshore supply of US dollars.

Despite bouts of heightened volatility and lower trading volumes, funding liquidity remained sufficient. The domestic financial markets continued to facilitate financial intermediation throughout the year, amidst increased investors' risk-averse tendencies. Both the primary PDS and equity markets remained generally accessible for corporate funding, albeit at higher costs. Total number of PDS issuances amounted to 271 in 2008, moderating from 323 in 2007 whilst new issuance of shares (excluding warrants) declined to RM5.2 billion (2007: RM7 billion). In the PDS market, while concerns on potential deterioration in the credit outlook began to emerge especially in the fourth quarter given the more challenging economic environment, this has yet to translate into widespread defaults. The number of defaulted corporate debt securities was in fact lower at nine in 2008 as opposed to 11 default incidences in 2007.

In the ringgit money market, liquidity remained ample. Reflecting firm domestic fundamentals, the cost of obtaining short-term liquidity in the ringgit interbank market continued to track policy rates very closely throughout the year.

Non-financial sectors

In 2008, the business sector was tested with spiralling costs of production and raw materials following the hike in fuel and energy prices during the first half of the year. This was exacerbated by rising costs of funding and refinancing through the capital market as yields rose. The financial health of businesses came under pressure by the global economic slowdown that adversely affected the order books of corporations and enterprises especially in the last quarter of the year. Meanwhile, households' debt servicing capacity was affected by greater inflationary pressures in the first half of the year and the weakening employment outlook in the later half.

The household and business sectors demonstrated continued resilience in 2008 having entered the challenging environment from a position of strength and with strong balance sheets. Strong financial buffers amassed over the years of strong growth amidst favourable business and labour market conditions have largely enabled households and businesses in the aggregate to adapt flexibly and favourably to the cost and revenue pressures experienced during the year.

Businesses faced volatile prices and increased revenue challenges

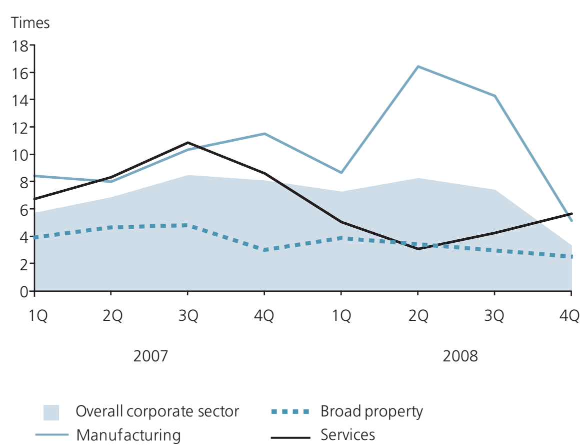
Years of profit performance, build-up of retained earnings and improvements in operational capacity and efficiency following structural reforms and business reengineering have strengthened the balance sheets of businesses. This has accorded Malaysian corporations with the added capacity and flexibility to respond to challenges arising from escalating input and production costs, and contraction in demand. Shareholders' funds grew at an average annual rate of 11% between 2003 and 2007, before retreating by 1% in 2008. Meanwhile, the leverage position remained healthy with the median debt-to-equity ratio position sustained at less than 50% as at year-end (Chart 1.14). Given the stronger balance sheet, the debt servicing capacity of the corporations was sustained at relatively comfortable levels in 2008, with the median current ratio sustained at 1.7 times, moderating only marginally from the three-year average of 1.8 times. In addition, interest coverage ratio remained at a comfortable level of 3.4 times, albeit posting a significant decline in the final quarter of 2008 as earnings before interest and tax (EBIT) fell sharply on account of lower demand and sales (Chart 1.15).

The aggregate level of non-performing loans (NPLs) of businesses continued to trend downwards during the year (Chart 1.16). With

Chart 1.14
Debt-to-Equity Ratio for Selected Sectors

Source: Bloomberg

Chart 1.15
Interest Coverage Ratio for Selected Sectors



Source: Bloomberg

the NPLs declining by 15.4%, the gross NPL ratio of businesses eased further to 6% as at end-2008, the lowest level since the 1997 Asian crisis. Similarly, the quality of loans to small and medium enterprises (SMEs) strengthened further with the gross NPL ratio of 6.8% as at year-end (Chart 1.17).

Improvements in operational capacity and accumulation of financial buffers in recent years contributed to comfortable level of debt servicing capacity of businesses amidst more volatile cost pressures and increased revenue challenges

After the peak earnings in 2007, the level of profitability and performance of the corporate sector held up fairly well in the first half of 2008 before beginning to show some signs of strain by the fourth quarter of the year (Charts 1.18 & 1.19). Profitability deteriorated further in the final quarter as impact from the earlier rise in fuel costs and electricity tariff, and the drop in sales and revenue started to set in. EBIT of 120 companies tracked by Bank Negara Malaysia (representing 72% of Bursa Malaysia market capitalisation) remained fairly steady within the positive territory before declining by 35% in the fourth quarter to RM7.2 billion. These companies recorded a net loss position of RM201 million, skewed mainly by the high and exceptional losses incurred by a few large companies on foreign exchange translation and derivatives losses, impairment charges on investments and provisions for stockholding and inventory losses.

The year 2008 saw some moderation in the earnings of the property and construction sectors, as players grappled with the twin effects of rising costs and slowing demand. Turnover and profits were lower due to deferment in property launches reflecting the 8.5% drop in property sales in 2008 (Table 1.1). Margins were affected by the significant rise in building material costs partly following the

Chart 1.17
SME NPLs

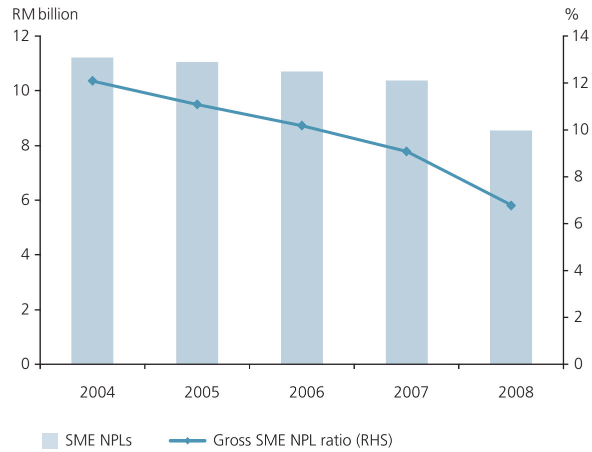


Chart 1.16
Business NPLs

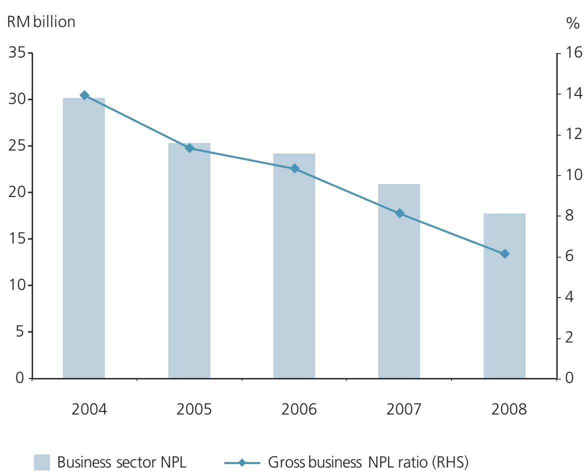
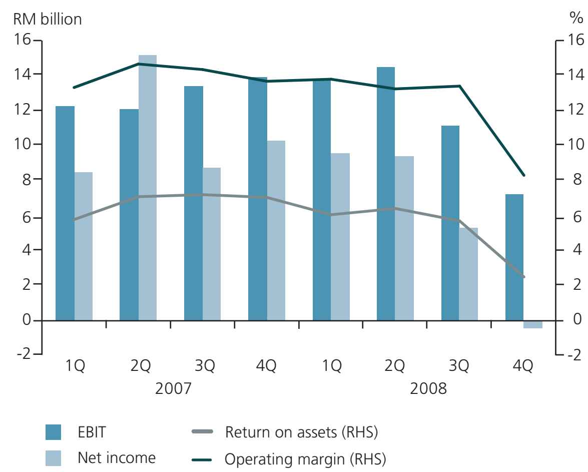


Chart 1.18
Profitability for Selected Companies



Source: Bloomberg

Chart 1.19
Return on Assets for Selected Sectors

Source: Bloomberg

liberalisation of the pricing structure for steel and cement and disruptions in projects' schedules. The strong financial buffers built over the recent years and the more disciplined borrowing practices ensured that the leverage ratio of property companies remained manageable at below 50%. These strong financials place the developers in a stronger position to withstand the slowdown anticipated over the next two years, but more significantly, to be in readiness to seize the opportunities as recovery occurs.

Meanwhile, Malaysian steel producers enjoyed exceptional profits in the first half of the year as soaring prices and strong regional demand ensured strong revenue streams. Likewise, the crude palm oil (CPO) industry benefited massively from the commodity boom. The windfall

Table 1.1
Residential Property Transactions and Sales Performance

	2007	2008*p*	Growth (%)
Residential property transactions			
Units	*199,482*	*216,702*	*8.6*
Value (RM billion)	*36.5*	*41.3*	*13.2*
Sales performance	45.1%	44.5%	
Units launched	*52,664*	*48,830*	*-7.3*
Units sold	*23,749*	*21,725*	*-8.5*

p Preliminary

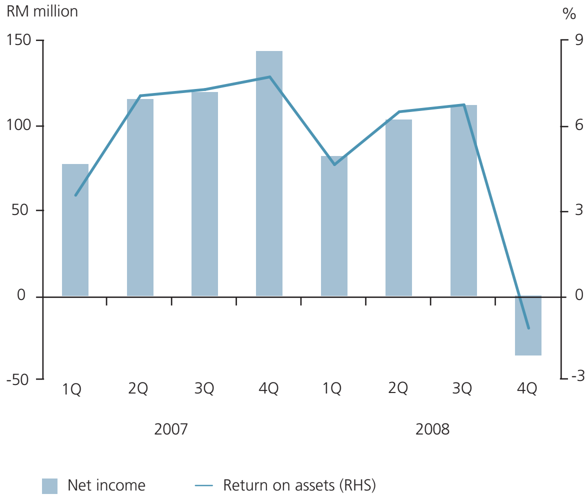
Source: National Property Information Centre (NAPIC), Valuation and Property Services Department

performance was, however, abruptly interrupted as prices of these commodities underwent a sharp reversal triggered by the sharper-than-expected contraction in global economic activities. By end-2008, the prices of steel and CPO had fallen by about 40% to 50% from the record peaks in 2008. Following the rapid pace of the price correction, many of the large steel players that are listed on the exchange were hit by hefty inventory write-downs, resulting in losses in the fourth quarter. Similarly, CPO producers recorded weaker earnings on a quarter-on-quarter basis, albeit less severe. The 'downcycle' for the construction and building materials sectors, including the steel sector is likely to be temporary given the many stimulus packages introduced by economies globally, including Malaysia. These are likely to have a positive impact on the prices of and demand for steel and hence the financials of players in the steel industry. By early-2009, CPO prices had also recovered from the lows and subsequently stabilised at about RM1,800 level. While prices are still well below the recent highs, CPO producers continue to be profitable at the current price level, helped in part by the 20% to 30% decline in cost of fertilisers and continuing efforts to gain process efficiencies. In addition, the balance sheets of most major CPO players also carry minimal debts, placing these players on a strong position to withstand the cyclical downturn.

The electrical and electronics (E&E) companies remained exposed to the deepening global economic slowdown. Exports of E&E products in the fourth quarter contracted sharply by more than 20% compared to the preceding quarter. This was also reflected in the net earnings of listed E&E players as replenishment of order books slows and earnings visibility diminishes (Chart 1.20). Elsewhere, sectors such as automotive, media and broadcasting were still benefiting from the robust demand for cars and advertising expenditures in the first nine months of 2008. However, signs of weakening demand had begun to emerge in October 2008.

While many sectors were affected by the moderation in economic activities, some sectors that are more defensive in nature have generally displayed earnings resilience. These include the retailers; packaged food and beverage, tobacco and liquor manufacturers; rubber glove producers; gaming operators; oil and gas support service providers; toll road concessionaires and the IPPs. The retail industry recorded a strong 12.2% growth in EBIT whilst net profit grew 34.3%, benefiting largely from the festive periods and outlet expansions.

Chart 1.20
Profitability of Selected Companies in the E&E Segment

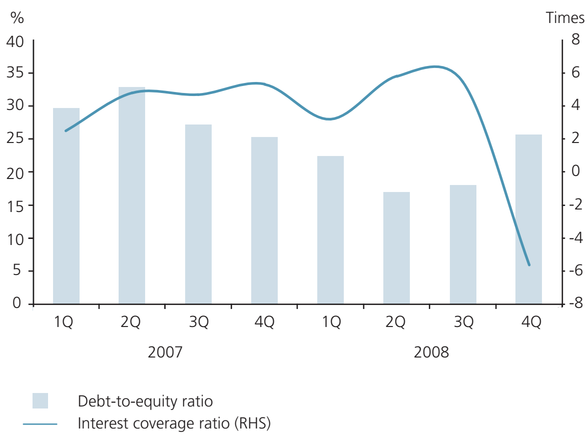


Source: Bloomberg

Businesses also faced higher cost of credit and refinancing of debts from the capital market as risk-averse investors demanded higher yields. While the reduction in the OPR helped in partly cushioning some of the impact of the heightened risk aversion, increased concerns over the outlook of the domestic economy saw the spreads for 5-year AAA-rated papers increasing by 63.4 basis points and that of AA-rated papers rising by 95.2 basis points in the fourth quarter. This was also accompanied by some moderation in the volume of funds raised in the PDS market during the year. Financing from the banking system for large businesses and the SMEs remained highly accessible as reflected by the 18% increase in loan disbursement to businesses (2007: 4.3%) and 13.2% increase in outstanding business loans (2007: 10.3%). A total of RM147.9 billion of new financing was granted to businesses in 2008 primarily for working capital and trade-related activities. Apart from the financial strengths, the continued access to financing has also been supported by improved relationship banking, which strengthened the knowledge and understanding of the operating conditions and requirements of businesses by banking institutions. The SMEs also benefited from the special funds created by the Bank in the second half of the year to ensure continued financing availability for viable but high risk business ventures (Chart 1.22).

The level of credit risk and delinquencies in the business sector is likely to rise in 2009 given the more challenging economic environment. While this may be the case, the impact of the increased risks will be partly cushioned by the financial buffers amassed over the last few years of strong growth and profitability. The increase in the level of credit risk going forward is reflected by the gradual downward movement in the

Chart 1.21
Leverage Position and Interest Coverage Ratio of Selected Companies in the E&E Segment



Source: Bloomberg

Chart 1.22
Growth in Outstanding Loans to Large Businesses and SMEs

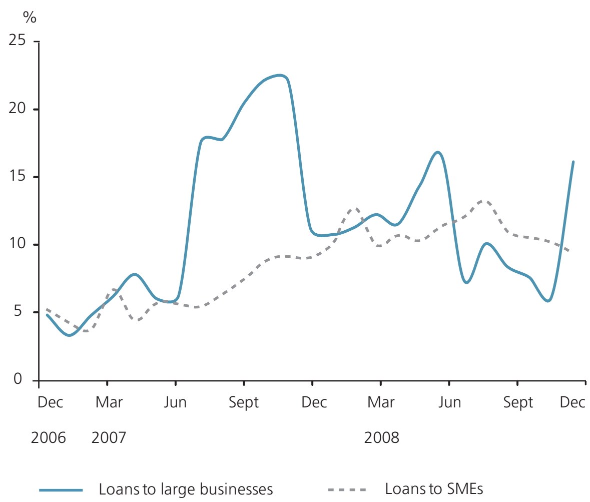
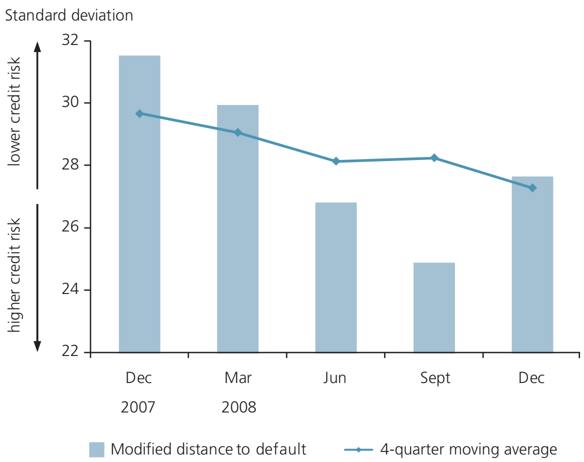


Chart 1.23
Weighted Average Modified Distance to Default of Selected Companies



Source: Bloomberg and internal computation

modified distance to default, a forward-looking indicator of corporate credit default risk (Chart 1.23). The movement and distribution of z-scores in the fourth quarter indicate a similar moderate increase in the average level of corporate credit risk going forward (Chart 1.24). A more detailed explanation of the modified distance to default and the z-score is provided in the box article "Forward-Looking Measurement of Corporate Sector Soundness".

Chart 1.24
Z-score of Selected Companies

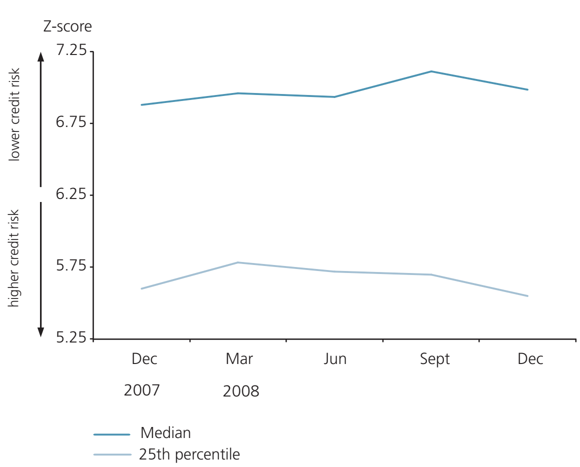
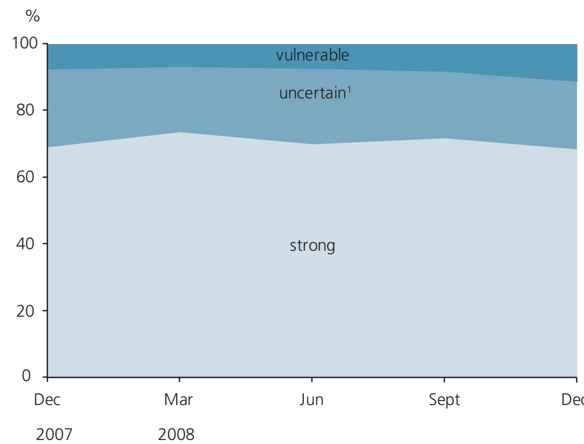


Chart 1.25
Distribution of Z-score of Selected Companies by Category



[1] Refers to the proportion of companies falling within the range whereby the z-score model is unable to categorise the company as either strong or vulnerable with a high degree of certainty

The proportion of companies categorised as strong by the z-score model fell moderately from 72% as at end-September to 69% as at end-2008, with a commensurate increase in the percentage of companies categorised as vulnerable to 11% (Chart 1.25). These movements are consistent with the weaker corporate sector performance in the final quarter of 2008 and the weaker business conditions going forward.

The healthy balance sheet positions, strengthened operational capacity and efficiency, and structural flexibility would contribute towards the resilience of the business sector. This would be further boosted by the RM67 billion fiscal stimulus announced by the Government in November 2008 and March 2009 and the series of measures that have been instituted by the Bank to mitigate the impact of the moderation in economic growth on Malaysian businesses, especially the SMEs, by providing new business opportunities through expansionary macroeconomic policies, improving cash flows, reducing the cost of doing business and ensuring continued access to financing by viable business enterprises.

Healthy balance sheets of households with improving indebtedness

Similar to the business sector, the household sector entered the more challenging economic phase

Forward-Looking Measurement of Corporate Sector Soundness

The Bank continues to accord emphasis on enhancing the forward-looking capability of its surveillance framework. This includes having a more robust assessment of risks in the corporate sector, which may have an impact on the stability of the overall financial system. Forward-looking models such as the z-score and modified distance to default provide important insights on emerging stress and risks, thereby providing sufficient lead time for the Bank to formulate appropriate policy measures pre-emptively to avert, mitigate or manage such threats. The quantification and measurement of risks enable more robust stress tests to be performed to assess the direct and possible feedback effects from plausible shocks to the system. The predictive power of the z-score and modified distance to default models in assessing future levels of credit risk have been established in numerous research and academic literature.

Z-score for Emerging Markets

The z-score measures the degree of vulnerability of a particular business or an industry segment by categorising firms into two distinct clusters, namely strong and vulnerable firms, based on the historical default experience. The construction of the z-score used by the Bank is referenced on the model developed by Altman for emerging markets[1] and employs the multiple discriminant analysis as an underlying statistical tool to derive a linear combination of financial ratios that best discriminate between the two categories. The multiple discriminant analysis improves on the traditional approach of individual or sequential analysis of financial ratios by reducing the reliance on rules of thumb and subjective judgement in determining the threshold levels and relative importance of the ratios. Selected key financial ratios are subsequently consolidated into a composite score to provide a snapshot of a firm's financial health. The discriminant function for the z-score for emerging markets based on the study conducted by Altman is given by the following equation:

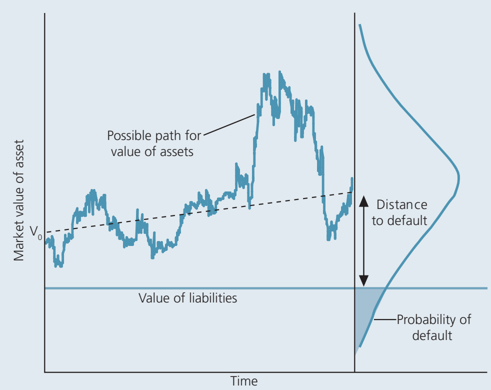
$$3.25 + 6.56\left(\frac{\textit{Working Capital}}{\textit{Total Assets}}\right) + 3.26\left(\frac{\textit{Retained Earnings}}{\textit{Total Assets}}\right) + 6.72\left(\frac{\textit{Operating Income}}{\textit{Total Assets}}\right) + 1.05\left(\frac{\textit{Equity}}{\textit{Total Assets}}\right)$$

Based on the z-score, both strong and vulnerable firms can be identified, whereby a higher z-score indicates a lower likelihood of the firm encountering financial distress.

Modified Distance to Default

The distance to default, based on the methodology developed by Merton[2], measures the potential default by a firm on its debt obligations using the option pricing model. The equity value of a firm is assumed to equal the value of a European call option on the firm's assets, with the value of its debts as the strike price. The incidence of default is said to occur when the value of the firm's debts exceeds the market value of its assets. The distance to default reflects the extent to which the market value of a firm's assets exceeds its debts, measured in terms of standard deviation of the asset value. The graphical representation of this concept is illustrated in Chart 1.

Chart 1
Merton's Distance to Default



[1] Altman, Hartzell and Peck (1995) "Emerging Markets Corporate Bonds: A Scoring System"
[2] Merton (1974) "The Pricing of Corporate Debt: The Risk Structure of Interest Rates"

Using the Black-Scholes-Merton methodology and applying simplifying assumptions as proposed by Byström[3], the modified distance to default is calculated as expressed by the following equation:

$$DD_{MODIFIED} = \frac{\ln(L)}{(L-1)} \frac{1}{\sigma_E}$$

where L is the leverage ratio (book value of debts expressed as a percentage of market capitalisation and the book value of debts) and σ_E is the annualised 90-day historical volatility of equity returns. Firms with shorter distances to default are assessed to be associated with higher credit risk and hence a greater probability of default.

Observations on Corporate Sector Soundness

Movements in the median z-score and weighted average modified distance to default are tracked to detect changes in the direction and average level of credit risk both at the macro as well as industry and company specific levels. In addition, Altman z-scores at the 75th and 25th percentile are also used to monitor the changes in the level of credit risk for firms with higher and lower credit quality, enabling a more complete assessment across different credit qualities.

The series of structural, operational and financial reform measures instituted following the 1997 Asian financial crisis have substantially contributed to the strengthened performance and financial health of Malaysian corporations. Over the 1997 to 2008 period, the z-score and modified distance to default calculated for more than 230 companies listed on Bursa Malaysia (accounting for over 80% market capitalisation) have improved (Chart 2 and Chart 3). The improvement in credit risk levels is also reflected in the improving credit quality of the banks' business loan portfolios during the period. The level of non-performing business loans has declined at an annual pace of 7%. As at end-2008, the gross non-performing business loans ratio has declined to 6% from its peak of 15.3% in 1998.

Chart 2
Business Sector Gross NPL Ratio and Z-score

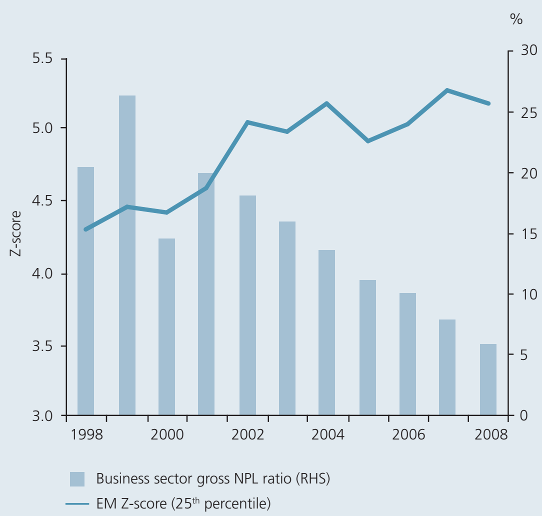
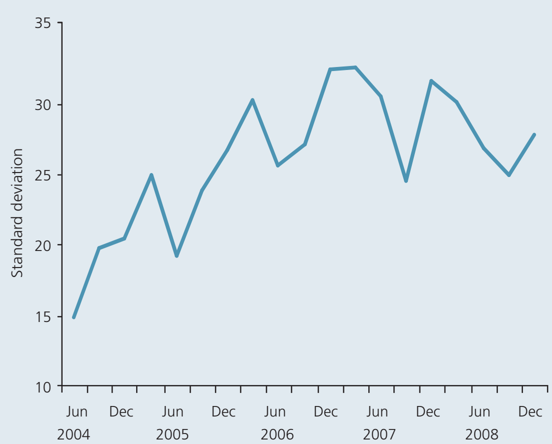


Chart 3
Weighted Average Modified Distance to Default



[3] Byström (2006) "Merton Unravelled: A Flexible Way of Modelling for Default Risk"

Refinements to Z-score and Modified Distance to Default Models

While there is useful information that can be derived from the usage of such models in carrying out surveillance and risk assessments, such models primarily complement the main efforts in fundamental analysis of quantitative and qualitative factors. Experiences during the current global financial turmoil have underscored the importance of having in place financial and risk models that remain sufficiently robust and dynamic in extreme market conditions where specifications and assumptions tend to deviate from the norm.

As the discriminant function of Altman's emerging market z-score was developed using data drawn from various emerging markets, an area of focus now is the development of a model which more accurately reflects the specific conditions, risk characteristics and phase of development of Malaysian businesses. Given the varying business characteristics across different industries, the Bank would also develop industry specific z-scores based on the financial statements and default experiences of Malaysian businesses.

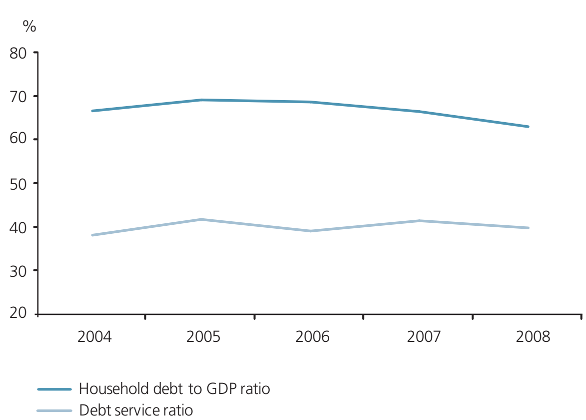
Recognising that the modified distance to default model relies on equity prices, which do not necessarily embody all information relevant to a firm's future performance but includes other factors such as market liquidity and investor sentiment, the Bank will be implementing enhancements to the model. The Bank will embark on an exercise to map the modified distance to default model to historical incidences of bond and loan defaults by Malaysian businesses, thereby enabling estimates of default probability and frequency to be more reflective of the future level of non-performing loans in the corporate sector.

These efforts in enhancing the accuracy and predictive power of the models would contribute to the Bank's effective use of surveillance and risk assessment tools in its continuous monitoring of the stability of the financial system.

with a healthier balance sheet and financial position. The level of household indebtedness has somewhat moderated as households embarked on consolidating their financial positions and obligations. The household debt-to-gross domestic product ratio has continued to stabilise at around 66%. The increase in general price levels and the subsequent concerns over the employment outlook led households to reassess their financial capacity especially to weather the more difficult economic conditions. The precautionary behaviour resulted in the more moderate growth in demand for new financing of 18.8% in 2008 from as high as 39.4% in the preceding year. This was also influenced by the bearish and lacklustre performance of the equity market which saw a decline in the market capitalisation of the KLCI to RM473.6 billion at the close of the year.

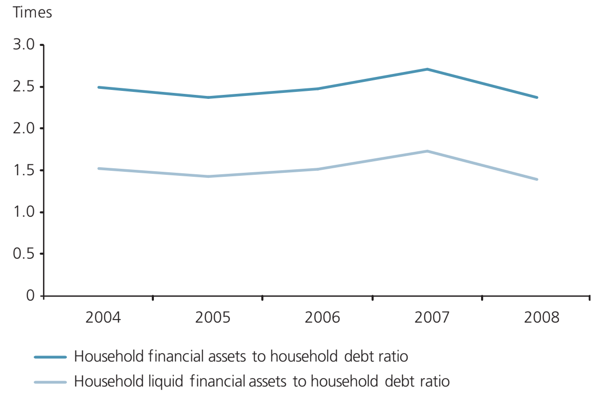
Disposable income grew within reasonable range for the year, largely supported by the high commodity prices and favourable economic conditions. This provided enhanced support to the households' debt servicing capacity. The ratio of loan repayments-to-disposable income has also continued to improve in recent years (Chart 1.26). The sustained debt servicing capacity was also reflected in the financial assets-to-debts ratio, which continued to remain high at 2.4 times as at end-2008 (Chart 1.27). The strong initial position more than offset the small decline of 4.1% in household financial assets during the year as the value of their investments in equity and unit trust funds declined.

Chart 1.26
Household Indebtedness and Debt Service Ratio



Source: Internal estimates

Chart 1.27
Household Financial Assets to Household Debt Ratio



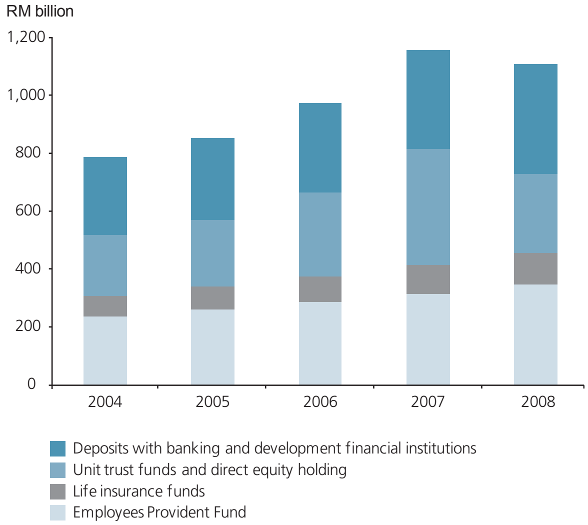
Source: Treasury Housing Loans Division, Employees Provident Fund, Securities Commission Malaysia and internal estimates

The level of liquid assets remained ample at 140% of household debts to constitute 60% of household financial assets. The increase in disposable income in recent years has enabled households to accumulate savings as reflected in the average annual increase of 9% in households' deposits with banking and development financial institutions over the last five years.

The household sector exhibited sustained financial capacity and adaptability to adjust to greater employment pressures under a more challenging economic environment, supported by a healthy balance sheet as well as stable indebtedness and income levels

This was also supported by the temporary blanket guarantee protection on bank deposits by the Government, as well as some degree of portfolio rebalancing given the poor performance on equity investments. Meanwhile, the bulk of household indebtedness continued to be utilised mainly for asset accumulation, with housing loan and motor vehicle financing accounting for over 75% of household loans as at end-2008 (Charts 1.28 & 1.29). The growth in

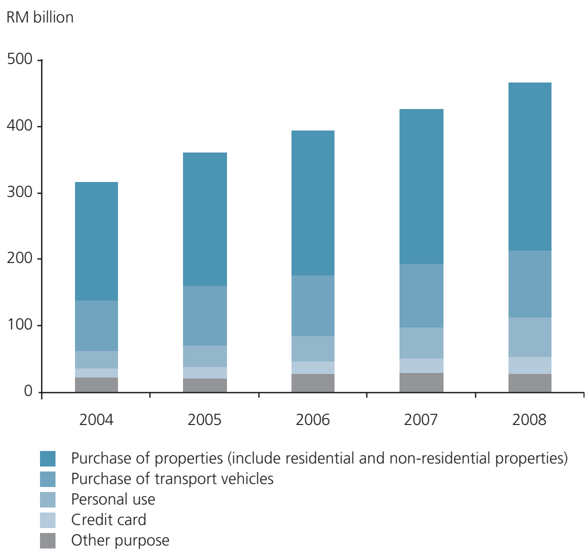
Chart 1.28
Composition of Household Financial Assets



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

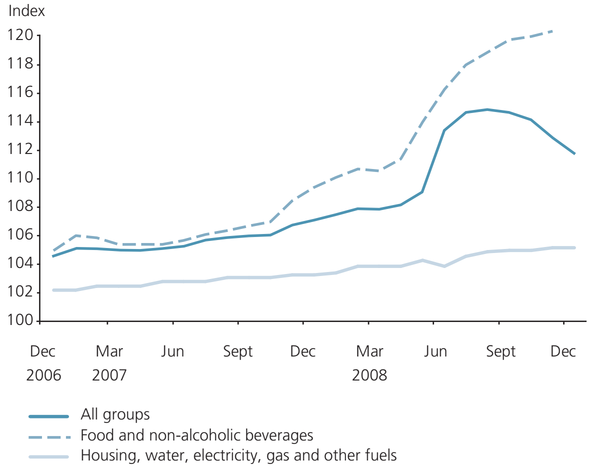
disposable income in 2008 was affected by the higher cost of living, which increased significantly beginning mid-year following the revision in fuel prices and electricity tariff. This had resulted in the consequential

Chart 1.29
Composition of Household Debt by Purpose



Source: Treasury Housing Loans Division and Bank Negara Malaysia

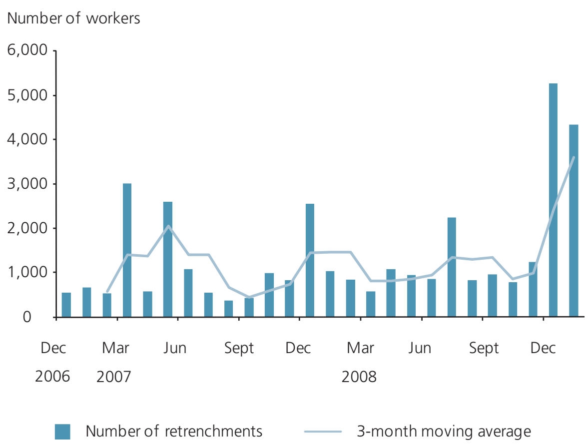
Chart 1.30
Consumer Price Index



Source: Department of Statistics Malaysia

rise in the prices of food and essential items, which was exacerbated by higher prices of raw materials (Chart 1.30). Although inflationary pressures abated in the final quarter of 2008 following the sharp moderation in global conditions, the weakening economic and business outlook posed further downside risks to the household sector in the form of deteriorating labour market and employment outlook (Chart 1.31). Demand for credit is expected to moderate further in 2009.

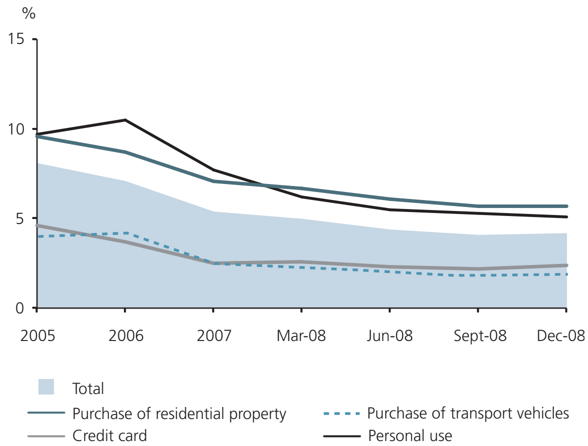
Chart 1.31
Number of Retrenchments



Note: Excludes 7,564 retrenched workers from a company that was taken over in the second half of the year, and rehired immediately by the new owner

Source: Ministry of Human Resources

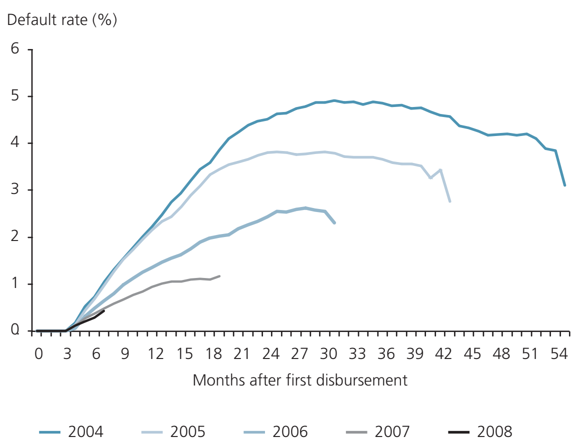
Chart 1.32
Banking System: NPL Ratio of Household Sector



The level of household NPLs and loans-in-arrears continued its downward trend until September 2008, but started to reverse in the final quarter as the impact of increased cost of living and subsequently deteriorating labour market started to set in (Chart 1.32). As at end-2008, household NPLs amounted to RM16.2 billion or 4.2% of total household loans, whilst loan-in-arrears more than two to less than three months accounted for 5.2% of household loans.

After experiencing several years of strong growth in income and steady increase in household wealth, households notably have higher capacity to borrow but at the same time, are more vigilant in incurring higher debts. The financial sector has also strengthened its credit risk management skills and infrastructure. This is reflected in the higher quality of housing loans granted in recent years as compared to earlier vintages (Chart 1.33).

Chart 1.33
Housing Loans: Default Rate by Vintage



Source: Internal calculation, based on survey of financial institutions

Households' debt servicing capacity going forward will be further cushioned by the measures instituted by the Government to boost households' disposable income and ease cash flow positions. These include the three-percentage point reduction in employees' statutory contribution to the Employees Provident Fund, effective for two years from January 2009, employee re-skilling and redeployment programmes for retrenched workers and new employment opportunities, both in private and public sectors. The reduction in banking institutions' base lending rates following the reduction in the OPR as well as the restructuring of debts would further ease pressures on households' cash flow and financial burden. Borrowers facing financial difficulties can also avail themselves to the services of the Credit Counselling and Debt Management Agency (AKPK). Since its inception, there has been growing awareness among the banking public of the importance of maintaining financial discipline to avoid being overly indebted as well as the banks' readiness to restructure loans. During the year, the number of financial counselling and debt management programme handled by AKPK has increased from 17,706 and 7,614 cases respectively in 2007 to 29,489 and 11,958 cases respectively in 2008. Given the experience and the relationship built with financial institutions since its establishment, AKPK is well-positioned to handle an increased demand for debt counselling and restructuring should the economic environment deteriorate further.

FINANCIAL SECTOR RISK ASSESSMENT

Financial system stability remained intact against the backdrop of an increasingly challenging external and domestic environment

The Malaysian financial sector continues to exhibit high degree of resilience and strength and remains well-positioned to weather the effects of heightened external vulnerabilities on the domestic economy. Loan delinquencies continued to improve to record lows and financial institutions remained profitable. Capitalisation and solvency positions were sustained at strong levels with sufficiently high level of financial buffers, strengthened institutional structure and supporting infrastructure, and enhanced governance and risk management practices. Concerns over funding liquidity were almost non-existent given the continuing ample liquidity in the system. Financial markets remained orderly and the intermediation activity by the banking sector continued to function smoothly to the advantage of the economy.

The key risks to financial system stability domestically emanated from the bout of rising inflationary pressures in the first half of 2008, which shifted into concerns over significantly lower growth due to the rapid deterioration in global economic and financial conditions towards the latter half of the year. The Malaysian financial institutions faced profit pressures as capital market activities remained subdued and demand for financing and financial products and services began to moderate in the final quarter of the year. Notwithstanding these challenging conditions, the Malaysian financial sector fared very well and demonstrated strong capacity to withstand the heightened level of downside risks to the operating environment and financial stability.

The level of capitalisation of the banking system remained high whilst the solvency position of the insurance and takaful industry was sustained during the year. The risk-weighted capital ratio (RWCR) and core capital ratio of the banking system were at 12.7% and 10.6% respectively. The excess capital position was at RM38.8 billion. This compares favourably against the total losses recorded by the banking system of RM5.7 billion in 1998 when gross domestic product (GDP) contracted by 7.4%. The implementation of the standardised approach of the Basel II effective 1 January 2008 had limited impact on the existing level of capitalisation, as capital savings from lower risk-weights on retail loan portfolios were mostly offset by new capital charges required for operational risk. Business expansions, both domestically and regionally, remained on track for the year. By end-2008, all domestic banking groups have established an Islamic banking subsidiary and investment bank, whilst three locally-incorporated foreign commercial banks (LIFBs) have also set up independent Islamic banking operations. The surge in investment in subsidiaries of RM16.8 billion (+182.6%) was supported by higher total capital, which grew by RM26.3 billion (+22.9%).

Emphasis continued to be placed on maintaining a strong level of high quality capital to act as a solid buffer during difficult times. Almost 72% of total capital was in the form of Tier-1 capital (2007: 70.8%), of which only approximately 6% was hybrid Tier-1 instruments. This was complemented by the manageable leverage position of the banking system, which was at 11.8 times, similarly for the investment banks, which was at 6.9 times on aggregate. Meanwhile, the overall solvency position of the insurance sector strengthened to RM16.6 billion (2007: RM11.7 billion) and the capital adequacy ratio strengthened significantly to 187.6% (2007: 158.4%), well above the minimum requirement of 100%.

The banking sector remained largely supportive of the financing requirements of the economy amidst the ample liquidity environment and sustained high capitalisation level. Intensified competition in the financing market has also driven the banking institutions to undertake continued but prudent innovation and adopt more customer-centric approaches to cater to the needs of borrowers. This is reinforced by enhanced credit assessment processes and risk management standards, including the use of retail loan vintage, delinquency flow rate and portfolio segmentation analyses, as well as strong governance and internal controls. Nevertheless, the increased uncertainties and less bullish economic outlook have resulted in both borrowers and financiers alike exercising greater caution. The growth in total applications for new financing declined to 9.6% (2007: 45.4%), due to lower applications from businesses, which could be scaling back or delaying large-scale investment and expansion plans in responding to the weaker outlook. As a result, total approvals granted for new financing moderated slightly to RM291.8 billion during the year, although disbursements continued to grow at 15.5% to RM639.9 billion. On aggregate, banking institutions remained forthcoming and accommodative towards their borrowers with financing approval rates remaining stable at approximately 70% (Chart 1.34). Meanwhile, there is ample available financing that can be drawn down by borrowers to meet their needs, as total undrawn loans grew 14% to RM265.6 billion during the year.

As at end-2008, outstanding loans and financing expanded by 12.8% to RM726.5 billion or 98.1% of GDP. The financing portfolio continued

Chart 1.34
Banking System: Loan Approval Rates

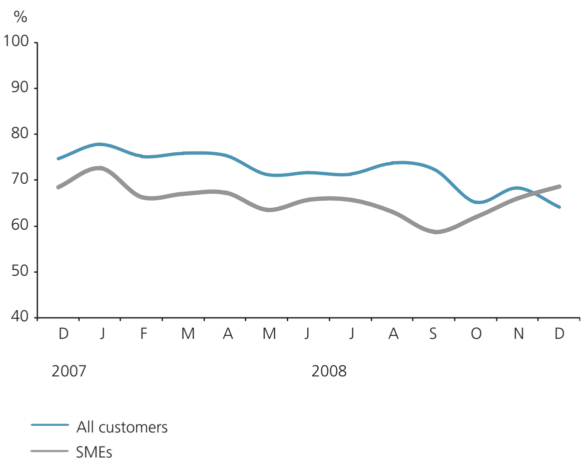
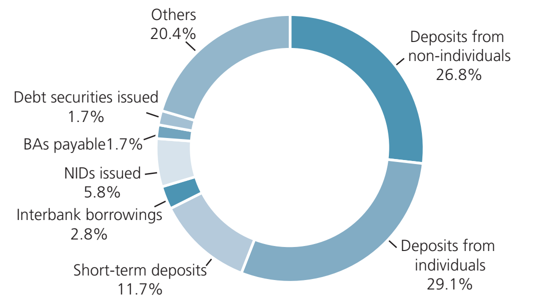


Chart 1.35
Banking System: Key Sources of Funding



to be concentrated in the retail-based sectors, with that of households and SMEs expanding by 9.1% and 9.4% respectively, to account for 53.4% and 17.2% of outstanding financing respectively. Financing to large businesses accounted for 23.5% (2007: 22.8%) of total financing, partly attributed to the less favourable financing conditions in the debt capital markets. Nonetheless, PDS remained a key source of financing for large businesses, particularly for long-term funding, accounting for 57.8% of total outstanding PDS and bank financing to corporations. Meanwhile, total deposits mobilised by the banking sector grew strongly by 11.9% to reach RM973.4 billion or 131.4% of GDP. Consequently, the loan-to-deposit ratio of the banking system remained manageable at 73.5% as at end-2008.

Outflow of portfolio funds due to the global deleveraging process had limited impact on the liquidity conditions in the financial system

Ringgit liquidity in the Malaysian financial system remained ample despite the outflow of portfolio funds due mainly to the deleveraging process by international financial institutions. This reflects the predominantly deposit-based funding structure of the banks, including investment banks. Deposits accounted for approximately 70% of total funding (Chart 1.35), whilst that of the investment banks was at approximately 60%. Investment banks are permitted to accept deposits with minimum size of RM500,000. The overall liquidity buffer of the banking system improved to 16.6% of total deposits (Chart 1.36) whilst the projected surplus as at end-2008 was comfortable at RM116.8 billion for the maturity bucket of up to one week and RM138.5 billion for the maturity bucket of up to one month on account of further increase in deposit placements (Table 1.3). Developments and issues relating to liquidity risk management are discussed in detail in the box article "Liquidity Risk Supervision and Challenges in Liquidity Risk Management".

The overnight and one-week domestic money market rates remained stable at between 3.24% and 3.54% per annum, with no banking institutions experiencing difficulty in sourcing funds. In fact, all banking institutions remained

Chart 1.36
Banking System: Liquidity Buffer

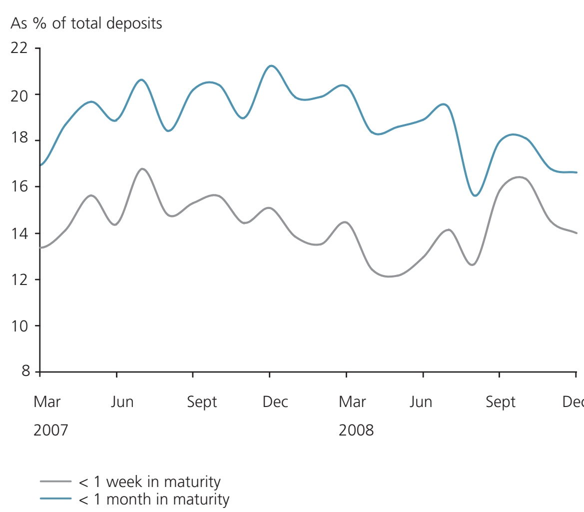


Table 1.2
Key Financial Soundness Indicators

	As at end				
	2004	2005	2006	2007	2008*p*
	% (or otherwise stated)				
Banking System					
Risk-Weighted Capital Ratio	14.4	13.7	13.5	13.2	12.7
Core Capital Ratio	11.4	10.7	10.7	10.2	10.6
Return on Assets	1.4	1.4	1.3	1.5	1.5
Return on Equity	16.3	16.8	16.2	19.7	18.5
Liquid Assets to Total Assets	8.2	8.0	8.0	9.4	10.2
Liquid Assets to Short-term Liabilities	10.6	10.2	10.3	11.9	12.9
Net Non-performing Loans Ratio - 3 months	7.5	5.8	4.8	3.2	2.2
Duration Weighted Net Position to Capital Base	5.0	8.3	7.5	4.4	4.4
Net Open Positions in FX to Capital Base	3.9	1.1	4.7	4.9	4.6
Net Open Positions in Equities to Capital Base	2.3	2.1	2.6	2.5	0.9
Insurance Companies					
Solvency Surplus (RM million)	7,358.3	7,957.1	9,087.4	11,722.9	16,566.7
Solvency Margin Ratio	235.6	235.4	250.1	279.0	296.2
Capital Adequacy Ratio	n.a.	n.a.	139.6	158.4	187.6
Life Insurance & Family Takaful					
Excess of Income over Outgo (RM million)	11,425.1	10,566.1	12,465.9	15,177.8	8,979.8
New Business Premiums / Contributions (RM million)	7,264.9	7,426.9	8,428.3	9,075.6	9,214.9
Solvency Margin Ratio (conventional only)	263.8	260.6	282.8	319.9	307.0
General Insurance & General Takaful					
Underwriting Profit (RM million)	532.2	1,105.0	479.3	-78.3	153.9
Operating Profit (RM million)	1,276.2	1,705.3	1,485.4	1,296.1	719.9
Gross Direct Premiums / Contributions (RM million)	9,186.2	10,085.0	10,505.0	11,009.9	11,421.6
Claims Ratio	61.1	54.9	60.8	66.3	64.9
Solvency Margin Ratio (conventional only)	193.7	195.3	198.6	205.7	268.2
Household (HH) Sector					
HH Financial Assets to HH Debt Ratio	250.0	237.3	248.3	271.5	237.9
HH Debt to GDP Ratio	66.7	69.1	68.6	66.5	63.1
HH Liquid Financial Assets to Total HH Debt Ratio	152.4	142.8	152.2	173.4	140.0
Debt Service Ratio	38.4	41.3	39.2	41.1	39.5
NPL Ratio of Household Sector	8.5	8.1	7.1	5.4	4.2
Corporate Sector					
Return on Assets	5.5	5.3	5.6	6.5	5.6
Return on Equity	9.6	8.7	10.1	12.3	9.6
Debt-to-Equity Ratio	35.6	43.0	40.8	40.0	39.7
Interest Coverage Ratio (times)	6.8	6.6	5.7	6.6	7.2
Operating Margin	13.8	10.9	11.1	12.1	10.7
NPL Ratio of Business Sector	13.8	11.2	10.2	8.0	6.0
Development Financial Institutions[1]					
Lending to Targeted Sectors (% growth)	19.2	29.6	17.5	18.7	16.0
Deposits Mobilised (% growth)	22.4	12.4	11.1	12.4	18.5
Non-performing Loans Ratio - 6 months	13.2	10.4	10.0	8.8	6.7
Return on Assets	1.3	3.0	1.5	1.9	3.2

[1] Refers to development financial institutions regulated under the Development Financial Institutions Act 2002
p Preliminary
n.a. Not applicable

Table 1.3
Banking System: Liquidity Projection as at 31 December 2008

	Cumulative mismatch (RM billion)		Buffer as % of total deposits	
	≤1 week[1]	≤1 month	≤1 week[1]	≤1 month
Commercial banks	90.9	111.2	13.3	16.3
Islamic banks	15.4	17.3	12.5	14.0
Investment banks	10.6	10.0	38.4	36.4
Banking system	116.8	138.5	14.0	16.6

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

as net interbank lenders to Bank Negara Malaysia for most parts of the year with total net placements of RM162.5 billion at end-2008. While the securitisation market is beginning to gain importance as an alternative funding avenue for banking institutions, the prolonged ample liquidity environment has kept such activities largely on the sideline. The amount of banking system loans securitised through Cagamas Berhad, the national mortgage corporation, was at RM12 billion as at end-2008. During the year, Bank Negara Malaysia also acted pre-emptively to ensure adequate supply of liquidity to the entire financial system by extending the access to its ringgit liquidity facility to all insurance companies and takaful operators.

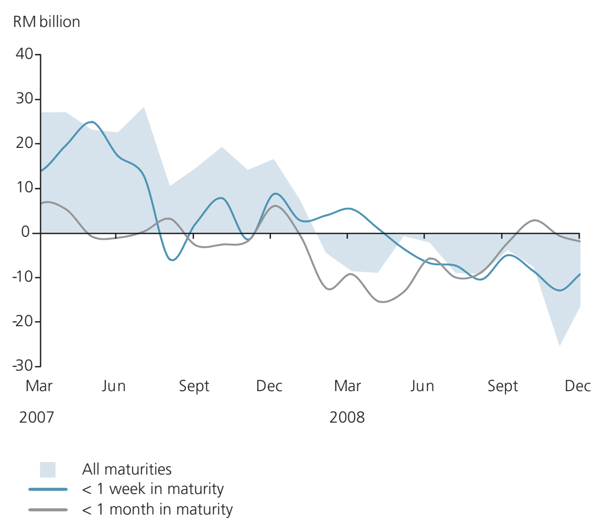
Whilst ringgit liquidity was not a concern, the domestic financial system was not insulated from the global tightening in US dollar liquidity. This has prompted the Malaysian banking institutions to actively manage the foreign currency-denominated balance sheets and to swiftly adjust the US dollar-denominated exposures to narrow the negative US dollar liquidity mismatch, comprising mainly of direct lending and foreign currency swaps. This resulted in a narrowing of the banking system's US dollar short position to a manageable level from its peak in November 2008 (Chart 1.37). Bank Negara Malaysia has also committed to provide adequate US dollar liquidity, particularly to facilitate trade-related transactions in support of the export-import sector. The existence of bilateral and multilateral currency swaps with the regional countries, including the recently concluded bilateral currency swap arrangement with the People's Bank of China, are expected to add to further confidence on the availability of liquidity in the domestic market, in particular for international trade and investment activities.

Profitability under greater challenge

The conventional and Islamic banking systems recorded an 8.3% growth in combined unaudited profit before tax (PBT) to RM19.2 billion in 2008, resulting in a return on average equity of 18.5%. This performance was moderated by the persistent volatility and uncertainties in the global and domestic financial markets that resulted in a decline of 27.5% in revenue from treasury-related and investment activities.

The more subdued business conditions, highly competitive financing market and ample liquidity environment posed considerable pressure on financing margins, as well as fee-based income of banking institutions. Net interest income grew at a slower pace of 8% (2007: 10.8%), attributed to the slight moderation in the volume of financing and higher expenses paid on the larger

Chart 1.37
Banking System: US Dollar Liquidity Mismatch



Liquidity Risk Supervision and Challenges in Liquidity Risk Management

The experiences of banks in several advanced economies in confronting liquidity stress during the current financial market turmoil have revealed the increasingly complex nature of liquidity risk, while also underscoring the importance of managing liquidity risk effectively. Liquidity risk – defined as the failure of a financial institution to meet expected and unexpected cash flow needs as they arise – is inherent in the financial intermediation function assumed by banking institutions and is a central component of the prudential regulation and supervisory framework. The sound management of liquidity risk is critical both to avert a threat to the solvency of a banking institution, as well as a loss of confidence in the broader financial system which can amplify the systemic nature of liquidity risk.

Implementation of the Liquidity Framework and supervisory assessments of liquidity risk
Banking institutions in Malaysia are required to comply with the Liquidity Framework, introduced by the Bank in 1998, in the assessment of their liquidity positions. The Framework sets out a standard measurement approach that focuses on the ability of a banking institution to manage its liquidity mismatches through the projection of a maturity profile of its assets, liabilities and off-balance sheet commitments over a one-year horizon. The maturity profile reflects the behavioural characteristics of cash flows, and not necessarily their contractual maturities. Based on these projections, banking institutions are expected to maintain adequate liquidity buffers composed primarily of high quality marketable securities to cushion the impact of liquidity shocks transpiring either from institution-specific events (e.g. a "name crisis"), or market-wide stress scenarios (e.g. closure of an important funding market). The Framework also requires banking institutions to identify and monitor, through defined ratios, concentrations of funding sources in large deposits and wholesale or offshore funding markets.

Compliance with the Liquidity Framework has contributed towards ensuring adequate liquidity buffers at the institutional level, in line with the nature and complexity of a banking institution's activities. It has additionally spurred improvements in the day-to-day liquidity risk management practices of banking institutions. Notably, the requirement for banking institutions to hold liquefiable assets as a proportion of liabilities while taking into account the shape of their actual funding profiles has resulted in enhancements to banking institutions' infrastructure and systems to support forward projections of cash flows. Banking institutions have correspondingly developed more detailed and structured approaches to monitoring liquidity risk, for example by enhancing internal risk reports to capture more detailed information on flows arising from treasury activities and foreign operations, thereby supporting a more rigorous assessment of sources and drivers of funding liquidity risk. The Framework has also encouraged the institutionalisation of liquidity risk governance structures, with responsibility for the review of liquidity positions formally assigned to the asset-liability management committees, or ALCOs. The constitution of ALCOs comprising members drawn from both business units and control functions has also resulted in the closer integration of the liquidity risk management process with the business activities of banking institutions, thus promoting more effective enterprise-wide risk management approaches.

The Liquidity Framework is reinforced through ongoing supervisory reviews of individual institutions' liquidity positions and risk management practices. More recently, heightened supervisory attention has been directed towards liquidity stress testing to determine how funding requirements are likely to evolve under both normal and abnormal adverse conditions. A survey conducted by the Bank in early-2009 on stress testing practices of several banking institutions indicates that the level of sophistication of liquidity stress tests performed by banking institutions varied markedly, with methodologies of stress testing for liquidity risk generally at a less developed stage than for credit risk and market risk. A key challenge noted was the difficulties faced by banking institutions in assessing the impact of synchronised market behaviours on their respective liquidity positions. Banking institutions have responded by adopting a more inclusive approach in the development of stress scenarios, with the broader involvement and interaction of personnel from business units, risk management functions and senior management in providing sound expert judgment in the stress testing exercise where data limitations have impeded the modelling of extreme liquidity events.

Supervisory reviews have also been conducted to assess the robustness of banking institutions' contingency funding plans, including arrangements for their effective implementation, to deal with liquidity stress scenarios. Greater attention has also been focused on the second round and reputational effects related to the execution of contingency funding measures. These assessments overlay a continuing process of engagement between the Bank and banking institutions to develop contingency funding plans that appropriately reflect possible behaviours of funding flows under a variety of stress scenarios, including those associated with abnormal conditions.

Trends and continuing challenges in liquidity risk management

Extreme liquidity pressures experienced during the turmoil in global financial markets have raised new challenges for banking institutions. Some of the specific challenges being addressed include:

Centralisation of funding and liquidity risk management

Treasury functions of banking institutions operating within financial groups are increasingly being centralised to facilitate the more efficient management of group funding sources and external funding relationships. Such arrangements, however, increase the prospect of group-wide liquidity difficulties when one or more individual banking institutions serving as key funding providers for the group as a whole are affected by liquidity stress. This difficulty is often further magnified through the effects of reputational contagion which curtail external funding support. Bank Negara Malaysia has therefore increased its emphasis on the effective monitoring of material intra-group liquidity risks, and requires banking institutions to preserve the granular monitoring of risk positions at the entity-level, in addition to the monitoring of group-level liquidity risk positions. Operational, regulatory, legal and Shariah constraints that may potentially hinder intra-group liquidity support facilities, especially under stress conditions, are also covered in the Bank's supervisory assessments of the effectiveness of centralised liquidity functions.

Foreign currency liquidity risk

Dealings by Malaysian banking institutions in multiple currencies introduce an additional layer of complexity in the management of liquidity risk. While still currently at a modest level, this is expected to increase in tandem with the growing demand for foreign currency financing to support the growth of cross-border investments and trades in goods and services, as well as the greater participation in global financial markets by banking institutions.

A large number of Malaysian banking institutions currently assume full convertibility between currencies, particularly in relation to the ability of ringgit liquidity surpluses to meet foreign currency liquidity shortfalls. This has not posed material concerns for banking institutions in Malaysia to date, with foreign-currency denominated assets forming 6.6% of total assets held domestically, of which approximately 75.5% are US dollar-denominated. However, the expansion of banking institutions' foreign currency activities will potentially increase their exposure to liquidity mismatches associated with sudden changes in the liquidity of foreign exchange markets. This is particularly important for

Malaysia where – pending the further deepening of its foreign exchange market with a sufficiently liquid ringgit swap market – ringgit liquidity surpluses may not adequately cover foreign currency liquidity deficits, particularly under stressed conditions. Adjustments to the Liquidity Framework for banking institutions are therefore being proposed to better anticipate and mitigate the risk of an overestimation of liquidity buffers when efficient access to foreign exchange markets is temporarily affected by adverse market conditions.

Islamic finance

The lack of empirical evidence to support behavioural assumptions has posed a challenge for Islamic banks to accurately estimate the extent to which the unique contract features of Islamic financial transactions may affect their liquidity risk profiles. For example, the use of *mudharabah* contracts, where principal amounts are not guaranteed and returns are dependent on the performance of underlying assets, should, in principle, reduce the funding liquidity risks faced by Islamic banks. However, in practice, Islamic banks face considerable competitive pressure on the profit rates of the *mudharabah* accounts that are being offered. The dominance of trade-based financing contracts involving assets being held in the form of fixed and illiquid assets or inventories, such as through *murabahah, ijarah,* or *istisna'* contracts, also potentially reduce balance sheet liquidity.

These challenges are being addressed through ongoing initiatives to better understand the behavioural characteristics of cash flows for different Shariah contracts and their impact on balance sheet liquidity, towards supporting the more effective identification, measurement and management of liquidity risk. The development of a wide range of funding options in the Malaysian Islamic Interbank Money Market has also been instrumental in supporting the liquidity needs of Islamic banking institutions. These include interbank placements based on *mudharabah*-type contracts, sell-and-buy-back agreements as alternatives to repurchase agreements, and Islamic derivatives such as Islamic rate swaps and Islamic FX forwards. Total outstanding instruments increased from RM55.2 billion in 2001 to RM211.0 billion in 2008, while turnover of securities traded on the Islamic Interbank Money Market increased from RM39.7 billion in 2001 to RM185.2 billion in 2008. The growing acceptance of Islamic finance as well as the emergence of more Islamic institutional investors such as takaful operators and Islamic fund managers in recent years have also widened sources for Islamic funding, thus facilitating the diversification of funding strategies for Islamic banks.

Future enhancements

Enhancements to the regulatory framework will be undertaken to promote further improvements in liquidity risk management practices within banking institutions. This will include a review of the Liquidity Framework to:

- require banking institutions with large foreign multi-currency operations to manage liquidity risk by currency;
- introduce more detailed qualitative and quantitative standards to be observed by banking institutions for their cash flow projections; and
- allow the use of internal measurement approaches, where it can be demonstrated that they provide a level of resilience equal to or greater than the minimum regulatory requirement.

The enhancements to the Liquidity Framework will also be supplemented by the issuance of qualitative liquidity risk management standards in 2009, incorporating developments in international standards and practices in liquidity risk management and lessons from the current turmoil.

deposit base. The impact of the OPR reduction on interest and financing income is partially offset by the reduction in the minimum deposit rates offered on retail and SME placements of fixed deposits with banking institutions (Chart 1.38). Coupled with intensified competition in the financing market, particularly to attract and retain the pool of customer base with strong credit standings, gross interest margin narrowed slightly to 2.64 percentage points (2007: 2.70 percentage points). In comparison, banking institutions with a larger fixed-rate financing portfolio were less affected. Fixed-rate financing comprised between 26.6% and 77.5% of the total financing of banking institutions. While the level of displaced commercial risk for Islamic banks has declined as returns on deposits accepted adjusted downwards accordingly, the level of profit equalisation reserves (PER) declined briefly between May and July (Chart 1.39). This was part of the Islamic banks' strategy to preserve competitiveness of returns offered to depositors, as more pronounced valuation losses were recorded during the period which coincided with heightened financial market volatilities both on the global and domestic fronts. Subsequently, the level of PER improved as the Islamic banking system recorded persistent growth in financing income amidst continued portfolio expansion.

Deteriorating conditions in global credit markets and weakened economic outlook had yet to affect the aggregate quality of banking institutions' financing portfolio. Coupled with the generally stable and resilient residential property prices and accumulated financial buffers of both households and businesses in recent years, banking institutions continued to reap the benefits of ongoing enhancements in credit risk management infrastructure and underwriting practices. The downward trend in the level of NPLs was sustained through most parts of the year, with the gross NPL ratios for overall businesses, SMEs and households declining to 6% (RM17.7 billion), 6.8% (RM8.5 billion) and 4.2% (RM16.2 billion) respectively. Given the strengthened financial capacity, and continued profits, banking institutions continued to actively manage their balance sheets and asset quality through more stringent provisioning policies for legacy loans, disposal of NPLs and prudent write-offs of impaired loans during the year. Financing loss coverage ratio rose to 89.3% (2007: 77.3%), whilst loan write-offs remained stable at around RM9 billion. These would help improve the capacity to absorb future losses and mitigate the pro-cyclical impact on future profits. Collectively, these measures resulted in a significant decline of 21% in the level of net NPLs to RM15.8 billion, or 2.2% of total net loans as at end-2008 (2007: 3.2%). Inclusive of write-offs during the year, gross NPLs still recorded a substantial decline of 14.3%. This improved the higher net interest margin to 0.47 percentage points which was above the past three-year average of about 0.4 percentage points (Chart 1.40). Nevertheless, the more challenging conditions in the final quarter of 2008 has resulted in a slight uptick in household NPLs for the purchase of residential properties and cars as well as credit cards, where overall household NPL ratio increased marginally by 0.1 percentage points to 4.2% (Chart 1.41). Similarly, loans-in-arrears increased slightly by 2% in the two to three months bucket, to account for 1.3% of total gross loans (2007: 1.5%).

Revenue from fee- and commission-based activities grew by 7.1% to RM7.4 billion (Chart 1.42). This was largely attributable to financing-related services, including financing processing and arranging, commitment and guarantee lines, remittance services and cross-selling activities. Nevertheless, unfavourable conditions in the capital markets and the more difficult environment for businesses have affected the demand for related financial services, such as financing syndications, underwriting, corporate advisory and brokerage services, thus posing greater downside pressure on the revenue base of investment banks. The more challenging global and regional conditions also posed increasing challenges on the profitability of overseas investments of Malaysian banking institutions. While these only constituted a small proportion of overall operations (less than 11% of total group PBT), a few domestic banking groups have larger operations in regional economies, amongst others, Singapore, Indonesia, Cambodia and Hong Kong. The overhead expenses relating to new establishments grew by 7.6% while staff-related expenditures increased by 9.2% during the year. These contributed to a higher total cost-to-income ratio of 46.4% (2007: 43.9%) and staff cost per employee of RM81,341 (2007: RM78,049). Nonetheless, the productivity level improved as measured by the PBT generated per employee of RM170,779 (2007: RM168,545).

Chart 1.38
Movements in Interbank Rate, Average Lending Rate and Average Cost of Funds

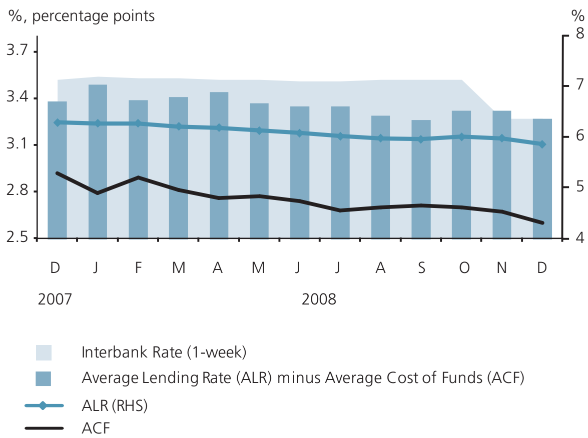
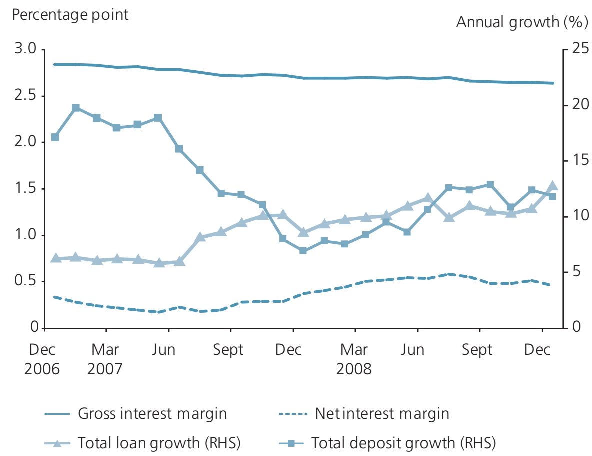


Chart 1.40
Banking System: Movement in Gross and Net Interest Margins



Similarly, the insurance and takaful sector faced challenges in maintaining the growth in premiums and contributions from new businesses amidst strong competition in the industry. Total net premium and contribution income grew by 2.4%, attributed mainly to the expansion in takaful business. The persistent financial market volatility in 2008 and concerns over the economic conditions towards the end of the year saw the shift in demand towards the traditional protection policies. New investment-linked (IL) business of the life insurers contracted by 28.6% whilst ordinary life insurance and family takaful products recorded a growth of 22.4%. Consequently, total new premiums for the life insurance and family takaful segment grew only modestly by 1% to RM9.2 billion during the year. Excess of income over outgo was lower totalling RM9 billion, attributed mainly to the net unrealised losses on the IL business and higher net policy benefits.

Demand for general insurance and takaful coverage on motor and marine, aviation and transportation-related businesses moderated in tandem with

Chart 1.39
Banking System: Movement in PER and Average Quoted FD Rates

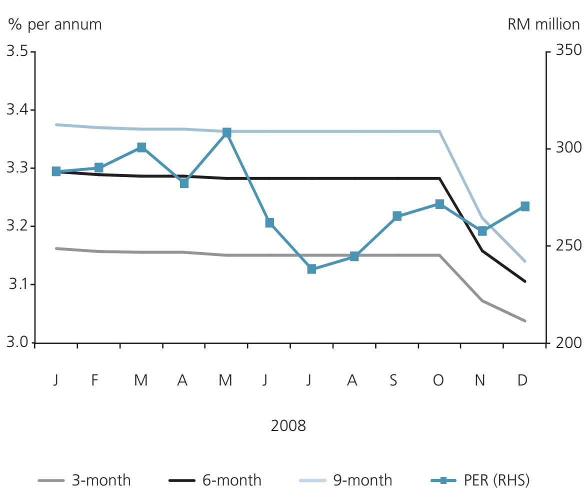


Chart 1.41
Banking System: Non-Performing Loans (NPL) Level and Ratio

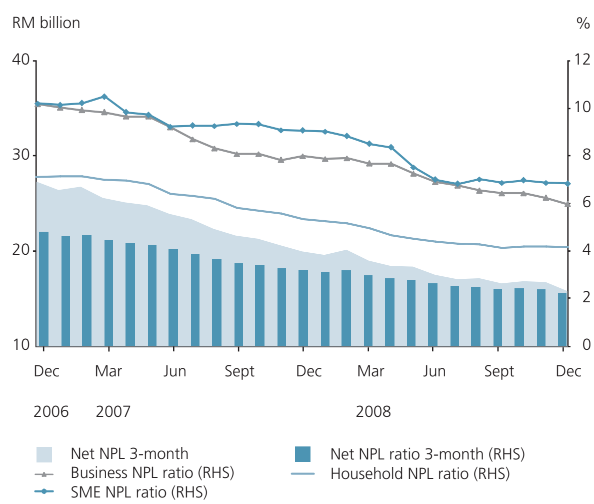
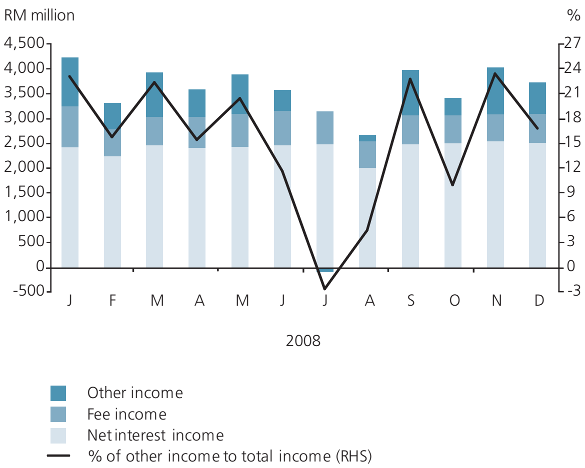
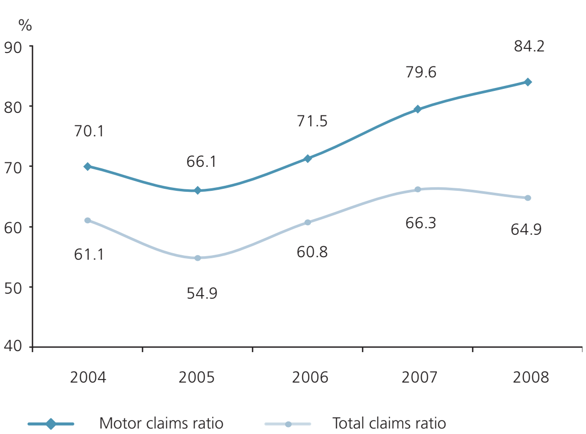


Chart 1.42
Banking System: Composition of Income



the slower trade activities and a more subdued automotive demand outlook. Driven mainly by the expansion in the fire segment, the gross direct premium and contribution for the general insurance and takaful business registered an increase of 5.5% to RM11.5 billion. Total operating profit, however, declined by 44.5% to RM0.7 billion. In addition to unrealised losses, the profit performance was also affected by higher net claims incurred. This arose mainly from motor claims reflecting the rising incidence of motor thefts, higher part prices and higher court awards which resulted in a higher claims ratio of 84.2% (2007: 79.6%) (Chart 1.43).

Chart 1.43
General Insurance and Takaful Businesses: Claims Ratios

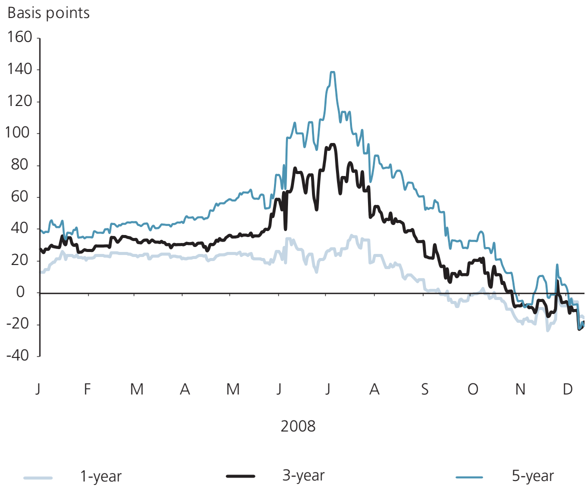


Volatility and uncertainties in financial markets posed greater challenges in managing market risk exposures

Net trading and investment gains of the banking system contracted on account of higher valuation losses on trading portfolio and investment losses particularly in the third quarter of 2008. These were partly mitigated by active usage of hedging instruments to manage the overall market risk exposures in anticipation of greater volatility in bond yields, equity prices and currency exchange rate movements. As a result, net trading and investment gains continued to be recorded albeit lower, amounting to RM4.2 billion or 9.6% of total income (2007: 14%). Nonetheless, investment banks and Islamic banks which typically hold a relatively larger proportion of securities in their portfolios, recorded higher net trading losses. While the overall impact on Islamic banks were more than offset by continued growth in the volume of core financing, the resultant impact on investment banks' profits was more significant causing PBT to decline by 66.7% during the year. A few smaller investment banks which concentrate on stockbroking activities recorded losses as efforts to diversify their income sources continue to take place. In responding to the exceptional circumstances in the global financial markets and potential difficulties in asset valuation, flexibility was accorded to banking institutions to reclassify non-derivative securities out of the held-for-trading category, subject to strict parameters and disclosure requirements in line with changes made in FRS 139.

During the year, trading portfolios of banking institutions have also been gradually downsized in tandem with the less favourable financial market conditions. Securities held by the banking system for trading purposes declined slightly by 2.8% to account for 3.9% of total assets. Similarly, banking institutions' exposures to equity risk improved as holdings of shares for proprietary trading declined by 68.7% in 2008. This ultimately translated into lower capital charges for equity risk amounting to only 0.2% of capital base (2007: 0.3%). The higher risk aversion was also reflected in the higher composition of government securities in the dealing portfolios which doubled to 21.4% (2007: 10.8%). Similar shift was also observed in the longer-term investment strategies, as overall holdings of MGS expanded by RM29 billion (+88.9%) to account for 4.6% of total banking system assets. Despite the higher volatility in the

Chart 1.44
Spreads between Interest Rate Swap and MGS



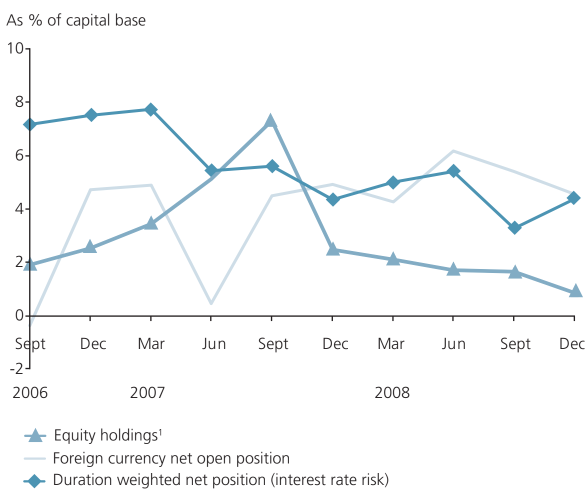
Source: Bloomberg

domestic bond market and increased holdings of fixed income securities, interest rate risk exposures remained stable at 4.4% of capital base, given the greater use of derivatives to manage interest rate risks. The outstanding notional amount of these contracts increased by 11.3% during the year to RM764.5 billion. Basis risk which emanates from the movements in yields and affects the effectiveness of hedging activities, had also increased due to the divergence in yield movements between MGS and interest rate swaps (Chart 1.44).

During the year, exposures to foreign exchange risk moderated as banking institutions adjusted to the more volatile currency movements, with the corresponding net open position accounting for 4.6% of capital base (2007: 4.9%) (Chart 1.45). In terms of capital charge, foreign currency-denominated exposures accounted for only 0.8% of capital base (2007: 0.8%). Banking institutions' open positions against non-US dollar and regional currencies remained relatively small, while active management amidst a strengthening US dollar was undertaken as the global deleveraging process continued.

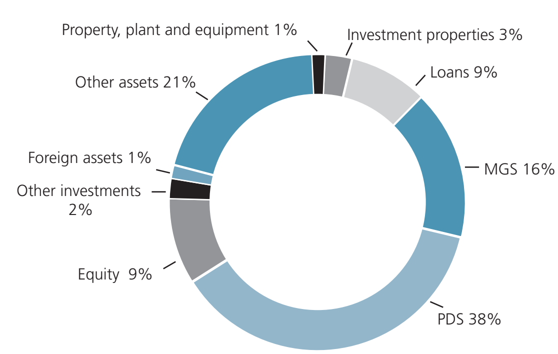
Given the large holdings of equities and bonds by the insurance and takaful industry (Chart 1.46), management of market risks has become increasingly demanding during the year. The life insurance and family takaful business recorded total unrealised losses of RM2.6 billion, particularly for the IL products. Unfavourable conditions in the domestic equity market saw a reduction in the market value of total equity holdings by 43.5% to RM13.8 billion as at end-2008. This also reflected the shift towards safer investment assets whereby holdings of MGS and corporate bonds rose by 9.2% and 6.7% respectively. Meanwhile, holdings of equities in the properties

Chart 1.45
Banking System: Market Risk Exposures



[1] Amount of investment in quoted shares

Chart 1.46
Composition of Insurance and Takaful Industry Assets



and technology sectors declined the most by 91.6% and 65.5% respectively. The portfolio rebalancing process had resulted in the overall market-to-accreted value ratio for bond holdings to increase to 75.7% (2007: 69.9%), thus easing the liability mismatch positions.

Manageable counterparty risks amidst persistent uncertainties in the global financial system

The Malaysian financial sector has minimal direct and indirect exposures to securities and entities affected by the global financial turmoil. Unlike previously where concerns over counterparty risks were concentrated on the domestic banks, such risks were focused on the LIFBs following the mounting solvency concerns of the affected international financial institutions stemming from intra-group transactions between parent and foreign subsidiaries. This occurred despite the minimal exposures and that the operations in the LIFBs in Malaysia are in the form of subsidiaries. Such concerns, however, occurred only briefly without posing any adverse consequences on the liquidity positions of the LIFBs. The risks were further muted by the swift actions of major central banks in providing guarantees for the debts of the financial institutions to ease concerns over counterparty risks facing them. Overall, the foreign counterparty exposures from on-balance sheet and notional amounts of off-balance sheet assets constituted less than 15% of total assets of the banking system and less than 2% of the insurance and takaful industry. Concerns on counterparty reinsurance risks globally were also high, particularly on the reinsurers' ability to honour liability obligations amidst mounting write-downs on illiquid investments by large international financial institutions. In the Malaysian context, exposures to reinsurance risk as measured by total premiums cessions expanded by 4.2% to RM3.5 billion, to represent 27.8% of total gross premiums. Reinsurance recoveries which are at risk to default by reinsurers, however, declined slightly to account for 9.3% of shareholders' equity (2007: 9.9%). In addition to the consistently high net retention of risk of above 80% and the limited exposures to offshore and foreign reinsurers, these factors contributed to the manageable level of overall counterparty reinsurance risk of the Malaysian insurance and takaful industry.

The Malaysian financial system is expected to remain sound under more challenging operating scenarios

A series of scenario-based tests on credit, market and liquidity risks were conducted at both the system and individual institution levels to provide a forward-looking assessment of the capacity of financial institutions to withstand potentially adverse and significant macro-financial shocks, as well as the resultant implications on earnings and capitalisation. The stress factors were applied consistently across all institutions at the system level to facilitate assessment of systemic shocks.

While the more challenging environment will affect revenue performance and result in higher delinquencies, the banking system is expected to record RWCR above the minimum requirement of 8%. It currently has excess capital exceeding RM30 billion and more capital raising exercises are already in the pipeline. The financial system has the capacity to support the financial needs of the economy, even under a more adverse scenario of economic contraction

In addition, the stress factors were also calibrated to capture institution-specific risk profiles based on supervisory assessment of additional quantitative and qualitative information, such as key risk drivers, business growth strategies, detailed default history and loss rates, quality of assets and capital, as well as strength of risk management and governance standards. Detailed description of the macro-financial scenarios, shock assumptions, stress test methodologies and results were communicated to banking institutions' senior management and risk managers to facilitate meaningful discussions in exploring appropriate risk-mitigation measures and formulation of business and capital management plans.

The stress scenarios were constructed based on the potential magnitude and extent of spillover effects of the intensification of international financial market duress, prolonged slowdown in global and regional growth, persistent volatility in commodities and energy prices as well as expected price levels in the economy. Multiple scenarios based on domestic growth and financial market conditions that are comparable to the historical worst levels were applied. These include the deep recession during the Asian financial crisis in 1997–1998, the flat growth period arising from the dot-com bubble bust and inventory overhang in the semiconductor industry in 2001, and the SARS outbreak in 2003. Using a scenario horizon of one year, shock magnitudes on: (i) credit risk losses arising from the incidences of new NPLs, default on and downgrade of securities held; and (ii) market risk losses arising from lower equity prices and further valuation losses on securities held, were derived. The credit risk stress factors took into account the relationship between growth in GDP and overall NPL and specific loan segments that are closely correlated with economic conditions, as well as default history and rating migration of corporate bonds [data obtained from ``Corporate Malaysia – Default and Ratings Performance (1992–2007)´´, August 2008, RAM Ratings (Malaysia)]. The market risk stress factors were simulated using volatility spikes and steep adjustments in asset prices and bond yields based on adverse historical experiences and potential extreme shocks.

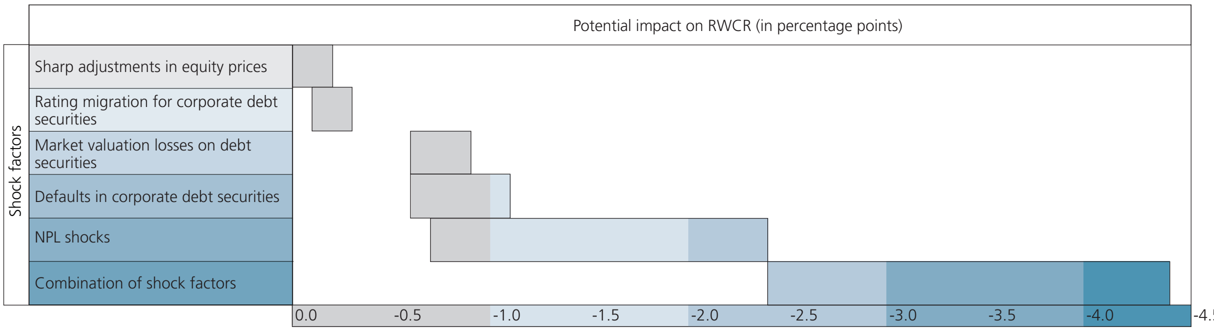
The banking system today is fundamentally stronger compared to the periods prior to the Asian financial crisis more than a decade ago (Table 1.4). It is expected to remain sound with its RWCR remaining above 8% even after absorbing the potential losses that may arise, including under a deeper economic contraction scenario. Overall potential cumulative losses from credit shocks are larger than those from market risk shocks, with an expected maximum decline in the banking system RWCR of about three percentage points based on conservative loan loss provisioning rate that do not take into account the value of underlying collaterals (Chart 1.47). The potential increase in the level of NPLs by percentage points is also consistent with other internal estimates based on regression and loans-in-arrears migration methods without incorporating the positive effects of risk mitigation measures undertaken by banking institutions, including loan restructuring. The increase in delinquencies is expected to be manageable, supported by proactive measures by banking institutions to engage and assist borrowers with increased financial strains through provision of debt counselling and advice and restructuring or rescheduling of loans to ease temporary cash flow problems.

Table 1.4
Financial Position of Financial Sector Pre- and Post-Crisis

Banking System	1996	1997-1998	2008*p*
Number of institutions	89	80-86	54
Average total assets per institution	RM7.1 bil	RM9.6 bil	RM40.4 bil
Risk-weighted capital ratio	10.6%	10.5%	12.7%
Core capital ratio	9.0%	8.9%	10.6%
Return on assets	2.0%	-0.9%	1.5%
Return on equity	27.5%	-12.3%	18.5%
Net NPL ratio	3.0%	13.2%	2.2%
Gross NPL ratio	3.9%	18.7%	4.8%
Insurance Sector	1996	1997	2008
Solvency surplus	n.a.	RM3.7 bil	RM16.6 bil
Total profit	RM4.7 bil	RM2.7 bil	RM9.7 bil

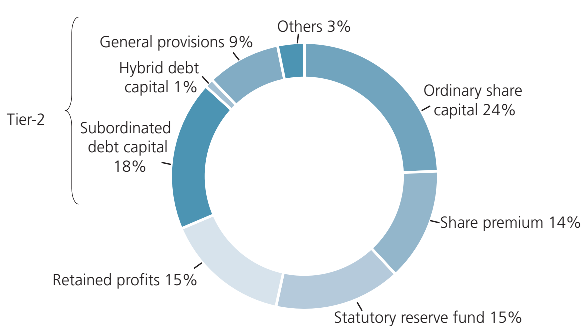
p Preliminary
n.a. Not applicable

Chart 1.47
Potential Impact on RWCR



Although the cumulative effects on profitability are of higher magnitudes, with some institutions potentially recording losses under a deeper economic contraction scenario, the availability of strong capital buffers would enable the banking system to absorb any potential losses. The banking system RWCR would remain above 8% whilst core capital ratio would surpass 6%, before incorporating some of the capital enhancement programmes undertaken or being planned by the banking institutions. Despite the more active capital management activities by banking institutions in recent years and introduction of more innovative Tier-1 capital instruments, approximately 90% of Tier-1 capital comprised ordinary shares, share premium, statutory reserves, general reserves and retained earnings (net of unaudited losses) less goodwill. As a result, the equity to assets ratio of the banking system was at 10% of total risk-weighted assets or 6.8% of total assets (Table 1.5). Even for the investment banks, the equity to assets ratio remained manageable at a range of 6.9% to 47.7%. This still compares favourably with the benchmark used by the US regulators that deem any Tier-1 capital to total assets ratio of more than 3% to 4% as strong. Arising from the current crisis, there has been greater emphasis on traditional capital (ordinary shares and reserves) to gauge the capital strength of banking institutions. Bank Negara Malaysia will monitor closely international developments in this area.

Chart 1.48
Banking System: Composition of Capital



In line with international best practices to strengthen liquidity risk assessment, the scenario-based tests were also conducted to account for market-wide and institution-specific events. The first simulated event originated from increased risk aversion and counterparty concerns among interbank players, while the latter is assumed to stem from rapid erosion in capital, credit rating downgrades and negative publicity or confidence relating to specific institutions. The resultant impact of different events on the availability of interbank credit lines, realisation of contingent credit lines extended, withdrawals of retail and corporate deposits and potential higher haircuts on the realisable value of liquefiable assets is then imposed on the existing level of liquidity buffer. Overall results revealed that banking institutions generally have adequate buffers to withstand any tightening in interbank credit lines given the low reliance on money market funding. On the other hand, events relating to credit rating downgrade and negative publicity or confidence issues of specific institutions may have greater implications on some banking institutions' deposit base, particularly those

Table 1.5
Capital Adequacy Ratios as at end-2008

	Banking system	Commercial banks		Islamic banks	Investment banks
		Domestic	Foreign		
	%				
RWCR	12.7	11.9	12.2	13.3	32.2
Core capital ratio	10.6	10.1	9.7	11.0	31.3
Equity[1] to asset	6.8	6.7	6.1	6.5	12.6
Equity[1] to RWA	10.0	9.1	9.6	10.8	32.6

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

Table 1.6
Reserve Adequacy for Life and Family Business

	2005	2006	2007	2008*p*
	RM million			
3-year average net premiums	15,365.4	17,111.2	18,766.7	20,148.2
Technical reserves	74,672.8	85,436.5	98,833.7	106,128.4
Ratio of technical reserves / 3-year average net premiums (times)	4.9	5.0	5.3	5.3

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that comprise mainly corporate deposits. These risks, nonetheless, remained low due to the Government blanket deposit guarantee until end-2010.

Similar stress tests were also conducted for the insurance and takaful industry during the year. Given the more fragmented market structure, some individual institutions, particularly in the general business, could be more severely affected in terms of profitability and capitalisation under the more adverse scenarios. Total loss reserves of the general insurance and takaful sector has increased in recent years with the ratio of loss reserves to average claims at 2.5 times (2004: 1.9 times). The proportion of total loss reserves in the longer-tail business (motor `Act´ cover, liability, workmen's compensation and employers' liability), currently at 41.1%, is expected to increase in tandem with the growth in the longer-tail premium. Although the nature of the domestic market is less prone to catastrophic losses, the level of capitalisation of the general business at 1.2 times the total loss reserves may be insufficient to absorb any large fluctuations in reserve inadequacy. As for the life insurance and family takaful business, the reserve level has increased in line with the growth in premiums. As at end-2008, the reserve level was 6.1 times the average three-year premiums (Table 1.6).

OUTLOOK FOR FINANCIAL SYSTEM STABILITY AND FOCUS OF SURVEILLANCE IN 2009

The domestic financial sector is bracing for greater challenges as moderation in economic growth begins to take shape and volatility in the domestic financial markets persists given its strong linkages with the global markets. Sustained risk aversion may result in continued low trading liquidity in specific asset classes, while credit spreads in the corporate bond markets may widen further, hence resulting in higher cost of funding in the capital markets. Furthermore, corporate earnings which have started to decline and weaker employment prospects could potentially translate to broad-based increases in delinquencies and defaults, triggering a credit cycle downturn. While the accumulated financial buffers of the business and household sectors would ease the potential strains on their income stream and debt servicing capacity, some specific segments in the more affected economic sectors and those with lower shock-absorbing capacity have faced some financial difficulties. As credit outlook weakens and demand for financing, financial products and insurance protection moderates, the Malaysian financial institutions will face significant challenges in sustaining their revenue base.

Banking institutions will need to balance judiciously the requirement to safeguard prudent standards in order to minimise future losses due to adverse scenarios and also the need to provide continued support to customers particularly in easing temporary cash flow pressures. Counter-cyclical practices will only exacerbate the economic conditions which will ultimately impact the banks' balance sheets. In recent years, several domestic financial groups have also expanded regionally and entered into strategic alliances with foreign institutions. Under a more challenging environment on the regional front, the domestic financial groups with significant regional operations (accounting for less than 18% of total group PBT), will not only face lower profit contribution from their overseas investments but this phenomenon may entail new channels of risk transmission. Nonetheless, the revenue contribution from overseas operations for the banking system as a whole remained small and accounts for less than 11% of total group PBT, while the partnerships with foreign financial groups have mainly resulted in increased sophistication in risk management capabilities and technology.

Closer engagements and coordination between the Bank and other domestic and regional regulators would further enhance the state of readiness to manage the more difficult operating environment towards preserving financial system stability

Similarly, the Malaysian insurance and takaful sector will also be affected by the potential lower demand for protection and related products in a highly competitive industry. In particular, the expected decline in vehicle sales will negatively impact the motor insurance and takaful business which constituted 45% of gross insurance premiums in 2008. Premiums are also likely to be affected due to an increase in surrender rates and lower sums insured as a result of policyholders' efforts to reduce costs during these difficult periods. In addition, claims are expected to intensify due to higher incidences of theft and fraud as well as less regular maintenance.

Internally, Bank Negara Malaysia has enhanced its supervisory and surveillance capacity extensively over the years to be able to detect the potential problems at an early phase to allow for appropriate pre-emptive actions, including policy prescriptions to safeguard the soundness of the financial system. While structural changes in the global and domestic financial landscapes that took place over the decade have increased the complexities and inter-linkages in the domestic financial system, Bank Negara Malaysia closely engages other central banks, monetary authorities and supervisory agencies to monitor and respond, where necessary, in a coordinated manner in managing the current challenges. These include coordination in the area of ongoing financial surveillance and information sharing, provision of liquidity assistance and crisis management and resolution mechanisms on the domestic, regional and international fronts.

Moving forward, macroeconomic surveillance and supervisory activities will continue to focus on several key areas:

- Continuous strengthening in the robustness of risk transmission assessments, in terms of channels and magnitude of transmission from external developments to the Malaysian financial market, businesses, households and financial sector as well as spillovers of distress from non-regulated entities and markets on the financial system;
- Enhancing the ongoing scenario analyses at both the system and individual institution levels taking into account the dynamics of risk factors and close inter-linkages between players and sectors;
- Strengthening of engagement and communication strategies with stakeholders, including regulatees, business associations, SMEs and other regulatory authorities to enable early identification of signs of distress and emerging risks to financial system stability. These engagements are also aimed at ensuring continued access to financing;
- Continued engagement with regulatees to ensure pre-emptive action plans are in place and implemented in an effective and timely manner in order to ensure that the risk-bearing capacity of financial institutions is preserved at all times; and
- Intensifying regional and international cooperation and coordination in supervisory and regulatory activities to facilitate early identification of cross-border transmission of risks and vulnerabilities, as well as to prevent potential arbitrage that may result in destabilising concerns.