



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

PREFACE

The Financial Stability and Payment Systems Report 2014 outlines Bank Negara Malaysia's assessment of risks and challenges faced by the Malaysian financial system and the capacity of the system to sustain its financial intermediation role in the economy. It also reports the developmental initiatives pursued by the Bank to reinforce the roles of the financial services sector in supporting and contributing to economic growth and the economic transformation process, as well as the regulatory and supervisory measures undertaken by the Bank to ensure continued safety and soundness of financial institutions and promote overall financial and payment systems stability.

This publication is intended to promote greater understanding on issues and developments affecting financial stability, including policy directions of the Bank.

The Financial Stability and Payment Systems Report is available in PDF format at www.bnm.gov.my

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GOVERNOR'S STATEMENT

The year 2014 was characterised by volatility in the international financial markets amid a less optimistic outlook for global growth, prospects of divergent policies by major monetary authorities and sharply lower oil prices. Along with the other economies in the region, the Malaysian financial system was affected by the consequent shifts in global liquidity following the reassessment of risks by investors in the current environment. These shifts in liquidity have however been increasingly accompanied by a greater differentiation across countries.

The Malaysian financial system has remained resilient in the face of these developments, underpinned by strong financial intermediaries and the efficient functioning of the intermediation process. This has in turn supported private sector economic activity. The more developed domestic financial markets and the large domestic institutional investor base have also provided a source of stability to the financial markets during the periods of heightened volatility. Orderly conditions have therefore continued to be preserved in these markets. Despite some elevation in interbank and retail funding costs towards the conclusion of the year, in part reflecting adjustments by banks to the impending new liquidity standards, there continues to be ample liquidity in the banking system. Results of the Bank's stress tests under extreme assumptions of credit and funding shocks affirm the high level of resilience of the banking system. During the year, the risks in the household and property sectors have also receded, following the earlier macroprudential and fiscal measures.

Looking ahead, the management of financial system stability will focus on a number of challenges arising from the implications of the changing global and domestic economic conditions on the financial system, and on the adjustments to the broad regulatory reforms. This is to ensure that they do not create disorderly effects on the financial intermediation process. The reduction of the complexity of the international standards and the improvements to their coherence will certainly facilitate their more effective implementation. In implementing the planned changes to the core standards, the Bank will consider their appropriate application in the domestic context. Additionally, attention will also be focussed on ensuring that arrangements safeguarding financial stability will continue to adequately take into account the changing nature of financial intermediation, including the now more significant role of capital markets and non-bank financial institutions, in addition to the increased cross-border financial activities.

The Bank has therefore continued to maintain a high degree of vigilance that has involved a more intrusive supervisory oversight on the financial institutions. Particular focus is given to ensuring that bank lending and provisioning standards remain sound. Key regulatory reforms, notably those related to the Basel III reform package, are also proceeding at a measured pace with close observation of their impact during the transition period. During the year, important steps were taken to strengthen the regulation and supervision of financial groups to improve the risk assessments and to mitigate the effects of regulatory arbitrage that can arise from different prudential standards that are being applied across the financial sector.

The Bank will also continue to regularly review the risk metrics used in the supervision of financial groups and for monitoring risks to financial stability, to capture the new sources of contagion risk and the channels for their transmission. The Bank's risk assessments and stress tests, that is elaborated in this Report, have expanded considerably in scope. The Bank has also broadened the surveillance of the non-bank intermediation activities. Our strengthened financial legislation has enhanced the ability of the Bank to address identified risks arising from such intermediation activities that is outside the formally regulated financial system. This has been particularly important in mitigating the build-up of financial imbalances in the household and property sectors. Considerable work also continues to be directed at strengthening the operational frameworks, including their governance, for managing these risks and towards improving inter-agency coordination in safeguarding financial stability.

An important consideration for financial stability has been the growing regional and international linkages of the financial system through the growing overseas presence of domestic financial institutions and the evolving payment and settlement arrangements that facilitate the trade and investment flows. Such strengthened interlinkages will contribute towards enhancing the region's growth potential and facilitating the more efficient mobilisation and allocation of funds across the region. The international characteristics of Malaysia's sukuk market and the participation of non-residents in the domestic capital markets more broadly, have also strengthened the diversity and the internationalisation of our financial markets. Progress within ASEAN on the development of an integrated capital market and the imminent implementation of the ASEAN Banking Integration Framework will reinforce this interconnectivity. The Bank continues to actively expand its cooperation arrangements on financial stability with other central banks and supervisory authorities in different parts of the world. These arrangements, extending to 16 regional and international economies to date, cover a broad range of areas, including supervision, financial stability risk assessments and monitoring, and crisis management. Also important has been the continuing efforts to identify and remove impediments to information flows that are necessary to support cross-border supervision and risk management.

The Bank continues to pursue a number of important structural reforms in the financial system. These generally have two main objectives: to enhance the efficiency and capacity of the financial system in meeting the needs of the economy, and to reinforce sound incentives for prudent risk taking while having regard to the changing dynamics in the financial system. In the coming years, major reforms in the insurance sector will shift into sharp focus as the Bank continues to carefully balance the objective of evolving a more competitive environment that is reinforced with financial prudence and adequate consumer protection. In the banking sector, the implementation of the new reference rate framework for the pricing of retail financial products will enhance the transmission of monetary policy, while improving pricing discipline and transparency to consumers. The introduction of Islamic investment accounts, supported by an integrated Investment Account Platform, will also significantly expand opportunities for the financing of new and innovative businesses. In the payment card industry, reforms will be introduced this year to address incentive distortions and promote the wider use and acceptance of cost-efficient and competitive payment instruments.

Given the important global developments in the international financial stability agenda, the Bank remains an active participant in the various international fora. During the course of the year, the Bank was admitted as an observer on the Basel Committee on Banking Supervision and Financial Action Task Force, both of which will provide a strategic opportunity for the Bank to highlight the emerging market perspectives on the key developments shaping the financial landscape. It also affirms Malaysia's commitment towards embracing international standards that are inclusive. In addition, Malaysia became the host of the headquarters for the Alliance for Financial Inclusion (AFI) and a World Bank Group Office, both located at the Bank's Sasana Kijang. The AFI in particular reflects the global recognition of Malaysia's long-standing commitment to the global and domestic advancement of financial inclusion.

Going forward, the Bank's financial stability agenda will continue to maintain a strong focus on enhancing the conditions for long term resilience and stability that will support the sustained growth of the Malaysian economy.



Zeti Akhtar Aziz
Governor
11 March 2015

2014

EXECUTIVE SUMMARY



Risk developments and assessment of financial stability in 2014

Domestic financial stability continued to be preserved throughout the year. Global events as well as financial and economic developments had a significant impact on regional financial markets, with periods of higher volatility experienced during the year. In the case of Malaysia, portfolio flows were also influenced by concerns over the potential impact of sharply lower oil prices on the domestic economy in the final month of the year. The country's deep financial markets and the presence of strong domestic institutional investors in Malaysia have supported orderly conditions in the markets despite higher net outflows of portfolio funds during the year. Financial institutions also continue to maintain strong capitalisation and financial performance, with stable funding profiles and prudent risk taking. This in turn has ensured that domestic funding conditions, both in the banking system and capital markets, remained favourable and supportive of financing activities of businesses and households.

Risks to domestic financial stability arising from household indebtedness and rising property prices are moderating as a result of the package of measures taken since 2010. The growth in aggregate household debt continued to moderate as intended, expanding by 9.9%, the slowest pace since the peak in 2010. Risks associated with the accumulation of unsecured household borrowings receded further as a result of improved assessments by banks and non-bank financial institutions (NBFIs) of the ability of borrowers to take on additional debt. This has been accompanied by strengthened pricing and credit risk management practices. At the aggregate level, household financial buffers remain healthy, with the ratio of household financial asset-to-debt sustained at above two times. Stable employment and income conditions have further supported the debt servicing capacity of households. The share of debt attributed to households that earn RM3,000 or less a month continued to decline over the past two years to account for 26.7% of total household debt, from more than 33% in 2012. The financial

burden of these households eased following the various financial assistance and housing programmes provided by the Government. As a result, the aggregate leverage for this group has not deteriorated further, although lowering the leverage to a more comfortable level remains important. Reflecting these developments, household debt-to-gross domestic product (GDP) rose only marginally to 87.9% compared with earlier years.

Importantly, new household borrowings were of higher quality. Among lower income households, the share of new loans approved with a debt service ratio of 60% and below has increased substantially. This provides households with more comfortable buffers to weather financial challenges. Higher financing rates following the increase in the Overnight Policy Rate in July 2014 had little impact on households' debt servicing capacity. This reflects on one hand, the substantial share of household borrowings which is based on fixed financing rates, and the building up of stronger financial buffers by households on the other. In the unlikely event of simultaneous and severe default incidents occurring across all the different types of household borrowings, potential losses to the banking system would remain well within the excess capital buffers in the banking system.

Developments in the housing market are reducing risks of a potential sharp correction in house prices as the intended effects from the series of macroprudential and fiscal measures have become more apparent. The Malaysian House Price Index recorded three consecutive quarters of slower growth since end-2013, across almost all house types and major employment centres. Government initiatives to increase the supply of affordable housing have helped to ease pressures on house prices amid prevailing strong demand for affordable houses which continues to outstrip supply. The gap between demand and supply will, however, take some time to narrow. Risks to household finances and domestic financial stability from a house price correction continue to be mitigated by: (i) the subdued speculative purchases in the property market; (ii) prudent valuation and credit risk management practices, with improved loan

affordability assessments, by banks; and (iii) the sound quality of the housing loan portfolio. In the non-residential property sector, conditions have remained broadly stable and are improving in some segments.

Total borrowings by non-financial businesses (including government-linked companies) grew more moderately by 6.8% to RM1,037 billion, accounting for a lower share of 96.9% of GDP. External borrowings by businesses recorded a negligible growth of 0.05%, contrasting with the higher growth (+8.5%) in domestic borrowings. The overall leverage of businesses, though marginally higher with a debt-to-equity ratio of 42.7%, remains comfortably within prudent levels. This has supported the debt servicing ability of businesses, including large borrowers from the banking system, despite the more significant movements in exchange rates and commodity prices that were experienced during the year. The quality of business loans in the banking system remains sound, with broad-based improvements observed in delinquency and impairment trends across most economic sectors. Potential credit losses from simulated shocks on large borrowers were assessed to be manageable, supported by healthy cash buffers and earnings. The credit risk outlook, as measured by the Expected Default Frequency, for the sector as a whole improved further despite business conditions that are likely to be affected by increased uncertainties for some industries. This includes businesses dependent on exploration and production concession contracts in the oil and gas sector following the decline in oil prices. The exposure of the banks to such businesses, however, are small at below 2% of total credit exposures to businesses.

Domestic banking groups (DBGs) continued to expand their regional footprint during the year. The overseas operations of DBGs continued to demonstrate a stable risk profile, characterised by operations that are mainly focused on traditional lending activities, a low-risk funding structure which is supported by a high component of local currency deposits, and sound asset quality. Ongoing improvements to risk management at the entity and group levels commensurate with the growing size of overseas operations, further mitigate the potential for risks to be transmitted to the domestic banking system. During periods of heightened volatility in the region, overseas branches and subsidiaries of DBGs have continued to maintain healthy growth and profits. The Bank continues to enhance home-host supervisory

engagements as part of its consolidated supervision of DBGs. This enables the early identification of potential vulnerabilities and the effective coordination of supervisory responses.

Financial institutions continued to demonstrate strong financial performance and capitalisation, underpinned by sound governance and risk management practices. Sustained improvements in operational efficiency, observed over several years now, have also contributed to the positive performance. Continued profitability and generally conservative earnings retention policies further increased banks' capital buffers in excess of the minimum regulatory requirement which stood at RM97.4 billion as at end-2014. The strong buffers support the ability of banks to comply with minimum capital requirements (which are also being progressively strengthened) under a range of adverse conditions. The capitalisation of the insurance industry also strengthened, with excess capital buffers amounting to RM30.2 billion.

The historically low delinquency levels across major financing segments and already high loan loss coverage ratio continued to lend support to banks' net interest margins which improved during the year. At current levels, margins are fairly thin and it is therefore important that banks continue to observe sufficient rigour in their pricing and provisioning practices. These areas have been a major focus of the Bank's supervisory reviews in recent periods. The performance of the life insurance and family takaful sector similarly improved in 2014, having recovered from significant investment losses incurred in 2013. General insurers remained profitable and have been recording improving loss ratios in the fire and motor sectors over the last three years.

Stress tests conducted by the Bank affirm the strong capacity of financial institutions, both at the system and institutional levels, to withstand severe macroeconomic and financial strains. The share of credit intermediation by the NBFIs that are not regulated by the Bank has also declined since 2011. This partly reflected the pre-emptive measures introduced to reduce opportunities for regulatory arbitrage by NBFIs involved in credit intermediation and to contain the build-up of systemic risks.

Development of the financial sector

The financial intermediation process has remained supportive of the financing needs of the economy. New financing extended by the banking system to

the private sector grew by 13.3%. Over 70% of loans disbursed were channelled to businesses, of which 30.4% were loans extended to small and medium enterprises. Despite greater volatility in the financial markets, orderly conditions continued to support corporate fund raising activity. Issuances of private debt securities grew by 10.7% for the year to RM137.5 billion. Greater collaboration between the Bank, the financial industry, businesses and relevant government agencies is helping to address the issues that constrain bank financing to businesses in new growth industries. This includes bridging information gaps on the commercial potential of innovative industries, building capabilities within financial institutions to value these businesses, providing advisory support in financial management, and increasing awareness of alternative forms of financing that are more suited to the nature and maturity of the businesses. Further progress in these areas will enable financial institutions to play a larger role in supporting the financing needs of new growth industries without inappropriately increasing risks to depositors.

In the insurance and takaful sectors, reforms to promote competition, address pricing distortions and improve value to policyholders continued to be a priority. These reforms will contribute towards the long-term sustainability of the industry while encouraging more Malaysians to secure the insurance/takaful protection that they need. A major component of the reforms is the Life Insurance and Family Takaful Framework. Following extensive consultations with the public and industry, the Bank will implement the framework in phases beginning in 2015. The near term benefits to the public will include wider access through direct channels to compare and purchase life/family takaful products, a larger pool of financial advisers who are qualified to provide independent financial advice, and improved incentive structures for insurance intermediaries that have a stronger focus on professional conduct and service quality in the interests of consumers. Another major reform initiative is the implementation of the New Motor Cover Framework. This initiative continued to deliver significant improvements in the motor claims settlement process which are also helping to contain insurance losses – an important outcome to ensure that motor insurance remains viable for insurers and affordable for consumers. Plans remain on track to gradually abolish motor tariffs from 2016 and move towards a pricing mechanism that is more reflective of risk. This will

enable policyholders with better risk profiles to benefit from lower premiums, while ensuring that premiums will be adequate to cover losses. In 2015, a detailed roadmap which sets out the approach towards full market-based pricing will be announced.

At 104.4% of GDP, Malaysia's debt securities market remains the largest in Southeast Asia. Malaysia also continued to be a preferred destination for global sukuk issuances, with over 60% of new global issuances worth USD77.9 billion originated out of Malaysia in 2014. The year also saw the first yen-denominated sukuk issued out of Malaysia, and the largest renminbi bond issuance by a Malaysian corporate to date. These developments continue to add to the breadth and depth of the Malaysian bond market, particularly in terms of the diversity of its currency and investor base. In the foreign exchange market, the market infrastructure continues to be modernised by leveraging on electronic channels for transactions in the interbank market. Proposals were also advanced to enhance the oversight, integrity and transparency of the Kuala Lumpur Interbank Offered Rate (KLIBOR) setting process in line with international standards.

Initiatives to facilitate the wider use of regional currencies were intensified during the year to support growing intra-regional trade and investment activities. Facilities for banks to manage short-term renminbi liquidity were expanded. A notable development was the appointment of a renminbi clearing bank in Malaysia – the first in an emerging economy in Asia outside China – which will enable domestic financial institutions to source renminbi funds directly from the onshore Chinese financial market at competitive rates. In addition, the passage of the Netting of Financial Agreements Bill 2014, which affirms Malaysia's status as a "netting-friendly jurisdiction" will contribute towards enhancing overall liquidity in the derivative market and substantially lower the costs of derivative transactions. This in turn will encourage better risk management and the development of the domestic financial markets.

Advancing the financial inclusion agenda remained an important focus of the Bank in 2014. A monitoring framework has been developed to systematically track the progress of financial inclusion initiatives and provide input to the Bank's financial inclusion priorities. While the

goal of expanding access to financial services across the country has been largely achieved, going forward, the Bank is also concerned with promoting the interests and needs of consumers by encouraging the responsible use of financial products and services.

Agent banking which was introduced in Malaysia in 2012 has continued to expand its reach across the country. The number of financial institutions and agents that are part of agent banking networks increased during the year along with an expanded range of services offered through the agent banks. In three years, the number of sub-districts (*mukims*) that have a banking presence has more than doubled to 95% of all 872 sub-districts in Malaysia, from just 46% in 2011, largely due to the presence of agent banks. Micro enterprises have also continued to be supported with greater access to financing under the *Skim Pembiayaan Mikro*. Total outstanding financing under this scheme has continued to grow, with a total of RM2.7 billion in financing extended to more than 168,000 micro-enterprise accounts since its inception. New financing, savings and insurance/takaful products, catering specifically to the needs and financial circumstances of micro enterprises and lower income households, were also developed during the year. Globally, the Bank has continued to be a strong advocate of inclusive financial development. The establishment of the headquarters of the Alliance for Financial Inclusion in Malaysia reflects the commitment of the country to support initiatives to expand financial inclusion at a broader level.

The Islamic finance industry continued its growth momentum in 2014. Islamic banking assets grew by 12.0% and now account for 25.6% of total banking system assets. Foreign currency assets also increased to RM27.7 billion, reflecting the growing importance of cross-border transactions in Islamic finance. Innovations in Islamic finance, supported by a sound regulatory framework, have continued to drive its growth and development. The issuance of the Investment Account Framework in 2014, and the launch of an Investment Account Platform expected in 2015, will expand the offering of investment accounts as a new Shariah-compliant asset class and source of funding. The Bank also made further progress towards putting in place a comprehensive Shariah contract-based regulatory framework. This is supported by operational standards that are being introduced to ensure end-to-end compliance with Shariah principles

in the offering and management of Shariah contract-based products.

Financial integration in the region advanced further with the conclusion of the Sixth Package of Financial Sector Commitments under the ASEAN Framework Agreement on Services. Together with this package, the ASEAN Banking Integration Framework was finalised, paving the way for deeper regional banking integration. Under the framework, Qualified ASEAN Banks will be accorded greater access and flexibilities to expand into regional markets, consistent with the aim of enlarging their role in facilitating intra-regional trade and investment. In anticipation of this, the Bank, Bank Indonesia and Otoritas Jasa Keuangan signed a Heads of Agreement in December which identifies measures to facilitate market access and operational flexibilities that would be accorded in Malaysia and Indonesia to Qualified ASEAN Banks from both countries. Regulatory and supervisory arrangements will also be strengthened to ensure that domestic and regional financial stability is preserved.

The Bank has continued to invest in the development of a sustainable talent pipeline for the financial industry. Further collaborations with the financial services industry were pursued to raise the supply and quality of financial professionals in order to ensure that the financial sector remains well-resourced, with higher levels of professional standards. The establishment of the Financial Services Talent Council and the Financial Services Professional Board during the year further complements the institutional arrangements for talent development that have been put in place over the years. This includes the repositioning of the Institute of Bankers Malaysia to form the Asian Institute of Chartered Bankers and the establishment of the Asian Banking School. These arrangements now cover a full range of solutions that are required to meet the growing challenge of producing sufficient high quality talent for the current and future needs of the financial services industry.

Regulatory and supervisory framework

The regulatory and supervisory framework continued to be strengthened, driven both by the global reform agenda as well as domestic priorities. The domestic implementation of the Basel III regulatory reforms focused on finalising the Liquidity Coverage Ratio standards. This is now almost completed with final rules

expected to be issued in March 2015 for effective implementation from 1 June 2015. Having built strong liquidity buffers and supported by sound liquidity risk management practices, banking institutions are expected to meet the minimum liquidity requirements with relative ease.

The development of a regulatory framework for financial groups was also an important priority for the Bank in 2014. This aims to ensure that material risks to licensed financial institutions from group-wide activities are effectively managed and controlled. The Bank is in the final stages of approving financial holding companies (FHCs) under the Financial Services Act 2013 (FSA) and the Islamic Financial Services Act 2013 (IFSA) which will be required to comply with prudential standards applicable to the group. During the year, the Bank completed initial consultations with the industry on the proposed capital standards for banking groups which will be the first set of prudential standards to be issued for application to FHCs.

Enhancing corporate governance and risk management practices also continued to be a key focus of the policy agenda. The Bank concluded a broad review of the corporate governance framework for financial institutions and will publish proposals within the first half of 2015 to streamline and further strengthen existing standards, focusing in particular on helping boards perform their role more effectively. The Bank also consulted with the industry on new standards on operational risk management and compliance. Given the more extensive nature of outsourcing observed within the financial sector, work is in progress to update existing prudential frameworks on outsourcing. This aims to clarify the boundaries within which financial institutions can continue to leverage on outsourcing arrangements without materially increasing risks in the operations of financial institutions. A limited revision to the prudential limit for exposures to single counterparties was also made during the year to provide greater flexibility for banks to manage short-term intra-group exposures under group operating models.

In the insurance and takaful sectors, requirements on the preparation of the financial condition report which is used to inform boards of changes in an institution's risk profile or conditions affecting its business were strengthened. The Bank also consulted with the industry on proposals to enhance standards on the management of

participating life policies. These mainly address the Bank's expectations of insurers to observe practices that are actuarially sound and equitable to policy owners when deciding on discretionary bonus distributions.

The regulatory framework for development financial institutions is also being further developed and strengthened to better support the specific mandates of these institutions in promoting more inclusive and sustainable growth. To this end, the Bank is working closely with relevant Ministries on proposed amendments to the Development Financial Institutions Act 2002, which would be tabled to Parliament in 2015.

As Chair of the National Coordination Committee to Counter Money Laundering (NCC), the Bank continued to play a central role in coordinating nationwide efforts to strengthen the anti-money laundering and countering the financing of terrorism (AML/CFT) regime in Malaysia. In 2014, the NCC completed a number of key initiatives which included strengthening the supporting legislation, developing the National Risk Assessment to identify key vulnerabilities and money laundering and terrorism financing threats, and formulating the National AML/CFT Strategic Plan to comprehensively address these threats. An evaluation exercise was undertaken by international assessors to determine Malaysia's compliance with the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation. Pending the outcome of the review which will be known in 2015, Malaysia has been accorded an Observer status by the Financial Action Task Force, paving the way towards becoming a full member which will enhance international confidence in the integrity of the domestic financial system.

A strengthened enforcement framework was put in place to preserve strong oversight and objectivity of enforcement actions taken by the Bank. During the year, a total of 1,104 charges brought by the Bank were convicted by the court. The Bank also initiated 42 investigations and pursued 119 criminal charges against entities and individuals operating illegal schemes and activities. In addition, 536 offences were identified against licensees for non-compliance with laws and regulatory requirements. As required by the FSA and IFSA, the Bank established an independent Monetary Penalty Review Committee to consider appeals relating to the quantum of administrative monetary

penalties and pecuniary remedies enforced under the FSA and IFSA.

Market conduct and consumer empowerment

The Bank continued to foster fair, responsible and professional business conduct of financial service providers (FSPs) and enhance the protection of financial consumers in 2014. A key focus of the Bank has been on monitoring compliance with responsible financing practices and supporting targeted education programmes for financial consumers, in line with measures to prevent the excessive indebtedness of households. Improvements were also made to the disclosure and advisory regime to provide an appropriate counterbalance to increasingly competitive conditions and the unrelenting pace of financial innovation. This is reinforced by the Bank's ongoing monitoring activities which resulted in a range of actions taken where FSPs failed to comply with requirements to ensure that information provided to consumers is not misleading. The Bank will be taking further measures to increase public awareness and the use of product disclosures by FSPs to communicate key product information to consumers.

After extensive preparations, the implementation of more balanced pre-contractual disclosure obligations and proportionate remedies in relation to insurance/takaful contracts came into effect on 1 January 2015. This will afford better protection to insurance policyholders and takaful participants against the risk of claims being rejected due to innocent and unintentional misrepresentations. Business conduct standards for payment cards were also enhanced to strengthen safeguards against payment card fraud, improve important disclosures and prohibit excessive charges and penalties. During the year, FSPs were required to refund over RM238,000 in fees and charges that were imposed for various financial products and services in breach of guiding principles issued by the Bank on fair and reasonable charges. The Bank also intensified its review of re-pricing practices by insurers for medical and health insurance products which had become more prevalent due to increasing medical costs. The reviews aimed to ensure that any pricing adjustments are consistent with the portfolio experience, reflect proper underwriting, and are carried out in a way that would reasonably allow existing policyholders to adjust to higher premiums and continue their insurance coverage.

An important initiative taken by the Bank in 2014 to protect financial consumers was the strengthening of redress mechanisms. This involved transforming the existing Financial Mediation Bureau which currently operates as a voluntary arrangement, into a full-fledged financial ombudsman scheme (FOS). The Bank published its proposals during the year on the governance and operational arrangements of the FOS, including its scope. Following broad support for the proposals, plans are well advanced for the FOS to commence operations in the second half of 2015.

The Bank, in collaboration with the Credit Counselling and Debt Management Agency (Agensi Kaunseling dan Pengurusan Kredit, AKPK), continued to focus on financial capability initiatives to help Malaysians make better informed financial decisions. Further progress was achieved in integrating financial education into the school curriculum. A new POWER! (Pengurusan Wang Ringgit Anda) financial education programme was introduced for adults already in the workforce, building on the success of the first POWER! Programme for young adults. The Bank also intensified its outreach programmes to educate the public on financial scams, while continuing to work with government agencies to eradicate scams and prosecute the perpetrators.

Payment and settlement systems

Payment and settlement systems in Malaysia remained resilient and continued to operate reliably during the year, with no major disruptions experienced. The Bank continued to direct efforts towards strengthening the business continuity and contingency arrangements for Malaysia's large value and major retail payment systems to provide further assurance of their resilience. Investments in system upgrades for the retail payment systems were also made to cater to the anticipated growth in transaction volume, improve performance and enhance operational reliability. Collectively, these developments have further reduced systemic risk.

The Bank and the industry remain committed to achieving the ambitious targets set for the migration to electronic payments (e-payments) which will enhance Malaysia's competitiveness and growth potential. In 2014, the use of e-payments continued to rise. Pricing reforms implemented since 2013 have encouraged the strong growth of Interbank GIRO transactions which increased in volume by 36.2% in 2014, while the number of cheques issued declined by 10.1%. The number of e-payment transactions per capita increased to

72 during the year, up from 43 in 2010. Ongoing measures by banks and payment instrument issuers to regularly review and update security arrangements for the provision of online banking and payment instruments have also continued to contain the incidence of payment fraud at a low level.

Greater transparency in e-payment services was provided with the requirement for all banks to publish information on fees, crediting times and transaction limits at bank branches and

websites. The e-Payment Incentive Fund (ePIF) framework was introduced to require banks to channel the fees that they collect from processing cheques to fund incentives for customers to adopt e-payments. The Payment Card Reform Framework, implemented in January 2015, will further foster an efficient, transparent and competitive payment card industry by addressing indiscriminate increases in interchange fees and other market distortions. Together, these reforms will further accelerate the migration to e-payments, offering the public cheaper and efficient payment alternatives.

2014

RISK DEVELOPMENTS AND ASSESSMENT OF FINANCIAL STABILITY IN 2014

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RISK DEVELOPMENTS AND ASSESSMENT OF FINANCIAL STABILITY IN 2014

OVERVIEW

Domestic financial stability continued to be preserved throughout the year. Global developments had a significant influence on regional financial markets, and this led to higher volatility experienced at various times during the year. The strength of recovery of the US economy with its implications for monetary policy, lingering concerns over economic growth in the euro area, and the assessment of risks in PR China continued to be major themes driving investor behaviour. In the case of Malaysia, portfolio flows were also influenced by concerns over the potential impact of sharply lower oil prices on the domestic economy in the final month of the year. Although volatility did increase, it did not reach the heights experienced during the global financial crisis (GFC) or the taper tantrum in 2013. As with those previous episodes of heightened volatility, the deep markets and presence of strong domestic institutional investors in Malaysia have supported orderly conditions in the domestic financial markets. Banks, insurers and takaful operators continue to maintain strong capitalisation and financial performance. These institutions have also generally demonstrated appropriate prudence in risk-taking – particularly in lending and investment activities. Ample liquidity remains in the banking system despite the large volume of portfolio outflows. Individual bank funding positions also continued to be well-supported by strong liquidity buffers which enabled adjustments to the more competitive market for deposits. These factors have supported intermediation activities and sustained confidence in the Malaysian financial system.

Domestic financial stability has been supported by orderly financial market conditions and institutional soundness

During the year, the Financial Stability Committee of the Bank continued to closely monitor and

review risks stemming from: (i) movements in capital flows; (ii) growth in household debt and property prices, including the effect of the various measures taken to rein in excesses in these sectors; (iii) level of corporate sector leverage; and (iv) increased interlinkages between banks and non-bank financial institutions (NBFIs). These developments were also reviewed by the Financial Stability Executive Committee which has specific responsibility under the Central Bank Act 2009 for approving measures to address risks to financial stability which are applied to institutions that are not directly regulated by the Bank.

Risks arising from household indebtedness and rising property prices have moderated as the package of measures taken since 2010 gain further traction. Continued close monitoring of the effective implementation of these measures by banks and non-banks remains a key focus of the Bank's supervisory activities. Among lower income households, there is a need to reduce leverage further to more comfortable levels. Remaining pockets of vulnerabilities in the household sector are, however, unlikely to have material financial stability impact. This is supported by the strong capacity of financial institutions to absorb potential losses even under assumptions of severe stress conditions.

In the property market, house prices increased at a slower rate as house buyers and developers adjust to macroprudential and fiscal measures aimed at curbing excessive speculation and risk-taking. Government initiatives to increase the supply of affordable housing have also helped to ease some pressures on house prices amid prevailing strong demand for affordable houses. While the demand-supply gap will take some time to narrow, these developments are reducing risks of a potential sharp correction in house prices going forward. Conditions in the non-residential property segment were broadly stable with improvements observed in rental and vacancy rates in some segments. Investment demand for shop houses remains relatively strong, consistent with developments in the residential property segment. Nevertheless, speculative activities as indicated by borrowings to finance multiple purchases of shops were subdued.

The financial and balance sheet strength of businesses (including government-linked companies (GLCs) and large and systemic borrowers) was mostly intact with sustained sound overall debt servicing capacity and liquidity positions. This enabled borrowers to cope with the more significant movements in exchange rates and commodity prices that were experienced during the year. External borrowings by businesses have also slowed considerably in terms of growth. Credit risk to financial institutions arising from exposures to the business sector is therefore contained, with the credit risk outlook for the sector as a whole improving further despite business conditions that are likely to remain challenging for some industries.

The Bank expects to continue with the heightened degree of vigilance over developments in the household, property and business sectors in the foreseeable future. The Bank's supervisory activities will maintain a strong focus on preserving sound lending standards and practices among banks, and sustaining improvements in the financing practices of NBFIs to further reduce vulnerabilities in the household sector. In the more challenging environment, financial market and operating conditions are likely to have a more significant differential impact on businesses with different profiles. As such, it will be more important for financial institutions to ensure that risk monitoring and management strategies are adequately robust to identify and actively manage potential losses from businesses that are more exposed to financial stress due to volatile exchange rate and price movements.

While the Malaysian financial system has a far stronger capacity to cope with volatile market conditions, the Bank will continue to closely supervise how banks are managing their liquidity positions to maintain adequate liquidity under stressed conditions. Additionally, supervisory vigilance will focus on ensuring risk-taking by banks and insurers remains prudent. This also extends to the growing external exposures from the overseas operations of domestic banking groups. In particular, banks will be required to demonstrate that the business models adopted for managing cross-border operations are consistent with sound risk management at the entity and group levels. With greater regional integration, an important priority of the Bank will be to ensure that channels for the transmission of risks are well-understood and that effective safeguards are in place to manage the risks. This will include further strengthening the co-operation arrangements through supervisory colleges, regional surveillance activities and framework for managing crises.

MANAGING RISKS ARISING FROM HOUSEHOLD INDEBTEDNESS

The series of measures introduced since 2010 to rein in the excessive accumulation of debt by households continued to take hold as intended. Aggregate household debt sustained its moderating trend over the past two years, growing by 9.9% to RM940.4 billion as at end-2014 (Chart 1.1).

Growth in household debt moderated over two consecutive years, underpinned by the continued decline in personal financing by non-bank lenders

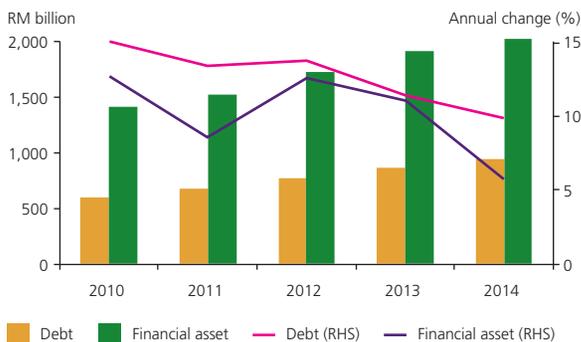
Underlying this trend was the continued moderation in the expansion of financing for personal use (Chart 1.2). This was consistent with improved assessments by banks and NBFIs of the ability of borrowers to take on additional debt. The healthy aggregate balance sheet of households has continued to lend support to overall debt servicing capacity amid stable employment and income conditions.

New household borrowings are of higher quality, where about 80% of new loans were approved with a DSR below 60% and half with a DSR below 40% on all debts

New household borrowings are also of higher quality. About 80% of new loans (based on number of new loan accounts) have a debt service ratio (DSR) for all outstanding debts of less than 60%, while half have a DSR of less than 40%. For borrowers with monthly earnings of RM3,000 and below, the share of new loans (based on the number of new loan accounts) with a DSR of less than 60% is higher at 91.8% (July 2013: 85.9%), while the share of new loans with a DSR of less than 40% remained stable at about 58%. This accords households with greater buffers and flexibility to weather financial challenges. Reflecting these developments as well as the stronger performance of the economy in 2014, the ratio of household debt-to-gross domestic product (GDP) rose only marginally, compared with earlier years, to 87.9% (2013: 86.7%) (Chart 1.3).

Chart 1.1

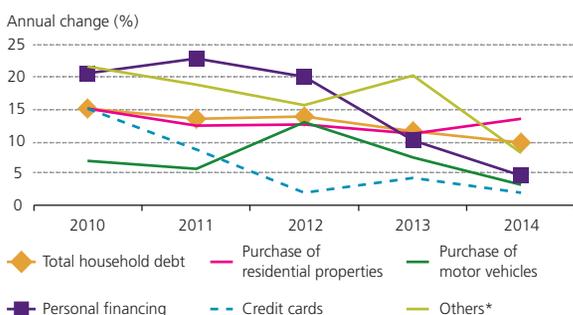
Household Sector: Debts and Financial Assets



Source: Bank Negara Malaysia

Chart 1.2

Household Sector: Debt by Purpose



*Including purchase of non-residential properties and purchase of securities

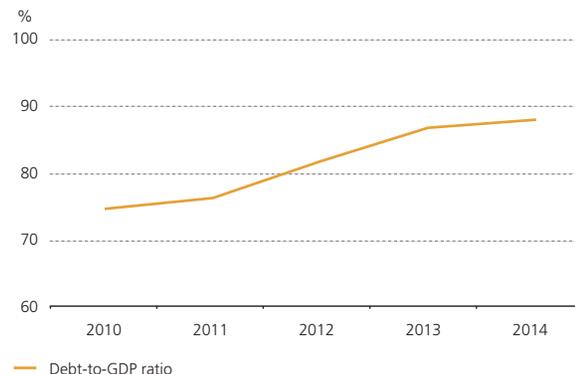
Source: Bank Negara Malaysia

Aggregate household financial asset-to-debt maintained at more than two times, over the past three years

At the aggregate level, household financial buffers remain strong. The ratio of household financial asset-to-debt has consistently been maintained at more than two times over the past three years as the pace of growth in household debt was brought more in line with the growth in household financial assets. Although the culture of saving for future and contingent needs is generally well-entrenched among most households, the capacity to save is dependent on income levels. This is reflected

Chart 1.3

Household Sector: Debt-to-GDP Ratio



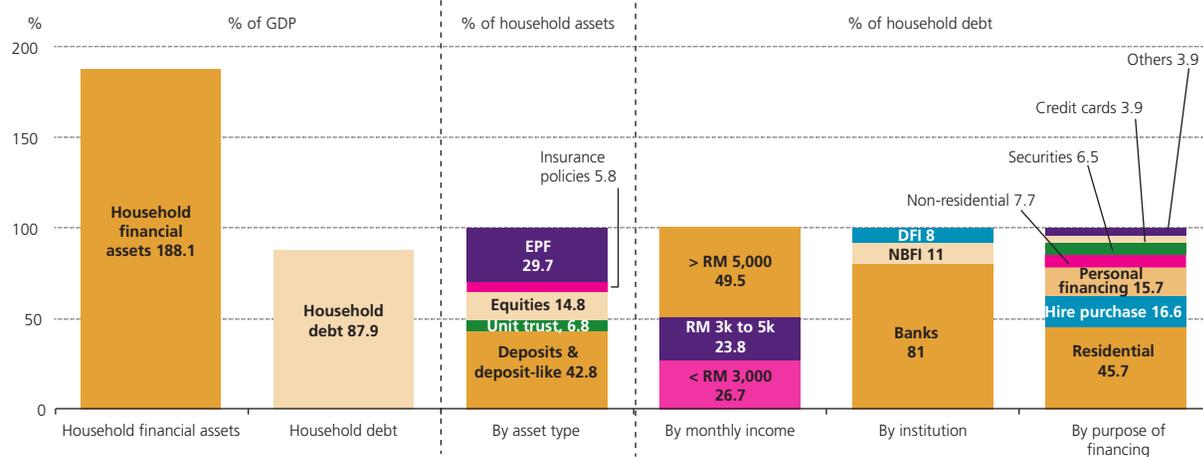
Source: Bank Negara Malaysia

in the uneven distribution of household financial buffers which is positively correlated with income. During the year, aggregate financial assets increased by RM110 billion, compared with an increase of RM84.5 billion in debts. Deposits and deposit-like instruments contributed to about 57% of the increase in financial assets and represent more than 42% of household financial assets. The high composition of such assets provides households with a comfortable buffer against unexpected changes in income or expenditures. Although the value of investments in equity and unit trusts was slightly lower, reflecting developments in the equity market, such assets account for about a fifth of household financial assets. Collectively, about 64% of household financial assets is readily available if needed for households to meet higher financial outlays (Chart 1.4).

Housing wealth has also increased in recent years. Properties remain an important investment class for many households to finance children's education, provide a form of financial security for the next generation and prepare for retirement. In a low interest rate environment, comparatively attractive returns on property investments have further encouraged this trend. Over the past five years, borrowings by households to invest in property (as proxied by the number of individuals with two outstanding housing loan accounts) have been growing at a steady average rate of about 4.7%. This has added to total household assets (including housing wealth) which expanded by 5.7%. The ratio of total household asset-to-debt has remained high and stable at 3.6 times (2013: 3.7 times).

Chart 1.4

Household Sector: Profile of Borrowings and Financial Assets



Source: Bank Negara Malaysia

Reducing share of debt attributed to vulnerable households, with leverage remaining stable

Latest data continue to show a reducing share of debt attributed to lower income households that earn RM3,000 or less a month, to 26.7% of total household debt (2013: 27.3%; 2012: 33%). Households in this category have benefitted from various financial assistance and housing programmes provided by the Government to ease their financial burden. The aggregate leverage (measured as a ratio of outstanding borrowing to annual income) for this group has not increased further, although lowering the leverage (currently at seven times which is significantly higher than the leverage of households in other income groups) to a more comfortable level would continue to be desirable.

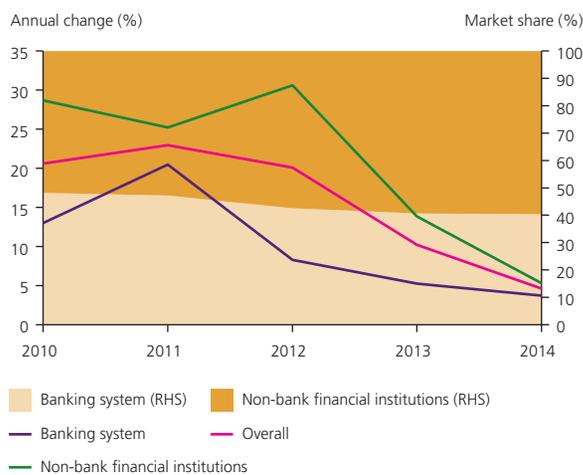
The amount of new debt assumed by households was RM3.8 billion lower in 2014 than in the previous year. The borrowings continue to be heavily concentrated in financing secured by property and financial assets, thus reducing the net exposure to households in an event of stress. Risks associated with the accumulation of unsecured household debt have continued to recede. New unsecured borrowings accounted for a substantially lower share of total new household debt for the year (2014: 8.6%; 2013: 16.5%). For the year

as a whole, households accumulated an additional amount of RM7.3 billion in outstanding credit card balances and personal financing, accounting for less than 40% of the average annual increase in credit card and personal financing recorded between 2010 and 2013. About 92% of the outstanding credit card balances are current (i.e. not yet due). Excluding these balances, which are usually fully or partially settled on or before the payment due date, outstanding credit card and personal financing increased by RM6.8 billion (2013: +RM13.2 billion). As credit cardholders continue to consolidate outstanding balances with more than one issuer, the number of cards with revolving balances declined further by 6.5% to account for 46% (2013: 50%) of total cards in circulation. Similarly, in value terms, the amount of revolving card balances that were rolled over declined by 12% during the year.

NBFIs remained the largest provider of personal financing with a share of close to 60% of total personal financing to households (Chart 1.5). New personal financing facilities approved by NBFIs declined both in number (-14%) and value (-31.3%) terms. The excessively high levels of personal financing extended in earlier periods (of up to RM300,000 under a single facility) have almost disappeared from the NBFI market as a result of more robust affordability assessments, aligned to the Bank's responsible financing standards. The average financing amount disbursed by NBFIs correspondingly declined to less than RM30,000 per facility.

Chart 1.5

Household Sector: Annual Change and Market Share of Personal Financing



Source: Bank Negara Malaysia

The credit underwriting standards and risk management practices of banks have remained generally sound even though strong competition continues to persist in the retail financing market. This is important for both household resilience and financial stability given that banks account for 81% of financing taken by households, and bank exposures to households represent about 57% of the loan book. Sustained prudent lending standards were evident from: (i) the continued low levels of impaired and delinquent (loans-in-arrears of between one and three months) loans across all types of financing facilities (Table 1.1); (ii) continued improvements in

default rates for new housing loans originated (Chart 1.6); and (iii) the Bank's supervisory observations of more robust loan affordability assessments. Notably, banks have continued to strengthen income verification processes with more conservative assumptions used to account for variable sources of income. Some banks have also further refined the credit assessment criteria for more vulnerable borrowers.

Improvements in loan affordability assessments were also evident among NBFIs based on joint on-site examinations conducted by the Bank and the Malaysia Co-operative Societies Commission. This has ensured that the quality of personal financing granted to households is kept in check in view of the significant concentration of NBFIs' portfolio in this segment. The ratio of impaired loans and loans-in-arrears for the portfolio remained stable at 1.8% and 0.4% respectively as at end-2014. The sound quality of financing has also been supported by NBFIs' access to repayments through the system of automatic salary deductions (centrally administered by Biro Perkhidmatan Angkasa) for borrowers in the civil service.

The Bank remains vigilant over the potential for risks to increase in other segments of the household credit market which are not subject to the macroprudential measures by the Bank. This would include some households turning to other sources of funding, including informal lenders. Without the required safeguards to prevent excessive indebtedness, coupled with much higher rates often

Table 1.1

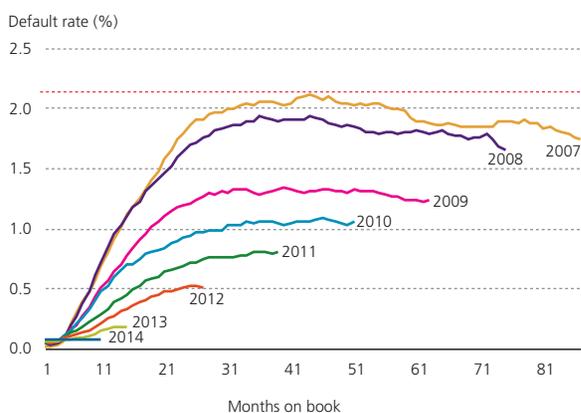
Household Sector, Banking System: Gross Impaired Loans and Gross Loans-in-arrears

	Gross Impaired Loans (%)						Gross Loans-in-arrears (%)					
	Ratio			Annual Growth			Ratio			Annual Growth		
	2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
Overall	1.5	1.3	1.2	-8.4	-1.1	-1.0	2.5	2.1	1.8	6.5	-7.4	-5.3
Purchase of residential properties	1.9	1.5	1.3	-10.4	-7.0	-3.9	1.9	1.6	1.4	9.2	-4.6	-2.8
Purchase of non-residential properties	0.8	0.7	0.6	-10.7	-1.4	0.3	0.9	0.8	0.7	8.9	-4.2	8.0
Purchase of motor vehicles	1.1	1.2	1.2	-0.1	19.4	1.8	5.6	4.6	4.0	8.3	-11.8	-11.4
Personal financing	1.8	1.7	1.7	0.0	-1.6	3.4	1.3	1.2	1.2	-29.1	-2.0	-0.2

Source: Bank Negara Malaysia

Chart 1.6

Household Sector, Banking System: Vintage Analysis for Housing Loans



Source: Bank Negara Malaysia

charged by these sources, households could be financially stretched. Even though the risk is still small currently, the Bank continues to work closely with the Credit Counselling and Debt Management Agency (AKPK) to expand financial education programmes that aim to instil good financial management knowledge among households that would prevent them from falling into financial difficulty (refer to Chapter 4 on 'Market Conduct and Consumer Empowerment'). The Bank also engages with the Ministry of Urban Wellbeing, Housing and Local Government (KPKT), which is responsible for the licensing and oversight of money lenders and pawnbrokers, to share information on important developments affecting the financial health of households.

Improved loan affordability assessments alongside enhanced risk pricing practices strengthen buffers against potential loss events

Price competition in the retail lending market eased a little following the implementation of the Risk-Informed Pricing Standards by the Bank in March 2014. In line with the requirement for banks to strengthen pricing policies and practices, there has been greater alignment between how banks set internal hurdle rates (i.e. the risk-adjusted breakeven point in pricing where income is sufficient to cover the expected credit loss, funding costs and

overheads) which are used to guide the pricing of different financing products, and the manner in which risk and capital are being managed. Lending rates on new financing for the purchase of vehicles and residential properties have adjusted upwards by about 70 basis points (bps) and 20 bps respectively. This was a positive development given earlier signs that some banks may be under-pricing risks in the face of stiff competition, particularly in the motor vehicle financing segment.

Developments in the household sector are not expected to have any material financial stability impact. Financial institutions remain well-positioned to absorb potential losses in the household sector

Adjustments in the rates for residential property financing were also largely in response to the increase in the Overnight Policy Rate (OPR) in July 2014. With strong competition in the mortgage market continuing to weigh on lending rates, requirements under the Risk-Informed Pricing Standards serve to ensure that banks are providing adequate buffers against any under-pricing of risk. The higher financing rates since the second half of the year had little impact on households' debt servicing capacity. The ratio of repayments-to-disbursements as reported by banks has remained broadly stable over the past five years, staying consistently above 80%. One reason for this is the substantial share (about half) of household borrowings that are based on fixed interest rates (comprising mainly Islamic financing for purchase of properties, motor vehicle hire purchase, credit card outstanding balances and personal financing), thereby partially insulating households from interest rate adjustments. Another reason, is the accumulation of stronger financial buffers by households as elaborated in this Chapter, despite the higher overall debt level.

As elaborated in previous Reports, developments in the household sector are not expected to have any material financial stability impact. Based on stress tests conducted by the

Table 1.2

Household Sector, Banking System: Potential Losses Based on Severe Assumptions on Probability of Default (PD) and Loss Given Default (LGD)

		Housing loan	Motor vehicle hire purchase	Personal financing	Credit cards	Total ¹
Stressed PD (%) (Baseline PD, %)		8.4 (4.2)	10.0 (5.0)	8.8 (4.4)	15.8 (7.9)	
Stressed LGD (%) (Baseline LGD, %)		40.0 (25.6)	75.0 (48.0)	95.0 (84.1)	95.0 (85.2)	
Potential losses (RM bil)	All borrowers	12.4	10.7	5.0	5.3	39.1
	- Borrowers earning RM3,000 or less per month	2.0	3.9	1.8	1.0	10.2
	- Borrowers earning RM5,000 or less per month	4.4	6.8	2.9	2.3	19.2

¹ Includes other household loans such as financing for the purchase of non-residential properties and consumer durables

Source: Bank Negara Malaysia

Bank, the estimated potential losses to banks in the unlikely event of simultaneous default incidents occurring across all the different types of household borrowings under severe assumptions would be about RM39 billion (Table 1.2). This is well within the excess capital buffers (above the regulatory minimum) of RM97.4 billion held by banks. These potential losses have not taken into account the available savings and financial buffers of individual households or responses by the banks to deal with such scenarios. Banks have also been gradually increasing the level of provisions and regulatory reserves for collective impairment as a share of total outstanding loans (2014: 1.4%; 2013: 1.3%) as part of on-going measures to strengthen buffers against potential loss events, particularly during periods of healthy profits.

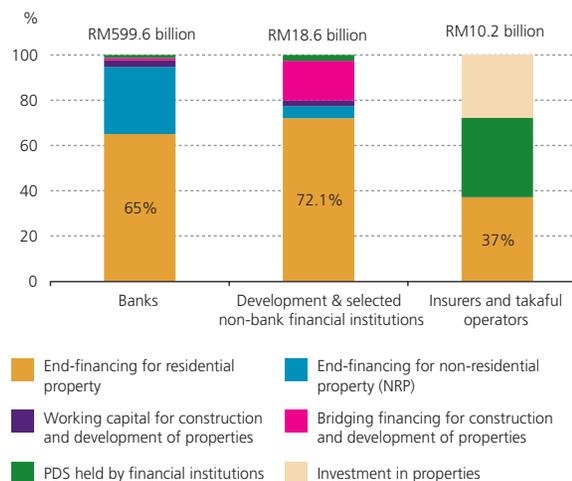
The high level of household indebtedness is expected to remain over the next few years given the relatively long average remaining maturity of the borrowings (10 years). Household demand for credit is also expected to remain fairly strong among the young and more affluent population to purchase homes and motor vehicles. As the effects of earlier measures continue to become more entrenched, the pace of growth in household debt should continue to moderate. The lower growth in house prices (discussed later in this Chapter), along with the implementation of measures by the Government to assist lower-income households, should further reinforce a more measured pace of growth in household debt going forward (Table 1.3).

MANAGING DEVELOPMENTS IN THE DOMESTIC PROPERTY MARKET

Developments in the property market have important implications for financial stability given the sizeable exposures of financial institutions to the property sector. Total exposures of financial institutions to the property sector amounted to RM628.5 billion or 23% (2013: 21.9%) of total financial system assets as at end-2014. Bank exposures accounted for the bulk (95.4%) of this (Chart 1.7), with property-related financing and private debt securities (PDS) held by banks increasing slightly during the year to represent 26.6% (2013: 25.4%) of total

Chart 1.7

Property Market: Financial Institutions' Exposures to the Property Market



Source: Bank Negara Malaysia and financial statement of selected non-bank financial institutions

Table 1.3

Developments in Household Sector and Property Market since Implementation of Macroprudential Measures

Continued moderation in the pace of growth of household debt over past two years	<ul style="list-style-type: none"> Household debt growth moderated over two consecutive years to 9.9% as intended (2013: +11.5%; 2010: +15.1%) Personal financing by NBFIs slowed significantly to 5.3% (2013: +13.9%) 60% of borrowings contributed to housing wealth and asset accumulation
Sustained debt servicing capacity of households	<ul style="list-style-type: none"> Impaired loans and loans-in-arrears ratios for the banking system remained low and stable at 1.2% and 1.8% even after OPR increase in July 2014 Household financial assets remained stable at more than two times of debt
Further strengthening of loan affordability assessments and financing practices	<ul style="list-style-type: none"> About 80% of borrowers who obtained new financing since July 2013 have debt service ratio (DSR) below 60%, while half have DSR below 40% on all debts Proportion of borrowings by borrowers with monthly earnings <RM3,000 declined further to 26.7% (2013: 27.3%; 2012: 33%)
Subdued credit-driven speculative purchases of properties	<ul style="list-style-type: none"> Annual growth in the number of borrowers with three or more outstanding housing loans declined further to 2.9% (2013: +5.3%), from the peak of 15.8% in 2010, to account for 3% of borrowers with outstanding housing loans
Slower growth in average house prices	<ul style="list-style-type: none"> Annual growth in the Malaysian House Price Index slowed for three consecutive quarters to 8.4% in 2Q 2014

Source: Bank Negara Malaysia and National Property Information Centre

assets of the banking system. About 65% of bank exposures to property is concentrated in the residential property end-financing market, while end-financing for the purchase of land and commercial properties make up about 30% of total property-related exposures.

Residential property market

The intended effects from the series of macroprudential and fiscal measures have become more apparent. Aggregate house prices recorded three consecutive quarters of slower growth since the last quarter of 2013 (Chart 1.8). Preliminary data for the third quarter of 2014 showed a continued moderating trend in house price growth. This trend was observed across all house types and major employment centres (Table 1.4).

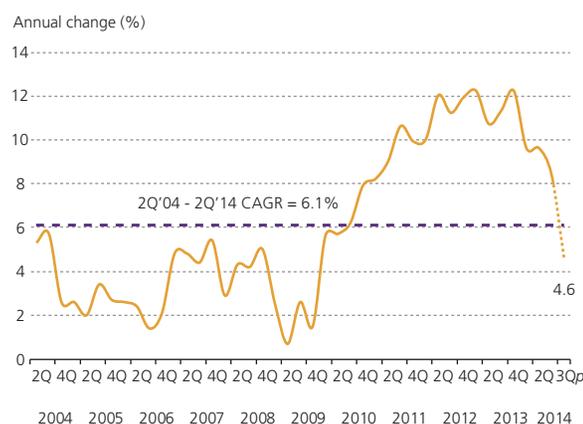
Wide ranging measures to address property market issues are moderating growth in aggregate house prices

Over the past few years, strong activity in the secondary market has been driving residential property prices higher. At the same time, primary

property launches concentrated in the high-end of the market also added to higher overall property prices as properties in the surrounding vicinity rose in tandem, and the exit price threshold for existing property owners increased. In 2014, activities in the secondary market appear to have softened. Based on data from the National Property Information Centre (NAPIC), the volume of residential property transactions in the secondary

Chart 1.8

Property Market, Residential: Growth of Malaysian House Price Index (MHPI) and Long Term Average



p Preliminary
CAGR: Compounded annual growth rate

Source: National Property Information Centre

Table 1.4

Property Market, Residential: Growth of Malaysian House Price Index by Selected State and House Type

Annual change (%)	2Q '13	3Q '13	4Q '13	1Q '14	2Q '14	3Q '14 ^p
Malaysia	11.3	12.2	9.6	9.6	8.4	4.6
Kuala Lumpur	25.3	19.3	11.7	9.5	8.5	3.7
Selangor	8.1	5.9	10.1	10.9	8.3	5.4
Johor	24.1	25.7	15.0	14.7	10.5	3.4
Penang	15.6	16.2	16.5	16.1	12.1	6.5
Terraced	9.6	9.9	9.6	10.1	9.5	5.1
Semi-detached	12.2	15.2	5.5	7.1	4.8	2.2
Detached	17.9	17.9	13.2	7.6	5.8	4.0
High-rise	14.4	17.0	13.6	12.9	10.6	6.2

^p Preliminary

Source: National Property Information Centre

market declined further by 3.3% (2013: -2.3%) in the first nine months of 2014, compared to the similar period in the previous year. Correspondingly, the share of secondary market transactions was lower, accounting for 77.3% of total residential property transactions (2013: 82.8%). In contrast, the volume of transactions in the primary market increased by 32% (2013: -33.7%), consistent with the higher supply of new houses, including affordable housing under various Government programmes for first time home buyers. Some private developers are also beginning to introduce more affordable housing units in response to strong demand, while preserving margins by building smaller-sized units.

The implementation of loan-to-value (LTV) measures, higher property gains taxes introduced by the Government and the prohibition of developer interest bearing schemes (DIBS) have additionally worked to curb speculative purchases. Credit-induced speculative purchases of residential properties remained in check. The number of borrowers with at least three outstanding housing loans (used as a proxy for speculative purchases) moderated further during the year, increasing by 2.9% (2013: +5.3%; 2010: +15.8%). Such borrowers continue to account for 3% of total housing loan borrowers. As a result of these dynamics, the average value of transactions in the primary and secondary markets grew moderately by 15.1% (2013: +18.2%) in the first nine months of 2014, compared to the similar period in the previous year.

Notwithstanding the welcome easing in growth of house prices, structural pressures such as the demand-supply mismatch for affordable housing remain. Demand (using average transacted units as a proxy) continued to outstrip the new supply of houses (as measured by the incremental stock of houses) (Chart 1.9). Demographic factors given Malaysia's relatively young population and labour force along with increased urbanisation are expected to sustain strong demand for affordable housing in major employment centres over the near- and medium-term, beyond what can be met by the incoming stream of new supply.

Increase in supply of affordable housing should further ease upward pressure on house prices

The demand-supply mismatch is expected to improve with more of such houses being built by the private sector and following the implementation of Government initiatives coordinated by the National Housing Council which was established in January 2014. This includes the planned construction of 150,000 additional affordable and low-cost housing units in various strategic locations nationwide and the implementation of rent-to-own schemes for the lower income group. The consequent narrowing of the demand-supply mismatch should further ease price pressures.

Chart 1.9

Property Market, Residential: Transaction and Incremental Change in Stock of Houses



In an environment of rising house prices and growing bank exposures to the housing market, it is important that the valuation practices of banks remain sound and adequately account for the risk of a price decline. This is particularly so in locations where house price increases have been stronger. From the supervisory reviews conducted by the Bank, property valuation standards of banks remain generally sound. Banks typically apply internal pricing parameters and LTV ratios which are differentiated across locations and borrower profiles, based on wider sources of property valuation information. Lower LTVs were consistently observed among banks for properties in locations that have experienced stronger price increases. The practice of requiring periodic valuations by qualified professional valuers to support approved loan amounts and impairment assessments is also well-established across the industry.

A related risk to imprudent valuations is that of borrowers taking advantage of rising house prices and low borrowing costs to borrow more than they can comfortably afford against elevated property values. This can also arise from existing borrowers who refinance the housing loans in order to borrow more against the higher current value of the properties (also referred to as the practice of “equity withdrawal”). More prudent loan affordability assessments by banks substantially mitigate this risk. The Bank’s supervisory monitoring found no evidence to suggest widespread practices of equity withdrawal. Notwithstanding this, the Bank requires banks that refinance existing housing loans at amounts higher than the original

outstanding loan amount to perform affordability assessments based on standards applied to personal financing for the additional amount borrowed.

More broadly, risks from a decline in house prices to the banking sector are assessed to be contained. Close to half (48%) of outstanding housing loans have a current LTV below 70%. This has been broadly stable over the years. This provides a comfortable buffer for banks against a decline in property values in the event of default. The vast majority (about 84%) of housing loan borrowers are also owner occupiers or longer-term investors, with strong incentives to maintain the loan repayments in an event of financial stress. Changes in house prices therefore tend to have a small effect on repayment behaviours. This assessment is corroborated by the low and declining level of impaired and delinquent housing loans.

Banks’ excess capital buffers stood at more than five times the estimated losses from a 40% contraction in house prices and stressed default rates

Based on a single factor sensitivity analysis conducted on the housing loan portfolio of banks with a stressed probability of default (PD) of up to 13% and a severe correction of 40% in house prices, the excess capital buffers of banks stood at more than five times the estimated expected losses. Under a macro top-down stress test over a four-year horizon, the excess capital buffers of banks continued to be more than sufficient (by eight times) to absorb the estimated potential losses of RM11.6 billion per year. The losses in this scenario encompass losses from banks’ exposures to the property sector at large, including non-residential property and exposures to the construction sector.

Non-residential property market

Financial institutions’ exposures to the non-residential property market comprised mainly end-financing by banks for the purchase of shops, land, industrial buildings and office space. The growth in bank financing for such purposes moderated to 14.9% (2013: +17.8%) during the year. The slower growth was more pronounced in the financing of land and

office space, while demand for industrial properties and shops appears to remain strong (Chart 1.10). The financing of shopping complexes has also picked up in pace.

To some extent, the sustained growth in the financing of shop houses reflects developments in the residential property market, given that shops are seen among property investors as an alternative investment to residential properties. The number of borrowers with loans for the purchase of both residential and non-residential properties grew by 10.8% (2013: +12.9%). Speculative activities in this segment of the market remain subdued, with little evidence of borrowers purchasing multiple shop units. Still, relatively strong demand amid a sustained level of rental rates has continued to support price increases. In the first nine months of 2014, the increase in the average transaction value of shops strengthened to 9.4% (2013: +7.3%), although remaining well below the peak of 17.7% recorded in 2011 (Chart 1.11). As highlighted in the previous Report, investing in shops and other non-residential properties entails a broader set of risks. Investors should be aware of these risks and adjust their return expectations accordingly.

Average land prices in major employment centres maintained the upward trend since 2009, recording a compounded annual growth rate of 25.2% for the period up to the third quarter of 2014. This was attributed to the scarcity of development land and the conversion of agricultural land for commercial use. The bulk of land transactions were purchases by

Chart 1.11

Property Market, Non-residential, Shops: Average Transaction Value



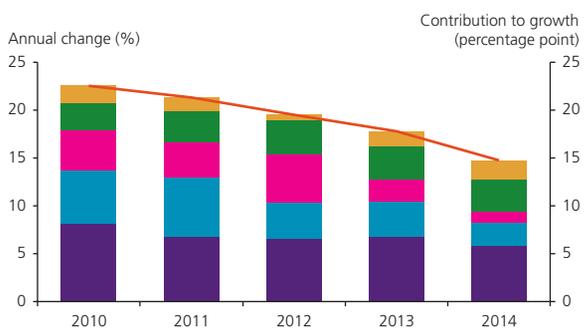
* First nine months
Source: National Property Information Centre

property developers to replenish land banks and to gain exposure to high growth areas in and around major city centres.

In the office space segment, overall rental rates have held firm, growing cumulatively by about 27% since 2007 on the back of sustained demand (Chart 1.12). The overall vacancy rate for office space improved for the second consecutive year to 16.1% (2013: 17.1%; 2012: 17.6%), reversing the increasing trend since 2009. Vacancy rates in the Klang Valley were at 19% and followed a similar improving trend. Supply pressures are expected to recede further with the staggering of some planned incoming supply. This should contribute to a further easing in vacancy rates over the medium-

Chart 1.10

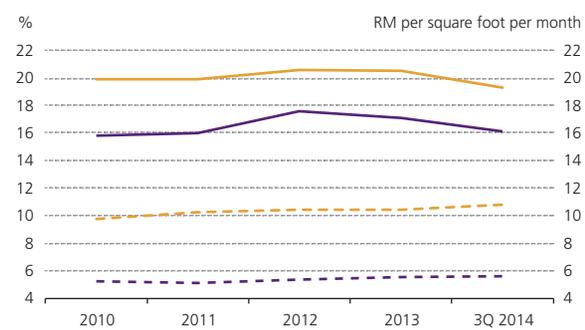
Property Market, Non-residential: Loan Growth and Contribution to Growth by Segment



Source: Bank Negara Malaysia

Chart 1.12

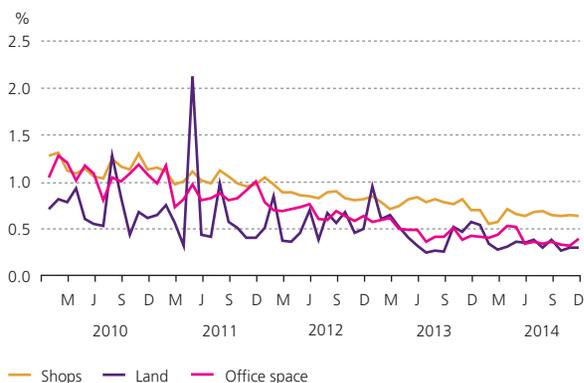
Property Market, Non-residential, Office Space and Shopping Complex: Vacancy Rate and Rental Rate



Source: National Property Information Centre, Knight Frank and Jones Lang Wootton

Chart 1.13

Property Market, Non-residential: Loans-in-arrears Ratio



Source: Bank Negara Malaysia

term. Rental rates for older office buildings remain somewhat depressed due to tenant preferences for newer and green buildings with better facilities and transport connectivity. The on-going process of refurbishing and upgrading efforts for many of these buildings should boost tenancy and rental rates going forward, while new supply needs to be continuously kept in check.

Conditions in the shopping complex segment warrant continued monitoring. Rental rates have been on an uptrend over the past several years. This reflects the persistent strong tenant demand for retail space in prime areas, supported by the penetration of a growing number of international retailers. Of late, new supply of shopping complexes has picked up slightly, partly in response to this anticipated demand. This may pose future risks if demand disappoints. The overall vacancy rate for shopping complexes improved marginally to 19.3% (from 20% between 2010 and 2013), supported by encouraging growth in the retail sector. Delinquency rates for end-financing provided by banks for the purchase of non-residential properties remained low and stable (Chart 1.13).

MANAGING CREDIT RISK EXPOSURES TO BUSINESSES

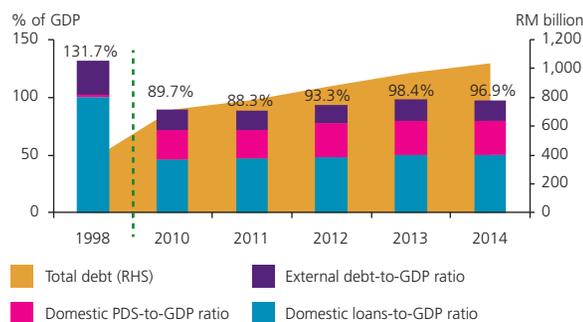
Total outstanding domestic and external borrowings (including outstanding loans, debt securities and sukuk) by non-financial businesses in Malaysia (including GLCs and excluding financial institutions and the Government) grew more moderately by 6.8% (2013: +10.4%). As at end-2014, total business sector debt amounted to RM1,037 billion

and was lower as a share of GDP (Chart 1.14). The negligible growth of 0.05% in external borrowings, compared to 22.6% in 2013, largely accounted for the moderation in overall growth, contrasting with the pickup in the growth of domestic borrowings of 8.5% (2013: +7.8%) (Chart 1.15). Business loans from banks and development financial institutions (DFIs) regulated by the Bank recorded a higher growth of 9% (2013: +7.9%), with the growth in financing to small and medium enterprises (SMEs) remaining robust at 13.3% (2013: +12.7%). Businesses also continued to raise financing through new issuances of PDS and sukuk in the domestic capital markets, led by the power and property-related sectors amid continued growth in these sectors.

Sustained debt servicing capacity of businesses amid more significant exchange rate and price movements

Chart 1.14

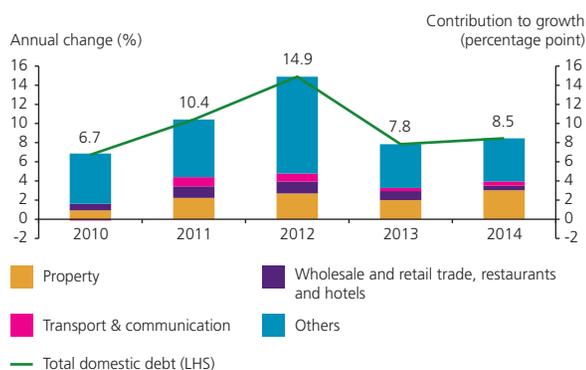
Business Sector: Debt-to-GDP Ratio



Source: Bank Negara Malaysia

Chart 1.15

Business Sector: Domestic Debt Growth and Contribution to Growth by Industries



Source: Bank Negara Malaysia

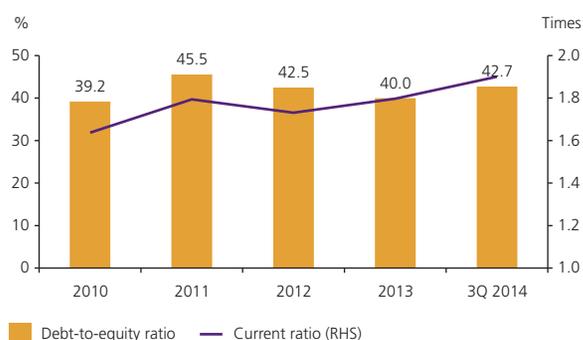
Generally healthy corporate balance sheets enabled businesses to adjust without much difficulty to the more significant movements in exchange rates and commodity prices that were experienced during the year. The overall leverage of the Malaysian business sector (based on financial data of 160 companies that are listed on Bursa Malaysia, covering major economic sectors and about 80% of market capitalisation), although marginally higher, remains comfortably within prudent levels (Chart 1.16). As elaborated in the box article ‘Malaysian Corporate Leverage and Its Systemic Implications’, there is limited evidence of increased risk-taking by Malaysian businesses, with businesses generally preferring to conserve internal funds for their operational needs and external factors (including global interest and exchange rates) having little effect on business risk-taking. Consistent with this, the bulk of the increase in business borrowings were related to earlier planned fund-raising and for working capital needs.

Businesses generally remained profitable, with median operating margin and return on assets holding broadly steady in the first nine months of the year at 12% (2013: 12.9%) and 4.9% (2013: 4.8%) respectively (Chart 1.17). The sharp fall in oil prices in the final quarter of the year may alter overall results for businesses in the oil and gas (O&G) sector and the weak ringgit may impact results of some domestic-oriented businesses with high import content. Any impact on the O&G sector, however, is comfortably buffered by the reasonably high median interest coverage ratio (ICR) of 4.3 times. More broadly, the median ICR for all businesses continued to be

healthy at 6.4 times (2013: 7.7 times) in the first nine months of the year (Chart 1.18). This was reinforced by the sound overall liquidity position of businesses, with the median current ratio (current assets to current liabilities) and ratio of cash-to-short-term debt at 1.9 times (2013: 1.8 times) and 1.3 times (2013: 1.4 times) respectively. The ratio of bank loan repayments-to-disbursements also remained high at 95.9% (2013: 94.2%). Overall, businesses in Malaysia compare favourably to those in other regional economies in terms of the distribution of debt owed by businesses that have healthy indicators of leverage and debt servicing capacity (Table 1.5) (further details provided in the box article ‘Malaysian Corporate Leverage and Its Systemic Implications’).

Chart 1.16

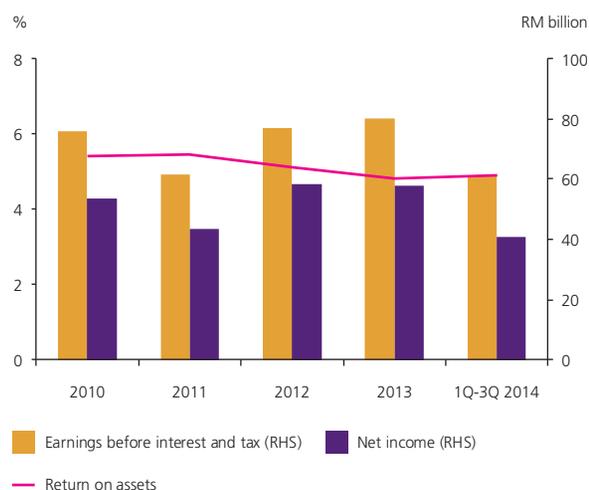
Business Sector: Leverage and Liquidity Indicators



Source: Bloomberg and internal computation

Chart 1.17

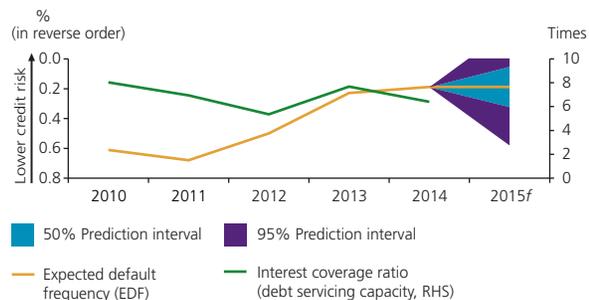
Business Sector: Profitability Indicators



Source: Bloomberg and internal computation

Chart 1.18

Business Sector: Debt Servicing Capacity and Credit Risk Outlook



f Forecast

Source: Moody's KMV CreditEdge™, Bloomberg and internal computation

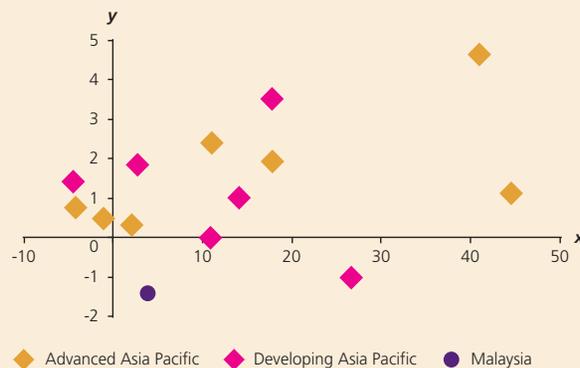
Malaysian Corporate Leverage and Its Systemic Implications

The capital structure and financial condition of corporations have important effects on macroeconomic and financial stability outcomes. One of the ways in which a firm maximises its value is by maintaining an optimal mix of debt and equity (leverage profile) to finance assets that generate cash flows for the firm¹. A variety of factors influence a firm's leverage decisions, including accessibility, cost and the diversity of funding sources. Such decisions, in turn, can positively affect a company's competitiveness and growth potential, leading to innovation and productive investments in an economy. However, a rapid and significant increase in corporate leverage can also increase financial stability risks, particularly where it is accompanied by prolonged low interest rates, compressed risk premiums and a rising share of foreign currency borrowings. Higher debt burdens as a result of changes in borrowing costs and variability in exchange rates could increase the propensity to default by more vulnerable firms, inflicting credit losses and funding pressures on financial intermediaries. A broader contraction in credit flows to key economic sectors can, in turn, precipitate a severe economic slowdown.

Recent assessments by the BIS and the IMF have highlighted the risks arising from high and rising debt levels in some emerging economies. Corporate debt levels in many Asia Pacific economies have increased relative to 2003-2007 averages, with corporate bond issuances surpassing levels recorded prior to the Global Financial Crisis (GFC) as borrowing costs dipped to multi-year lows in line with global and local interest rates (Chart 1). This may complicate adjustments by businesses in an environment of slower growth and tighter funding conditions. The adjustments are likely to be more difficult in economies where the markets judge that policy responses have been insufficient to address macroeconomic and financial vulnerabilities, and where firms are more dependent on external financing, in particular from foreign capital flows.

Chart 1

Non-financial Corporate Credit-to-GDP and Debt Issuances-to-GDP Ratios



Note: **x**: Ppt change in corporate credit-to-GDP (2003-07 average vis-à-vis 2013)
y: Ppt change in corporate debt issuances-to-GDP (2007 vis-à-vis 2013)

Source: International Monetary Fund and internal estimates

Against this setting, this article examines: (i) the domestic and external financing determinants of Malaysian corporate sector leverage, comparing conditions before and after the GFC; and (ii) the susceptibility of corporations to shocks as global liquidity levels recede and funding conditions tighten. Additional insights are provided on sector- and institution-specific dynamics that explain the profile of Malaysian corporate leverage. In the final part of the article, results of stress tests conducted by the Bank on a sample of large corporates and the corresponding contagion impact on the financial system are presented.

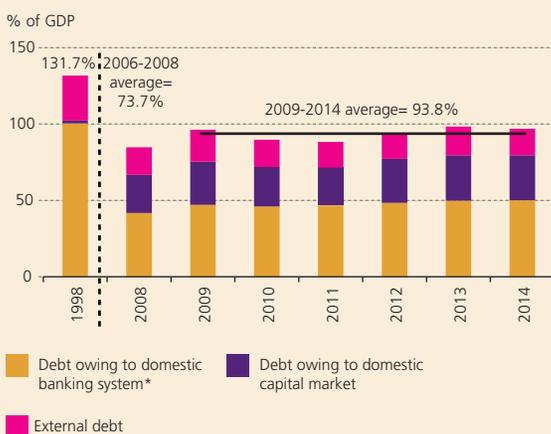
¹ Panel estimations in this article therefore employed debt-to-asset ratio as the primary measure of a company's leverage burden relative to its total (book) asset value. Rajan and Zingales (1995) suggest this as the more appropriate definition of leverage as this is viewed as a proxy of residual value for shareholders in the case of liquidation. Other measures such as debt-to-equity and debt-to-sales are used as robustness tests.

Determinants of Corporate Leverage

In Malaysia, the increase in non-financial corporate sector² debt levels has been relatively modest, growing broadly in line with domestic economic expansion (see Chapter 1 – Chart 1.28). Corporate leverage levels remain relatively stable within historical averages both prior to and after the GFC, and below levels recorded prior to the Asian Financial Crisis (AFC) (Chart 2). Funding of Malaysian corporations is predominantly (82%) sourced from the domestic banks and capital markets and denominated in ringgit. Following the rapid development of the domestic corporate bond and sukuk markets since the AFC³, corporate financing has also been more evenly distributed between domestic banks and the capital market (Chart 3). Benefitting from more efficient financing costs and the ability to access longer term funding as a result of the broad investor base, liquid capital markets and a conducive regulatory framework, domestic corporations have increasingly tapped into the Malaysian corporate bond and sukuk markets to meet financing needs. In particular, the sukuk market has experienced solid increases in non-sovereign issuances since 2000, in line with the rising contribution of private sector investments to GDP. This has reduced concentrations in bank and external financing observed prior to the AFC.

Chart 2

Corporate Debt-to-GDP Ratios

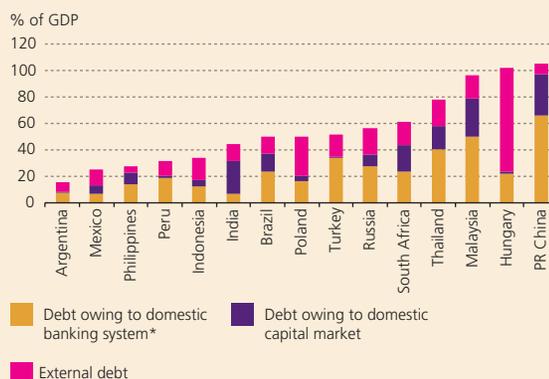


Note: * For Malaysia, this includes debt owing to locally-incorporated foreign banks

Source: Bank Negara Malaysia

Chart 3

Cross-country Comparison of Corporate Debt and Funding Sources



Note: * For Malaysia, this includes debt owing to locally-incorporated foreign banks
Data as at end-2014 for Malaysia, whereas data for other sampled countries are based on the IMF Global Financial Stability Report April 2014

Source: International Monetary Fund and internal estimates

Panel data estimations using firm-level data (consolidated at the group level)⁴ covering 130 firms (representing more than half of the market capitalisation of the domestic equity market, excluding financial institutions) between 2004-2013 were used to establish key determinants of corporate leverage in Malaysia. Three clusters of potential explanatory factors of debt accumulation (firm-specific characteristics, domestic macroeconomic factors and external factors)⁵ were regressed against the debt-to-asset ratios of firms using a dynamic

² Includes government-linked companies.

³ Malaysia's past experience in resolving corporate sector fragilities and the adverse feedback loop to the banking and real sectors during AFC prompted multi-pronged efforts to develop domestic capital markets and reduce reliance on funding from banks and volatile foreign capital inflows. These efforts included the establishment of the National Bond Market Committee in 1999 and initiatives to develop an effective benchmark yield curve, widen issuer and investor base, and deepen secondary market liquidity.

⁴ Data is based on consolidated financial statements of the parent and its domestic and overseas subsidiaries, including the equity accounting of interest in associates.

⁵ Regressors include cash balances, total assets, current ratio, short-term debt, firm growth, tangibility and profitability, terms of trade, inflation, portfolio investments, private debt securities (PDS) spread and stock outstanding, loans to domestic businesses, credit-to-GDP ratio, size of banking sector, GDP growth, money supply (M2), gross fixed capital formation, cross-border bank loans, average lending rate, outstanding global bonds, MYR-USD spot rate, Brent crude prices, Merrill Option Volatility Estimate (MOVE) index, Chicago Board Options Exchange Volatility Index (VIX) and global liquidity conditions.

panel regression model⁶. The panel dataset was further divided into two subsample periods, to capture the dynamics of factors influencing corporate indebtedness pre- and post-GFC. The final estimations demonstrated that the increase in Malaysian corporate leverage for the entire sample period was largely driven by firm-related and domestic macroeconomic factors, with only a diminutive influence from global interest rates and risk appetite, and the credit and liquidity conditions of international markets⁷ (Table 1).

Decomposing Corporate Leverage in Malaysia

Steady issuances of medium-term debt in Malaysia, particularly between 2012 and 2013, have led to a lengthening of the average maturity of outstanding domestic corporate debt to 5.6 years in 2014 from 3 years in 2006 (Chart 4). The higher composition of medium- to long-term funding renders Malaysian corporations less susceptible to rollover and funding risks which have been more pronounced in jurisdictions which experienced spikes in short-term debt funding in recent periods.



While banks remained as an important funding provider for most Malaysian firms, firms in capital intensive industries - namely the utilities, infrastructure, oil and gas, telecommunication and transportation sectors - rely more on market-based financing due to the larger and longer-term funding required in particular for projects and investments with long gestation periods. These sectors accounted for approximately 60% of total outstanding debt securities issued in Malaysia. Conversely, bank borrowings account for a larger share of financing by firms in the manufacturing, wholesale and retail trade and property-related sectors where capital expenditure requirements are comparatively lower and firms tend to be more widely dispersed in terms of size. Total bank borrowings outstanding of these sectors accounted for 60% of total domestic business loans. The average maturity of such loans of 8.4 years in 2014 (2012: 7.8 years) suggests that funds raised continue to be mainly used for business investments. More than half (53%) of bank borrowings are for working capital, while about 29.5% is channelled into real-estate, including the purchase of land and commercial property for development and business use, and to fund construction-related activities.

⁶ To capture the dynamic adjustments in leverage, a dynamic panel model using Arellano Bond one-step Generalised Method of Moments (GMM) estimator was used. Although the two-step GMM estimator is more efficient, the standard errors are downward biased and tend to underestimate the true value of the standard deviation of the estimates (see Arellano and Bond, 1991 and Soto, 2009).

⁷ The coefficient estimates for external factor variables, pre- and post-GFC, are mostly statistically insignificant or with near zero coefficients.

⁸ Sample countries are not intended to be exhaustive, and are grouped as follows: (1) APDE - Australia, Japan, Hong Kong SAR and South Korea, (2) EA - PR China, India, Thailand, Indonesia, and the Philippines, (3) EMEA - Russia, Poland, Turkey, and South Africa, and (4) LA - Argentina, Brazil, Chile, Colombia and Mexico.

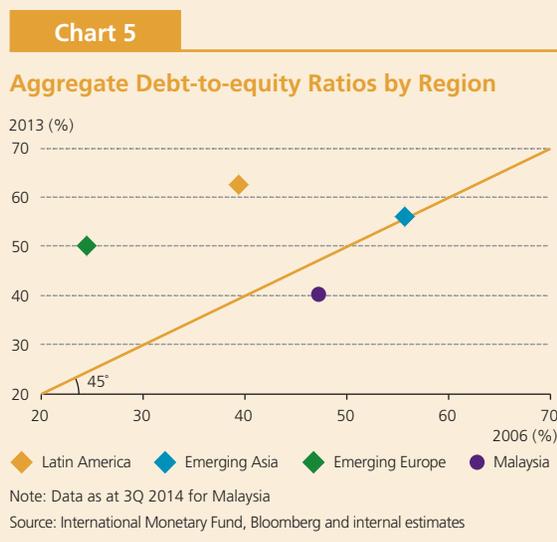
Table 1

Key Determinants of Corporate Leverage in Malaysia

	Determinant	Relationship	Observed sector- or firm-specific behaviour
Firm-specific characteristics	Debt-to-asset ratio (up to 2 lags)	Positive, significant at 1% and 10% level	<ul style="list-style-type: none"> Corporations adjust leverage gradually to exogenous shocks, reflective of the dynamism in the capital structure decision by Malaysian corporations.
	Profitability	Negative, significant at 1%	<ul style="list-style-type: none"> Profitable firms with sufficient retained earnings are able to reduce reliance on debt financing and utilise more cost-effective internal funds.
	Cash balances	Negative, significant at 10%	<ul style="list-style-type: none"> Consistent with the pecking order theory, Malaysian firms prefer internal funds over raising debt and equity in order to maintain financing flexibility, minimise information flow to capital markets and competitors, and prevent ownership dilution⁹.
	Firm size (up to 4 quarterly lags)	Positive, significant at 1% to 10% level	<ul style="list-style-type: none"> Larger firms with more diversified and consistent cash flows and access to a larger collateral pool are more likely to increase the use of debt. This is reinforced by better access to the capital market or bank financing at more favourable borrowing costs due to improved creditworthiness.
	Short-term debt	Positive, significant at 1%	<ul style="list-style-type: none"> Most corporations are inclined to assume shorter-term debt as it is the cheapest method to temporarily adjust to optimal levels of debt. However, the near-zero coefficient suggests limited influence of short-term debt on Malaysian corporate leverage. This posits that Malaysian firms tend not to adjust to a target leverage level using short-term debt.
Domestic factors	Average lending rate (ALR) for new business loans	Negative, significant at 5%	<ul style="list-style-type: none"> Lower lending rates typically induce greater appetite for risk taking and debt accumulation as the cost of borrowing is reduced more generally. However, the post-GFC ALR for new domestic business loans was, on average, only 0.6 ppts lower compared to pre-2008 level, providing marginal incentives for Malaysian firms to increase leverage.
	Real GDP growth	Negative, significant at 10%	<ul style="list-style-type: none"> Firms' willingness and ability to issue additional debt to finance planned investments should rise in tandem with economic expansion. However in Malaysia, the inverse relationship is more dominant. Increasing domestic demand raises retained earnings of sampled firms (predominantly domestic-oriented) that are channelled into acquisition of assets or planned investments, and concomitantly, reduces the need for debt financing. Similarly, firms may delay investments or purchases of capital equipment to conserve cash balances amid periods of economic contraction.
	Change in M2-to-GDP ratio	Negative, significant at 5%	<ul style="list-style-type: none"> A larger monetary base indicates greater availability of funds for financing. Nonetheless, M2 growth is negatively related to Malaysian corporate leverage at a very small quantum. This could be due to M2 capturing the level of official liquidity, as opposed to private liquidity¹⁰.
	Banking sector growth	Positive, significant at 5%	<ul style="list-style-type: none"> Growing number and size of well-capitalised banks pre- and post-GFC provided uninterrupted access to financing to fund investment activities or working capital of Malaysian firms¹¹.
External factors	Change in MYR-USD spot rate	Insignificant	<ul style="list-style-type: none"> Firms which benefit from a stronger domestic currency can tactically increase external debt prior to an anticipated appreciation. The rising strength of ringgit post-GFC relative to major currencies should have induced higher external debt accumulation. However in Malaysia, such effects were more than offset by domestic macroeconomic factors and firm-specific capacity (asset growth, cash balances), given that the sampled firms are mostly reliant on domestic demand and funding sources.
	Change in (i) global bonds outstanding and (ii) cross-border bank loans	Insignificant	<ul style="list-style-type: none"> Many emerging market corporations saw growing incentives to raise leverage amid compressed global interest rates and risk premiums, and stronger local currencies post-GFC (issuances of emerging market private sector debt between 2009-2012 more than doubled relative to preceding four years). However, only a fraction of the largest Malaysian firms capitalised on this environment as evidenced by the lack of explanatory power on leverage.
	Change in Brent crude oil prices	Insignificant	<ul style="list-style-type: none"> In theory, rising oil prices and lower global risk aversion post-GFC should result in higher corporate leverage.
	Merrill Option Volatility Estimate index	Insignificant	<ul style="list-style-type: none"> However, the near-zero coefficient or statistical insignificance of such regressors indicate immaterial effects on debt accumulation of Malaysian firms, consistent with the more pronounced influence from domestically-driven factors.

External borrowings of Malaysian corporations¹² increased at a modest annual rate of 4.2% between 2008 and 2014, averaging at 18% of GDP. This trend was underpinned by the continued cross-border expansion of larger firms, and to a smaller degree, the compression in corporate risk premiums globally. Approximately 41% of these external borrowings are in the form of long-dated debt securities, the bulk of which are issued by large home-grown conglomerates with operations in multiple jurisdictions. These larger firms are supported by centralised treasury management functions which are able to source financing more efficiently from both the domestic and global funding markets to take advantage of differential funding costs. Industry engagements confirm that the vast majority of such firms are able to leverage on enterprise-wide cash and risk management systems which allow for the better management of risks associated with higher external borrowings. Almost a quarter of such external borrowings are sourced from affiliates located abroad by multinational companies which also tend to be less sensitive to interest and exchange rate volatility. The bulk of corporate external borrowings are denominated in major currencies such as the US dollar (76.1%) and Singapore dollar (5.8%). Risks from currency mismatches are expected to be manageable based on information obtained by the Bank for approved external borrowings by domestic corporations, which showed that a significant portion is hedged with financial derivatives and foreign revenue streams from cross-border investments and operations.

Against the above factors, corporate leverage of Malaysian firms on aggregate has remained below the level observed prior to the GFC, in contrast to other emerging economies (Chart 5). Strong and relatively stable corporate earnings over the past years have allowed firms to sustainably increase debt levels to fund growing capital expenditure and investments. This has been



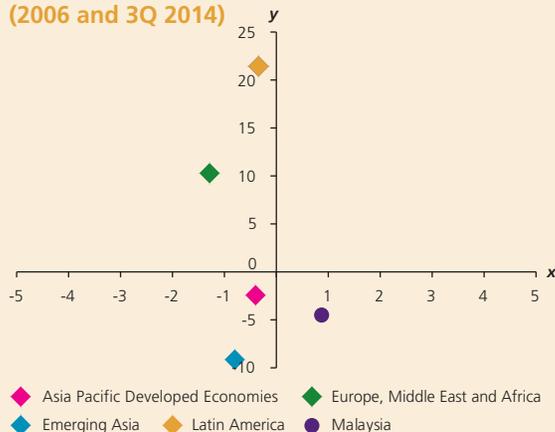
- ⁹ Mat Nor and Sulong (2007) and Abdul Rahman and Ali (2006) showed that owner-managed firms are common among Malaysian companies. Ow-Yong and Guan (2000) posited that listed companies in Malaysia evolved from traditionally family owned firms, and some continue to be managed as such.
- ¹⁰ Traditional monetary aggregates on a national level are unable to capture the full range of liquidity-creating instruments or the full impact of the activities of large cross-border financial intermediaries. See Chen et al. (2012), p5, and Adrian and Song Shin (2009).
- ¹¹ Growth in private debt securities (PDS) outstanding has no explanatory power on Malaysian corporate leverage. The propensity of Malaysian firms to increase leverage diminishes as the stock of outstanding PDS and sukuk rises. With a finite pool of foreign and domestic investors and relatively thinner trading liquidity for PDS, the dominance of private issuances in Malaysia over the past decade by large conglomerates has potentially crowded out funding by mid- and small-sized corporations in the capital market despite reducing borrowing costs and improved market access.
- ¹² Data on external borrowings are compiled in accordance with the IMF's Balance of Payments Manual, Fifth Edition and the External Debt Statistics: Guide for Compilers and Users (2003). Gross external debt, at any given time, is the outstanding amount of those current, not contingent, liabilities that require payment(s) of interest and/or principal by the debtor at some point(s) in the future and that are owed to non-residents by residents of an economy.

supported by improved debt servicing capacity observed at the aggregate and individual firm levels (Chart 6 and Chart 7).

By disaggregating corporate sector averages, the share of Malaysian corporate debt that represents potential “vulnerable debt” based on the individual borrowing firm’s leverage and financial indicators is low in comparison with regional peers (Chart 8, Chart 9 and Chart 10)^{13,14,15}. More leveraged domestic firms generally registered higher return on asset (ROA) and interest coverage ratios (ICR),

Chart 6

Leverage Ratio and Debt Servicing Capacity (2006 and 3Q 2014)

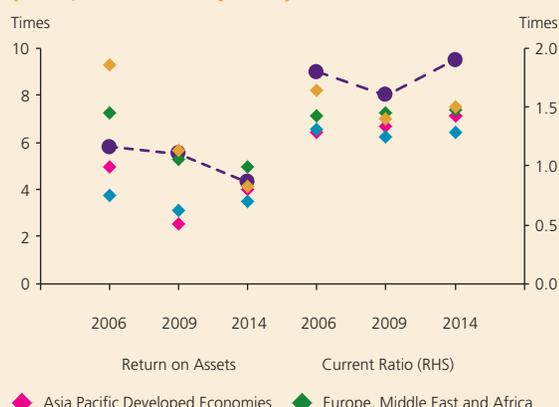


Note: x: Ppt change in interest coverage ratio (2006 vis-à-vis 2014)
y: Ppt change in leverage ratio (2006 vis-à-vis 2014)

Source: International Monetary Fund and internal estimates

Chart 7

Profitability and Liquidity Ratio (2006, 2009 and 3Q 2014)

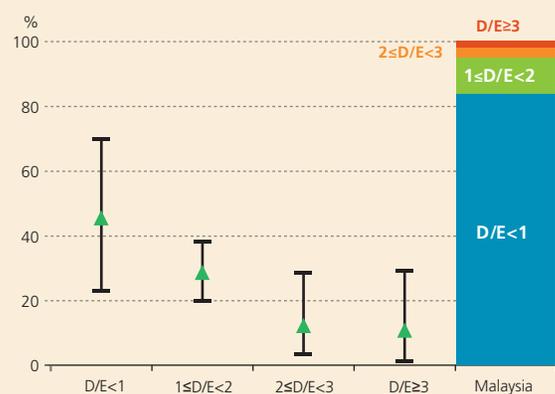


Note: Return on Assets (LHS), Current Ratio (RHS)

Source: Bloomberg and internal estimates

Chart 8

Distribution of Potential Vulnerable Debt by Leverage Ratio

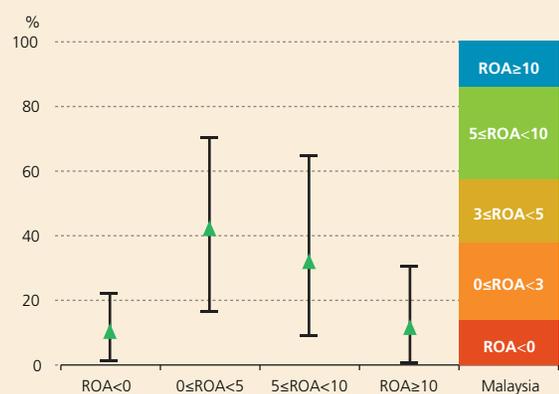


*D/E refers to debt-to-equity
Note: Data as at 3Q 2014 for Malaysia

Source: International Monetary Fund and internal estimates

Chart 9

Distribution of Potential Vulnerable Debt by Profitability



*ROA refers to return on assets
Note: Data as at 3Q 2014 for Malaysia

Source: International Monetary Fund and internal estimates

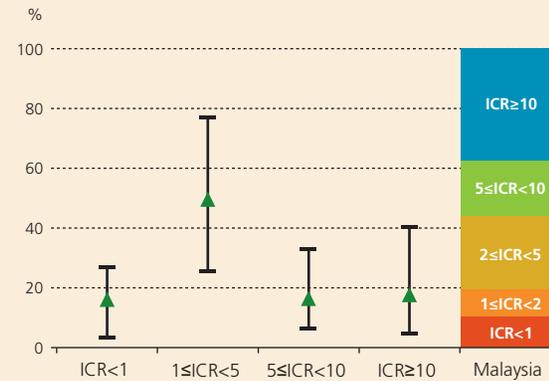
¹³ Potential vulnerable debt of Malaysian corporates is represented by the bar, distributed by the amount of debt of borrowing firms that have financial ratios above or below specified thresholds. Riskier debt is represented in red and amber shades.

¹⁴ Each line represents the composition range of sampled public listed companies across 13 regional countries, for each bucket of a particular financial ratio. The upper boundary and the lower boundary represents the maximum and minimum composition range recorded by these sampled firms. The green indicator represents the average composition range of each bucket.

¹⁵ Countries in the sample consists of Asia Pacific nations including the Philippines, Hong Kong SAR, Singapore, Thailand, New Zealand, Vietnam, PR China, India, Japan, Indonesia, Australia, Chinese Taipei, and South Korea.

Chart 10

Distribution of Potential Vulnerable Debt by Interest Coverage Ratio



*ICR refers to interest coverage ratio
 Note: Data as at 3Q 2014 for Malaysia

Source: International Monetary Fund and internal estimates

while also being supported by stable cash balances. More than 83% of domestic corporate debt is considered non-risky based on a debt-to-equity ratio of borrowing firms of less than 1, with a median debt-to-equity ratio below 1 (about 64% of sampled Asia Pacific countries recorded a median above 1). More than 42% of debt is taken by firms registering a ROA above 5%, providing substantial earnings buffers against potential shocks. The median ROA compared favourably to sampled countries and remained healthy at above 4%. In terms of debt servicing capacity, 80.5% of debt is owed by Malaysian firms that have sufficient earnings to cover more than two times interest expenses, providing flexibility to adjust to higher debt expenses or lower operating profits moving forward. The median ICR for Malaysian firms exceeded 5, higher than 84% of sampled Asia Pacific countries.

Corporate Stress Tests

While the leverage profile of Malaysian corporations does not exhibit signs of excessiveness, the prevailing uncertainty in global financial and economic conditions has raised the spectre of growing corporate defaults with their attendant damaging feedback loops to the financial and real sectors. With this in mind, the Bank undertook stress tests which simulated four major shocks under two adverse scenarios on a set of non-financial corporations with total domestic exposures¹⁶ exceeding RM2 billion¹⁷ at each entity level. The contagion impact on the financial system from potential systemic risks transmitted through the asset- and liability-side exposures of these corporations with financial institutions was then assessed¹⁸ (Table 2). Under conservative assumptions¹⁹, the impact of cumulative earnings, foreign currency and funding shocks on the liquidity buffers, solvency and debt servicing capacity²⁰ of each sampled firm was simulated homogeneously. A corporate entity which registered a post-shock cash over short-term obligations (CASTO) ratio of less than 1, and where the liability-to-asset ratio exceeds 1 is deemed as illiquid and insolvent respectively. An entity with a post-shock ICR of less than 2 times is assumed to default on all outstanding credit obligations.

¹⁶ Refers to the sum of borrowings with Malaysian banks and corporate debt securities issued in the domestic bond market.

¹⁷ These non-financial corporations collectively accounted for approximately 40% of total exposures to domestic financial system, including all locally-issued private debt securities held by Malaysian banks, insurers, DFIs and takaful operators.

¹⁸ Due to incomplete information on bilateral exposures among non-financial corporations, the stress test did not incorporate the effects of potential cross defaults within or outside a non-financial conglomerate.

¹⁹ The stress test disregards the present balance sheet health or future profit-generating capacity of sampled corporations and any form of hedging on foreign currency mismatches and potential translation gains.

²⁰ As measured by the cash over short-term obligations (CASTO) ratio, liability-to-asset ratio, and ICR respectively.

Table 2

Key Assumptions and Shock Parameters for Adverse Scenarios**Key Assumptions and Shock Parameters for Sampled Corporations**

Earnings shock	<ul style="list-style-type: none"> Up to 50% decline in operating profit
Foreign currency shock	<ul style="list-style-type: none"> Up to 3.5 standard deviations shock on the 6-month moving average of USD/RM rates over the past 20 years <ul style="list-style-type: none"> Discount any form of natural or financial hedging, or any foreign currency translation gains
Funding cost shock	<ul style="list-style-type: none"> Up to 100 bps increase in borrowing costs of ringgit denominated bank loans Up to 100 bps increase in the coupon rate for new corporate bond or sukuk issuance for the next 2 years <ul style="list-style-type: none"> Issuer's credit rating and tenure of new issuances assumed to be unchanged

Simulated Contagion Effects on Banks and Insurance Companies

Liquidity risk shock	<ul style="list-style-type: none"> Affected corporations (those with post-shock CASTO<1 and ICR<2 times) were assumed to withdraw 66% of deposits placements with banks within a month
Credit risk shock	<ul style="list-style-type: none"> Average loss given default of 51%
Market risk shock	<ul style="list-style-type: none"> Up to 100 bps increase in yields across different PDS ratings and tenures Outstanding corporate bond and sukuk held by financial institutions were assumed to be classified as "held-for-trading" and "available-for-sale"

The simulated earnings shocks recorded the highest impact on corporations' debt servicing capacity, reducing the aggregate ICR by 0.66 ppt to 1.32 ppts, and individual firm ICR by 33.5 ppts to 67.1 ppts under both adverse scenarios. The effects of higher debt servicing expenses for foreign currency denominated and floating rate ringgit borrowings were less pronounced, shrinking aggregate ICR by a narrow range of 0.03 ppt to 0.11 ppt. At the firm-level, the impact varied widely between 11.8 ppts and 41 ppts. Maintaining the credit profile of issuers and tenure of new (rolled-over) issuances constant, the higher PDS yields on the maturing corporate bonds – of which half is assumed to be replaced concurrently – had negligible impact on aggregate ICR (individual ICR of sampled corporations fell between 1.72 ppts and 5.74 ppts). In terms of the liquidity impact, CASTO ratios were less affected by the effects of higher interest expenses on ringgit variable rate loans (individual firm CASTO reduced between 0.13 ppt and 0.5 ppt), relative to outstanding non-ringgit debt (individual firm CASTO shrank between 1.06 ppts and 2.63 ppts). A cursory examination of firm-level financials suggests that the solvency positions of all sampled firms are estimated to remain intact across all simulated shocks, even when discounting the higher asset valuation effects arising from a weaker ringgit. This demonstrates that most Malaysian firms have adequate revenue generating assets to cover potentially higher foreign currency liabilities.

The direct contagion effects on the financial system arising from potential distressed corporations appear to be well contained. Cumulative asset-side shocks to the banking system from credit and market losses remained manageable at 16.8% of total banking system capital, driven primarily by the impact of earnings shock on sampled corporations. For insurers, the cumulative shocks eroded total capital available by a mere 1.1%. In terms of liability-side pressures, banks are estimated to experience erosions in the stock of liquidity buffers by up to 0.9 ppt and 0.4 ppt within the one-week and one-month maturity buckets respectively, as measured under the current Liquidity Framework. Even after simulating large withdrawals of deposits by affected sampled corporations, banks' aggregate liquefiable assets could still withstand an additional 15.9% in deposit outflows within the one-month horizon.

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Table 1.5

Business Sector: Distribution of Debt by Financial Indicators

As % of total business debt	Malaysia	Average for regional comparators
Debt-to-equity ratio <1 time	83.1	46.2
Return on assets >5%	42.5	44.5
ICR >5 times	56.5	34.1

Source: International Monetary Fund and internal estimates

Business resilience also improved on account of the negligible growth of outstanding external borrowings which amounted to RM186.2 billion. This was attributed in part to maturing bonds by businesses in the transportation and O&G sectors. External borrowings as a share of total business debt correspondingly declined to 18% (2013: 19.2%) as at end-2014. The borrowings largely comprised financing by corporations in the more capital-intensive manufacturing, O&G and utility industries. The bulk of borrowings relate to intra-group funding obtained by onshore corporations from overseas parents, and issuances of bonds and notes by resident corporations for their overseas operations. As such, most of these borrowings are supported by foreign currency (FCY) receivables which act as a natural hedge against exchange rate movements. Businesses in Malaysia are also hedging their foreign exchange (FX) risks through financial derivatives with onshore financial institutions.

Growth in external borrowings was negligible in 2014, most of which are to finance global operations and supported by FCY receivables

The overall quality of business loans in the banking system remains sound, with the ratio of impaired loans continuing to improve (Table 1.6). The improvements have generally been broad-based, including for SMEs. Banks' exposures to the transportation, storage and telecommunications sector continued to record a higher impaired loans ratio relative to other sectors, on account of the weaker

past performance of the aviation and shipping industries. Bank exposures in this sector are however contained, accounting for 6.2% of total business loans from the banking sector. Meanwhile, businesses that raised debt in the capital markets have also improved their credit standing. The number of rating upgrades exceeded downgrades by a ratio of 1.5 to 1, compared with a ratio of 1.1 to 1 in 2013 for domestically rated outstanding PDS and sukuk.

Within the business sector, the financial condition of large borrowers has a material bearing on the stability of financial institutions given the significance of exposures to such borrowers. Large borrowers, defined as corporations with credit exposures (including direct financing and holdings of PDS and sukuk) exceeding RM2 billion with Malaysian financial institutions, accounted for 29.1% of total exposures of banks and DFIs, and 23.2% of exposures of insurance and takaful fund assets, to businesses. The aggregate debt servicing capacity of the large borrowers continues to be supported by reasonably healthy cash buffers and earnings. The median current ratio for the large borrowers improved to 1.9 times (2013: 1.4 times) as at end-September 2014. The median ICR remained stable at 5.2 times which is above a prudent level of at least two times. External borrowings of these businesses are also largely hedged with FCY receivables or financial derivatives. This provides reasonable buffers for the borrowers to continue servicing debt obligations in the event of a decline in profitability, higher exposures to FCY debt or higher borrowing costs. Among large borrowers, those with an ICR lower than the median level of 5.2 times, accounted for less than 18.6% of total exposures of banks and DFIs, and 3.1% of total exposures of insurers and takaful operators. Under stress tests performed by the Bank which

Table 1.6

Business Sector, Banking System: Gross Impaired Loans Ratio and Loans-in-arrears Ratio

	% of Total Business Loan	Gross Impaired Loans Ratio			Gross Loans-in-arrears Ratio		
		2014	2012	2013	2014	2012	2013	2014
Overall		3.0	2.8	2.5	1.0	0.4	0.3
Manufacturing	20.2	5.7	6.1	5.0	0.2	0.1	0.1
Wholesale and retail trade, restaurants and hotels	19.7	2.2	2.0	1.7	0.5	0.4	0.3
Real estate activities	17.2	1.0	0.7	0.7	0.1	0.1	0.1
Construction	11.6	3.8	3.1	3.0	0.7	0.3	0.2
Transport, storage & communication	6.2	5.8	6.2	5.8	0.9	0.9	0.8
SMEs	45.8	3.0	2.7	2.6	0.9	0.5	0.5

Source: Bank Negara Malaysia

simulated the potential impact of severe shocks from a significant depreciation of the ringgit against the US dollar and higher funding costs, the impact on the overall debt servicing capacity of large borrowers is muted. The potential impact of severe simulated shocks of a 50% decline in operating profit would be more significant, although earnings would still be able to cover interest obligations (further details provided in the box article 'Malaysian Corporate Leverage and Its Systemic Implications').

Aggregate debt servicing capacity of large borrowers continues to be supported by healthy cash buffers and earnings

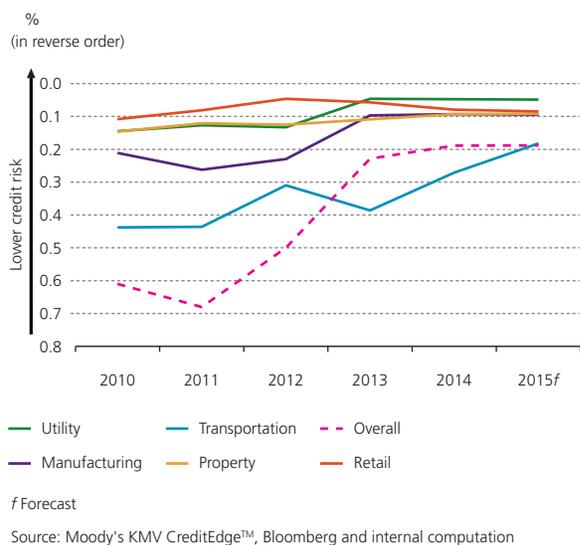
Banks continue to maintain sound underwriting and risk management standards, as well as conservative loan loss provisioning practices, in managing exposures to the business sector. Following the Bank's issuance of enhanced standards for managing exposures to single counterparties in 2013, banks have further strengthened internal policies and processes for controlling credit concentrations. This includes having in place more comprehensive and detailed limits on exposures to single counterparties that take into account economic and financial

dependencies between entities, and more granular approaches to differentiating limits between business segments based on risk profile. Banks also continue to enhance internal systems for measuring and monitoring sectoral and counterparty concentrations as part of the capital management process. This ensures that adequate capital is allocated against such risks in line with the regulatory capital requirements under Pillar 2 of the capital framework. Additionally, banks have improved the monitoring of repayment risks taking into account the maturity profile of business loans, particularly those with bullet or balloon repayment terms.

While businesses may be affected by increased uncertainties in the coming year, this is not expected to have a material impact on the overall debt servicing capacity of businesses which is expected to continue to be well-supported by healthy business balance sheets. The credit risk outlook for businesses as a whole, as observed in the Expected Default Frequency (EDF), improved further to 0.19% (2013: 0.23%) as at end-2014 (Chart 1.19). The EDF for the top five industries that Malaysian financial institutions are most exposed to has been generally stable. Notably, the EDF for the transportation industry reversed the earlier deterioration in 2013 following the on-going corporate restructuring and business reorganisations in the airline and shipping industries which should improve future growth and earnings prospect. As expected,

Chart 1.19

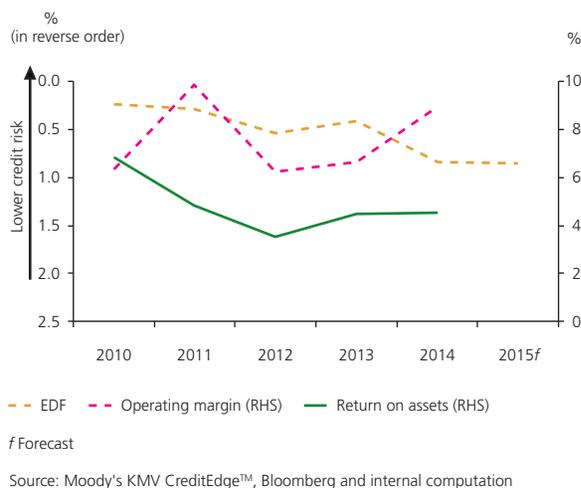
Business Sector: EDF by Industry



the recent decline in global oil prices adversely affected the credit risk outlook for businesses dependent on engineering, procurement, construction and commissioning (EPCC) in the O&G sector (Chart 1.20). The exposure of banks to the sector, however, are small at below 2% of total credit exposures to businesses. A simulated materialisation of default incidences in the O&G sector is assessed to have limited impact with estimated potential losses totalling RM226.2 million or 0.2% of the excess capital of banks.

Chart 1.20

Business Sector: Profitability and EDF for EPCC O&G Industry



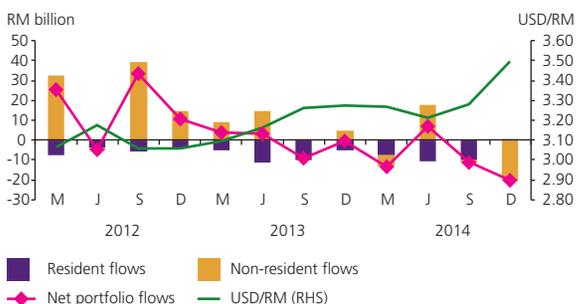
MANAGING RISKS FROM FINANCIAL MARKET VOLATILITY

The domestic financial markets experienced several episodes of heightened movements in short-term portfolio flows throughout the year. Developments, mostly on the external front, weighed heavily on investor sentiment and risk appetite with portfolio investors retreating from emerging markets. Falling oil prices particularly towards the end of the year and in the early part of 2015 added to investor concerns over the potential impact on the domestic economy. The ringgit depreciated by 6.1% for the year and by 3.6% in December, to end the year at RM3.4950 per US dollar. The market capitalisation of the FTSE Bursa Malaysia contracted by 2.9%, while the FTSE Bursa Malaysia Kuala Lumpur Composite Index (FBM KLCI) closed lower for the year at 1,761.3 points. Yields on Malaysian Government Securities (MGS) edged upwards between 0.2 bps to 45.4 bps across the 1-year to 10-year tenures during the year. Despite increased risk aversion, orderly conditions in the domestic financial markets were preserved. The presence of strong financial institutions and a large pool of domestic institutional investors continued to provide the necessary liquidity and demand in the domestic financial markets. This helped to ease and contain the volatility. Overall, movements in short-term portfolio funds and falling oil prices did not have a destabilising impact on the domestic financial markets. The Malaysian financial institutions have continued to record net gains from mark-to-market valuations and trading activities, reflecting generally prudent risk-taking behaviours. Despite the outflows of portfolio funds, domestic funding conditions remain favourable and supportive of financing activities. This is underpinned by the stable profile of banks' funding which is largely deposit-based and in local currency. Aggregate surplus liquidity in the system also remains at a high level amounting to RM269.9 billion as at end-2014.

Aggregate net portfolio outflows for the year as a whole amounted to RM37.9 billion (2013: net outflows of RM3 billion) (Chart 1.21). Of this, net outflows by non-residents amounted to RM9.6 billion (2013: net inflows of RM29.1 billion), while overseas investment activities of domestic institutional investors also contributed towards net outflows by residents amounting to RM28.3 billion (2013: net outflows of RM32.1 billion). Uncertainties over global growth prospects, rebalancing of portfolios and a sharp decline in oil prices contributed

Chart 1.21

Financial Market: Quarterly Net and Gross Portfolio Flows and Ringgit Exchange Rate Movement



Source: Department of Statistics, Malaysia

to non-resident selling and liquidation of Bank Negara Monetary Notes (BNMN) upon maturity. Consequently, foreign holdings declined to 56.6% (2013: 72.5%) of outstanding BNMN at end-2014. These notes are used in the Bank’s monetary policy operations to absorb excess liquidity from the banking system. Despite the selling and liquidation of BNMN by non-residents, bond yields were not materially affected. Non-resident holdings of both MGS and Government Investment Issue (GII) were broadly unchanged at 29.2% of outstanding MGS and GII as at end-2014 (2013: 29.4%). Holdings of equities by non-residents remained steady at 24.1% of total market capitalisation (2013: 23.9%) (Chart 1.22).

Chart 1.22

Financial Market: Non-resident Holdings of MGS & GII, BNMN and Equity



Holdings of MGS, GII and BNMN quoted as percentage of total outstanding while holdings of equity quoted as percentage of total market capitalisation

Source: Bursa Malaysia, Bank Negara Malaysia and internal computation

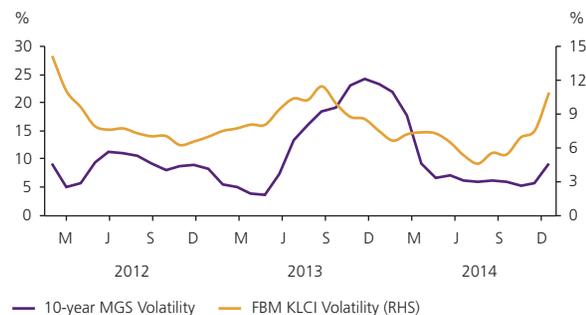
Volatility in 10-year MGS and equities averaged lower at 8.9% and 6.7% respectively for the year (2013: 13.6% and 9% respectively) (Chart 1.23). The level and composition of the Bank’s Financial Market Stress Index (FMSI) correspondingly declined further in 2014, driven mainly by lower indicator of stress in the bond, FX and money markets (Chart 1.24). Nonetheless, the declining oil prices caused renewed volatility in December, particularly in the equities market (average volatility in December: 10%). Non-residents disposed a net RM3 billion worth of Malaysian equities. Similar trends were also observed in other emerging markets’ average volatility in December (Thailand: 10.5%, Indonesia: 11.5%, Philippines: 12.3%).

Domestic institutional investors including financial institutions provided the necessary liquidity and demand to maintain orderly conditions in the domestic financial markets

Concerns that non-resident sell-offs would significantly drain liquidity from the domestic financial markets were unfounded. Market liquidity, measured in terms of price and volume, in the domestic bond and equity markets remained intact with bid-ask spreads and turnover

Chart 1.23

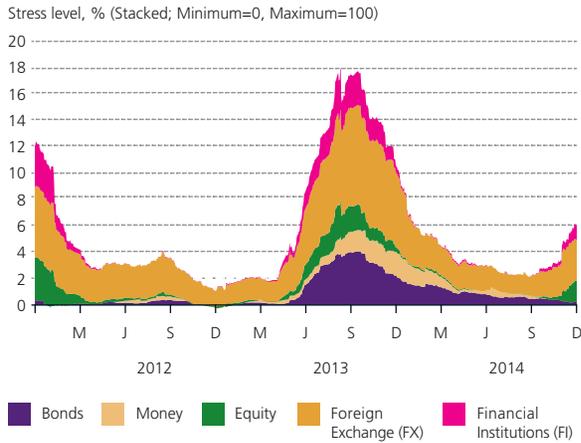
Financial Market: 90-Day FBM KLCI and MGS Yields Volatility



Source: Bloomberg

Chart 1.24

Financial Market: Financial Market Stress Index (FMSI)



Note: 1. The FMSI is a risk monitoring tool for the financial market that is developed based on the European Central Bank's (ECB's) Composite Indicators of Stress Index (CISS). It is constructed from indicators of volatility in five components of the domestic financial markets - the foreign exchange (FX), equity, bond, money markets and financial institutions (FIs).
2. The stress level at a specific date is expressed as a value between 0 and 100, which signifies the lowest to highest stress level.

Source: Bloomberg and internal computation

ratios contained within a narrow range (Chart 1.25 and Chart 1.26). During the year, MGS yields in the short- to medium-end of the yield curve trended higher on market expectations of an increase in the OPR – a decision which was taken by the Bank in July 2014 (Chart 1.27). MGS yields rose briefly again in December across all tenures amid thinner trading volume as investors consolidated their investment portfolios towards the year-end. The yields subsequently trended lower in early 2015 as investor demand returned. Gross outflows totalled RM0.4 billion in December with MGS yields rising within a range of

Chart 1.25

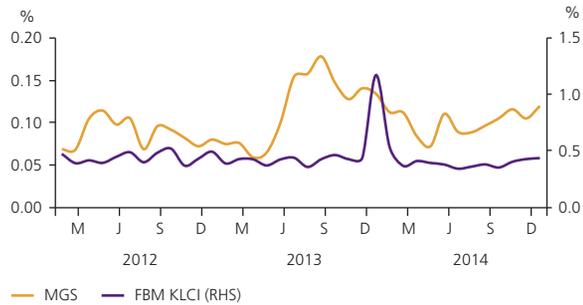
Financial Market: FBM KLCI and MGS Monthly Turnover Ratio



Source: Bloomberg

Chart 1.26

Financial Market: Average Bid-Ask Spreads of FBM KLCI and MGS (% of Mid-price)



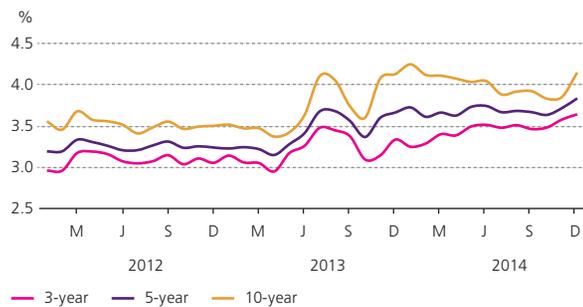
Source: Bank Negara Malaysia

between 9.7 bps to 47.9 bps across the 1-year to 10-year tenures during the month. Throughout the year, domestic institutional players including banks increased their holdings of public debt securities by 9.6% or RM34.9 billion, thus providing stabilising effects on yields (Chart 1.28). Yields on PDS rose in line with developments in the MGS market (Chart 1.29). Credit spreads against MGS widened slightly but overall conditions for fund raising activity by businesses remained favourable, given the healthy corporate balance sheets and positive growth outlook. For the year, a total of RM117.3 billion in new PDS was issued (all issuers including financial institutions).

The FBM KLCI reached a historical new high of 1,892.7 on 8 July before reversing in the final quarter to end the year at 1,761.3 points (2013: 1,867.0 points) (Chart 1.30). Despite a general rally in equity prices throughout most parts of the year, valuations did not appear to be out of line when compared with other regional equity markets and long-term average valuations.

Chart 1.27

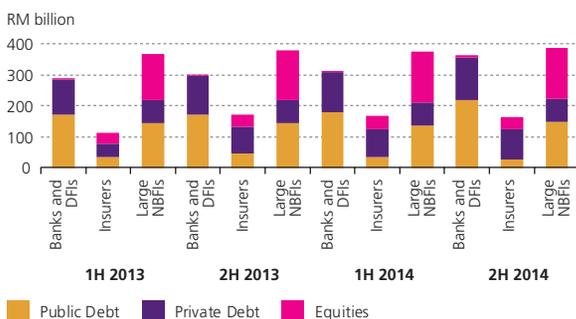
Financial Market: MGS Yields



Source: Bank Negara Malaysia

Chart 1.28

Financial Market: Holdings of Securities by Domestic Institutional Investors



Source: Bank Negara Malaysia

At the end of the year, the price-to-earnings (PE) ratio for the FBM KLCI stood at 15.8 times against a long-term average PE ratio of 16.6 times (2013: 17.6 times).

Activities of financial institutions showed no evidence of significant shifts in risk-taking behaviours. While banks' treasury portfolio expanded by 20.9% to RM396.3 billion (17.6% of total assets) during the year, this was mostly in the form of liquefiable assets such as government securities and BNMN as banks prepared to meet strengthened liquidity requirements which will take effect in June 2015 (2013: RM327.7 billion) (Chart 1.31). Amid continued volatility in the domestic financial market, banks resized their trading book portfolio (2014: 18.3%; 2013: 20.6% of total securities respectively). Holdings of BNMN and other money market instruments continued to dominate the trading book of banks (68.5%

Chart 1.30

Financial Market: FBM KLCI Price Index and Price-to-earnings Ratio

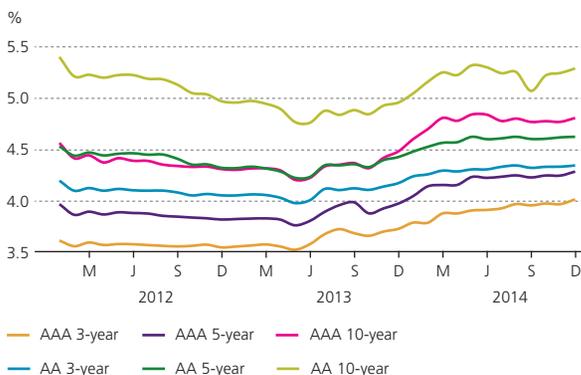


Source: Bloomberg

of banks' trading book portfolio or 12.5% of the banks' total securities portfolio). Overall, the banking system continued to record net gains from the trading and investment portfolios, albeit at a lower level from the previous year, accounting for 12.7% of total pre-tax profit (2013: 20.1%). Banks' capital charges for market risks (including interest rate risk and equity risk) were relatively stable at 1.9% of total capital, reflecting continued active risk management by banks (2013: 2%). The aggregate FX risk exposures of banks fluctuated in tandem with movements in the exchange rate against significant foreign currencies during the year, reaching 6.7% of total capital in July 2014 before ending the year at 4.9% of total capital (2013: 5.7%) (Chart 1.32). Banks continue to actively manage FCY exposures using amongst others, internal value-at-risk limits, which are applied both for each significant currency and all currencies combined. Results of internal stress tests by banks are also integrated into risk management strategies

Chart 1.29

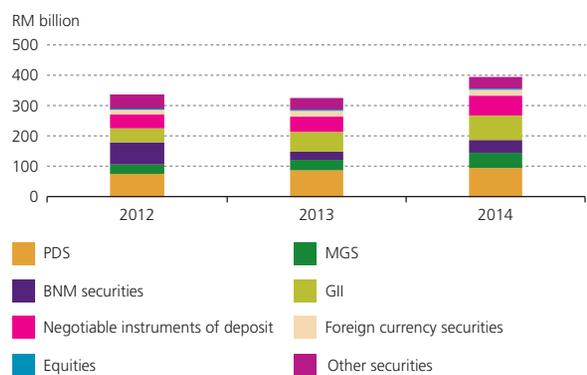
Financial Market: PDS Yields



Source: Bank Negara Malaysia

Chart 1.31

Banking System: Composition of Securities Portfolio



Source: Bank Negara Malaysia

Chart 1.32

Banking System: Equity, Foreign Exchange and Interest Rate Risks (% of Total Capital)



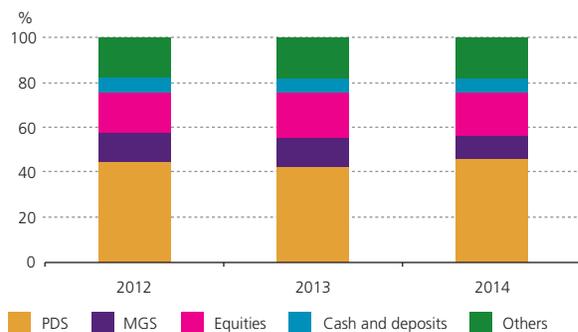
Source: Bank Negara Malaysia

and practices which include the setting of risk limits, portfolio management strategies and capital planning.

Insurers' (including takaful operators) holdings of securities as a share of total assets were broadly unchanged, at 71% of total assets. The structural composition of these assets has been consistent over the years, mostly concentrated in PDS and equities. Measures by life insurers to enhance returns on the investment portfolio have led to higher aggregate holdings of PDS which increased by 14% (2013: +2.9%). In contrast, total MGS holdings declined by 4.5%, mainly in the shorter tenures where yields exhibited higher increases, in order to reduce insurers' mark-to-market valuation losses. The overall risk profile of investments remains prudent, with MGS and PDS rated 'AA' and above combining to account for over 60% of the total securities portfolio of insurers (Chart 1.33 and Chart 1.34). Capital allocation against market risk remained the

Chart 1.33

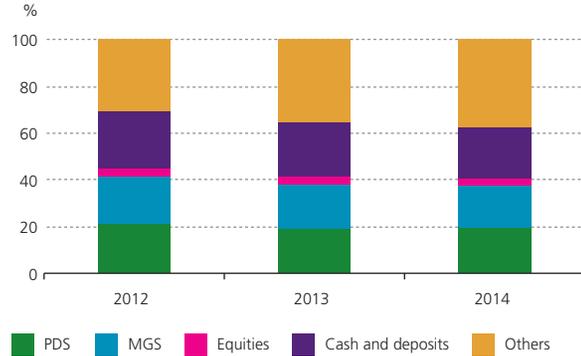
Life Insurance and Family Takaful Sector: Assets Composition



Source: Bank Negara Malaysia

Chart 1.34

General Insurance and General Takaful Sector: Assets Composition



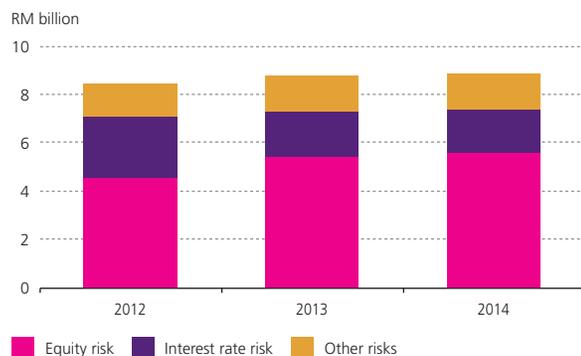
Source: Bank Negara Malaysia

highest for equities, which accounted for 62% of total market risk capital charges (Chart 1.35).

Developments in the domestic financial markets have a substantial impact on the profitability of insurers as the bulk of the assets are classified as held-for-trading and available-for-sale. For the year, net capital and revaluation losses amounted to RM0.9 billion (2013: RM1.5 billion). The profitability of life insurers (measured by the excess of income over outgo) continues to be highly influenced by investment performance given the dependence on investment activities to generate sufficient returns to fulfil future obligations (Chart 1.36). Life insurers have generally maintained sound risk management practices which are also reinforced by prudent reserving standards under the Risk-Based Capital (RBC) framework. This has preserved strong buffers in the industry against adverse

Chart 1.35

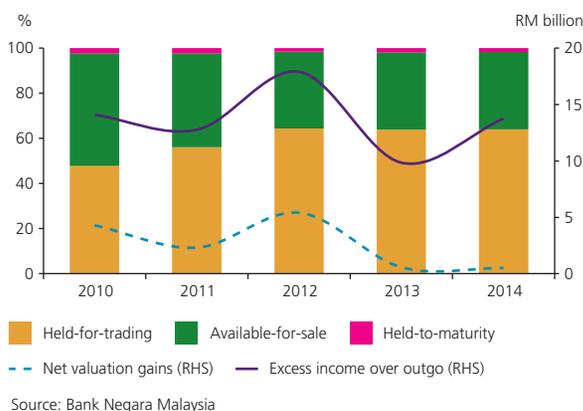
Insurance Sector: Market Risk Composition



Source: Bank Negara Malaysia

Chart 1.36

Life Insurance and Family Takaful Sector: Assets Classification and Relationship between Profitability and Investment-related Activities



market development and correspondingly the continued ability of insurers to meet claims and benefit payments. General insurers were less impacted by investment performance which contributes less than half of operating profits. Underwriting performance continues to have more significant impact on profitability reflecting a focus on sound underwriting to sustain overall profitability (Chart 1.37).

Overall liquidity in the banking system remained ample, with aggregate surplus liquidity amounting to RM269.9 billion. Banks' funding and liquidity positions were stable despite outflows of portfolio funds and increased competition for deposits during the year. Ringgit liquidity buffers were well above

Chart 1.37

General Insurance and General Takaful Sector: Assets Classification and Relationship between Profitability and Investment-related Activities

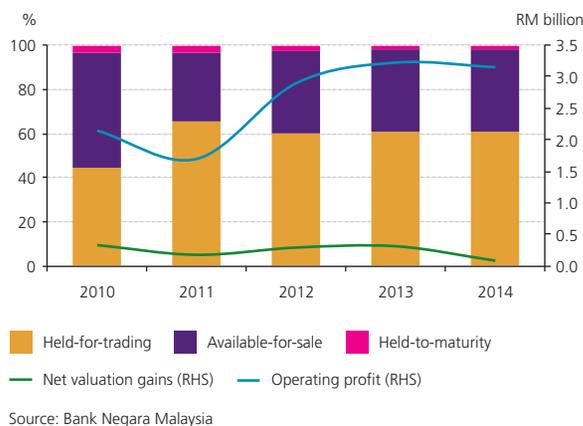
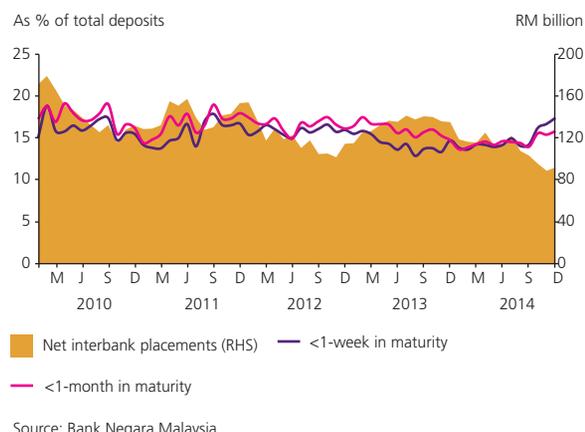


Chart 1.38

Banking System: Liquidity Buffer and Net Interbank Placements with Bank Negara Malaysia



the minimum regulatory requirements (Chart 1.38). The level of banking system liquid assets relative to total assets and short-term liabilities showed a marked increasing trend in the second half of the year (Chart 1.39). This was mainly due to the increase in the accumulation of liquefiable assets such as government securities and BNMN.

The loan-to-deposit ratio rose to 86.7% (end-2013: 84.7%), given the slower pace in deposit growth (+7.6%) relative to loan growth (+9.3%). The trend observed in deposit growth is a natural consequence of the deepening of the financial markets. Notwithstanding this, ringgit deposits continued to account for about 70% of banks' funding base. In terms

Chart 1.39

Banking System: Liquid Assets to Total Assets and Short-term Liabilities

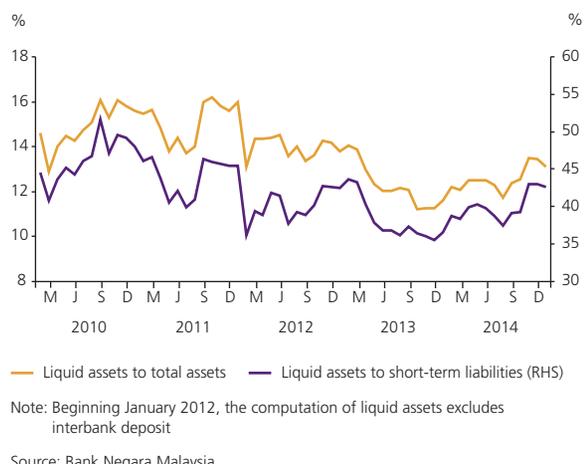
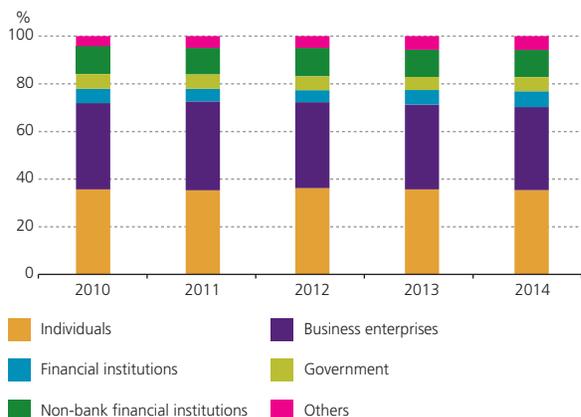


Chart 1.40

Banking System: Composition of Deposits by Holder



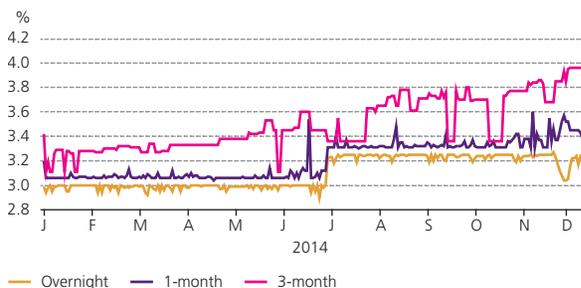
Source: Bank Negara Malaysia

of composition of deposits, this has been relatively stable, with individuals accounting for 35.4% of bank deposits whilst domestic business enterprises make up another 34.8% (Chart 1.40). This has been a source of stability in the overall funding profile of banks in Malaysia. Banks are expected to maintain sound funding strategies going forward including ensuring a high composition of stable funding sources. Non-resident deposits continued to account for a very small share (less than 4%) of total deposits.

In the interbank market, the three-month Kuala Lumpur Interbank Offered Rate (KLIBOR) edged higher throughout most of the year (Chart 1.41). In the initial period, this mostly reflected market expectations of an increase in the OPR. Later in the year, as banks prepared to observe the strengthened liquidity requirements consistent with Basel III, competition for retail and corporate deposits increased with some banks moving to shore up the stable funding sources which are

Chart 1.41

Financial Market: Ringgit Interbank Rates



Source: Bank Negara Malaysia

treated more favourably under the new liquidity standard. The withdrawal of funds by several large corporates for investments abroad further intensified competition for deposits. This drove deposit rates higher, particularly for corporates, in the second half of the year, while the spread between the three-month KLIBOR and overnight indexed swap (OIS) widened to 85 bps at the end of 2014 (2013: 34 bps). These movements reflected temporary shifts in the distribution of liquidity across banks rather than any funding constraints or increased risk aversion. Further adjustments in the deposit and interbank rates are expected as banks react to additional details provided by the Bank on the operationalisation of the Liquidity Coverage Ratio (LCR) rules. Barring any shocks, the expectation is for interbank rates to stabilise.

Banks' FCY funding has increased since 2011, but remains reasonable at 13.9% of overall funding (2013: 11.2%). The 5-year cross-currency swap spreads narrowed to between 65 bps and 95 bps (2013: 68 bps and 145 bps) (Chart 1.42), reflective of improved investors' confidence in the onshore US dollar liquidity conditions. Overall, the banking system recorded a small net surplus in US dollar liquidity of RM6.6 billion and RM5.1 billion in the less than one-week and one-month maturity buckets respectively as at end-2014 (Chart 1.43). The FCY currency and duration mismatches of banks continue to be well-contained. The volume of FX forward purchases has risen in tandem with the increase in FCY liabilities, indicating that the banks are actively hedging the FCY exposures. With the exception of 2011, the shortfall recorded by banks in major foreign currencies, in particular the US dollar and Singapore dollar, has generally remained below 5% of banks' total capital. Rollover and

Chart 1.42

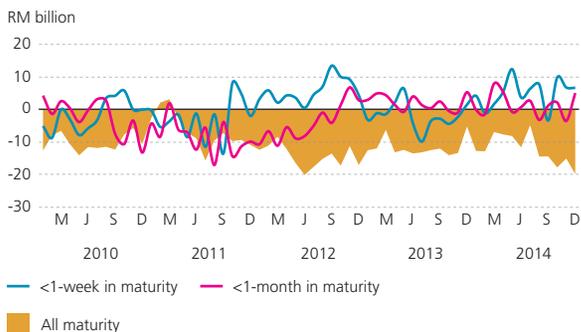
Financial Market: USD/RM Cross-currency Basis Swap Spread



Source: Bank Negara Malaysia

Chart 1.43

Banking System: US Dollar Liquidity Mismatch



Source: Bank Negara Malaysia

funding risks are further mitigated by the more robust FCY risk management practices observed among banks. These include: (i) sound internal policies and controls to reduce over-reliance of overseas operations on centralised funding by the parents; (ii) proactive steps to ensure adequate alternative liquidity sources; and (iii) lengthening of maturity structure of the liabilities to reduce maturity mismatch.

Under simulated scenarios of severe portfolio outflows (more than double the levels exhibited during the financial crisis in the advanced economies) over a short duration, the banking system and insurance industry are expected to continue to record profits, albeit at lower levels. This assessment has incorporated a range of extreme shock parameters, including mark-to-market losses from holdings of equities, interest rate risk in the trading book, FCY exposures and credit losses from businesses affected by significant exchange rate volatility. The banks' capital levels are estimated to remain above 10% while insurers' Capital Adequacy Ratio (CAR) is expected to remain above 130%. In terms of US dollar liquidity shortfall under the simulated scenarios, the potential shortfall for the banking system is assessed to be small (less than 7% of the Bank's international reserves as at end-2014).

MANAGING CONTAGION RISK FROM EXTERNAL EXPOSURES AND OVERSEAS OPERATIONS

Counterparty risk from financial institutions' external exposures

External exposures of financial institutions expanded in line with the growth in domestic banks' overseas operations and regional trade and

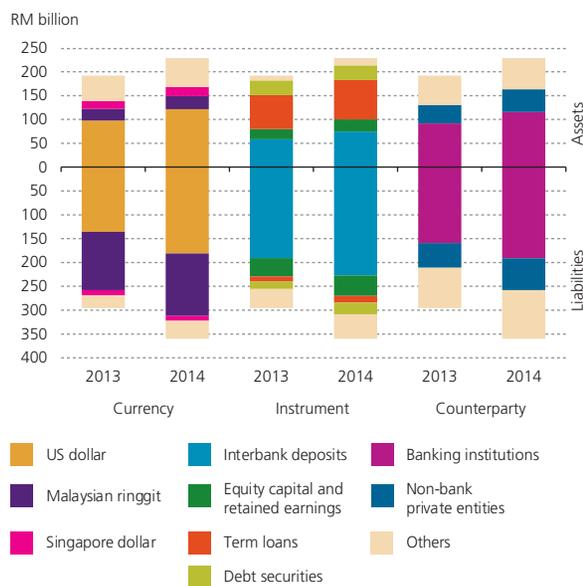
investment activities. A large part of the increase in external exposures has been attributed to centralised liquidity management practices among the domestic banking groups that operate across jurisdictions.

External assets and liabilities of banks expanded amid growth in regional operations and centralisation of liquidity and funding management among groups with overseas operations

This enables surplus liquidity to be pooled more efficiently across operating entities within the group and redistributed to entities with shortfalls. Consistent with such practices, both external claims and liabilities of Malaysian banks (including entities in the Labuan International Business and Financial Centre (LIBFC)) increased during the year, mainly due to higher intra-group fund placements (Chart 1.44). Claims by Malaysian banks (asset side) on all external counterparties increased by 19.3% (2013: +8.4%) to RM228.8 billion, while claims by all external counterparties

Chart 1.44

Banking System: External Claims and Liabilities



Note: Banking system includes entities operating in LIBFC

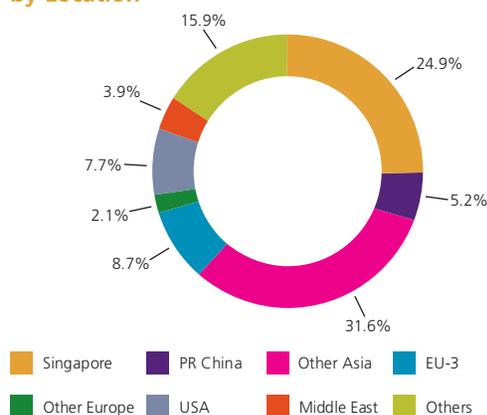
Source: Bank Negara Malaysia

on Malaysian banks (liability side) similarly rose by 21.8% (2013: +22.7%) to RM359.8 billion. The net external liabilities position of RM131 billion does not indicate a growing reliance by banks on external funding for the Malaysian operations. As elaborated earlier in this Chapter, local currency deposits remain the main source of funding for both the operations in Malaysia and overseas. In addition, corresponding with the significant presence of locally incorporated foreign banks (LIFBs) operating in Malaysia, the external liabilities also reflect higher capital funds maintained in the form of equity investment by overseas parents and retained earnings held with these LIFBs (about 12% of external liabilities). Excluding such equity investment and retained earnings, the Malaysian banking system recorded a significantly lower net external liabilities position of RM88.3 billion as at end-2014.

As at end-2014, overall external claims by Malaysian banks accounted for 10.2% (2013: 9.3%) of total banking system assets. The bulk of these claims are denominated in the US dollar, with Singapore (24.9%) and Hong Kong SAR (10.7%) accounting for the largest share of claims by location (Chart 1.45). Risks to the Malaysian banking system from continuing uncertainties surrounding financial and economic conditions in the euro area are limited, with claims by Malaysian banks on European counterparties or claims which are denominated in euro accounting for less than 1% of total banking system assets. Based on the Bank's network contagion analysis of cross-border exposures of Malaysian banks to major

Chart 1.45

Banking System: Composition of External Claims by Location



Note: Banking system includes entities operating in LIBFC

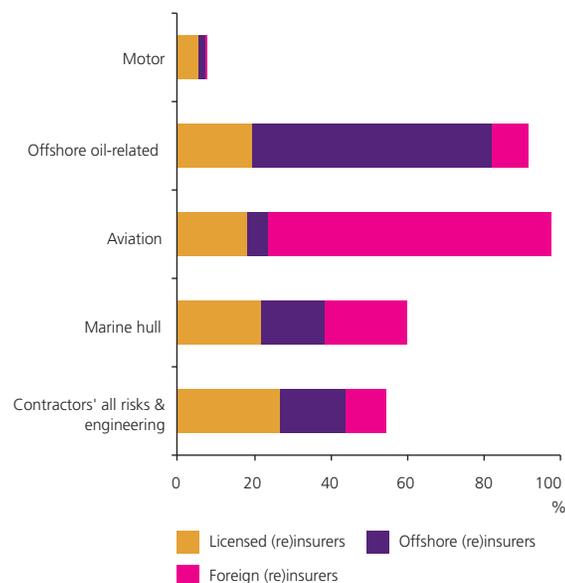
Source: Bank Negara Malaysia

banking counterparties overseas, the direct and indirect impact on the Malaysian banking system from a single or simultaneous event of distress in the banking system of one or two countries continues to be limited. The simulated contagion impact arising from a hypothetical banking system distress scenario originating from Singapore was only felt in the third contagion round. Similarly, the simulated default of two or more banking systems has limited impact on Malaysian banks (refer to box article on 'External Connectivity and Risk of Contagion to the Malaysian Banking System' in the previous Report).

External claims by Malaysian insurers (including takaful operators) are predominantly in the form of reinsurance exposures on general insurance and takaful risks. Total reinsurance ceded by general insurers (reinsurance of life business is negligible) increased by 8.4% to RM3.1 billion. This represented 29.5% of total capital available (2013: 30.4%) and mainly involved large and technical risks in the aviation, O&G, marine hull and engineering business classes (Chart 1.46). The bulk of overseas reinsurance exposures are to entities in Europe and the US (Chart 1.47). Counterparty risks remained low as the major reinsurance counterparties continue to maintain strong ratings and sound financial positions. Despite the challenging global economic conditions, global

Chart 1.46

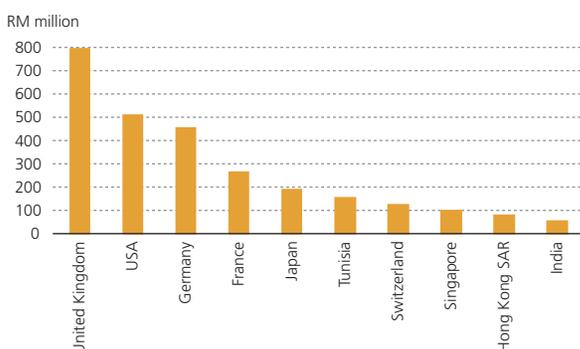
Insurance and Takaful Sector: Reinsurance Ceded Ratio



Source: Bank Negara Malaysia

Chart 1.47

Insurance and Takaful Sector: Foreign Based Reinsurance Exposure by Major Countries



Source: Bank Negara Malaysia

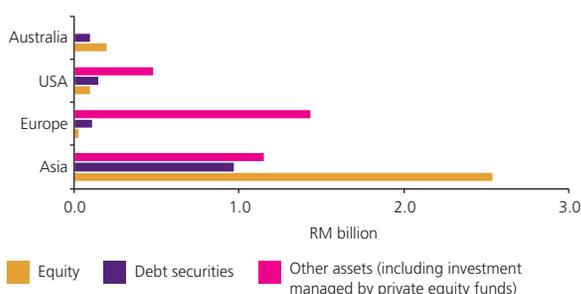
(re)insurers recorded improved profitability with an average return on equity of 12% (2013: 10.8%) and higher total capitalisation of USD575 billion (2013: USD540 billion) based on AON Benfield's report on 'Reinsurance Market Outlook'.

In the last two years, investments abroad by life insurers have grown at a faster pace as part of insurers' diversification and yield enhancement strategies. Insurers have generally remained quite cautious, controlling such exposures within relatively low internal investment limits and focusing on the more liquid financial markets in Asia (Chart 1.48). Accordingly, total investments abroad remain small at less than 3% of insurance fund assets or 9.7% of the industry's capital base.

As elaborated in previous Reports, the potential impact on Malaysia from deleveraging activities by European financial institutions is low, with risks receding further since the GFC. This is

Chart 1.48

Insurance and Takaful Sector: External Investment Exposures by Region



Source: Bank Negara Malaysia

based on several factors which continue to hold, including: (i) the nature of European bank claims on Malaysia where close to half (about 47.1%) are ringgit-denominated claims represented by equity in and assets of European banks' subsidiaries in Malaysia; (ii) the strong and consistent operating profits and stable market shares of these Malaysian subsidiaries; and (iii) the strong capacity of domestic banks and other foreign banks in Malaysia to provide similar financial products and services in the event of any withdrawal or scale-back of activities by European banks. In addition, the recent stress tests and asset quality review carried out by the European Central Bank affirmed that the majority of European banks are able to withstand stress from adverse economic developments. Malaysia has negligible exposures to the 24 banks that were assessed to have capital shortfall. Based on the Consolidated Banking Statistics published by the Bank for International Settlements (BIS Statistics), European banks' claims on Malaysia (including entities in the LIBFC) declined to USD62.7 billion (2013: USD65.2 billion) or 19.2% of GDP as at end of the third quarter of 2014. Malaysia has seven locally-incorporated European banking entities with headquarters in the UK, Germany and France (EU-3). Excluding the UK-based banks, total foreign claims by European banks on Malaysia as reported in the BIS Statistics only accounted for USD14.2 billion or 4.3% of GDP.

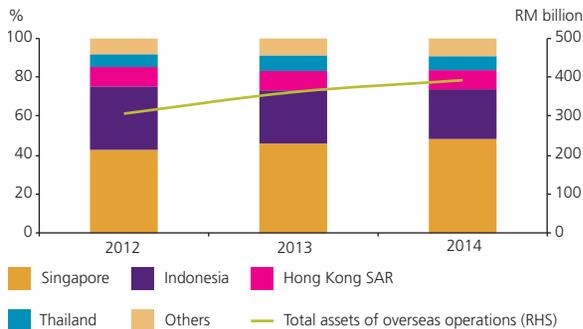
Overseas operations of domestic banking groups

Domestic banking groups (DBGs) expanded further their regional footprint during the year. Total assets of overseas subsidiaries and branches of DBGs grew by 8.5% to RM392.8 billion as at end of the third quarter of 2014 (2013: +18.1%). The share of assets from overseas operations to total assets of DBGs now accounts for 19.6% (2013: 19.2%), ranging between 0.2% and 32.9% of total assets of individual DBGs. The bulk of this continues to be concentrated in Singapore (48.3%) and Indonesia (25.6%) (Chart 1.49). In terms of profits, overseas operations contribute between 7.5% and 31% of the profits of individual DBGs.

The overseas operations of DBGs continued to demonstrate a stable risk profile, characterised by operations that are mainly focused on traditional lending activities, a low-risk funding structure which is supported by a high component of local currency deposits, and sound asset quality. On-going improvements to risk management at

Chart 1.49

Banking System: Asset Composition of Overseas Operations of DBGs



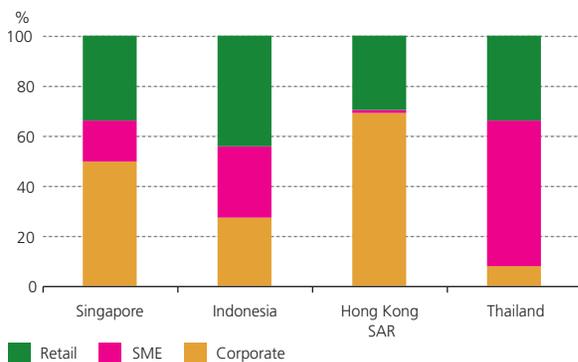
Note: - Data as at 3Q 2014
- Banking system includes entities operating in LIBFC

Source: Bank Negara Malaysia

the entity and group levels commensurate with the growing size of overseas operations further mitigate the potential for risks to be transmitted to domestic banking operations. This supported the sustained contribution of overseas operations to overall group profitability despite more volatile regional financial market conditions. During periods of heightened volatility, the overseas branches and subsidiaries continued to maintain healthy growth and profits. Loan growth recorded by the overseas operations of DBGs remained robust at 10.1% (2013: +15%) for the year. The distribution of loans has been broadly unchanged and reflects the economic structure and stage of economic and financial sector development in the respective economies (Chart 1.50 and Chart 1.51). Overall loan quality has also improved, with the median gross impaired loans ratio at 0.3% (2013: 1.8%).

Chart 1.50

Banking System: Loan Composition of Selected Overseas Operations

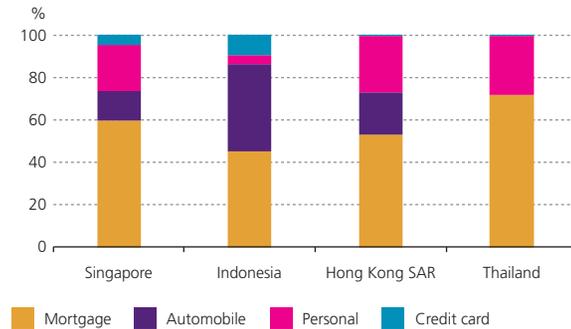


Note: - Data as at 3Q 2014
- Banking system includes entities operating in LIBFC

Source: Bank Negara Malaysia

Chart 1.51

Banking System: Retail Loan Composition of Selected Overseas Operations



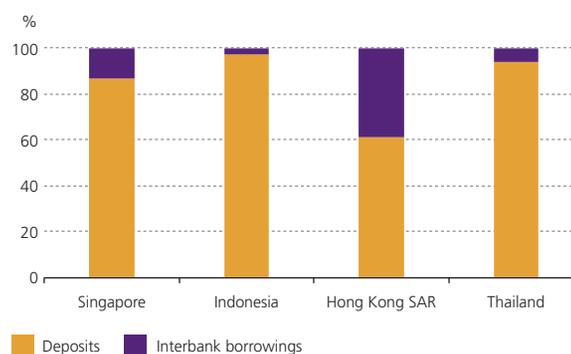
Note: - Data as at 3Q 2014
- Banking system includes entities operating in LIBFC

Source: Bank Negara Malaysia

Risks to the domestic banks from potential funding shocks occurring in the overseas operations of DBGs are contained. Although most DBGs adopt a centralised liquidity management model for greater efficiency, the overseas operations are largely funded by local currency deposits, with small reliance on the Malaysian parent for funding (Chart 1.52). The median loan-to-deposit ratio of large overseas operations with significant financing activities was 90.6% (2013: 86.6%), ranging between 69.3% and 109.7% for individual entities. For the overseas operations with higher loan-to-deposit ratios, steps are already being taken to bring the ratio within more prudent levels. Liquidity stress tests which are periodically conducted by the Bank indicate that DBGs have comfortable liquid asset buffers to meet the liquidity needs of the overseas operations under normal and stressed situations.

Chart 1.52

Banking System: Funding Structure of Selected Overseas Operations



Note: - Data as at 3Q 2014
- Banking system includes entities operating in LIBFC

Source: Bank Negara Malaysia

In recent years, some DBGs have also issued multi-currency debt papers to reduce currency mismatches within the funding structures.

The capital ratios of the large overseas subsidiaries of DBGs remained strong, ranging between 10.8% and 16.8% (Chart 1.53). These ratios already reflect strengthened capital adequacy requirements in some economies which have implemented Basel III standards. Heightened volatility in regional financial markets during the year contributed to lower net income from overseas trading and investment portfolios for some DBGs. This in turn resulted in a lower, but still healthy, median return on equity for overseas operations of 8.3% (2013: 11.2%).

Risks and developments in the overseas operations of DBGs are captured in the Bank's consolidated supervision framework and stress test. Apart from reporting requirements imposed on DBGs on the performance and risk profile of overseas operations, the Bank also regularly conducts on-site examinations on the overseas entities. For significant overseas branches and subsidiaries, on-site examinations are conducted on an annual basis. These on- and off-site supervisory assessments and stress tests enable the Bank to identify potential needs of overseas operations for capital or liquidity support from domestic parent banks, and assess their impact on the resilience of domestic banks. During the year, the Bank continued to hold regular engagements with host regulators through established supervisory colleges and bilateral meetings. These platforms facilitated in-depth discussions of supervisory issues specific to the banks in the

respective jurisdictions, and the coordination of supervisory responses to address these issues. At a broader level, a regional cross-border crisis management and resolution framework has also been put in place by the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) to support effective co-operation between EMEAP central banks and supervisory authorities in the event of a crisis triggered by a distressed financial institution with significant operations in the region.

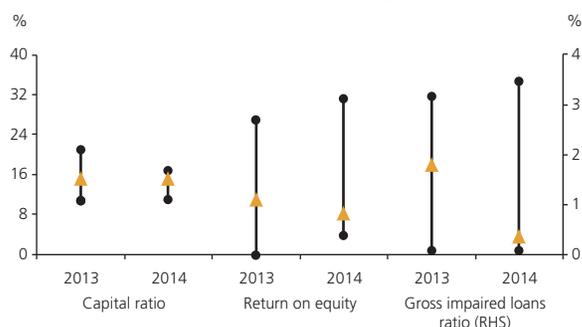
INTERLINKAGES OF THE BANKING SYSTEM WITH NON-BANK FINANCIAL INSTITUTIONS (NBFIs)

The prospect for NBFIs that are not regulated by the Bank to propagate shocks to the financial system remained limited. Although the financial intermediation activities of NBFIs have expanded, their risk profiles and channels through which risks and vulnerabilities can transmit to the banks have remained unchanged. Investments in common asset classes such as listed equities and debt securities continued to be the most prominent channel for the transmission of risks.

Financial intermediation activities of NBFIs continued to increase during the year. In the last five years, the share of financial system assets attributed to these NBFIs has increased steadily to about 39% from 36% in 2009 (Chart 1.54). In assessing the potential for NBFIs to propagate shocks to the financial system, the Bank monitors the extent to which these institutions carry on bank-like activities involving maturity transformation, liquidity transformation and leverage. While a number of NBFIs are active in credit intermediation, the level and nature of these activities among NBFIs continue to pose limited systemic risks. The share of credit intermediation by NBFIs has declined since 2011 (Chart 1.55), currently forming about 60% of financial intermediation by NBFIs and less than half the size of credit intermediation undertaken by entities regulated by the Bank. These activities predominantly take the form of traditional, non-complex financing and investments in plain vanilla financial instruments. Pre-emptive measures were introduced to reduce opportunities for regulatory arbitrage by NBFIs engaged in lending activities as lending standards have been strengthened in the banking sector. These measures serve to further contain the build-up of systemic risks going forward.

Chart 1.53

Banking System: Range of Key Financial Soundness Indicators of Selected Overseas Operations

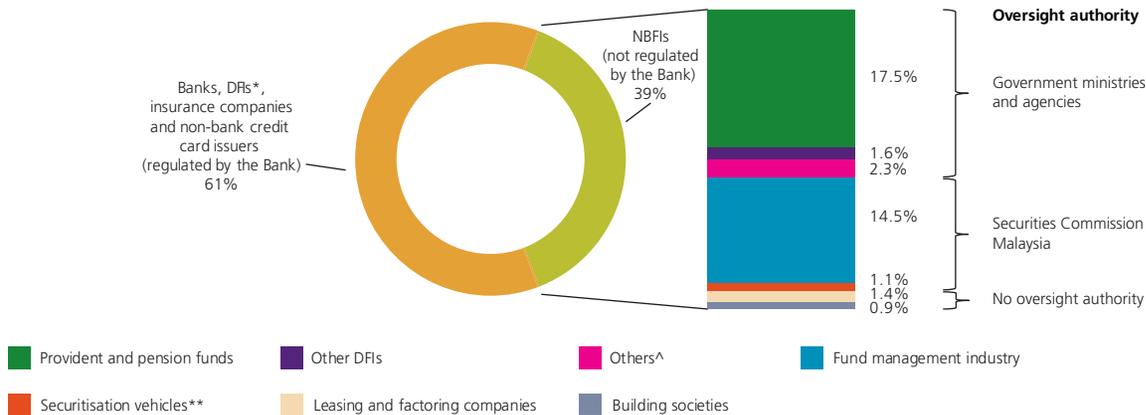


Note: - Data as at 3Q 2014
- Banking system includes entities operating in LIBFC

Source: Bank Negara Malaysia

Chart 1.54

Size and Composition of Financial System Assets



*Development Financial Institutions (DFIs) regulated under the Development Financial Institutions Act 2002 – Bank Pembangunan Malaysia Berhad, SME Development Bank Malaysia, Export-Import Bank of Malaysia Berhad (EXIM Bank), Bank Kerjasama Rakyat Malaysia Berhad, Bank Simpanan Nasional and Bank Pertanian Malaysia Berhad (Agrobank)

**Refers to outstanding asset-backed securities and asset size of national mortgage corporation

^Refers to pawnbrokers, moneylenders, co-operatives, non-bank providers of hire purchase financing, non-bank provider of education financing and social security organisation

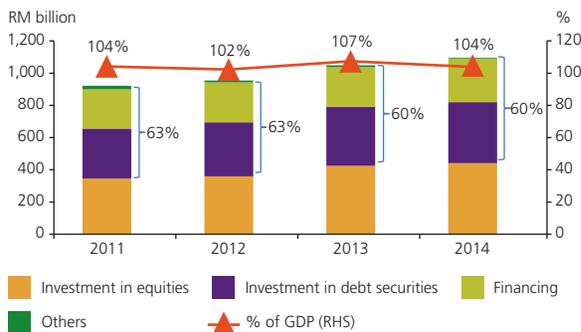
Source: Bank Negara Malaysia, Securities Commission Malaysia, Malaysia Co-operative Societies Commission, Ministry of Urban Wellbeing, Housing and Local Government, Bank Negara Malaysia survey, published financial statements and internal estimates

Investments in common asset classes such as listed equities and debt securities continued to be a key channel for the transmission of risks from NBFIs (such as provident and pension funds and fund managers) to the broader financial system (Diagram 1). A large scale sell-down of such assets by NBFIs in the event of financial stress could significantly affect market sentiment. This, in turn, would induce steep valuation adjustments that would affect the balance sheets of banks that hold such assets. At present, this risk remains low given the prevailing financial strength of NBFIs on

the whole. With strong balance sheet and quality investments, the large NBFIs continued to record healthy return on assets, ranging between 4.6% and 7% across individual entities (2013: 5.6% and 7.3%). Additionally, these NBFIs also have sufficient level of cash buffers to meet liquidity needs – cash and deposits placed with banks account for an average of 12.9% of total assets. In recent episodes of financial market volatility, the institutional funds managed by these NBFIs proved to be an important source of stability, in addition to banks and insurers, in mitigating the effects on asset valuations arising from the retrenchment by non-resident portfolio investors from the domestic financial markets.

Chart 1.55

Financial Intermediation Undertaken by NBFIs



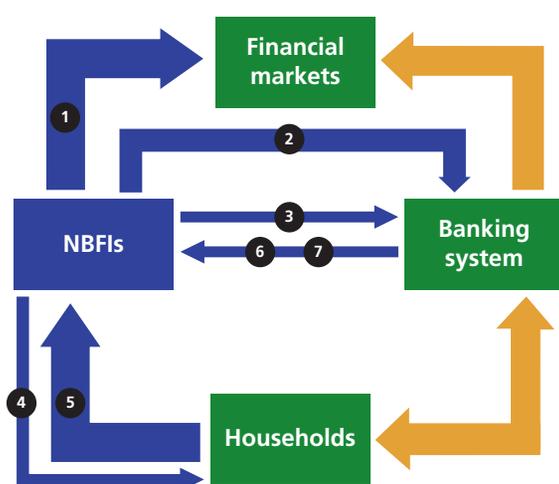
Note: Financial intermediation comprises (i) investment in equities; (ii) financing; (iii) investment in debt securities; (iv) securitisation; and (v) credit guarantee or enhancement. Credit intermediation comprises (ii) - (v).

Source: Bank Negara Malaysia, Securities Commission Malaysia, Malaysia Co-operative Societies Commission, Ministry of Urban Wellbeing, Housing and Local Government, Bank Negara Malaysia survey, published financial statements and internal estimates

In the more recent period, a small number of the large NBFIs have increased investments in other less liquid asset classes such as real estate, infrastructure and private equities for income diversification. These investments however remain relatively small, representing less than 5% on average of the total assets of individual NBFIs. NBFIs have also continued to increase investments in overseas assets. The extent of cross-border investments varies across institutions, ranging between 7.2% and 23.6% of total assets (2013: 2.8% and 19.9%). As this trend intensifies over the next few years, this would lower the spillover risks to the domestic financial system. However, it also has the potential to alter banks' funding structures as a result of lower levels of

Diagram 1.1

Interlinkages of NBFIs with the Banking System



Exposure		
NBFI Assets (proxied through large NBFIs due to data availability)	1 Investments in financial markets	<ul style="list-style-type: none"> • 34.0% of outstanding debt securities • 27.4% of equity market capitalisation
	2 Shareholding in banking system	<ul style="list-style-type: none"> • 34.0% of equity issued by listed domestic banks
	3 Deposit placement in banking system	<ul style="list-style-type: none"> • 6.5% of banking system deposit base
	4 Financing to households	<ul style="list-style-type: none"> • 4.7% * of household debt
NBFI Liabilities (all NBFIs)	5 Households deposits, investments & contributions	<ul style="list-style-type: none"> • 49.2% of household financial assets
	6 Debt securities held by banking system	<ul style="list-style-type: none"> • 7.7% of banking system capital
	7 Borrowings from banking system	<ul style="list-style-type: none"> • 15.0% of banking system capital

Thickness of blue lines illustrates significance of the exposures

* Excludes loans granted by the Treasury Housing Loan Division

Source: Bank Negara Malaysia, Securities Commission Malaysia, Malaysia Co-operative Societies Commission, Ministry of Urban Wellbeing, Housing and Local Government, published financial statements and internal estimates

deposits placed by NBFIs with banks. At present, this risk is not significant, given that NBFI deposits are small and collectively account for only 6.5% of banking system deposits – mainly (about 85%) belonging to provident and pension funds as well as a few large unit trust funds. On average, these deposit balances account for less than 5% of the deposit base of individual banks. The channelling of these deposits by NBFIs into alternative investments is therefore unlikely to cause a shortfall in the liquidity of banks.

The bulk of the investment activities of the large NBFIs are funded through contributions from investors and fund owners, and internally-generated funds. These NBFIs have correspondingly low leverage ratios (measured in terms of total assets-to-equity), generally below 1.05 times. Reliance on the capital market for funding has consistently been low for the majority of the NBFIs, including the larger NBFIs. Outstanding PDS issued by NBFIs amounted to RM45.4 billion or 9.7% of outstanding PDS as at end-2014. Excluding the Cagamas group of companies, which is one of the largest PDS issuers, outstanding PDS issued by NBFIs is small at RM17.1 billion or 3.7% of outstanding PDS. The tenure of debt issuances by NBFIs is largely matched by assets of similar duration. The maturity gap for Cagamas group is less than 3 months. The maturity

gap for other NBFIs that issue debt securities is similarly small, with an average tenure of PDS issued (funding) of 10.5 years, whilst average financing granted (assets) generally does not exceed 10 years. Funding through the domestic repurchase agreement (repo) market and securities borrowing and lending is also negligible. Direct exposures of the banking system to NBFIs through loans and bank holdings of NBFI debt securities were broadly unchanged and remain small at 2.2% of banking system assets (2013: 2.1%). Relative to capital, these exposures stood at 15% (2013: 14.7%) and 7.7% (2013: 8.2%) respectively of total banking system capital.

Linkages with the banking system, through reputational and financial contagion, can also arise through NBFI holdings of bank equity. In 2014, average holdings by NBFIs of listed domestic banks' equity increased to 34% of equity issued by banks (2013: 31.3%). At present, such risks are assessed to be well-contained as banks' equity is held primarily by a few large NBFIs that have continued to demonstrate sound corporate governance and strong financial positions. Under the Financial Services Act 2013 and Islamic Financial Services Act 2013, substantial shareholders of licensed financial institutions are subject to a shareholder suitability regime. This regime entails the requirement for the Bank's prior approval to be obtained for the acquisition of any

interest of more than 5% in equity of any bank or insurer. Additionally, the approved shareholders must meet standards specified in the shareholder suitability policy document on an on-going basis. The rigour of shareholder suitability assessments by the Bank are to commensurate with the level of shareholding in a licensed bank or insurer. These safeguards serve to mitigate contagion risks to banks that may arise from equity holdings by NBFIs.

FINANCIAL INSTITUTION SOUNDNESS AND RESILIENCE

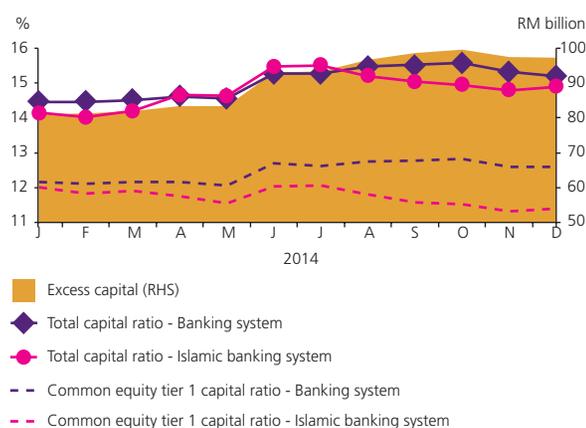
Financial institutions continue to demonstrate strong financial positions. Sound governance and risk management practices have been the mainstay of the positive overall performance of financial institutions amid periods of heightened volatility and business conditions that have been challenging at various times. Sustained improvements in operational efficiency, observed over several years now, have further contributed to the positive performance. The majority of financial institutions have maintained relatively stable risk profiles, as reflected in their composite risk rating (CRR). The CRR captures the Bank's annual assessment of the inherent risks and the quality of risk management of a financial institution across significant activities and subsidiaries, taking into account its capital management practices and sustainability of earnings.

Capitalisation maintained at strong levels

The banking and insurance industries maintained a high level of capitalisation throughout the year. The capital position of the banking system strengthened further from the previous year. As at end-2014, the Common Equity Tier 1 (CET1), Tier 1 and total capital ratios of the banking system stood at 12.6%, 13.3% and 15.2% respectively. More than 90% of total capital continues to be in the form of high quality loss absorbing capital comprising equity, retained earnings and reserves. During the year, banks issued RM15.1 billion of new equity, more than double the amount issued last year, partly to replace old-style Basel II capital instruments that are being gradually phased out under the Basel III capital standard. Continued profitability and generally conservative earnings retention policy sustained banks' retained earnings at RM61.8 billion at the system level. Capital buffers in excess of the minimum regulatory requirement correspondingly rose to RM97.4 billion (Chart 1.56). The strong buffers support the ability of banks

Chart 1.56

Banking System: Capital Adequacy Ratios and Excess Capital



Source: Bank Negara Malaysia

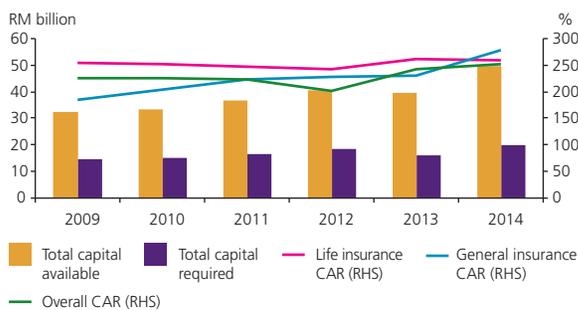
to comply with minimum capital requirements (which are also being progressively strengthened) under a range of adverse conditions. Assuming that fully-loaded Basel III minimum capital levels are in effect today (disregarding any transitional arrangements), banks would still have a buffer of RM53 billion above the minimum total capital requirement. The stronger capital ratios of the banking system also reflect the stable risk level of banks' portfolios. The ratio of total risk-weighted assets-to-total assets was broadly unchanged at 63.6% (2013: 63.8%), with credit risk from loan portfolios continuing to form the bulk of total risk-weighted assets. The leverage ratio, which measures the Tier 1 capital base relative to non-risk weighted assets, as reported by banks during the observation period, was almost double the prescribed minimum level of 3% under Basel III.

Sustained capitalisation and profitability amid sound asset quality and prudent risk management practices of financial institutions

For the insurance industry, the aggregate CAR improved slightly to 253% (2013: 246.1%) with excess capital buffers totalling RM30.2 billion (Chart 1.57). Insurance risk (which measures the risk of an underestimation of insurance liabilities, adverse claims experience, expense,

Chart 1.57

Insurance Sector: Capital Adequacy Ratio



Source: Bank Negara Malaysia

and lapse risks) remained the largest component of risk. Overall insurance risk charges remained largely unchanged, reflecting the generally stable level of reserves held and insurers' mix of business. The potential impact on insurers arising from the severe floods in selected states at year-end is not expected to be significant, with losses on a gross basis expected to be contained below 1% of total capital of impacted companies. During the year, general insurers recorded a higher CAR, partly following refinements to the treatment of premium liabilities under RBC framework. Life insurers' CAR was almost unchanged at 260.1% (2013: 260.9%) despite higher market and credit risk charges from increasing investments in equities and PDS for yield enhancements. These investments were largely in highly-rated securities and blue chip equities, which have low capital charge. The CAR for takaful operators, which became effective in 2014, stood at 192.8% with an excess capital buffer of RM2.9 billion.

Steady profitability amid narrow margins

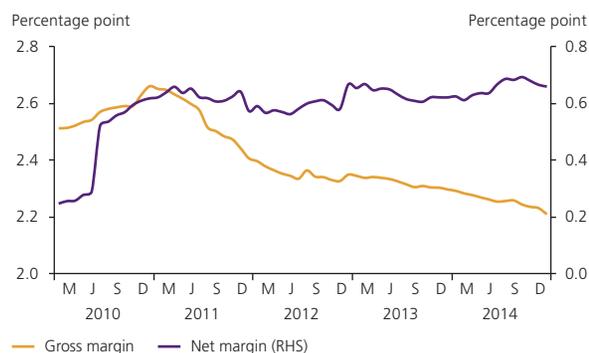
The pre-tax profit of the banking system, including Islamic banks, expanded by 7.6% to RM32 billion with returns on assets and equity of 1.5% and 15.2% respectively, similar to levels recorded last year. The main drivers of earnings performance were net interest/profit income from financing and funding activities (+5.3%), and fees and commission revenue from financing-related activities (+5.7%). Revenue from other fee-based businesses, mainly investment banking and payment-related services, has continued to grow steadily in importance. This now accounts for almost 13.5% of gross income, compared to about 9.5% two years ago. While helping to counteract the effect

of compressed interest margins on revenue in recent years, particularly in the retail lending market, the contribution to income from these activities remains relatively small in comparison with core financing activities.

Lending rates adjusted upwards slightly in response to the increase in the OPR in July 2014 and as banks reviewed the pricing parameters to better reflect risks in line with the Risk-Informed Pricing Standards which came into effect in March 2014. The historically low delinquency levels across major financing segments and already high loan loss coverage ratio continued to lend support to banks' net interest margins which improved to 0.66 ppts (2013: 0.61 ppts) (Chart 1.58 and Chart 1.59). At this level,

Chart 1.58

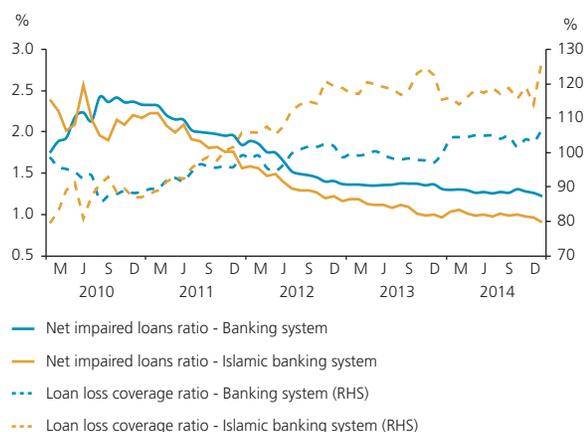
Banking System: Gross and Net Interest Margins



Source: Bank Negara Malaysia

Chart 1.59

Banking System: Net Impaired Loans Ratio and Loan Loss Coverage Ratio



Source: Bank Negara Malaysia

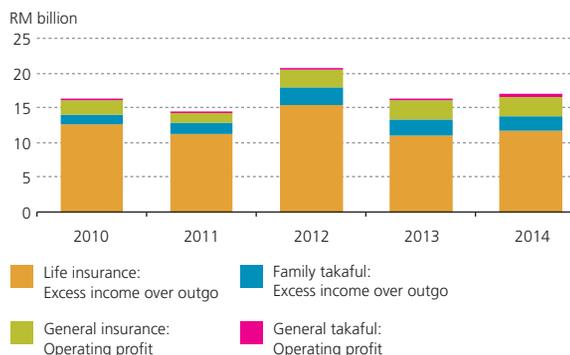
margins remain competitive and narrow. That necessitates banks to observe sufficient rigour in the pricing of risks and provisioning. These areas have been a major focus of the Bank's supervisory reviews in recent periods (see sections on household and business sectors for further details on supervisory observations of banks' practices).

Despite more volatile market conditions, banks recorded aggregate net gains of RM4.1 billion from the trading and investment portfolios. This has been supported by enhanced capabilities in managing risks from proprietary trading and investment activities, while banks have also generally remained prudent in risk-taking. Bank profitability also benefitted from continuing initiatives to improve productivity and operational efficiency. Banks have continued to keep a lid on overhead costs which increased modestly by 6.3% (2013: +5.7%) amid lower incremental investments in risk management and IT systems, having largely made these investments in earlier years. One of the areas that the Bank continues to keep a close watch on is the impact that cost control measures are having on risk management capabilities and compliance functions to ensure that these are not compromised. Retaining skilled talent, particularly in specialised functions, remains a key challenge for banks in an environment where staff are more mobile and those with sufficient experience are in high demand not only in Malaysia but also overseas. This has placed some pressure on staff costs. While competition is stiff for skilled resources, banks have kept the workforce trim over the past two years. Headcount and staff cost changed marginally by -0.8% and 1% respectively. As a result, costs per employee were broadly contained, increasing slightly by 1.1% during the year, while productivity, as measured by pre-tax profit per headcount, improved by 8.4%. In managing staff costs, banks have been reminded to ensure that incentives continue to be aligned with prudent risk-taking, and key control functions continue to be well-supported by competent and experienced staff, including in areas such as compliance.

The insurance and takaful sectors registered mixed performance in 2014 (Chart 1.60). The life insurance and family takaful sector recovered from significant investment losses incurred in 2013, to record a growth of 4.5% in excess income over outgo totalling RM13.8 billion in 2014 (Chart 1.61). Lower capital losses on the investment portfolio had the most significant

Chart 1.60

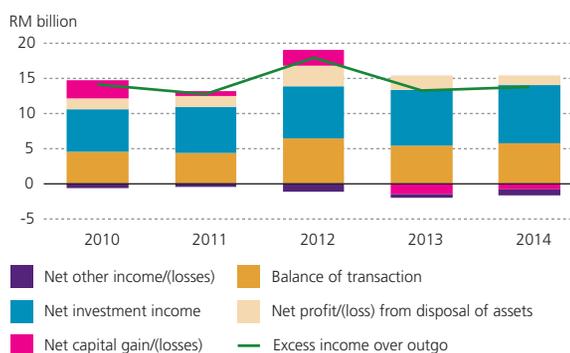
Insurance and Takaful Sector: Profitability



Source: Bank Negara Malaysia

Chart 1.61

Life Insurance and Family Takaful Sector: Composition of Excess Income over Outgo

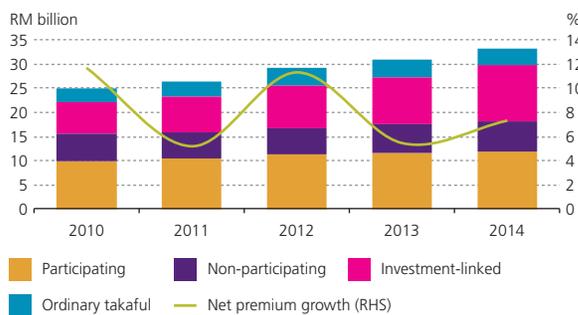


Source: Bank Negara Malaysia

impact on the performance of life funds. Such losses amounted to RM924 million for the year, 38.7% lower than losses incurred in the previous year. Income was also supported by the sustained growth in net premiums (Chart 1.62). A discernible trend in the life sector has been the growing share of investment-linked business which has expanded to account for 42% (2013: 39%) of new business premiums or 35.7% (2013: 32.8%) of total net premiums. The share of annual premium revenue (which forms the bulk of insurers' net premium revenue) contributed by investment-linked business has also increased steadily over the years to 39.1% (2002: 24%). This trend is likely to render life insurers more susceptible to premium income volatility – arising from the flexibility given to investment-linked policyholders to vary the premium contributions (this is also the feature that

Chart 1.62

Life Insurance and Family Takaful Sector: Net Premium Growth and Product Composition



Source: Bank Negara Malaysia

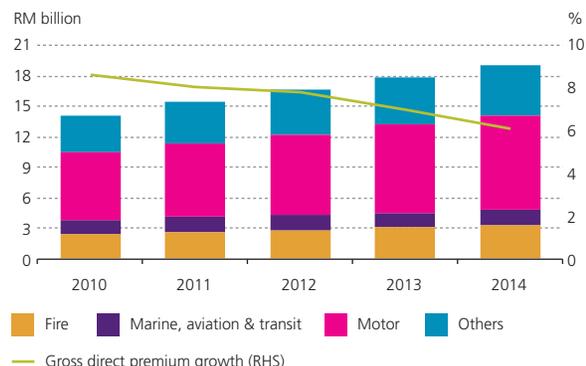
makes this product attractive to the public) and generally more variable demand which is largely influenced by financial market conditions. Effective cost control and proper assessments of the suitability of products to policyholder needs and financial circumstances, in turn, will become more important to maintain profitability.

Despite an increasing share of investments in higher yielding assets, overall investment yields of life insurers and takaful operators have remained within a range of between 5% and 6% per annum, reflecting conditions in the financial markets and substantially lower than the yields assumed in the pricing of products sold prior to the GFC. Consistent with the requirements of the RBC framework, insurers have over the years increased their reserves against guaranteed obligations to policyholders to reflect the lower yields, thus ensuring that these obligations will be met by insurers without difficulty. In the last year, some insurers have also started to reduce discretionary bonuses in line with actual investment performance and to preserve buffers within the life fund. Cash bonuses paid in 2014 correspondingly grew at a slower rate of 16%, relative to the average of 22% between 2010 and 2013.

The profits of the general insurance and general takaful sector declined slightly by 2.3% to amount to RM3.2 billion on the back of higher net claims incurred and lower net profit from disposal of assets. Although the overall loss ratio has been contained below 60% for the past three years, mainly reflecting improvements in the fire and motor 'Others' (which formed bulk of net claims incurred) businesses (Chart 1.63 and Chart 1.64),

Chart 1.63

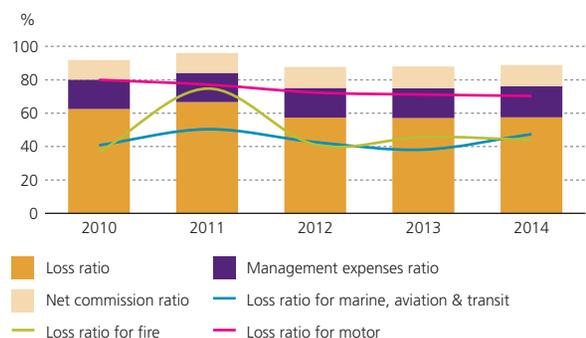
General Insurance and General Takaful Sector: Premium Growth and Business Composition



Source: Bank Negara Malaysia

Chart 1.64

General Insurance and General Takaful Sector: Combined Ratio and Loss Ratio of Selected Business Classes



Source: Bank Negara Malaysia

losses from the compulsory motor third-party liability insurance (motor 'Act') business continued to pose strains on overall claims experience. The loss ratio for this segment remains well in excess of 100%. Greater pricing flexibility resulting from the progressive deregulation of the motor premium tariff is expected to be positive for the performance of the industry as a whole. While this may also lead to the under-pricing of risks by some insurers to capture or retain market share, this risk is mitigated by the premium bands that will continue to apply for a specific period of time. More importantly, on-going improvements in data capture and underwriting capabilities, both at the industry and individual insurer levels, will also support sound pricing practices (see Chapter 2 under 'Transitioning towards a managed market-based pricing environment in

2016' for more information on the progress of the implementation of initiatives under the New Motor Cover Framework). Incentives are also preserved in the capital framework to encourage prudent pricing practices and provide adequate buffers against any under-pricing.

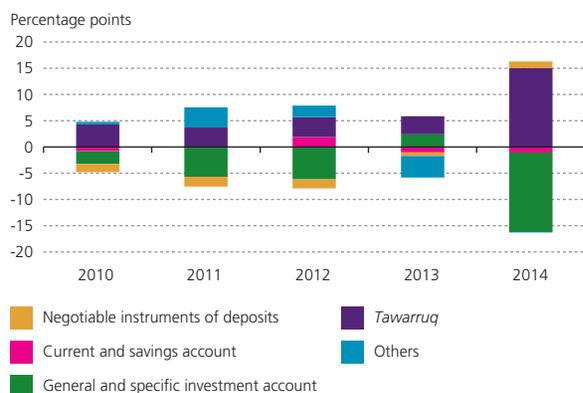
The multiple aviation incidents in 2014 did not have a significant impact on the domestic general insurance industry, with the bulk of risks reinsured in the global aviation market. Losses to domestic insurers from both aviation hull and liability claims were therefore minimal. With the most expensive year recorded for the global aviation insurance industry in 2014 since the 9/11 attacks, prospects are for aviation-related risk premiums to rise again after a relatively soft market cycle which had been supported by excess reinsurance capacity and few major claims.

Active management of risks by Islamic banks

The rate of return risk in the Islamic banking sector continues to be reasonably well-managed, underpinned by active risk reduction strategies pursued by Islamic banks. On the asset side, variable rate assets in the financing book, mainly in the form of *musyarakah* (partnership), *ijarah* (leasing) and variable *murabahah* (mark-up) contracts, expanded further by 28% (2013: +33%) to account for 54% (2013: 50%) of total financing. The growing composition of variable rate assets is expected to continue with the broader offering of products that have risk-sharing components, including equity-based financing products. On the liability side, Islamic banks issued more fixed rate funding instruments such as *tawarruq*, and negotiable instruments of deposits (NIDs) (Chart 1.65)

Chart 1.65

Islamic Banking: Annual Change in Deposit Composition by Instrument



Source: Bank Negara Malaysia

with longer contractual maturities to narrow the re-pricing gap between assets and liabilities. As at end-2014, fixed rate deposits, namely *tawarruq*, accounted for 35.7% (2013: 20.6%) of total deposits accepted by Islamic banks.

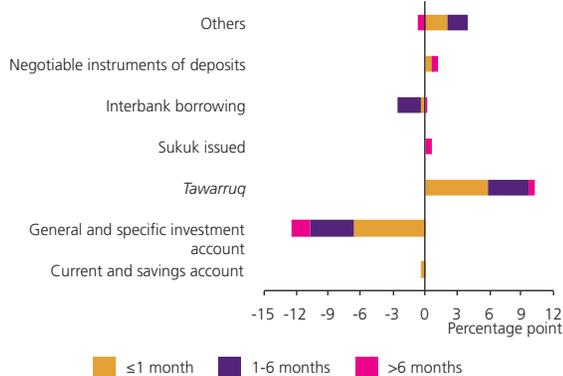
The shift towards *tawarruq* and NIDs was also partly in response to the regulatory requirement to clearly differentiate between deposit and investment account products in accordance with the Islamic Financial Services Act 2013. The strong demand for deposit products that are principal-guaranteed has resulted in the exponential growth of *tawarruq* (+98%) to account for 29% (2013: 17%) of the total funding base of Islamic banks. In contrast, *mudarabah*-based general or specific investment deposits declined by 31% to account for 19% (2013: 30%) of the funding base (Chart 1.66). Individual Islamic banks have been able to adjust to these developments with relative ease, mainly by offering relevant new products that customers can switch their funds into, thereby maintaining a stable funding base.

Multi-year stress test affirmed financial institutions' shock absorbing capacity

Stress tests conducted by the Bank affirm the strong capacity of financial institutions, both at the system and institutional levels, to withstand severe macroeconomic and financial strains. The multi-year solvency-based stress test exercise models a series of tail-risk events based on three hypothetical domestic GDP growth paths (one baseline and two adverse scenarios) and the corresponding macroeconomic and financial

Chart 1.66

Islamic Banking: Annual Change in Funding Composition by Instrument and Maturity



Source: Bank Negara Malaysia

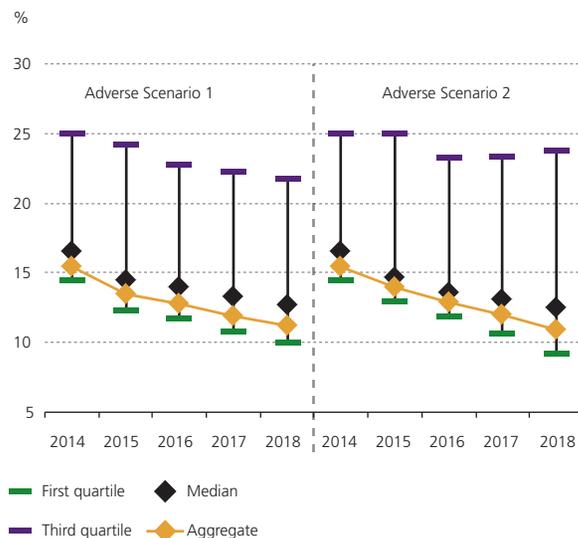
conditions over a four-year horizon from 2015 to 2018. The effects of the hypothetical scenarios, incorporating simultaneous shocks on revenue, funding, credit and market risks, were applied on financial institutions' income and operating expenses, balance sheet growth and capitalisation levels, disregarding any loss mitigation responses by financial institutions or policy interventions by the authorities.

Shock absorbing capacity of banks and insurers affirmed by a range of sensitivity and multi-year stress tests

At the end of the stress horizon, the post-shock aggregate total and CET1 capital ratios of the banking system were above 11% and 8% under the first adverse scenario (AS1), and above 10% and 7% under the second adverse scenario (AS2) respectively (Chart 1.67 and Chart 1.68). At the institutional level, more than 80% of banks remained above the minimum Basel III total, Tier 1 and CET1 capital ratio requirements of 8%, 6% and 4.5% respectively. Pre-provision net revenue contracted by 18.3% and 22.4% relative to the

Chart 1.67

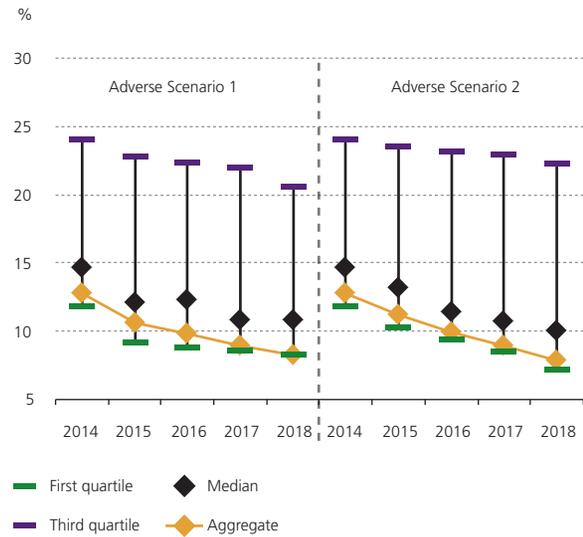
Banking System: Post-shock Total Capital Ratio in Adverse Scenario



Source: Bank Negara Malaysia

Chart 1.68

Banking System: Post-shock Common Equity Tier 1 Capital Ratio in Adverse Scenario



Source: Bank Negara Malaysia

baseline scenario in AS1 and AS2 respectively. Losses were driven primarily by credit risk shocks – forming more than 97% of overall losses in both scenarios. Of this, the defaults of selected large corporate borrowers constituted between 10% and 20% of total credit losses. The results indicate that even under severe macroeconomic and financial strains, banks on the whole continue to be well-positioned to absorb the impact of losses from available capital buffers, without taking into account any additions to capital throughout the period.

For the insurance industry, the post-stress CAR similarly remained above the minimum regulatory requirements under both AS1 and AS2. The impact on capitalisation for general insurers was more pronounced from the impact of shocks applied in relation to higher provisions for motor claims. The resulting operating losses reduced the CAR for general insurers from 279% in end-2014 to about 140% by 2018 under the most severe shocks applied on general insurance risk. Life insurers on the other hand were more affected by volatility in financial markets in 2015, but maintained a strong CAR throughout the stress test horizon, with the CAR declining from 260% at end-2014 to 184% by 2018.

An Overview of the Solvency Stress Test Scenarios for Banks and Insurers

The multi-year solvency-based stress test exercise models a series of tail-risk events based on three hypothetical domestic GDP growth paths (one baseline and two adverse scenarios) and the corresponding macroeconomic and financial conditions over a four-year horizon from 2015 to 2018.

The first adverse scenario (AS1) is a V-shaped scenario involving a recession, equivalent to a deviation from the baseline of 2.5 standard deviations of the long-term growth rate (calculated from the 30-year average annual growth rate), followed by a swift recovery to achieve potential growth in 2018. This scenario is reflective of Malaysia's past experiences with recessions that were accompanied by strong and fast recoveries. The scenario takes into account: (i) a synchronised sharp slowdown in the US and PR China; (ii) corrections in the domestic property market; and (iii) higher volatility in domestic financial markets which increases risk aversion, affects investor sentiments and reduces household wealth.

The second adverse scenario (AS2) simulates an L-shaped growth path with an initial mild decline, followed by a subsequent prolonged weakness in growth, amounting to a cumulative negative deviation from the baseline of 19.7 ppts, or five standard deviations of the long-term growth rate. The scenario takes into account: (i) a minor equity correction in the US with prolonged weakness in PR China; (ii) higher volatility in financial markets which increases risk aversion, affects investor sentiments and reduces household wealth; and (iii) lower commodity prices, impacting Malaysia's fiscal revenue.

Table 1.7

Solvency Stress Test Key Assumptions and Shock Parameters for the Adverse Scenarios

Key Assumptions	Shock Parameters
Balance sheet and income projections <ul style="list-style-type: none"> Decline in income growth, differentiated across segments (interest income, fee-based and other income) Decline in insurers' premium income growth Moderation in credit growth 	<ul style="list-style-type: none"> up to 71% up to 64%
Credit risk shocks <ul style="list-style-type: none"> Probability of default (PD) shocks <ul style="list-style-type: none"> Business loans Household loans Loss given default (LGD) shocks <ul style="list-style-type: none"> Business loans Household loans Default of selected corporations with large exposures to the banking system 	<ul style="list-style-type: none"> up to 12% up to 9% up to 60% up to 88% Corporations under watchlist and are susceptible to volatile exchange rate movements and prolonged stressed economic environment
Market risk shocks <ul style="list-style-type: none"> Increase in MGS yields Widening of PDS credit spreads Basis risk Decline in FBM KLCI Depreciation against major currencies 	<ul style="list-style-type: none"> up to 253 bps in the initial year of shock up to 195 bps 10% up to 51% up to 11%
External funding risk shocks <ul style="list-style-type: none"> Reversal of claims by non-residents 	<ul style="list-style-type: none"> up to 30% of interbank borrowing and deposits
General insurance risk shocks <ul style="list-style-type: none"> Increase in claims Increase in claims and premium liabilities (motor classes) 	<ul style="list-style-type: none"> up to 20% up to 1.5 times additional provision for adverse deviation

Table 1.8

Summary of Results of Key Stress Tests Conducted by the Bank

Simulated risk event	Shock assumptions	Broad results
Broad scenario analyses		
Spillovers from a series of downside risks and tail-risk events over a four-year period (Table 1.7, Chart 1.67 and Chart 1.68)	Shocks on revenue, funding, credit, market and insurance risk exposures	<ul style="list-style-type: none"> Post-shock aggregate TCR and CET1 capital ratio of the banking system remain above 10% and 7% respectively under the more severe scenario CAR of general and life insurers remain above 140% under the more severe scenario
Reversal of capital flows due to external shocks (e.g. decline in oil prices) and normalisation of global monetary conditions (section on 'Managing Financial Market Volatility')	Severe portfolio outflows (twice the amount recorded during the financial crisis in the advanced economies) over a short duration – shocks on funding, credit and market risk exposures	<ul style="list-style-type: none"> TCR of banks and CAR of insurers remain above 10% and 130% respectively US dollar liquidity shortfall less than 7% of the Bank's international reserves at end-2014
Sensitivity analyses		
Loss estimations to the banking system arising from simultaneous default incidences across all household income segments due to higher cost of living and borrowing (Table 1.2)	Doubling of baseline PD and stressed LGD	<ul style="list-style-type: none"> Estimated potential losses of about RM39 billion or 40% of excess capital <ul style="list-style-type: none"> About 10% of excess capital for borrowers earning RM3,000 or less per month)
Severe correction in house prices (section on 'Managing Developments in the Domestic Property Market')	Tripling of baseline PD for housing loans and 40% contraction in house prices	<ul style="list-style-type: none"> Excess capital stood at more than five times the estimated potential losses
Implications from volatile exchange rate movement, higher borrowing costs and lower operating margins on large borrowers, and contagion to banks and insurance companies (box article on 'Malaysian Corporate Leverage and Its Systemic Implications')	(i) Up to 3.5 standard deviations shock on the 6-month moving average of USD/RM rates over past 20 years (ii) Up to 100 bps increase in borrowing costs (iii) 50% decline in operating profit (iv) Simulated contagion effect on liquidity, credit and market risks of banks and insurance companies	<ul style="list-style-type: none"> Impact from higher FCY-denominated and floating rate ringgit borrowings <ul style="list-style-type: none"> Reduction of up to 0.1 ppt for aggregate ICR (between 11.8 ppts and 41 ppts for individual large borrowers) Impact from rollover of maturing PDS/sukuk under higher yields <ul style="list-style-type: none"> Negligible impact on aggregate ICR (between 1.7 ppts and 5.7 ppts for individual large borrowers) Impact from decline in operating profit <ul style="list-style-type: none"> Reduction of up to 1.3 ppts for aggregate ICR (between 33.5 ppts and 67.1 ppts for individual large borrowers) Cumulative asset-side shocks from credit and market losses* of 16.8% of total capital Reduction in stock of liquidity buffers by up to 0.9 ppt and 0.4 ppt within the one-week and one-month maturity buckets respectively
Contagion risk from cross-border exposures of Malaysian onshore banks to overseas exposures (box article on 'External Connectivity and Risk of Contagion to the Malaysian Banking System' – Financial Stability and Payment Systems Report 2013)	Direct and indirect impact on the Malaysian onshore banking system from a single or simultaneous event of distress originating from the banking systems of one or two countries	<i>Single trigger country</i> <ul style="list-style-type: none"> Direct impact from banking system distress in Singapore only felt in third round of contagion Indirect impact from banking system distress in the US and UK only observed after all major banking systems in the sample have experienced acute financial distress <i>Two trigger countries</i> <ul style="list-style-type: none"> Direct impact from pair-wise defaults only observed in the second to fourth rounds of contagion after all major banking systems in the sample have experienced acute financial distress

*Potential losses from assumed default of large borrowers with CASTO<1 time and ICR<2 times post-shock

2014

DEVELOPMENT OF THE FINANCIAL SECTOR

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DEVELOPMENT OF THE FINANCIAL SECTOR

During the year, the financial sector continued to make progress on several fronts towards fulfilling the vision and strategies outlined in the Financial Sector Blueprint 2011-2020. While the intermediation process has continued to support the financing needs of the economy, there remains scope for financial institutions to capture opportunities from supporting new growth sectors. The package of reforms to the life insurance and family takaful sector will be implemented beginning 2015 in a phased manner to ensure that the preconditions are in place for transitioning to a more competitive and innovative marketplace. The implementation of measures to improve the efficiency and sustainability of the motor insurance sector, including a third round of premium adjustments, has also paved the way for the gradual abolishing of tariffs to proceed in 2016.

The process of financial integration in the region advanced further with the conclusion of the Sixth Package of Financial Sector Commitments under the ASEAN Framework Agreement on Services and the ASEAN Banking Integration Framework. Several landmark foreign currency sukuk and debt issuances, along with initiatives to facilitate wider use of regional currencies and securing Malaysia's status as a 'netting-friendly jurisdiction', also enhanced the international complexion of the Malaysian financial system. The Bank continued to advocate for inclusive financial development on a regional and global level, while measures introduced domestically to monitor and assess the effectiveness of financial inclusion initiatives will drive policies to increase not only access to, but also the effective use of financial services. Several high-level arrangements were also established to raise the supply and quality of financial professionals with the aim of ensuring that the financial sector remains well-resourced to achieve its mandates.

ENSURING EFFECTIVE AND EFFICIENT INTERMEDIATION

During the year, the financial sector continued to mobilise savings and investments towards meeting the diverse financing needs of the

economy. Total new loans disbursed by the banking system continued to grow by 13.3%. More than 70% of the total loans disbursed were channeled to businesses, with the remaining to households. Financing to small and medium enterprises (SMEs) was also sustained, accounting for 30.4% of total business loans disbursed in 2014. In the debt securities market, corporate fund raising activities remained robust despite the challenging external environment. The nominal value of total private debt securities (inclusive of short-term trust certificates) issued during the year amounted to RM137.5 billion, reflecting an annual growth of 10.7% (2013: RM124.2 billion).

The financial sector has an important role in enabling the Malaysian economy's transition towards higher value-added activities. This role is not limited to direct bank financing. The development of innovative financial structures, including Islamic investment accounts, and the provision of other forms of non-credit financial services, have expanded the potential for financial institutions to play a larger role in supporting the funding needs of new growth industries such as green technology, biotechnology and other innovative industries. These sectors present significant growth opportunities for the financial sector as the transformation of the Malaysian economy towards becoming a developed nation gains traction.

Chart 2.1

Outstanding Banking System Financing



Source: Bank Negara Malaysia

According to a recent survey of banking institutions conducted by the Bank, new financing to businesses remained largely focused on the traditional economic sectors while the share of total financing to these new areas of growth accounted for less than 5% despite strong demand, particularly from start-ups. Given the nascent nature of the venture, bank financing to these start-ups may inappropriately put depositors' funds at substantial risk, particularly where survival of the start-ups is wholly dependent on the success of an untested venture. Nonetheless, there is scope for banks to capture opportunities in different stages of the growth cycle of innovative companies that would not undermine necessary prudence. These opportunities remain largely unexploited due to the following factors:

- Lack of expertise within financial institutions with relevant knowledge and experience in the new growth areas to support risk assessments;
- Lack of market information on the commercial potential of the new growth areas;
- Inability of businesses to pledge collateral typically required by banks;
- Prohibitive costs of financing; and
- Further support required by the companies to improve business and financial management practices.

In addition to the above factors, financing by banks to new growth areas could also be constrained by other factors such as:

- Limited credit history and track record of the business venture, rendering it difficult to ascertain business viability;
- Lack of robust business plans and incomplete record keeping; and
- Low level of awareness among smaller and newer businesses on alternative financing instruments such as private equity and leasing.

In an effort to address these issues and enhance the capability of financial institutions to support the financing needs of new growth industries, the Bank facilitated various strategic collaborations between the financial services industry and key stakeholders during the year. This included the Malaysia Green Technology Corporation, Intellectual Property Corporation of Malaysia and Multimedia Development Corporation. The collaborations served to increase awareness among the financial institutions on the growth potential in innovative industries and helped to bridge important information gaps,

including on valuation methodologies, that are hindering the extension of credit to viable companies. Conferences and business matching sessions were also held to connect financial institutions with the industry players. A number of financial institutions on their part have also embarked on capacity building initiatives through in-house training programmes and partnering with businesses involved in the industry, such as solar panel producers, in engaging potential clients.

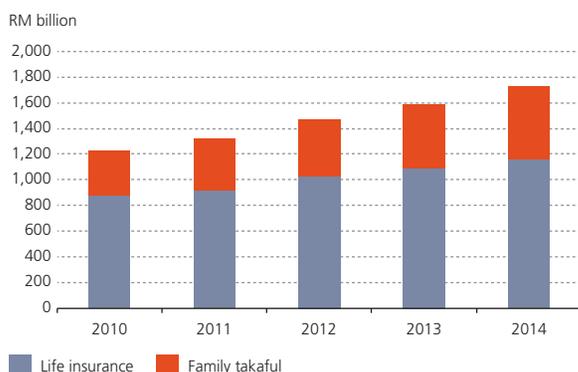
Beyond capacity building, changes are also needed in how financial institutions approach the provision of financing to the new growth areas. Credit decisions that are based on a deeper understanding of the borrower's business prospects and value beyond tangible assets would better facilitate access to financing for borrowers in these new growth areas. For businesses with incomplete credit histories or delayed income streams, alternative forms of financing such as factoring and leasing, and structured trade financing could be pursued. The establishment of dedicated advisory units to provide research and development services in the targeted sectors would also support the long-term growth of financial institutions in these new areas of growth.

STRENGTHENING THE INSURANCE AND TAKAFUL INDUSTRY

The insurance and takaful industry continued to play an important role in meeting the savings and protection needs of Malaysian households and businesses. During the year, total payments made by the life insurance and family takaful sector for death, disability and medical claims increased by 16.6% to RM5.0 billion (2013: RM4.3 billion). The industry also paid RM10.2 billion (2013: RM9.8 billion) in maturity benefits and cash surrender values, representing an increase of 3.8% from 2013. As at end-2014, life insurers and family takaful operators provided coverage amounting to RM1.7 trillion (2013: RM1.6 trillion) in sum insured/sum participated for all policies, or 161.8% of gross domestic product (GDP). This translates to a sum insured/sum participated per capita of over RM56,995. While the insurance penetration rate, as measured by the number of policies per population, has increased significantly over the past decade to 55.5% (2004: 42.6%), there remains a significant gap in protection, with many Malaysians either not having any form of life insurance protection,

Chart 2.2

Life Insurance and Family Takaful: Sum Insured and Sum Participated in Force*



*Excludes reinsurance and retakaful

Source: Bank Negara Malaysia

or having less insurance than they actually need. According to a survey published by the Life Insurance Association of Malaysia and Universiti Kebangsaan Malaysia in 2013, the average protection gap ranges between RM553,000 for families whose primary wage earner has some form of life insurance, to RM723,000 for families without any form of life insurance taken by the primary wage earner. This underscores the opportunity for further growth of life insurance and family takaful in meeting this need. For the general insurance and takaful sector, a total of RM8.6 billion was paid by the industry in 2014 for claims related to bodily injury, loss and damage of property, business interruption and third party liability. This translates to an average of RM23.5 million in claims paid a day.

Life Insurance and Family Takaful Framework

In November 2013, the Bank published a concept paper on the Life Insurance and Family Takaful (LIFE) Framework, setting out a package of reforms aimed at raising the efficiency and effectiveness of delivery channels and promoting greater product innovation. Extensive engagements with the industry and other stakeholder groups followed during the year. The proposals were generally well-received but there were some concerns raised that the removal of operating limits on agency remuneration and management expenses could ultimately reduce competition in the market and the range of product advice that consumers receive as the largest companies aggressively bid up commissions to attract agents to sell their products. Some insurers also highlighted that

the proposed minimum allocation rates, designed to preserve value to policyholders, could render existing products difficult to sustain over the long term. While these are valid concerns, the Bank views that these are mainly transitioning issues that could be overcome. The implementation of the complete package of reforms will create the preconditions for market competition and for the evolution of new products with superior value propositions. As part of the transition process and to minimise potential disruptions to the provision of products and services to consumers, the Bank will be implementing the LIFE Framework in a phased manner beginning with the following measures in 2015:

- The implementation of direct channels and product aggregators to enable consumers to compare products across different providers and purchase life insurance or family takaful products through direct channels such as the Internet. This will be implemented along with safeguards that will be put in place to promote informed decision-making;
- Revision of the regulatory framework on financial advisers to accord greater operational flexibility and to enhance the list of recognised qualifications for financial advisers;
- Removal of agency financing scheme limits and aligning the cost structures between bancassurance/bancatakaful and corporate agents for non-investment linked products other than the pure protection products to widen the delivery channels for insurance and takaful products; and
- Introducing a balanced scorecard for all intermediaries to drive increased professionalism and service quality, and to ensure that consumer needs for advice and information are effectively met.

The Life Insurance and Family Takaful Framework will be implemented in a phased manner beginning 2015

These measures will be followed by the liberalisation of commission structures for investment-linked products, including the introduction of minimum allocation rates. This is expected to spur the innovation of a wider range of products and delivery channels that can better suit the diverse consumer needs based on individual risk appetites, financial goals and levels of financial literacy.

Transitioning towards a managed market-based pricing environment in 2016

The implementation of initiatives under the New Motor Cover Framework (the Framework) has seen marked improvements in the claims settlement process within the motor insurance sector. During the year, the Accident Assist Call Centre, a 24-hour hotline introduced in 2013 to aid the general public involved in road accidents, handled 6,248 calls relating to motor accidents and road emergencies. The widespread dissemination of leaflets and motor claims guides at hospitals, police stations and post offices have also guided vehicle owners and victims of motor accidents through important steps that should be taken to expedite claims and protect against unscrupulous parties seeking to take advantage of the circumstances faced. As a result of the initiatives under the Framework, the time taken to settle a third party bodily injury claim continued to improve significantly as at the first half of 2014, reducing further by an average of 39 days compared to the same period in 2013. Since its establishment in 2007, measures introduced by the Vehicle Theft Reduction Council of Malaysia have also contributed to a reduction in the incidence of vehicle thefts. The number of thefts in 2014 reduced by 19.9% compared to 2013, equivalent to an estimated lower claims paid for theft losses of about RM125 million.

Improvements in the motor claims settlement process as a result of the implementation of initiatives under the New Motor Cover Framework

To enhance insurers' and takaful operators' claims and underwriting processes, ISM Insurance Services Malaysia Berhad is working towards the establishment of the Fraud Intelligence System (FIS). This will be instrumental in delivering savings, and ultimately lower premiums, by reducing the losses incurred annually due to fraudulent claims, estimated at about RM760 million a year. The FIS will initially cover the motor sector before being extended to all lines of insurance and takaful business.

These developments pave the way for plans to gradually abolish tariffs in the motor sector to proceed in 2016. Such a move will result in premiums that are more reflective of risks, with policy owners who demonstrate better risk profiles enjoying lower premiums compared

to higher risk groups. To ensure that motor insurance cover remains affordable and to facilitate an orderly transition to a more liberalised environment, premiums will initially be allowed to adjust within specified bands. A detailed roadmap setting out the approach that will be taken towards full market-based pricing will be announced in 2015.

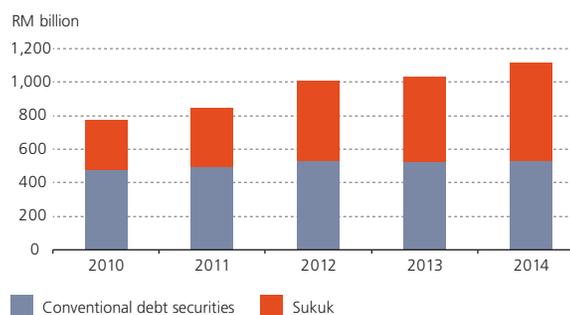
As part of this transition, a third round of motor premium adjustments was undertaken on 15 February 2014 under the Framework. Adjustments similar to the previous rounds were made to premiums for only three vehicle classes – private cars, motorcycles and express buses. Premium rates for other vehicle classes remain unchanged as prices already broadly reflect the claims experience. A final round of premium adjustments will take place in 2015.

DEVELOPING DEEP AND VIBRANT FINANCIAL MARKETS

The domestic financial markets continued to develop as an important avenue for fund raising, investment and risk management activities. In 2014, the total outstanding debt securities expanded by 8.2% to RM1,117.0 billion (2013: RM1,032.5 billion), with the nominal value of new issuances amounting to RM505.9 billion (2013: RM501.2 billion). The Malaysian debt securities market remained the largest in Southeast Asia, at 104.4% of GDP. A key highlight during the year was the issuance of a 3-year RMB1.5 billion bond by Cagamas Berhad in September 2014, which attracted a strong order with a bid-to-cover ratio of over three times and a fixed coupon rate of 3.7% per annum. The landmark issuance, which carries

Chart 2.3

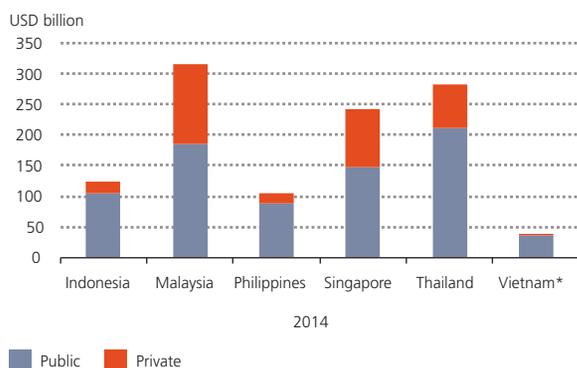
Outstanding Debt Securities (Public and Private)



Source: Bank Negara Malaysia

Chart 2.4

ASEAN Outstanding Local Currency Debt Securities Market



* As at September 2014

Source: Asian Bonds Online

the market name 'Tiger Emas Bond', represents the largest renminbi bond by a Malaysian issuer during the year. This was also the first renminbi and non-ringgit denominated bond to be settled via Malaysia's Real-time Electronic Transfer of Funds and Securities System (RENTAS), affirming the capacity of RENTAS in supporting the issuance and depository of foreign currency bonds in the international markets.

The foreign exchange market also experienced robust growth in 2014, with the average daily turnover of

foreign exchange transactions increasing by 13.5% to USD11.8 billion (2013: USD10.4 billion). To further modernise the financial market infrastructure, the Bank granted approval to a foreign electronic money-broker to provide an electronic matching platform for the interbank foreign exchange market. The introduction of a foreign electronic money-broker forms part of Malaysia's ongoing liberalisation of the foreign exchange market and is expected to accelerate the development of electronic channels that will extend efficiency gains and opportunities beyond the interbank market to other intermediaries and end-users.

In tandem with the increase in intra-regional trade and investment activities, initiatives to facilitate the wider use of regional currencies were intensified. Among the key highlights during the year were:

(i) Operationalisation of a Renminbi Deposit and Investment Facility

The Renminbi Deposit and Investment Facility (RDIF) is part of the Renminbi Liquidity Facility offered by the Bank to enhance the liquidity of the renminbi in the domestic market. The RDIF provides an alternative avenue for financial institutions to place surplus renminbi funds with the Bank. As at end-2014, onshore financial institutions have placed a total of RMB3.5 billion with the Bank via RDIF. Opportunities exist for

Enhancement of Kuala Lumpur Interbank Offered Rate (KLIBOR) Standards

In light of the recent global reforms on financial benchmarks including the introduction of the International Organisation of Securities Commissions' (IOSCO) Principles of Financial Benchmarks, the Bank conducted a review of the KLIBOR Rate Setting Standards (the Standards) to further improve the effectiveness of KLIBOR in terms of governance, oversight, accountability and transparency. Arising from the review, the Bank introduced the following enhancements to the KLIBOR framework:

- Contingency procedures in the event of market or operational disruptions;
- Strengthened arrangements to be instituted on KLIBOR submitters to address conflicts of interest, training and whistle-blowing;
- Procedures for handling complaints addressed to the Bank by parties of interest;
- Establishment of a hierarchy of data input that guides the submissions;
- Periodical reporting by KLIBOR submitters for purposes of monitoring compliance with the Standards; and
- Establishment of a consultative committee to provide expert advice on the robustness of the rate-setting process.

These enhancements bring the Standards into alignment with the IOSCO Principles on Financial Benchmarks which represent an overarching framework for benchmark reforms as endorsed by the Financial Stability Board. The proposed enhancements were published in a concept paper issued by the Bank on 19 November 2014 and is expected to be finalised by the first quarter of 2015.

onshore financial institutions to further utilise the RDIF, particularly in managing their shorter-term liquidity. As such, this facility provides the catalyst to increase offerings of renminbi investment products such as renminbi deposits onshore.

(ii) Appointment of a designated renminbi clearing bank

Following the Memorandum of Understanding signed with the People's Bank of China on 10 November 2014, Bank of China Malaysia Berhad was subsequently appointed as the renminbi clearing bank for Malaysia on 5 January 2015. This marked another meaningful collaboration with the People's Bank of China in developing Malaysia's financial infrastructure to facilitate the use of local currencies for trade and investment flows between the two countries. With direct access to Chinese financial markets, the renminbi clearing bank will enable Malaysian financial institutions to source renminbi funds directly from the onshore Chinese financial market at competitive rates. With the majority of renminbi clearing banks currently located in advanced economies, the designation of a renminbi clearing bank for Malaysia – the first for an emerging economy in Asia outside China – is an important development in providing another viable option for firms and financial institutions in the ASEAN region to manage their renminbi transactions more effectively going forward.

Initiatives to facilitate the wider use of regional currencies were intensified

Another important development during the year was the enactment of the Netting of Financial Agreements Bill 2014 (NFA) in December 2014 which provides legal assurance for the enforceability of netting arrangements under the most commonly used financial agreements in Malaysia. The NFA, which comes into force in 2015, secures Malaysia's status as a 'netting-friendly jurisdiction' and reinforces the contractual rights and obligations of counterparties under qualified financial

agreements. These financial agreements include the International Swap and Derivatives Association (ISDA) Master Agreement, Global Master Repurchase Agreement and International Securities Lending Agreement that govern the over-the-counter derivatives, repurchase agreements, and securities sell-buy back as well as securities borrowing and lending transactions for unlisted debt securities.

Although close-out netting has a critical role in reducing systemic risks, it is recognised that in times of crises, the ability of resolution authorities to effectively implement resolution strategies can be substantially undermined by counterparty actions to enforce close-out netting. Consistent with the Key Attributes of Effective Resolution Regimes for Financial Institutions issued by the Financial Stability Board, the enforcement of netting arrangements under the NFA will therefore be subject to a temporary stay to facilitate the orderly resolution of financial institutions under such a stress scenario. This is also in line with the global efforts, led by ISDA, to incorporate a temporary stay within contractual arrangements to facilitate the cross-border application of resolution requirements. Under the NFA, the Minister is empowered to prescribe a period of temporary stay based on the recommendation of the relevant authorities responsible for the resolution of financial institutions to ensure consistent implementation across regulated institutions. The Minister also has the necessary powers to deal with future legislative or market developments that may give rise to uncertainty in the enforceability of netting arrangements.

Enactment of the Netting of Financial Agreements Bill 2014 secures Malaysia's status as a 'netting-friendly jurisdiction'

The enactment of the NFA and international recognition of Malaysia as a 'netting-friendly jurisdiction' will further contribute to the growth and development of the Malaysian derivatives market, by enhancing market liquidity and lowering costs for the introduction of a wider range of instruments for risk management.

ADVANCING THE FINANCIAL INCLUSION AGENDA

The Bank continued to accord high priority to advancing the financial inclusion agenda. In order to track the progress of financial inclusion initiatives, the Bank has implemented a systematic monitoring framework based on the following four broad dimensions:

- ‘Convenient accessibility’ measures the availability of financial access points in each sub-district in the country;
- ‘Take-up rate’ measures the population’s access to financial products and services;
- ‘Responsible usage’ measures the level of utilisation or activity of the financial products and services provided; and
- ‘Satisfaction level’ measures the quality and efficiency of financial products and services offered based on consumers’ satisfaction.

The implementation of the systematic financial inclusion monitoring framework is in line with the intended objectives of the Maya Declaration and Sasana Accord. The Maya Declaration, which was launched in 2011, is the first measurable set of commitments made by Alliance for Financial Inclusion (AFI) member countries to reach the world’s 2.5 billion unbanked people through greater financial inclusion. To further strengthen the effectiveness of the commitments, the AFI network adopted the Sasana Accord in 2013, under which AFI members will commit to quantifiable national goals and measure their progress through the AFI Core Set of Financial Inclusion Indicators.

The Bank also rolled out the second financial inclusion demand-side survey in January 2015 to assess the effectiveness of the initiatives launched since the first survey conducted in 2011. The outcome of the survey will continue to be used as important input in setting the Bank’s financial inclusion priorities moving forward. With deeper insights from the survey into the population’s evolving financial requirements and access to financial services, a more targeted approach in policy development and implementation can be achieved.

In widening the outreach of financial services, the Agent Banking Framework continued to be expanded. Several financial institutions launched agent banking initiatives during the year with the participation of retail outlets and

farmers’ organisations. The range of services offered through agent banking has also broadened, with a development financial institution now allowing customers to open bank accounts through its agents. As at end-2014, 95% of 872 sub-districts (*mukims*) that represent a population of more than 2,000 or State Legislative Assembly districts (*Dewan Undangan Negeri*, DUNs) in Sabah have a banking presence (2011: 46%). Agent banking represents the only bank presence in 53% of these *mukims*/DUNs. As a result, 99% of the population in Malaysia currently has access to banking services, either through a bank branch, an agent or both. At the same time, 92% of the adult population in Malaysia has at least one deposit account, of which 90% are active accounts with regular deposits and withdrawals. The benefits of the framework are also evident to financial consumers. Some communities, which previously had to travel up to 140 kilometres to the nearest bank branch, now enjoy access to financial services located within walking distance. In some instances, this has resulted in savings in terms of transportation costs of up to RM100 per trip to reach a bank branch, as well as travelling time of up to three hours. Rural communities also enjoy longer hours of access to financial services as the transactions are conducted during the agent’s operating hours, which typically extend beyond the normal operating hours of bank branches.

More agent banks launched with a broader range of services provided

Microfinancing schemes, through which the financial sector can provide financing support to micro enterprises, continued to grow albeit at a more moderate pace in recent years. Total outstanding financing extended under the *Skim Pembiayaan Mikro* was RM863.2 million as at end-2014, benefitting borrowers through more than 66,000 accounts. A total of RM2.7 billion had been approved to more than 168,000 micro-enterprise accounts since the scheme’s inception in 2006. The slower growth in financing extended under the *Skim Pembiayaan Mikro* in recent years has been mainly the result of an increase in alternative avenues provided by various government agencies for micro enterprises to obtain funding. A number of participating banks

and development financial institutions were also recording a higher incidence of impaired financing. Some participating financial institutions have taken proactive steps to review their existing monitoring mechanisms to allow for earlier interventions appropriate to the nature of these borrowers to avoid defaults. This has included providing advisory services to micro borrowers. During the year, a scheme with flexible repayment terms was also launched to meet the needs of micro enterprises with irregular or seasonal income streams. A pilot programme will be launched by a development financial institution in 2015 to promote prudent financial management among the lower income households. Under this programme, account holders will commit small amounts of savings over a certain period of time and enjoy favourable returns while continuing to have access to the funds in the event of emergencies. It is envisaged that such products will inculcate a regular savings habit and lead to an increase in standards of living among lower income segments. In addressing the protection needs of the low income and underserved segments, affordable insurance and takaful products are being piloted by several insurers and takaful operators. Banking agents and post offices are also being explored as potential avenues for distributing these products due to their wide outreach. The Bank will issue a framework on microinsurance and microtakaful products in 2015, taking into account the experience of these pilot schemes. The framework will seek to ensure a facilitative regulatory environment for affordable yet commercially sustainable microinsurance and microtakaful products.

On the international front, the Bank continued to be a strong advocate of inclusive financial development. In recognition of this role, Malaysia won the bid to host the headquarters of the AFI, a global network of policymakers from more than 100 countries. This will further expand opportunities for Malaysia to play a strategic role in deepening cross-border cooperation in the areas of central banking and finance. Work is also underway to establish the Global Financial Inclusion Knowledge Exchange as a central repository for policymakers involved in financial inclusion.

The Bank's active contribution to the global financial inclusion agenda includes the collaborative development of the Core Set Indicators (Indicators) and the Financial Inclusion Index (Index) under

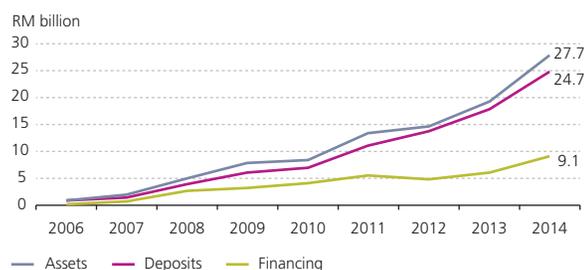
the AFI Financial Inclusion Data Working Group to track the progress of financial inclusion in different countries. The development of the Indicators and Index is based on the methodology and framework developed internally by the Bank to measure the level of financial inclusion domestically. The Bank also contributed towards the development of policy papers which were endorsed by international standard-setting bodies, including the Bank for International Settlements, on various financial inclusion issues such as the impact of global standards on financial inclusion, consumer empowerment and market conduct practices, public-private engagements as well as improving access to finance for SMEs. The Bank, in partnership with AFI, has also organised capacity building programmes which benefitted 132 policymakers from 46 countries in areas that support the financial inclusion agenda.

MALAYSIA AS AN INTERNATIONAL ISLAMIC FINANCE MARKETPLACE

The Islamic finance marketplace continued its growth momentum during the year supported by several new initiatives aimed at enhancing the vibrancy of the marketplace. The Islamic banking sector recorded a growth of 12.0% in 2014 to account for 25.6% of the total assets of the overall banking system. Foreign currency assets in the sector also increased to RM27.7 billion, reflecting the growing importance of cross-border transactions in Islamic finance (2013: RM19.3 billion). During the year, three conventional banks commenced their Islamic banking window and international currency business unit operations, increasing the diversity and competitiveness of the marketplace. The classification of investment accounts as distinct

Chart 2.5

Foreign Currency Assets, Financing and Deposits of Islamic Banks*



*Including International Islamic Banks and International Currency Business Units

Source: Bank Negara Malaysia

from Islamic deposits under the Islamic Financial Services Act 2013 (IFSA) also further strengthened the growth potential of the sector through a wider range of products to meet the diverse needs of consumers. Following this, the Bank issued the Investment Account Framework to facilitate the orderly development and operationalisation of investment accounts as a new Shariah-compliant asset class and source of funding. Details of the investment accounts are further elaborated under the box article on 'Investment Accounts under IFSA'.

The Investment Account Framework will facilitate the orderly development and operationalisation of investment accounts as a new Shariah-compliant asset class and source of funding

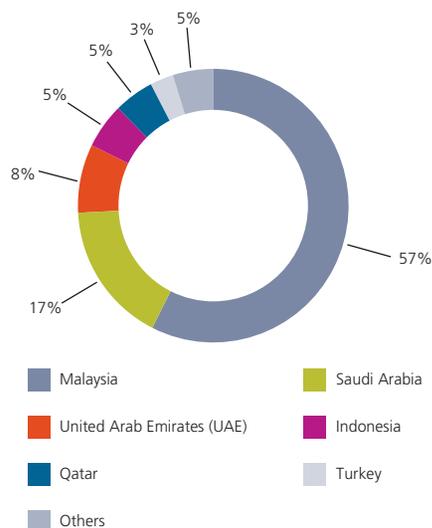
In the takaful sector, the total assets of takaful funds increased to RM22.7 billion as at end-2014 (2013: RM20.9 billion) while the total net takaful contributions accounted for 13.3% of the total net premiums and contributions in the insurance and takaful sectors.

Malaysia also continued to be the preferred destination for the issuance of sukuk by corporations and international organisations. In 2014, 65.6% of new global issuances of sukuk, amounting to USD77.9 billion, was originated in Malaysia. Latest available data places the share of all global outstanding sukuk which originated in Malaysia at just over 57%. Five foreign currency-denominated sukuk were accorded the 'Emas' status in 2014, bringing the total number of 'Emas' sukuk to 18 since 2009. Of significance, the year saw the first Japanese yen-denominated sukuk issued in Malaysia, further reinforcing Malaysia as the destination for multi-currency sukuk issuance.

During the year, several Malaysian banks were appointed as joint lead managers to facilitate the issuance of sukuk by international organisations and the governments of Hong Kong SAR, Indonesia, Turkey and the United Kingdom. Bursa Malaysia was also selected as one of the listing platforms for the trading of the sukuk issued by the Government of Hong Kong SAR. Reflecting the increased cross-border demand for sukuk,

Chart 2.6

Total Outstanding Sukuk Globally in 2014



Source: Islamic Finance Information Service, Zawya, Bloomberg, Kuwait Finance House Research

Malaysian Government Investment Issues (GII) will be included in the Barclays Global Aggregate, Asian Pacific Aggregate and EM Local Currency Government indices starting 31 March 2015. The inclusion would enable the GII to be marketed to a larger international investor base. To further widen the outreach of Islamic finance globally, the Bank launched the digital Global Conversations platform in September 2014. The digital platform comprised a series of Twitter hashtags and a MYIF mobile application that provides information on the latest developments, insights and deal flows emanating from Malaysia's Islamic finance marketplace and around the world. In particular, the hashtag #YnotIF (which stands for 'Why Not Islamic Finance') was introduced to raise awareness and promote Islamic finance to the global financial community.

REGIONAL AND INTERNATIONAL DEVELOPMENTS

Within the ASEAN region, significant strides in deepening financial integration have been achieved in realising the vision of a single market for goods and services under the ASEAN Economic Community. The conclusion of the Sixth Package of Financial Sector Commitments, expected in the first quarter of 2015, marks the most meaningful step in financial services liberalisation to date under the ASEAN Framework Agreement on Services. Under the Sixth Package, ASEAN

Investment Accounts under IFSA

Islamic finance, through its diverse spectrum of Shariah contracts, is well positioned to serve the real economy and fulfil the dynamic needs of customers. The introduction of investment accounts by Islamic banks is an important step forward in fulfilling this potential. These accounts offer new investment avenues that can cater to a wider range of investor risk-return preferences, thereby further contributing to the financing of entrepreneurship in the real economy. For Islamic banks, investment accounts will open up opportunities to tap new sources of funding that can be efficiently channelled to productive activities through the broader application of Shariah contracts such as equity-based contracts. This in turn will broaden the financial intermediary role of Islamic banks in promoting economic growth and development.

This article provides an overview of the key concepts and features of investment accounts, the implications for customers and Islamic banks, and steps taken by the Islamic banking industry to provide an efficient mechanism for delivering investment account products in the market.

Investment Account as a New Product Offering for Customers

The clear distinction between investment and deposit accounts under the Islamic Financial Services Act 2013 (IFSA) paves the way for the accelerated growth of investment accounts as a distinct Shariah-compliant asset class and source of funding for Islamic banks. Customers with higher risk appetites will have the option of placing their surplus funds in investment account. Unlike Islamic deposits which can be withdrawn on demand and guaranteed by Perbadanan Insurans Deposit Malaysia (PIDM), clients of investment accounts are able to retain funds for a longer period of time and enjoy the opportunity to earn more returns but with more restrictive withdrawal conditions.

Investment accounts can be structured with different risk and return profiles that vary in accordance with the characteristics of the underlying assets. The funds sourced for these accounts can be directed to diverse forms of financing that extend beyond debt-based to include equity-based financing, as well as funding to viable ventures under a broader set of credit criteria (e.g. higher concentration limits) that are aligned with the risk-absorbing features of investment accounts. In terms of asset types, the funds can be channelled to a targeted asset such as trade financing to an individual exporter, or a portfolio of assets such as financing for a group of small and medium enterprises.

Investment accounts are an additional avenue, complementing private equity and venture capital funds, for businesses to access financing. The level of returns generated depends on the performance of the underlying asset, with possible upside potential in returns to customers generated from equity-based financing structures as well as more efficient capital and liquidity management strategies by Islamic banks. The form of the returns on investment accounts is governed by the types of Shariah contract adopted. These contracts generally fall under the following categories:

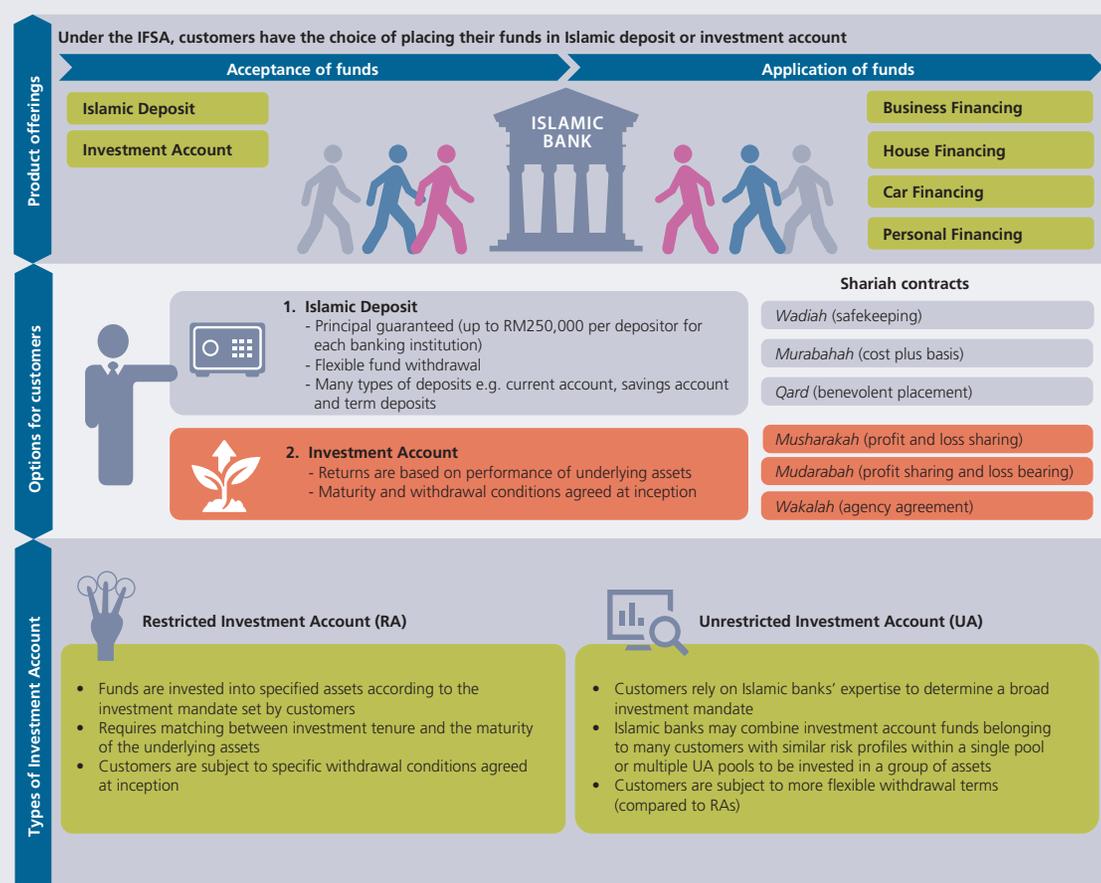
- *Musharakah* (profit and loss sharing) contracts - where profits are shared between the customer and the Islamic bank according to an agreed ratio and losses are borne based on proportion of capital contributed;
- *Mudarabah* (profit sharing and loss bearing) contracts - where profits are shared between the customer and the Islamic bank according to an agreed profit ratio and losses are fully borne by the customers as the sole capital providers; or
- *Wakalah* (agency) contracts - where profits are returned to the customers after payment of agency fees (imposed upon placement of principal or generation of returns) and performance fees when returns outperform an agreed benchmark.

Two main types of investment accounts are offered by Islamic banks in Malaysia: restricted and unrestricted investment accounts. Restricted investment accounts (RA) enable customers to specify the investment mandate and the underlying assets that their funds may be invested in. Consistent with the

more restrictive investment parameters, the maturity of a RA must match the tenure of the specified underlying assets with more restrictions imposed on the ability of account holders to withdraw their funds before maturity. Unrestricted investment accounts (UA), on the other hand, allow Islamic banks to determine the investment mandate and the structure of the investment account, which may include combining different UAs into pools of funds that invest in diversified portfolios of underlying assets, in exchange for more flexible withdrawal conditions. While investment accounts can be tailored to meet a diverse range of customer needs and preferences, they do not enjoy the guarantee of principal by PIDM. Under the IFSA, these important distinctions between UAs, RAs and deposit accounts must be reflected in an Islamic bank's operations as well as in its dealings with customers. Diagram 1 illustrates the key product offerings by Islamic banks.

Diagram 1

Main Product Offerings by Islamic Banks



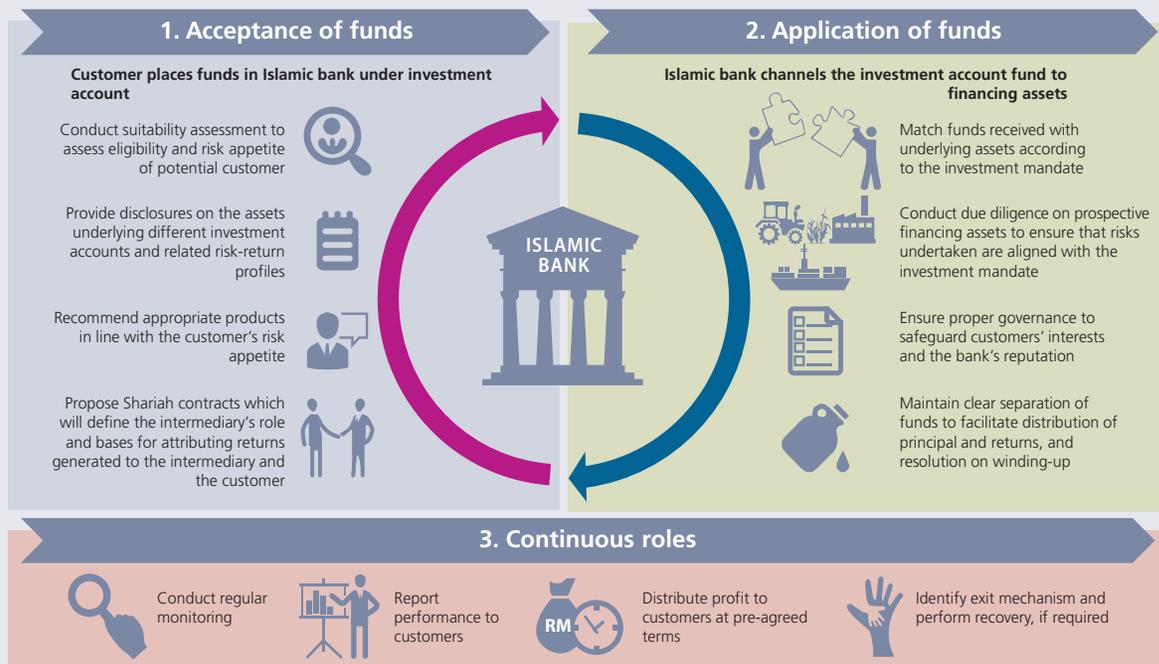
Operationalisation of Investment Accounts by Islamic Banks

The operationalisation of investment accounts is governed by the policy document on investment accounts which was issued by the Bank in March 2014. The document sets out the capital adequacy and liquidity requirements for investment accounts that reflect their risk-absorbing characteristics, additional disclosure requirements commensurate with the risks assumed by account holders, and responsibilities of Islamic banks to manage the investments in accordance with sound investment principles. The IFSA further safeguards the interests of investment account holders by according priority to the claims of account holders on the underlying assets funded

by investment accounts in the event of a winding-up procedure. Specifically, the Act provides that the assets underlying investment accounts shall be ring-fenced for the purpose of meeting the claims of investment account holders. An overview on the operationalisation of investment accounts is provided in Diagram 2.

Diagram 2

Intermediation Functions of Islamic Banks in Operationalising an Investment Account



Investment Account Platform to Enable the Efficient Delivery of Investment Account Offerings

A key strategy to achieve critical mass and provide the widest possible coverage of prospective investment ventures and sponsoring institutions is to leverage on shared infrastructure for the delivery of investment account offerings. This would significantly reduce initial investment costs that would otherwise be incurred by individual Islamic banks, while laying the groundwork for further efficiency gains to be reaped in future. The Investment Account Platform, which will be developed by the industry, will serve as a centralised multi-bank platform that will allow customers to view and choose from a wide range of ventures sponsored by different Islamic banks for the customers to invest and track their investments. The platform, which will operate on a secured infrastructure similar to internet and mobile banking, will have the following innovative features:

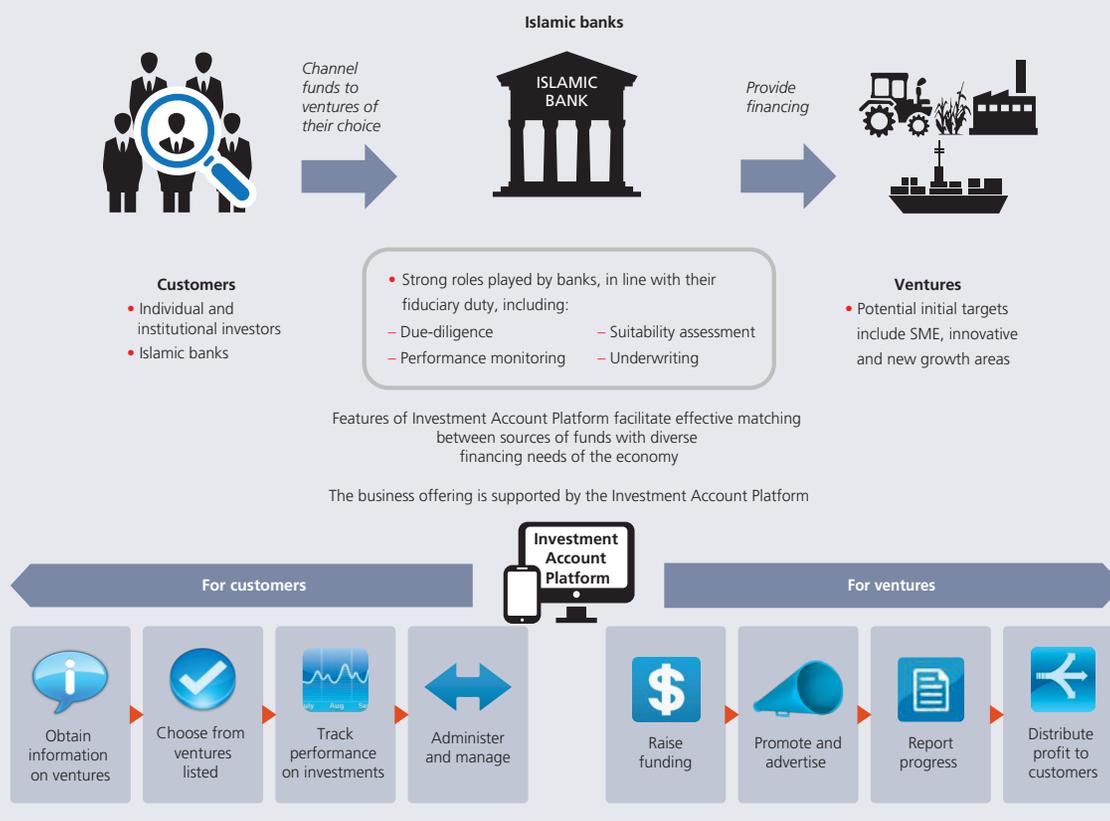
- Wide choice of viable ventures – The ventures listed on the platform will be subject to prior assessment and screening for viability by the sponsoring Islamic bank. All ventures listed will be Shariah-compliant.
- Control over the quality and coverage of important information for decision-making – Each venture listed will be accompanied by important information provided to customers which must comply with minimum disclosure standards covering the description of the venture, the terms of financing (such as the tenure and profit-sharing ratio), the estimated profit rate and the risk level of the venture as categorised by the sponsoring bank.
- Ease of transactions – Customers will be able to specify their preferences in relation to the types of ventures which they wish to invest in, based on factors such as the underlying industry, geographical location, risk level and tenure of financing. Customers can also filter investment ventures based on their selection of the sponsoring Islamic banks.

- Suitability assessment – The sponsoring bank will assess the suitability of investment in a particular venture in relation to the risk appetite and financial position of the customer. However, the decision remains with the customer on whether to proceed with the investment. Customers who choose to pursue an investment that is inconsistent with the sponsoring bank’s suitability assessment will be appropriately warned of the risks.
- Regular monitoring – Customers will be provided with a performance report on the progress of the venture at least twice a year. The report will also include an assessment by the sponsoring bank on the potential emerging risks associated with the venture.

The Investment Account Platform will be administered by an entity established by the Islamic banking players. The entity will be responsible to coordinate and manage the listing of investment ventures and sponsoring Islamic banks on the platform. Individual sponsoring Islamic banks that leverage on the platform will retain all fiduciary responsibilities to investment account holders in connection with the ventures financed through investment accounts that are offered under the platform. Diagram 3 illustrates the broad mechanics of the Investment Account Platform.

Diagram 3

Broad Mechanics of Investment Account Platform



The platform will be integrated with the existing payment infrastructure and the I.T. systems of the Islamic banks to facilitate the transfer of funds from customers at the inception of the financing and the payment of principal and any profit generated at the end of the financing period. An important distinguishing feature of the platform compared with other platforms, such as crowd-sourced funding, is the involvement of banks as a financial intermediary in the transactions.

The platform is envisaged to expand opportunities for consumers to participate on a risk-sharing basis, with greater confidence in financing entrepreneurship and other economic activities. Over a longer duration, the success of the platform could entail inclusion of multi-currency financing for ventures outside Malaysia.

The effective implementation of investment accounts, supported by the Investment Account Platform, represents another strategic initiative to propel Islamic finance in supporting real economic activity. This is achieved through the wider expansion of innovative financing structures with a central role played by Islamic banks.

countries made market access offers across all modes of supply covering the banking, insurance and capital market sub-sectors. These include the areas of new licences, further sub-branching flexibilities for banks, higher foreign equity limits and greater movement of professional expatriates in the financial sector. Collectively, these offers will provide more access and certainty for the operations and investments of financial institutions in ASEAN. For Malaysia, the new offers are in line with Malaysia's current financial sector policies, particularly with respect to the insurance and capital market sectors. These include liberalising the entry requirements for direct insurers and reinsurers, fostering the development and integration of regional capital markets through the liberalisation of foreign equity limits in stockbroking companies and expanding the talent pool through the employment of expatriates in specialised areas.

Together with this Sixth Package, a significant milestone achieved is the conclusion of the ASEAN Banking Integration Framework (ABIF), a pragmatic approach that will enable deeper regional banking integration via mutually beneficial bilateral arrangements that take into account each member country's level of readiness. The immediate objective of ABIF is to achieve a more integrated banking market, spearheaded by Qualified ASEAN Banks (QABs) that have a meaningful presence across ASEAN countries. ABIF is built on principles which accord priority to the outcome of promoting greater regional economic growth, and emphasise inclusiveness, transparency and reciprocity taking into account the readiness of individual member countries to pursue greater liberalisation of their financial sectors.

Under ABIF, QABs that have the capacity and that are well-managed will serve as regional standard bearers. These QABs will be accorded greater access and flexibilities to expand into regional markets. Based on the assessment of reciprocal benefits to home and host countries, ABIF will accelerate opportunities for ASEAN banks to have a larger role in facilitating intra-regional trade and investment through the effective intermediation of cross-border financial flows in the region. With the implementation of ABIF, regulatory and supervisory arrangements will also be strengthened to ensure that regional financial stability is preserved.

On 31 December 2014, the Bank, Bank Indonesia and Otoritas Jasa Keuangan signed a Heads of Agreement as a precursor to the conclusion of ABIF. The Heads of Agreement identifies agreed measures between authorities in Indonesia and Malaysia on market access and operational flexibilities that will be accorded to the banking institutions that are established as QABs in the respective jurisdictions. In demonstrating the bilateral process which is an integral component of ABIF, the Heads of Agreement is expected to chart a path for the operationalisation of other future bilateral arrangements under ABIF.

The conclusion of the ASEAN Banking Integration Framework will pave the way for a more integrated banking market within the ASEAN region

Under Malaysia's Chairmanship of ASEAN in 2015, alongside deepening financial integration, promoting financial inclusion will also be a priority to enable ASEAN consumers to benefit from the fruits of financial integration. This will be done in collaboration with specialised agencies such as the AFI. The Bank will also continue to actively engage various national and regional stakeholders to further strengthen capacity building initiatives in the region to support the realisation of ASEAN's growth potential.

During the year, Malaysia underwent the Global Forum on Transparency and Exchange of Information for Tax Purposes Phase 2 Peer Review, which assesses the practical implementation of the global standard on exchange of information. Malaysia was given an overall rating of 'Largely Compliant'. Moving forward, Malaysia will adopt the global standard on automatic exchange of information for tax purposes by 2018, subject to the completion of necessary legislative procedures. This further signifies Malaysia's commitment to stronger international collaboration in combating tax evasion to ensure the integrity of the financial system is safeguarded.

CONTINUED DEVELOPMENT OF HUMAN CAPITAL

During the year, the Bank continued to collaborate with the financial services industry to evolve a holistic talent development infrastructure with the aim of securing a sustainable talent pipeline for the financial industry, with higher levels of professional standards.

Holistic talent development infrastructure to secure a sustainable talent pipeline for the financial industry with higher levels of professional standards

A number of key initiatives were undertaken in 2014:

(i) Establishment of the Financial Services Talent Council

To provide strategic direction on financial sector talent development, the Bank in July 2014 established the Financial Services Talent Council (Council). The establishment of the Council, which was identified under the Financial Sector Blueprint 2011-2020, brings together individuals with breadth and depth of experience from across the financial services industry and academia. Based on the future talent demands of the Malaysian financial sector, the Council aims to identify strategies to further develop, attract, retain and deploy domestic and international talent to meet these demands. The immediate focus of the Council is on:

- Identifying and mapping skills shortages, the underlying trends driving talent demand and the key sources of talent supply; and
- Assessing the effectiveness of all training and development providers that support the up-skilling of the industry talent pool.

The Council's preliminary research and engagements have revealed some important observations as summarised in Table 2.1.

Moving forward, the Council will intensify its engagement with the industry, private sector and public sector, as well as education and training institutes. The feedback and assessment arising

from these sessions will form a basis for the Council's recommendations.

(ii) Establishment of the Financial Services Professional Board

The Financial Services Professional Board (Board) was formed by the industry in September 2014 with the support of the Bank and the Securities Commission to develop and advocate the adoption of high ethical and professional standards to strengthen confidence in the financial services industry domestically and internationally. The standards will extend across the banking, insurance, capital markets and Islamic finance sectors. The Board, which comprises prominent members with global experience in the financial services, law, accountancy and other related industries, will be able to offer valuable global perspectives that will lead to the formation of standards with universal applicability. With increasing focus on the practices in the financial industry globally, the Board's immediate focus is to develop a code of ethics for professionals in the industry.

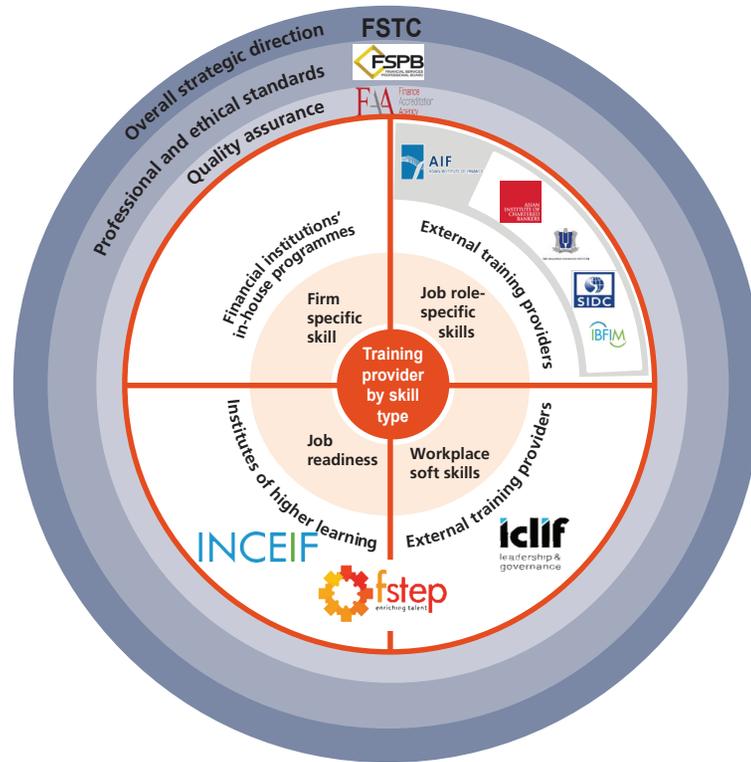
The Financial Services Professional Board was established to develop and advocate the adoption of high ethical and professional standards in the financial services industry

(iii) Finance Qualification Structure and FAA Learning Standards

The Finance Accreditation Agency (FAA) launched the Finance Qualification Structure (FQS) and FAA Learning Standards (FLS) in September 2014 to enhance the quality of talent and professional learning programmes in the financial services industry. The FQS seeks to harmonise and map professional qualifications relevant to financial practitioners into a single qualification framework, enabling comparability and mutual recognition of prior learning so that financial professionals can practice across jurisdictions through the use of one global set of standards. This is complemented by the FLS, which aims to promote minimum standards in designing, developing and delivering learning programmes, thereby raising

Diagram 2.1

Comprehensive Institutional Framework on Talent Development to Support Growth of the Financial Sector



	FSTC Financial Services Talent Council	Recommends strategies to develop, attract, retain and deploy domestic and international talent to meet the demand
	FSPB Financial Services Professional Board	Develops and advocates voluntary professional and ethical standards for the financial sector
	FA Finance Accreditation Agency	Responsible for quality assurance of learning initiatives, including programme, individual and institutional accreditation
	AIF Asian Institute of Finance	Enhances human capital development and talent management in the financial sector
	Asian Institute of Chartered Bankers	Professional educational body for the Malaysian banking and financial services industry
	The Malaysian Insurance Institute	Professional body and education institution for the Malaysian insurance and takaful industry
	SIDC Securities Industry Development Corporation	Provides capital markets education, training and information for ASEAN
	IBFIM	Islamic finance training and reference centre for industry and academia
	Iclif The Iclif Leadership and Governance Centre	Provides training for senior management in strategic and leadership management
	fstep Financial Sector Talent Enrichment Programme	Provides training for top graduates to acquire a foundation in the financial services industry
	INCEIF International Centre for Education in Islamic Finance	Builds Islamic finance talent and skills by offering both graduate and professional programmes

Source: Bank Negara Malaysia

Table 2.1

Key Observations

The job-readiness of graduates is important to the entry-level talent pipeline.

- A sizeable proportion of 65% of graduates hired into entry positions are not finance-related degree holders.
- Financial institutions are generally more concerned about job-readiness competencies than technical competencies at the entry level.

Financial institutions vary in the extent to which they rely on external training providers, in-house training or on-the-job experience.

- The financial institution's choice of combination between the types of training provider depends on the type and sophistication of the job skill that requires development.
- A majority of financial institutions indicate reliance on external training providers to provide basic training and required professional qualifications.
- Ongoing dialogue between external training providers and financial institutions is crucial to ensure that training programmes are up-to-date with up-skilling needs.

Job movements between financial institutions occurred primarily among relatively junior employees.

- Most of the resignations in 2013 involved employees with less than five years of experience moving within the domestic financial sector.
- Financial institutions face hiring cost pressures as a lack of experienced candidates is driving salary increases of 15-30% being offered to external hires, compared to internal yearly salary increases of about 5-6%.

The difficulty in hiring a suitable candidate increases from entry to senior level.

- The average time taken to fill vacancies across all levels is about 40 days, with responses ranging between five days to more than 100 days.
- The average time taken to fill vacancies is highest at the senior level followed by middle and entry level.
- Financial institutions need to ensure talent retention in critical skill areas. Institutions indicated that a key strategy employed is to continually engage employees on individual career development and succession planning.

Top 10 Areas Expected To Experience Shortage Over The Next Five Years

Banking

- Shariah Unit
- Treasury
- Corporate Banking
- Legal and Compliance
- Commercial Banking
- Transaction Banking
- Credit Risk
- Investment Banking
- Risk Management
- Information Technology

Insurance and Takaful

- Underwriting
- Appointed Actuary
- Business Development
- Risk Management
- Information Technology
- Claims
- Product Development
- Actuarial Services
- Legal and Compliance
- Sales and Marketing

Recurring gaps across functions

- Candidates with 6-10 years of applicable experience
- Candidates possessing both professional qualifications and market experience
- Niche and multi-product specialists
- Candidates with specialised technical skills
- Project managers
- Candidates with local and global market exposure and knowledge

the overall quality of learning programmes across the industry. Both initiatives are understood to be the first of its kind within the financial sector.

(iv) Financial Institutions Directors' Education in Islamic Finance and Shariah Leaders Education Programme

The Financial Institutions Directors' Education in Islamic Finance and Shariah Leaders Education Programme will be offered for the first time in 2015. These programmes

are specifically designed to broaden the perspectives of directors and Shariah scholars on emerging opportunities in Islamic finance as well as equip them with the necessary technical knowledge and skill sets in building a sustainable business model in accordance with Shariah principles. The programmes apply learning methodologies and approaches that have proven to be particularly effective in other successful leadership competency programmes offered by the Iclif Leadership and Governance Centre.

2014

REGULATORY AND SUPERVISORY FRAMEWORK

- 85 Strengthening the Prudential Framework
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REGULATORY AND SUPERVISORY FRAMEWORK

The regulatory and supervisory framework continued to be strengthened in 2014, driven both by the global reform agenda as well as domestic priorities. A key focus of regulatory measures was on the implementation of the Basel III liquidity standards for the banking sector and the development of the regulatory framework for financial groups to support consolidated supervision by the Bank.

The Bank also completed reviews of a number of existing prudential standards relating to risk management as well as oversight and other control functions to further guide and elevate the standards of risk management practices in the financial sector. This included the finalisation of proposed changes to current standards on corporate governance to provide for more consistent approaches across all licensed financial institutions and to further strengthen the effectiveness of boards. The regulatory framework for development financial institutions (DFIs) is also being further strengthened to better support the specific mandates of these institutions in promoting more inclusive growth in a sustainable manner. To this end, the Bank, working closely with relevant Ministries, is in advanced stages of recommending amendments to the Development Financial Institutions Act 2002 (DFIA) which are expected to be tabled to Parliament in the first half of 2015.

The implementation of the Basel III liquidity standards and development of the regulatory framework for financial groups were key focus areas in 2014

In November 2014, the Financial Action Task Force (FATF) and the Asia Pacific Group on Money Laundering (APG) concluded an on-site assessment of Malaysia's compliance with the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation. The assessors observed well-developed institutional arrangements for the supervision of anti-money laundering and

countering the financing of terrorism (AML/CFT) risks in the banking and insurance sectors.

STRENGTHENING THE PRUDENTIAL FRAMEWORK

Regulation of financial groups

The Financial Services Act 2013 (FSA) and Islamic Financial Services Act 2013 (IFSA) introduce provisions for the supervision of financial groups to ensure that material risks from group-wide activities are effectively managed and controlled. Under the new laws, financial holding companies (FHCs), defined as apex entities of financial groups which are not licensed persons, are required to be approved by the Bank. FHCs are also required to observe relevant group-level prudential standards. The Bank has identified 16 companies that qualify as FHCs. As at end-January 2015, ten companies have been approved as FHCs, including eight which were identified prior to the enactment of the FSA and IFSA. The remaining six have submitted applications and are expected to be approved by the end of 2015. A key consideration in approving an FHC is whether oversight at that level would provide the Bank with an adequate view of material group-wide risks which may affect licensed institutions within the group. The Bank also considers the extent to which reliance can be placed on consolidated supervision performed by a competent home regulator in the context of foreign-owned financial groups. Where this reliance can be established, supervision on a solo basis of licensed institutions in Malaysia that are within the group is sufficient.

Ten companies have been approved as FHCs as at end-January 2015 and six other companies are expected to be approved by the end of 2015

The first set of prudential standards being developed is the capital framework for banking groups. Following the implementation of higher capital standards for banking institutions under

the Basel III reforms in 2013, the Bank issued a discussion paper in October 2014 setting out its intention to extend the existing capital adequacy framework for banking institutions to banking groups headed by FHCs. An FHC of a banking group will be required to measure, monitor and comply with capital requirements on a consolidated basis at the group level. The objective is to ensure that there is sufficient capital to support risks originating from both regulated financial institutions and unregulated entities within a group. It also aims to reduce leverage associated with the multiple gearing of capital which can overstate a group's capital strength and increase contagion risk within the group. In addition, the implementation of group-wide capital standards will enhance the comparability between disclosed capital ratios for banking groups headed by FHCs and those headed by licensed banks. This, in turn, will further improve conditions for effective market discipline.

The Bank had received feedback to review the condition for capital instruments issued by banking subsidiaries to contain group-level loss absorbency triggers. Currently, qualifying capital instruments issued may be converted into equity or written-off in certain trigger events, namely when capital falls below predetermined levels, or where the bank is declared to be non-viable. With the inclusion of a group-level loss absorbency trigger, such capital instruments may also be converted or written-off if these triggers are met at the financial group level. The Bank will further examine these issues as more progress is made in the implementation of recovery and resolution plans (including in a cross-border context) for financial groups. The Bank will also undertake further work on: (i) the future impact of including a group-level trigger on the ability of banks to raise affordable loss-absorption funding; and (ii) the role of a group-level trigger in amplifying group contagion risk caused by non-regulated affiliates. The Bank expects to issue the final standards in 2015, while compliance with the minimum group capital requirements are expected to take effect from 1 January 2019.

Liquidity standards

Work to strengthen liquidity standards as part of the implementation of the Basel III reform package was completed during the year. Following a two-month consultation period, the Bank will publish the final Liquidity Coverage Ratio (LCR) standards in March 2015. The new rules will take effect from 1 June 2015 and will be phased in according to the global implementation timeline illustrated in Table 3.1.

The new standards will replace the existing Liquidity Framework (LF) which has been in place since 2000. Similar to the LF, the LCR requires a banking institution to maintain adequate liquidity buffers to sustain itself through a 30-day liquidity shock. However, the LCR improves on the cash flow assumptions by reflecting the possibility of more severe liquidity shock scenarios, such as that experienced during the past global financial crisis. While largely consistent with the Basel III rules, the LCR standards have taken into account the structural and behavioural characteristics of the financial system in Malaysia, as well as industry feedback. This is particularly relevant for the classification of high-quality liquid assets (HQLA). Under the Basel rules, there are three tiers of HQLA, namely Level 1, Level 2A and Level 2B assets – with Level 1 assets being of the highest quality. In determining the scope of HQLA under the LCR standards, the Bank has considered the size and depth of the market for eligible instruments as well as the liquidity of these assets. Based on an analysis of these factors, the Bank has adopted a more conservative treatment for the recognition of 'AA'-rated and 'A'-rated corporate bonds as HQLA. In the case of the latter, recognition is confined to non-ringgit corporate bonds which are internationally rated. This is counterbalanced by lower haircuts applied in limited circumstances to specific categories of HQLA such as high-quality residential mortgage-backed securities issued by Cagamas MBS Berhad.

The LCR standards also define the treatment of Islamic investment accounts. Consistent with the overall design of the LCR framework, investment

Table 3.1

LCR Implementation Timeline

Year	1 June 2015	1 January 2016	1 January 2017	1 January 2018	1 January 2019 and thereafter
Minimum LCR requirement	60%	70%	80%	90%	100%

account funds are assigned run-off rates based on the relative stability of the funds. Indicators of stability include the existence of contractual features (such as redemption conditions), liquidity features of underlying assets and the type of investment account holder. The approach adopted in the LCR standards reflects the liquidity treatment of investment accounts proposed by the Islamic Financial Services Board in October 2014.

The Bank also confirmed several other measures including the recognition of statutory reserves as Level 1 assets and the eligibility criteria for term deposits to be excluded from a bank's LCR calculation.

Based on earlier observation data, banking institutions are expected to be able to meet the first interim minimum LCR level of 60% with relative ease. 30 out of 54 banking institutions are already reporting LCR levels above 100%. The Bank continues to closely monitor the impact of the LCR standards on financial markets and credit conditions, particularly in the present environment of increased volatility in the financial markets and greater competition for deposits from alternative savings and investment avenues. The Bank has intensified its supervision of banking institutions that will need to take more substantive measures to prepare for full LCR compliance in 2019. The Bank will analyse the cumulative impact of measures taken by individual institutions with the aim of identifying and mitigating any unintended consequences.

The new LCR standards will take effect from 1 June 2015 and will be phased in over four years

Corporate governance

Enhancing corporate governance and risk management practices continued to be a key focus for the Bank in 2014. During the year, the Bank concluded a broad review of the corporate governance framework for financial institutions. While financial institutions have made significant strides in enhancing corporate governance practices in recent years, it is important for industry practices to continue to evolve to account for operations that have become inherently more complex. Market innovations, cross-border expansions and increasing financial conglomeration are the main drivers of this

complexity. Drawing on supervisory observations, engagements with the industry and lessons from the global financial crisis, the review identified a number of areas which would benefit from additional clarity and strengthened requirements to help boards function more effectively. The Bank expects to publish a concept paper in the first half of 2015 which will set out its proposals to enhance the quality of corporate governance practices in the banking and insurance sectors.

The concept paper will introduce a more comprehensive definition of independent directors and the requirement for higher representation of such directors on the boards of financial institutions. The paper will also clarify the Bank's position on the involvement of group executives on the board of a financial institution. Where group management responsibilities are likely to impinge on the ability of group executives to objectively oversee management actions (for example due to their direct involvement in taking management decisions that affect the financial institution), a group executive will be subjected to the maximum limit imposed on the number of executive directors that can be represented on the board. The Bank is also seeking further feedback on approaches to enforcing term limits for independent directors.

The revised standards will also be applied to FHCs that are approved by the Bank. An FHC will be required to comply with the same standards for its own board and management which are responsible for ensuring effective oversight and control of the financial group. The proposals further clarify the Bank's expectations in situations where financial institutions seek to leverage on centralised governance structures established by the FHC. These requirements aim to preserve a clear focus on the sound management of individual licensed institutions within the group, while encouraging a consolidated view of risks throughout financial groups and across the jurisdictions where they operate.

Risk management and internal controls

To complement the overarching risk governance standards issued in 2013, the Bank has worked to put in place a set of expectations on key controls and cultural norms in significant risk areas that can expose financial institutions to financial losses or reputational damage. In September 2014, the Bank consulted with the industry on proposals to elevate the standards of compliance practices in the financial sector. This comes at a time when

the financial industry is facing a more challenging regulatory environment. In addition to prudential and market conduct standards that are evolving in response to emerging risks, the implementation of new competition, data protection and tax legislation has also substantially increased the compliance obligations of financial institutions.

The proposed compliance standard addresses the need for financial institutions to establish an effective compliance programme to monitor and ensure that institutions are meeting their obligations under applicable laws and regulations. The Bank expects such a programme to reflect the primary responsibility of business lines for managing compliance risk emanating from business operations. Financial institutions will additionally be required to set up a compliance function, led by a chief compliance officer, that would be responsible for keeping the board and senior management regularly informed on the overall state of compliance and significant compliance issues affecting the institution. An important objective of the compliance standard is to ensure that the board of financial institutions are giving the compliance function sufficient authority, resources and oversight for them to function effectively and to avoid costly compliance failures. The Bank expects to issue the final standard in the first half of 2015.

The compliance function must be given sufficient authority, resources and oversight appropriate for it to function effectively

The Bank also worked towards finalising the standard on operational risk management. Concerns over operational risks have increased over the past decade as financial institutions have grown larger, more dependent on technology and more interconnected with the broader financial system through a variety of channels, including shared services and market infrastructure. The standard requires financial institutions to have more robust and systematic processes in place for identifying, assessing and controlling the risk of loss resulting from

inadequate or failed internal processes, people and systems, or from external events. Financial institutions should demonstrate that controls over operational risks are commensurate with the institution's size and level of operations. In this respect, active financial market players and large financial institutions are required to establish an operational risk control function and a dedicated sub-committee within each significant business and functional line. This acknowledges the considerable diversity in the nature of operational risks which can be easily overlooked in large and complex businesses. The Bank expects to issue the final standard in the first half of 2015.

The Bank also launched ORION, an operational risk surveillance system, to support the implementation of the standards. Financial institutions are required to report events that result in financial losses, any operational risk incidences and outcomes of scenario analyses based on potential operational risk catastrophes. The collection of high quality data over time will support better analysis of operational risk trends in the industry.

Outsourcing

The drive to improve operational efficiency and gain greater flexibility to manage business change has resulted in more extensive outsourcing by financial institutions in recent years. Financial institutions are increasingly outsourcing a broader range of internal processes and functions to affiliates and third-parties in Malaysia and abroad as they seek to strengthen their focus on core business activities and leverage on group synergies and other opportunities to tap into the best services and technology available.

However, if not effectively managed, outsourcing arrangements can increase risks to financial institutions. These include risks associated with the loss or abuse of customer data and delays or gaps in access to information that can impede an institution's ability to monitor and control its risk exposures. A key concern of the Bank is also its ability to verify that financial institutions are meeting their regulatory obligations in respect of functions performed by third-parties. Over-dependence on other parties, especially within the context of financial groups where complex webs of interdependencies exist, may hamper efforts

to recover critical business functions or resolve financial institutions in an orderly manner.

Given the more extensive nature of outsourcing observed within the financial sector, the Bank decided to review existing prudential frameworks on outsourcing activities for financial institutions. The Bank will issue a concept paper in the second half of 2015 that updates and consolidates existing sector-specific requirements into a single set of enhanced standards. Important enhancements in the proposed outsourcing standards include: (i) subjecting specific outsourcing arrangements which relate to an institution's significant business activities to supervisory approval; (ii) improved processes that must be in place for identifying critical business functions and for which enhanced due diligence must be performed on prospective service providers; and (iii) a requirement for financial institutions to develop and test contingency plans to prepare for the sudden termination of an outsourcing arrangement. While the Bank acknowledges the benefits of outsourcing through group synergies, the standards will state the boundaries within which outsourcing arrangements should operate. This is to ensure that individual licensed institutions in Malaysia remain fully accountable for complying with local regulations. Moving forward, all outsourcing agreements must also include provisions that guarantee the continuity of services in the event of resolution of the financial institution concerned. Agreements must additionally clarify the Bank's ability to access any information held by the service provider which is relevant to the outsourced activity.

Standards are being enhanced to ensure that the ability of financial institutions to effectively monitor and control risk arising from outsourcing arrangements is not compromised

Limit on exposures to single counterparties

The limit on exposures to single counterparties (SCEL) is a key component of the prudential framework. The objective is to protect banking institutions from large losses resulting from the sudden default of a single counterparty. In July 2014, the SCEL was revised to allow banking institutions to maintain exposures

of up to 50% of total capital (instead of 25%) to related banking entities with the Bank's prior approval. As is common in many jurisdictions, the treatment provides greater flexibility for accommodating short-term intra-group exposures which may arise in the delivery of financial products and services as part of group operating models. In approving the higher limit, the Bank will consider whether: (i) there are legal or practical restrictions which may prevent a related banking entity from transferring capital resources or repaying liabilities to the banking institution; (ii) the related banking entity is subject to adequate prudential regulation and supervision in its jurisdiction and complies with an equivalent SCEL framework on a consolidated basis; and (iii) the Bank will have timely access to relevant information on the related banking entity for supervisory purposes.

Following the Basel Committee's finalisation of the supervisory framework for measuring and controlling large exposures in April 2014, the Bank may consider further adjustments to the SCEL framework after a more detailed examination of the global standard and its implications if applied within the context of the Malaysian banking system.

Regulatory framework for Islamic finance

During the year, the Bank made further progress in the development of a Shariah contract-based regulatory framework.

To date, the Bank's Shariah Advisory Council (SAC) has approved the Shariah parameters for eight contracts, namely *murabahah*, *mudarabah*, *musharakah*, *wadi'ah*, *bai'inah*, *ijarah*, *tawarruq* and *hibah*. The Shariah parameters for four other contracts, namely *istisna'*, *wakalah*, *kafalah* and *wa'd* will be reviewed by the SAC in early-2015. Following this, the Bank will issue operational standards to ensure that products structured using such contracts comply with sound governance, risk management, documentation, disclosure and market conduct requirements. The Bank issued the final operational standards for *murabahah* in 2014, and expects to finalise the operational standards for *musharakah*, *mudarabah*, *ijarah* and *istisna'* in the first half of 2015. Industry consultations for standards relating to *tawarruq*, *wadi'ah*, *hibah*, *bai'inah*, *kafalah*, *wakalah* and *wa'd* will take place in 2015.

The implementation of these operational standards will broaden the range of Islamic finance products offered, enhance transparency and consistency

in the application of Shariah contracts in Islamic financial transactions, and ensure end-to-end compliance with Shariah principles.

In March 2014, the Bank issued the final standards to promote the sound management of Islamic investment accounts. Unlike deposits, Islamic financial institutions do not guarantee the repayment of principal on Islamic investment accounts. However, Islamic financial institutions still have the responsibility to exercise sound oversight over the management of these investments and ensure compliance with Shariah principles. Islamic financial institutions are also required to put in place adequate risk management arrangements to ensure fiduciary duties are discharged in accordance with the investment mandate agreed with the investors. The standards also specify minimum requirements on fair dealings for the protection of investors, as well as disclosure requirements to help investors assess the characteristics and performance of their investments. Islamic financial institutions have begun migrating existing customer accounts to either deposit or investment accounts as required by the IFSA, and this is expected to be completed by June 2015. As part of this process, customers will be provided with information on alternative IFSA-compliant deposit products that they can continue to maintain their funds in, or an option to participate in investment accounts.

The implementation of operational standards for Shariah contract-based products enhances consistency in the application of Shariah contracts in Islamic financial transactions and ensures end-to-end compliance with Shariah principles

Prudential framework for insurers and takaful operators

A key prudential requirement for insurers and takaful operators is the preparation of the financial condition report (FCR) by an appointed actuary. The FCR serves to provide the board with critical insights on changes in the operating environment and risk profile of the insurer or takaful operator. The report also serves as a valuable source of independent advice to the board on options available to mitigate

identified threats to the financial condition of an insurer or takaful operator. The requirement to prepare the FCR was introduced to life insurers in 2006 and was extended to general insurers in April 2014. The Bank issued a concept paper in December 2014 with proposals to improve the timeliness of the report, and to replace prescriptive rules with a more principle-based approach for the conduct of dynamic solvency testing by the appointed actuary. These enhancements aim to enable insurers and takaful operators to be more responsive to conditions affecting their business and for such conditions to be reflected in the stress testing parameters and scenarios used to perform solvency tests.

Participating policies form an important class of business in the life insurance sector in Malaysia. These policies provide policy owners with the opportunity to participate in the profits of the insurance fund, usually by way of bonus distributions determined by the insurer. The business has grown significantly over the years, accounting for 64% of total premiums collected by life insurers between January and September 2014. Given the significant discretion of insurers in determining bonus distributions and considerable diversity in insurers' practices in exercising this discretion, the Bank considered it important to address expectations surrounding the management of participating life business to safeguard the interests of policy owners. This resulted in a review of the standards on the management of participating life policies and the subsequent issuance of a concept paper in November 2014.

The Bank's proposals stipulate that the appointed actuary's recommendations to the board on bonus distributions must be supported by an appropriate bonus supportability study. Appointed actuaries must also consider the expectations of policy owners and assess the life insurer's compliance with regulatory requirements for the management of insurance funds. An insurer must have regard to the equitable treatment of policy owners in grouping policies together for the purpose of performing bonus supportability studies and in the management of the fund's estate. The concept paper also proposes to improve disclosures in sales and marketing literature and annual policy statements. This is to ensure that policy owners are not led to form unreasonable expectations on the payment of non-guaranteed benefits. The Bank is currently

reviewing the feedback received from the industry and expects to issue the final standards by mid-2015.

Enhancements to the financial condition report aim to enable insurers and takaful operators to be more responsive to conditions affecting their business

Amendments to the DFIA

Since its enactment in 2002, the DFIA has provided the foundation for a comprehensive regulatory and supervisory framework for DFIs. This has ensured that development mandates entrusted to DFIs by the Government are achieved in a financially sustainable manner.

In light of the changes to the financial services legislation, the Bank embarked on a review of the DFIA which led to the publication of a draft amendment bill for consultation in October 2014. The draft bill focuses on reforms in five areas, namely: (i) enhancing governance and risk management practices in DFIs; (ii) strengthening the mandates of each DFI in serving targeted segments in the Malaysian economy; (iii) promoting greater operational efficiencies; (iv) upholding compliance with Shariah principles; and (v) strengthening provisions for effective enforcement and supervisory intervention. The proposed amendments draw on key features of the FSA and the IFSA and aim to further strengthen the capacity of and confidence in DFIs in promoting inclusive growth. The amendments are expected to be tabled to Parliament in the first half of 2015.

SAFEGUARDING THE INTEGRITY OF THE FINANCIAL SYSTEM

AML/CFT framework

An effective AML/CFT regime protects the integrity of the financial system by preventing criminal elements from benefiting from the proceeds of illegal activities. Besides contributing to the national aspiration of reducing crime as outlined in the Government Transformation Programme, it also promotes domestic and international confidence in financial institutions that operate in Malaysia. As the Competent

Authority under the Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA) and the Chair of the National Coordination Committee to Counter Money Laundering (NCC), the Bank plays a pivotal role in coordinating nationwide efforts to strengthen the AML/CFT regime in Malaysia. The NCC completed several key initiatives in 2014. These include amending the AMLA, developing the National Risk Assessment (NRA) and formulating a National AML/CFT Strategic Plan. These initiatives ensure that appropriate measures are taken at the national level to address areas that pose significant money laundering and terrorism financing (ML/TF) risks, and that these measures are supported by the effective implementation of a strong legal and regulatory framework.

Over the years, the Government has put in place a comprehensive legal and regulatory framework to combat financial crimes. In 2014, the AMLA was amended to strengthen regulatory requirements, further clarify obligations of reporting institutions and expand the powers of law enforcement agencies. The penalties upon conviction of an offence were substantially increased – a money laundering offence now carries a penalty of up to 15 years of imprisonment and a fine of not less than five times the value of the proceeds of the crime or RM5 million, whichever is higher. The scope of serious offences has also been expanded to include offences specified under other legislation such as the Wildlife Conservation Act 2010, Common Gaming Houses Act 1953, Penal Code and Immigration Act 1959/63. The expansion was a result of the NCC's ongoing assessment of the comprehensiveness of serious offences listed under the Act in response to emerging ML/TF threats in Malaysia. The amended AMLA came into force on 1 September 2014.

In June 2014, the NCC also completed the NRA, a process which began in 2012 to identify key vulnerabilities and ML/TF threats across various sectors in the country. The findings of the NRA have been vital in developing AML/CFT strategies and will guide the allocation of resources, skills and expertise necessary to address identified risks. NCC members and reporting institutions were informed of the key results of the NRA through a series of briefings.

The NRA identified five types of crime that pose the highest threat of money laundering and four sectors that are highly vulnerable to ML/TF

risks (Table 3.2 and Table 3.3). The NRA will be reviewed regularly to ensure it remains reflective of the prevailing ML/TF risk landscape. A review of the threat level for terrorism financing will be undertaken in 2015 to take into account the conclusions of the 'White Paper on Terrorism

Threats from the Islamic State Group' published by the Government in November 2014.

Based on the NRA results, a National AML/CFT Strategic Plan was developed by the NCC to address the identified threats and vulnerabilities

Table 3.2

Money Laundering Threat Level of Different Crimes

Type of crime	Threat level	Type of crime	Threat level
Fraud	High	Sexual exploitation	Low
Drugs trafficking		Arms trafficking	
Corruption and bribery		Counterfeiting and piracy of products	
Smuggling offences		Insider trading and market manipulation	
Tax crimes		Murder	
Terrorism financing	Medium	Environmental crimes	
Organised crimes		Extortion	
Human trafficking and migrant smuggling		Kidnapping	
Forgery		Sea piracy	
Theft and robbery			
Counterfeiting of currency			

Table 3.3

Inherent Vulnerability of Different Business Sectors to Money Laundering Risks

Financial sectors	Vulnerability level	Non-financial sectors	Vulnerability level
Banking (including BSN, Bank Rakyat and Agro Bank)	High	Casino	High
Money changing		Lawyers	Medium
Non-bank remittance services		Offshore trust	
Fund management and unit trust	Company secretaries		
Offshore banking	Medium	Real estate agents	
Non-bank deposit taking		Onshore trust	
Stockbroking	Low	Gaming	Low
Life insurance		Jewellers	
Money lending		Accountants	
Non-bank cards		Pawn broking	
E-money		Notaries	
Development financial institutions (SME Bank, Bank Pembangunan and EXIM Bank only)			

at the national level. The key thrusts of the plan include promoting greater understanding of ML/TF risks and enhancing the investigation capabilities of enforcement personnel. The plan also includes efforts to intensify domestic and international co-operation and ensure compliance with regulatory and supervisory requirements through effective enforcement. In November 2014, the country underwent a Mutual Evaluation (ME) exercise conducted against the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation by the FATF and the APG. Recommendations and gaps identified during the ME exercise will be incorporated in the strategic plan to further strengthen the country's efforts in combating ML/TF risks.

A National AML/CFT Strategic Plan was developed to address key threats and vulnerabilities at the national level

On the international front, Malaysia was accorded Observer status by the FATF in 2014. This is a step towards full membership, pending the outcome of the ME exercise which will be known in 2015. Membership of the FATF will not only demonstrate a strong commitment to combating money laundering and financing of terrorism, but also reflect a safe business environment in Malaysia and provide an important platform to advance initiatives on financial integration and Islamic finance.

Monitoring AML/CFT compliance by reporting entities

In 2014, the Bank carried out on-site examinations to evaluate the effectiveness of AML/CFT practices of reporting entities. These examinations were conducted on 85 financial institutions, 212 money services business licensees and 15 designated non-financial businesses and professions (DNFBPs) which included, among others, a casino and trust companies. The examinations on DNFBPs operating in Labuan were jointly conducted with the Labuan Financial Services Authority. These examinations focused on the effectiveness of customer due diligence (CDD) assessments, the comprehensiveness of suspicious transaction reports submitted to the Bank, and the robustness and adequacy of risk management controls. Supervisors observed greater understanding of

ML/TF risks and the relevant AML/CFT obligations. However, several entities faced challenges in fully meeting CDD requirements. These challenges include the implementation of beneficial ownership requirements as well as the identification of domestic politically exposed persons and their family members and close associates. Further efforts will also be required to address the risks associated with terrorism and proliferation financing, such as by developing more effective "red flags" to identify such transactions. Moving forward, the Bank will continue to intensify engagements with financial institutions and DNFBPs. These engagements aim to enhance the level of awareness and facilitate the exchange of information on the latest ML/TF trends and observations.

In view of the large number of DNFBPs (26,569 entities as at end-2014), the Bank issues self-assessment questionnaires (SAQs) to facilitate the supervision of AML/CFT risks in selected sectors. This approach enables the Bank to conduct more intensive supervisory engagements in areas that pose higher risk and with sectors that warrant greater attention. SAQs were first issued to law firms in 2011. Moving forward, the Bank intends to extend the SAQs to real estate agents, company secretaries and trust companies beginning from 2015. This will provide a more comprehensive assessment of the level of AML/CFT compliance across various sectors as well as a broader spectrum of views from different respondents.

Strengthening the money services business industry

The money services business industry (which comprises the money changing, remittance services and wholesale currency businesses) represents an important area of focus in the Bank's efforts to reduce vulnerabilities to money laundering risks. During the year, money services business transactions conducted through formal channels continued to grow. Outward remittances amounted to RM32.1 billion, representing an increase of 27.8% over the RM25.1 billion registered in 2013. This growth was contributed by greater public awareness on the importance of using legal channels for remittances, along with wider provision of mobile and internet remittance services. Non-bank remittance service providers also continued to provide a convenient and cost-efficient alternative to banks for small businesses to make trade payments. This alternative added to the increasing use of formal

channels for remittances. In the money changing sector, domestic wholesale currency businesses transactions increased substantially by 40.8% to RM6.6 billion. This has been supported by the increase in wholesale currency distribution channels, particularly in areas where transactions of money changing are high and active. In the retail segment, the money changing business turnover experienced a marginal drop of 0.7% to RM52 billion due to lower demand for certain foreign currencies such as Chinese renminbi during the year. All licensed money changers have implemented computerised systems that are able to capture and consolidate details of money changing transactions. The implementation of computerised systems will facilitate ongoing monitoring of suspicious transactions.

Twelve money services business licences were not renewed by the Bank during the year due to significant non-compliances with regulatory requirements. A further 24 licensees voluntarily surrendered their licences as a result of mergers or conversion to agents for larger principal licensees. This reduced the number of licensees in the industry to 426 as at end-2014. Notwithstanding the reduction in the number of licensees, the provision of money services to the public remained widely distributed across the country. This is due to the expansion of branch and agent networks by larger and more established licensed money service providers. The expansion has also allowed smaller players to remain in the industry, while being able to leverage on the systems and controls of larger principal licensees in areas such as record keeping and AML/CFT compliance.

Outward remittance transactions conducted through formal channels continued to grow, increasing further by 27.8%

Progress continues to be made towards improving the effectiveness of AML/CFT policies and practices across the industry. With the enhanced policies on AML/CFT in place, greater consistency in the conduct of CDD and improvements in the identification of high risk transactions by licensees were observed. These developments pave the way for the adoption of a risk-based approach to identifying, assessing and mitigating ML/TF risks which was

introduced to the industry in January 2015. During the year, the Bank also intensified its supervisory engagements to ensure that the IT systems of money services providers are sufficiently robust to support the documentation requirements under a risk-based approach.

The Malaysian Association of Money Services Business (MAMSB) continues to play an important role in supporting improvements in the industry's implementation of effective AML/CFT programmes. This included the organisation of a series of intensive and practical structured training programmes to educate members of the industry on compliance with AML/CFT requirements and reference manuals and procedures. During the year, the association, in partnership with the Bank and the World Bank, organised the Regional Conference on Money Services Business, attended by participants from 28 countries, to share international perspectives on developments, trends and challenges in the money services business industry. The association also worked closely with system providers to ensure that solutions provided are adequately designed to help licensees meet their compliance obligations. Typologies are also being developed together with the Bank to educate and assist the industry in understanding and identifying potential ML/TF risks arising from money services business. The association also plays an important role in spearheading initiatives to elevate standards of compliance and professionalism in the industry. During the year, the association drew up a code of conduct to instil market discipline and guide the industry for professional and ethical business conduct.

ENFORCEMENT ACTIVITIES

Strengthening the enforcement framework

The Bank is given broad enforcement powers under the laws that it administers to safeguard the stability and integrity of the financial system. A robust governance process ensures that any enforcement action undertaken by the Bank is justified, and that a due process is consistently applied across various sectors and institutions in similar circumstances.

In light of the expanded enforcement powers accorded to the Bank by recently enacted legislation (including the power to impose administrative and monetary penalties, issue public reprimands and pursue civil actions), the Bank further strengthened its existing enforcement procedures under a new framework which was adopted in

January 2014. This framework is governed by an Enforcement Committee (EC), which is the apex decision-making authority within the Bank on enforcement matters. The EC is chaired by the Governor and its members include the Deputy Governors and Assistant Governors responsible for regulation, supervision, legal and enforcement. The EC decides on enforcement actions to be taken in individual cases for breaches of the law and regulatory requirements. Any enforcement action by the Bank will be guided by a set of factors which include the effectiveness of the enforcement action, the proportionality of the action to the committed offence and whether such action results in the deterrence of future breaches of a similar nature.

The enforcement framework also sets out how the Bank will determine the amount of monetary penalties imposed for breaches of the law. This is to ensure that a consistent process is followed for offences of a similar nature. As required by the FSA and IFSA, the Bank established the Monetary Penalty Review Committee (MPRC) whose members are independent of the Bank's executives. The MPRC considers appeals relating to the quantum of administrative monetary penalties and pecuniary remedies enforced by the Bank. Under the law, a person aggrieved by the Bank's decision may file an appeal to the MPRC

within 21 days after being notified of the Bank's decision. Further information about the MPRC, including its membership and the appeal process can be found on the Bank's website.

The Bank further strengthened its existing enforcement procedures under a new enforcement framework which was adopted in January 2014

Enforcement activities in 2014

Effective and timely enforcement action ensures that financial institutions are operating in compliance with applicable laws and regulatory requirements and consumers are protected from unauthorised activities that could result in financial losses to consumers. During the year, a total of 1,104 charges brought by the Bank were convicted by the court. The Bank also initiated 42 investigations and pursued 119 criminal charges against entities and individuals operating illegal schemes and activities. In addition, 536 offences were identified against licensees for non-compliance with laws and regulatory requirements. Table 3.4 contains a summary of the enforcement actions taken in 2014.

Table 3.4

Enforcement Actions Taken in 2014

Illegal deposit taking	<ul style="list-style-type: none"> • Nine charges pursued under the Banking and Financial Institutions Act 1989 (BAFIA) against two entities and six individuals for illegal deposit taking offences. • 11 charges were convicted under the BAFIA against four entities and eight individuals.
Money laundering	<ul style="list-style-type: none"> • One civil forfeiture under S56(1) of AMLA involving RM129,275. • 68 charges pursued under S4(1) of AMLA against one individual. • 1,083 charges convicted under the AMLA against seven individuals.
Unauthorised provision of money services	<ul style="list-style-type: none"> • 27 charges pursued under the Money Services Business Act 2011 (MSBA) against 26 entities and individuals for unauthorised provision of money changing services. • 15 charges pursued under the MSBA against one entity and seven individuals for unauthorised provision of money remittance services. • 10 charges convicted under the MSBA against seven entities and individuals for unauthorised provision of money services business.
Non-compliance with AML/CFT policies under AMLA and FSA	<ul style="list-style-type: none"> • Compound amounting to RM4.37 million against 11 banking institutions. • Compound amounting to RM62,000 against two money changing institutions.
Contravention of foreign exchange administration rules	<ul style="list-style-type: none"> • Compound of RM800,000 against one banking institution for contravention of S214(2) of the FSA. • Compound of RM80,000 against one money changing institution for 40 non-compliances under the Exchange Control Act 1953.

Management of Cyber Risks

Technology has played a transformative role in the provision of financial and payment services. In addition to improving the efficiency of processes, technology has opened up new and innovative channels for financial institutions to provide greater access and convenience to consumers. Technology has also enabled financial institutions to viably offer and manage a wider range of products that are competitive and responsive to different needs of consumers in ways that were not possible before. Business and retail customers have readily embraced these technological developments, as evidenced by the value of commerce transacted online which continues to rise.

These advancements however present new challenges for risk management by financial institutions. With increasing dependence on technology, financial institutions face new risks of malicious actions by criminals and other malefactors. These actions have the potential to disrupt the provision of services and also undermine the confidentiality and integrity of a financial institution's proprietary and customer data. Such incidents can thus damage the reputation of a financial institution and may undermine confidence in the financial system.

Global economic losses resulting from cybercrimes were estimated to be approximately USD375 billion annually¹. Cyber attacks are commonly motivated by financial gain but can also be driven by an aim to cause disruption for social and political purposes. Following several high-profile cyber security incidents in the financial sector, the management of cyber risks has become an increasing global concern. A report² by the Committee on Payments and Market Infrastructure of the Bank for International Settlements emphasised the complex and rapidly evolving nature of cyber risks, and highlighted the increasing priority accorded to the effective management of these risks. The report also recommended a more integrated approach to cyber resilience, which will reduce recovery times in the event of a successful cyber attack, whilst enabling key functions of critical systems to continue to operate. In the European Union, the Joint Committee of the European Supervisory Authorities has similarly called for authorities and financial market participants to ensure that sufficient resources and attention are devoted to increasing the financial system's resilience against IT-related operational and cyber risks.

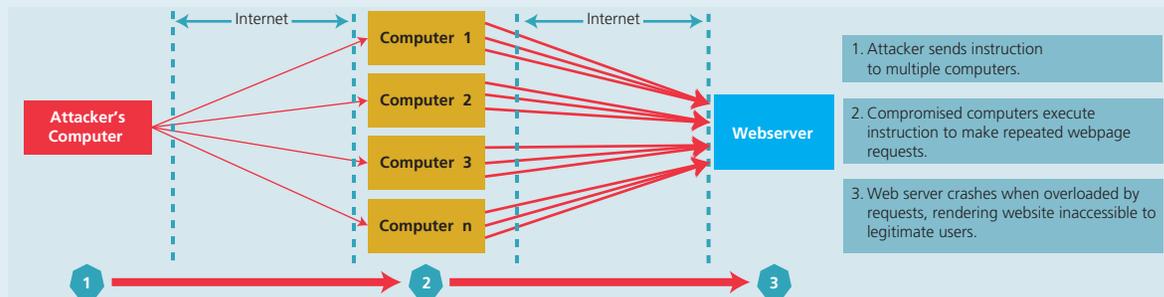
Forms of Cyber Threats

Cyber attacks against financial institutions are becoming more sophisticated and can take many forms. There are three common threats in the financial sector:

Distributed Denial of Service (DDoS) – In a DDoS attack, a targeted system is disrupted by directing a large flow of traffic to overwhelm it, thereby denying access by legitimate users. A network of compromised computers is directed to simultaneously make repeated requests (such as a particular web page) from the system (Diagram 1). Experts estimate that the number of DDoS attacks worldwide

Diagram 1

Distributed Denial of Service (DDoS) Attack on a Website



Source: Bank Negara Malaysia

¹ Source: 'Net losses: Estimating the global cost of cybercrime', a report by the Center for Strategic and International Studies.

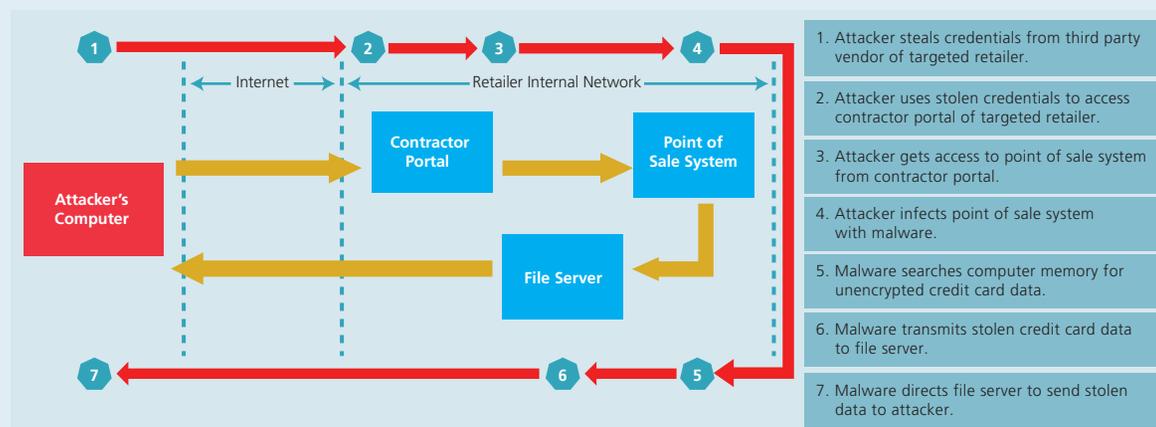
² Source: 'Cyber resilience in financial market infrastructures', November 2014.

have increased by 20% over the last two years, averaging almost 3,000 incidents per day, of which 43% were targeted at financial service providers³. DDoS attacks have been launched to disrupt customer access to the Internet banking portals of a number of global banks for hours or even days at a time, preventing customers from conducting online transactions. While DDoS attacks were experienced by some banks in Malaysia in 2014, this did not cause material service disruptions.

Malware – A malware attack involves the use of malicious software to control or disrupt the operations of a targeted system or device. Malware exists in many forms, such as viruses and worms, and can cause harm in different ways. One common form of malware in the context of financial services is the use of spyware installed on unsecured host machines to gather information about the user, which might include his Internet banking login credentials, credit card numbers, or other private or sensitive information. The information is then covertly transmitted back to the attacker for the purposes of committing fraud or other illegal activities (Diagram 2).

Diagram 2

Malware Attack on a Retailer



Source: Bank Negara Malaysia

Phishing – The most common form of fraud, phishing is the use of a fake website to induce an unsuspecting user to divulge sensitive information such as his Internet banking login and credit card details. The stolen information is then used to perform an unauthorised fund transfer or to commit other forms of fraud.

Criminals can combine different techniques to launch sophisticated attacks against systems. For example, malware can be used to take control of a large number of machines in order to carry out a DDoS attack. Such an attack would appear to come from a large number of unrelated sources and be more challenging to defend against. Similarly, by employing malware and phishing techniques, fraudsters can intercept Transaction Authorisation Codes (TAC) and perform fraudulent online banking transactions without the victim's knowledge.

Cyber attacks have also been used in combination with other conventional criminal activities. In 2014, malware was used to gain unauthorised access to 18 on-premise automated teller machines (ATMs) in Kuala Lumpur, Selangor, Johore and Malacca. In these incidents, criminals targeted several poorly guarded ATMs which were based on old models, gaining physical access to the internal components of the ATM and then installing malware into the operating system powering the ATM. The malware was specifically designed to compromise weaknesses in the outdated operating system of the ATMs. This subsequently allowed the criminals to direct the ATM to dispense cash without any authorisation or

³ Source: Akamai, Arbor Networks.

verification. While the affected banks suffered losses of RM3.4 million, customers were not affected as the withdrawals were not debited from any customer accounts. The affected banks responded swiftly to upgrade the hardware and software of these and other similar ATMs. The banking industry has also since reviewed and implemented enhanced risk management practices and physical security measures to protect ATMs from further threats like these.

As increasingly sophisticated techniques are being employed to launch attacks, identifying and anticipating cyber threats and developing effective counter-measures remains a critical challenge. An organisation might also sometimes be unaware that it is a target of an attack. In what is termed as a 'zero-day' attack, an attacker exploits a vulnerability that is not known to the target, leaving the target no time or opportunity to patch the vulnerability. 'Advanced persistent threats', have also emerged in recent years with the capability to sustain a cyber attack, repeatedly over an extended period of time, while being able to adapt to efforts to resist it.

Industry and Regulatory Response to Cyber Threats

At the national level, initiatives to mitigate cyber security threats in Malaysia are pursued and coordinated with other government agencies as part of the National Cyber Security Framework. Under this national framework, the Bank and the financial institutions it regulates are deemed as Critical National Information Infrastructure (CNII), and thereby subject to heightened safeguards in recognition of their vital role to the country and economy. Important initiatives are pursued to continuously enhance the level of cyber preparedness of CNIs. This includes annual cyber drills where simulations of cyber-attack scenarios are conducted to test the effectiveness of response programmes of each CNI and all CNIs collectively against systemic attacks. Results of these exercises are then used to update and improve the response strategies and actions. Several financial institutions have been participating in these cyber drills since 2009 and have successfully completed the exercises by demonstrating the effectiveness of the respective incident response plans in managing the cyber-attack scenarios.

At the industry level, an Internet Banking Task Force (Task Force) established by the Bank and the banking industry supports a comprehensive regulatory response to cyber security threats. The Task Force provides a forum for financial institutions to share intelligence and discuss issues that concern Internet banking, including that on cyber security. Through this Task Force and other platforms, the Bank and the industry engages actively with other government agencies which include the Malaysian Communications and Multimedia Commission, CyberSecurity Malaysia and the Royal Malaysia Police. These engagements enable all stakeholders, including telecommunication companies and Internet service providers, to remain well-informed of latest developments in and emerging threats faced by the financial sector, while continuously promoting the adoption of industry best practices on Internet banking security. For example, the Task Force was instrumental in mitigating the threat of SMS-based scams which were prevalent several years ago. The Task Force shared technical details and information regarding the modus operandi of the scam which enabled weaknesses in the existing processes to be identified and addressed, such as by requiring certain Internet banking customers to register in person at a branch. These measures resulted in a significant decrease in the incidence of SMS-based scams. In its capacity as the competent authority for receiving and analysing information on suspicious transactions, the Bank also disseminates financial intelligence related to persons suspected to facilitate the transaction and mule account holders⁴ to support investigations by law enforcement agencies and to reinforce joint efforts in combating cyber crime.

At an institutional level, financial institutions have continued to evolve a wide range of defensive tactics and IT security practices to deter and defend against emerging cyber threats. These include:

- the segmentation of network zones to control user access and limit the propagation of any threats that manage to penetrate the network;
- implementing redundant controls in multiple layers of the network infrastructure (defense-in-depth) so that the failure of one control measure is mitigated by controls in other layers;

⁴ People who allow their bank accounts to be used by criminals to hold or transfer money which is acquired illegally.

- deploying appropriate network security tools such as intrusion prevention system (IPS) and the use of multiple firewalls, including the web application firewall (WAF) as an enhanced DDoS mitigation strategy;
- conducting regular and rigorous security assessments on IT infrastructure, including stringent penetration tests. The scope of penetration tests have also been enlarged to include mobile-based applications;
- ensuring constant security monitoring and surveillance to enable the early detection of intrusions; and
- establishing computer emergency response teams to improve response times to cyber incidents.

The effectiveness and consistency of these practices are also regularly reviewed by the auditors of the financial institutions, and any identified weaknesses are promptly highlighted for rectification. Nevertheless, the proper management of cyber security risks is ultimately a board-level responsibility. The Bank expects boards of financial institutions to ensure that sufficient priority and resources are allocated to the oversight and management of these risks. Some boards have already made progress in this area as evidenced by more robust discussions on risk management strategies and a deeper understanding of the more technical aspects of cyber security.

On its part, the Bank had issued various guidelines to specify minimum standards to be observed by financial institutions in the provision of electronic banking services and the management of IT systems and networks. From time to time, these are supplemented by additional guidance published by the Bank to confront specific threats, such as detailed requirements to strengthen security controls on public Internet banking kiosks and to enhance preparedness against DDoS attacks. The Bank is currently in the process of reviewing and updating existing regulatory standards and guidance to further strengthen IT security standards across the financial sector and improve the industry's defense and response to evolving cyber threats. The key objectives of the new standards to be issued in 2015 are to:

- strengthen governance over cyber security in financial institutions;
- ensure that adequate strategic focus and resources are directed by financial institutions at the management of cyber security risks;
- provide practical guidance that reflects the changing technological landscape and business models, and is sufficiently flexible to adapt to new threats;
- increase the rigour of financial institutions' assessment of cyber threats and the quality of information used to inform such assessments;
- further improve recovery plans and contingency or business continuity arrangements; and
- promote more robust due diligence of critical third party service providers.

To ensure that consumers are also able to protect themselves against these cyber threats, efforts have also been directed by the Bank together with the industry, to promote awareness on safe online practices. Aside from continuous consumer education programmes, financial institutions have also stepped-up efforts to provide online banking security tips on their websites.

As existing IT security methods and tools are constantly facing newer threats, the financial sector must remain vigilant against potential vulnerabilities within its critical systems, and continues to update its defenses and strengthen its strategies to mitigate and manage emerging cyber risks. This will include improving intelligence gathering capabilities as well as adopting a more integrated and coordinated approach in dealing with cyber threats.

2014

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MARKET CONDUCT AND CONSUMER EMPOWERMENT

Under the Financial Services Act 2013 (FSA) and Islamic Financial Services Act 2013 (IFSA), one of the regulatory objectives of the Bank is to foster fair, responsible and professional business conduct of financial service providers (FSPs), and to protect the rights of financial consumers. In 2014, the Bank continued to focus a substantial part of its work on monitoring compliance with responsible financing practices and supporting targeted education programmes for financial consumers given the growth in household debt. The Bank also continued to improve the disclosure and advisory regime to provide an appropriate counterbalance to increasingly competitive conditions and an unrelenting pace of financial innovation. Progress among FSPs in managing conduct risks remains uneven, and overall, the quality of oversight over conduct risks needs to be further strengthened to ensure that business practices are aligned with the fair treatment of consumers. A number of initiatives were taken to strengthen the focus of FSPs on the fair treatment of financial consumers, covering specific business areas as well as broader arrangements for the protection of consumers. An important development in this respect was the strengthening of existing redress mechanisms as envisioned under the FSA and the Financial Sector Blueprint 2011-2020 which involved transforming the current dispute resolution mechanism into a full-fledged financial ombudsman scheme. Effective from 2 January 2015, consumers will also benefit from greater transparency in the pricing of new floating-rate loans and financing facilities extended to individuals with the introduction of the Base Rate (BR). Further details on the BR are provided in the box article on 'The New Reference Rate Framework' in the Bank's Annual Report 2014.

MANAGING RISKS TO FINANCIAL CONSUMERS

Responsible financing practices

The low interest rate environment in recent years has allowed consumers to borrow inexpensively. While advantageous

to consumers, it has increased the risk of households accumulating more debt than they can afford. Ensuring that any decision by a consumer to borrow, and by an FSP to lend, is made after evaluating the ability of the consumer to service the debt over the entire financing period represents an important safeguard against this risk. While access to credit should remain unimpeded for those with the capability to take on more debt, excessive borrowings that are used for consumption rather than income generation can expose borrowers to risks of substantial financial hardship, particularly where the borrower is already tied up with a large amount of debt, when financing cost increases. Following measures introduced in 2012 and 2013 to reinforce responsible lending practices, the Bank continued in 2014 to monitor the effectiveness of the measures in containing the excessive accumulation of household debt.

During the year, a second thematic review on financing practices of FSPs was conducted by the Bank to assess the extent to which responsible lending principles have been entrenched in industry practices. The latest review revealed that FSPs have made further progress in strengthening credit underwriting practices by implementing more robust affordability assessments. Debt service ratios (DSRs) are playing an increasingly prominent role in the lending decisions of FSPs. In response to interventions by the Bank, improvements continued to be observed in FSPs' income verification practices and in the assumptions used by FSPs to determine a borrower's other scheduled debt repayment obligations. FSPs were also observed to adopt more prudent DSR thresholds commensurate with the income levels of borrowers. Notably, arising from the intervention by the Bank, a positive outcome was the proportion of loans and financing offered to lower income consumers with a DSR of not more than 60% has improved from 85.9% of the new loans approved in July 2013 to 91.8% in December 2014. A number of FSPs have established minimum thresholds on net disposable income

as an additional credit factor to ensure that borrowers have adequate earnings buffers for essential living expenses and contingencies. Collectively, these developments are having a positive effect in building stronger financial buffers for borrowers to protect themselves against unexpected adverse events, rising living costs and potential increases in interest rates.

FSPs have made further progress in strengthening credit underwriting practices by implementing more robust affordability assessments

The thematic review was also extended to cover a building society and a large deposit taking cooperative that were required in July 2013 to observe responsible financing principles consistent with that applied to banks. Improvements were noted in the parameters used by these lenders for computing the DSR to ensure that all debt obligations of a borrower are properly captured. In addition, more prudent DSR thresholds have been introduced for borrowers that are more likely to be vulnerable to income or expenditure shocks.

As an outcome of the review, several FSPs and lenders were directed by the Bank to further refine their credit underwriting practices. The refinements included ensuring that differences in the cost of living across different localities are adequately reflected in FSPs' affordability assessments. For loans extending into retirement, a number of FSPs were reminded to adequately consider whether a potential borrower is able to service the loan once he retires while at the same time maintaining a reasonable standard of living. Several FSPs were also directed to strengthen their governance arrangements over the credit underwriting process to ensure that deviations from internal policies are capped and properly justified and authorised.

Improvements in lending practices following the implementation of the Bank's responsible financing measures in the past two years have contributed towards a more moderate expansion of household debt, with a growth of 9.9% in 2014 from 11.5% registered in 2013. Of significance, personal financing – which had increased sharply among lower income consumers – grew at a substantially

slower rate of 4.6% in 2014, compared to 22.9% in 2011 prior to the measures introduced in 2012 and 2013. Although leverage levels remain high at the lower income borrower segments, the levels have started to stabilise since 2013 and would improve over time as income level rises. Household indebtedness is discussed further in the chapter 'Risk Developments and Assessment of Financial Stability in 2014'.

Product disclosures and proper advice

Making informed decisions when shopping for financial products, especially when products are complex or long term in nature, continues to be a challenge for many consumers. Consumers who are not fully informed of – or who do not understand – key product features are more likely to purchase products that do not meet their needs or expectations. The challenge of making the right choices is further compounded by the wide array of innovative products offered by FSPs. Products are also increasingly being distributed through new technological platforms. As these can be confusing to many consumers, it is important to ensure that consumers are provided with adequate information to understand and compare the choices available, and then to decide on the financial service or product that best meets consumers' financial needs and expectations.

To this end, a significant part of the Bank's supervisory activities is devoted to the ongoing review of sales illustrations and promotional materials distributed by FSPs. Misleading deposit product advertisements were found to be more prevalent during the year as competition for deposits intensified. Many of such advertisements tend to place significant emphasis on the highest possible rate of return for deposits, while doing little to draw the attention of consumers to the accompanying terms and conditions that determine the effective rate of return being offered. As a result, seven FSPs were directed by the Bank to modify or withdraw 10 misleading advertisements.

In view of the wide variations that can exist in the features (including benefits and risks) of similar products offered within an insurance/takaful market segment, product reviews during the year focused on life insurance, family takaful and medical and health products. In two thirds of new products reviewed by the Bank, the relevant sales and promotional materials were found to fall short of the Bank's requirements, particularly in terms of the clarity and completeness of information presented. These include FSPs selectively emphasising or downplaying

product features, failing to highlight exclusions and risks, and using language which is difficult for consumers to understand. In respect of products sold over the telephone, the Bank also found instances when key information was not given to customers. The FSPs concerned were directed to take immediate corrective measures, including retraining sales staff and withdrawing all misleading material used in sales presentations. In cases of products already sold on the basis of misleading information, FSPs were required to conduct follow-up calls and provide an opportunity for consumers to reconsider their purchasing decisions without incurring any penalties or additional costs.

In the area of Islamic finance, the segregation of investment accounts from Islamic deposits further increased demands for proper disclosures to draw the attention of savers to the different risk and return profiles between deposits and investment accounts. To ensure that consumers are aware of the benefits, costs and risks involved, the Investment Account Framework issued by the Bank in March stipulates specific disclosure and suitability requirements that must be complied with in relation to these products. This includes requiring such investment accounts to have clear warnings that neither the principal nor profits of such products are guaranteed. Further details on investment accounts are provided in the box article 'Investment Accounts under IFSA' in the chapter 'Development of the Financial Sector'.

During the year, the Bank commissioned a study to assess the effectiveness of its product disclosure requirements. The findings of the study revealed scope for improvement in current industry transparency and disclosure practices in a number of areas, consistent with the Bank's observations from its supervisory activities and engagements with stakeholders. Key findings from this study are discussed in the box article 'Effectiveness of the Product Disclosure Sheet in Influencing Sound Financial Decisions'.

The Bank also partnered with the Consultative Group to Address the Poor (a global partnership that seeks to advance financial inclusion) and ideas42 (a research institute focused on advancing behavioural science), to conduct a study on the behaviour of Malaysian consumers purchasing insurance. Using mystery shopping methods, the study examined the actual experiences of customers as they interact with life insurance and family takaful agents and intermediaries. The study showed less than half of the 100 agents and intermediaries

encountered by consumers had adequately highlighted and explained the key features of the product being sold. In addition, only 58% made enquiries about the financial condition of consumers as input to product recommendations. Customer fact find forms intended to obtain customer information for suitability assessments were found to be rarely completed. Without such information, agents and intermediaries are unlikely to be able to analyse the needs of consumers, and in turn provide the right product advice. The study also affirmed the importance of providing consumers with concise and standardised key information to allow them to adequately assess a financial service or product. The findings of the study were used to prioritise the Bank's supervisory activities with a greater focus placed on reviewing the adequacy of FSPs' practices in monitoring the conduct of their intermediaries, and the design of incentive systems in encouraging better advice to consumers.

Prohibited business conduct

In November, a guidance document on Prohibited Business Conduct was issued in collaboration with the Malaysia Competition Commission to help FSPs understand and comply with the prohibited business conduct specifications set out in Schedule 7 of the FSA and IFSA. The document elaborates the factors that would be taken into consideration in determining whether an FSP has carried itself out in a manner prohibited under the law, and provides non-exhaustive guidance on the status of a range of practices observed in the industry. Particular focus is given to illustrating practices that are likely to be misleading or deceiving to consumers, practices that amount to an FSP exerting undue pressure in the marketing of financial products or in collecting payments, and practices by FSPs that have the effect of fixing the features of financial products to the detriment of consumers. While FSPs are expected to consider the guidance provided in the document in assessing the fairness of their business practices, the document is not intended to serve as a definitive response to all types of conduct. The regulatory response to a specific conduct by an FSP will consider the unique circumstances and any additional relevant facts surrounding a particular case.

Pre-contractual disclosures applicable to insurance/takaful contracts

Enhancements made to the pre-contractual disclosure obligations of consumers and the implementation of proportionate remedies available to insurers and

Effectiveness of the Product Disclosure Sheet in Influencing Sound Financial Decisions

The product disclosure regime is an important component of financial consumer protection framework in Malaysia. This article evaluates the effectiveness of the current product disclosure regime and highlights possible improvements that the Bank will consider when reviewing the disclosure requirements.

In 2010, the Bank issued Guidelines on Product Transparency and Disclosure to improve information disclosures on products and services offered by financial service providers (FSPs). The Guidelines require FSPs to provide consumers with a Product Disclosure Sheet containing essential information about a product, presented in a consistent form, for each product that they offer. The aim of the Product Disclosure Sheet is to help consumers make informed decisions when purchasing a financial product based on a clear understanding of the main features and risks of the product. It is also intended to enable consumers to compare products and services offered by different FSPs when shopping for a financial product or service.

The Bank undertook a study in 2014 to assess whether product disclosure practices are meeting these objectives. With a focus on the Product Disclosure Sheet, the study examines if disclosure practices are aligned with how consumers make financial decisions by answering two main questions: (i) "Are consumers receiving information that is useful in their decision-making?" and (ii) "In what ways can the quality (coverage, access and presentation) of information be improved to help consumers make better decisions?" Over 400 consumers in the Klang Valley were interviewed as part of the study, with their views sought on the use and quality of the Product Disclosure Sheet.

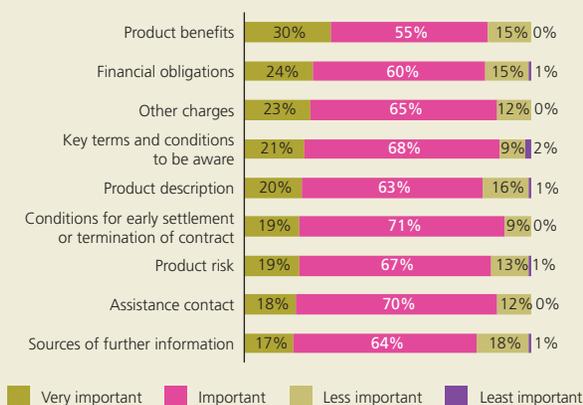
Awareness and Utilisation of the Product Disclosure Sheet

The study revealed a low level of awareness among consumers on the existence and purpose of Product Disclosure Sheets. While FSPs are required to present to consumers a Product Disclosure Sheet before purchasing products, only half of the respondents recalled seeing the Product Disclosure Sheet. In many cases, the Product Disclosure Sheet was presented to consumers only after a decision had already been made to purchase a product. Consumers are therefore not readily aware of the opportunity to use information contained in the Product Disclosure Sheet to compare financial products and services.

Among consumers who were aware of the Product Disclosure Sheet, a significant percentage (88%) made use of the document to look for information on financial products. These consumers found the content of the Product Disclosure Sheet to be relevant, with all categories of information currently captured in the Product Disclosure Sheet considered to be important information for decision-making (Chart 1).

Chart 1

Importance of Information Covered in the Product Disclosure Sheet for Consumers' Decision-making



Source: Bank Negara Malaysia

When tested against questions commonly asked by consumers, the Product Disclosure Sheet for various financial products answered most of the questions, with only a few exceptions (Table 1).

Table 1

Common Consumer Questions Not Answered by Current Product Disclosure Sheets Provided by FSPs

Type of financial product	Specific information not included in Product Disclosure Sheets tested
Mortgage	<ul style="list-style-type: none"> • Amount of applicable legal fees and stamp duty charges • Months of default in payments that would lead to property foreclosure
Structured Investments	<ul style="list-style-type: none"> • Amount of transfer fees • Keeping track of value of the investments
Investment-linked Insurance/ Takaful	<ul style="list-style-type: none"> • Possibility of reinstating lapsed policy due to failure to pay premiums/contributions • Deduction from premiums/contributions received upon policy cancellation • Limitations/conditions for withdrawal of investments • Time taken to make and receive claims

Source: Bank Negara Malaysia

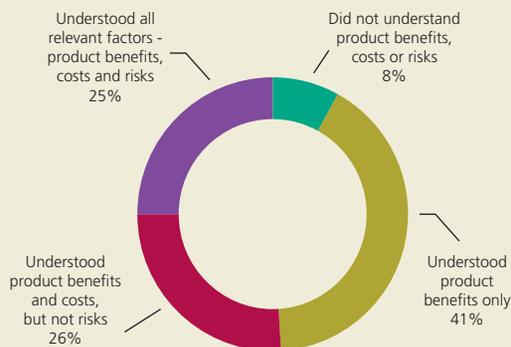
Financially literate consumers are also more likely to find information in the Product Disclosure Sheet relevant to their decision-making, suggesting the continued importance of financial education in helping all consumers make better financial decisions. Financial representatives have a significant role to play when explaining the content of the Product Disclosure Sheet to consumers and should pay particular attention to consumers with lower levels of financial literacy.

Factors that Influence Decisions by Consumers

Findings and observations from the survey provide useful insights into consumer behavior. A large proportion of consumers revealed that they make commitments to purchase financial products without fully understanding their characteristics. Returns (or benefits) are the most dominant factor in purchasing decisions, with 92% of consumers surveyed declaring that they understood the benefits of a product. In contrast, only 25% understood the costs and risks associated with a product (Chart 2). In addition, 36% of consumers surveyed do not actively consider affordability in their purchasing decisions. The study suggests a number of reasons for these observations, including the general tendency for individuals to actively seek out positive information while dismissing negative information, assumptions held about how a product works based on a general awareness of similar products, and trust placed in financial advisers, friends or family who recommended the product.

Chart 2

Factors Understood by Consumers Before Making Financial Decisions



Source: Bank Negara Malaysia

More effective use of the Product Disclosure Sheet can serve to address consumer biases given its emphasis on presenting information on benefits, risks and costs that is objective and balanced. Enhancements to the Product Disclosure Sheet will be made by the Bank to draw attention to affordability as an important factor in purchasing decisions. The study found that consumers who are conversant in English and Malay (the languages in which the Product Disclosure Sheet is currently required to be provided) were more likely to consider risk in their decision-making, likely attributed to these consumers having a better comprehension of disclosure information presented in the Product Disclosure Sheet.

The Internet could also be further leveraged to improve consumer understanding of product features. The study found that close to half of consumers surveyed identified the Internet as a key source of information on financial products. These were also the same consumers who had a better understanding of more factors, including costs and risks, when deciding to purchase a financial product.

Format and Language of the Product Disclosure Sheet

One in five consumers surveyed indicated that the Product Disclosure Sheet format could be made more user friendly by reducing its length (currently ranging between 4-8 pages), adding visual aids and simplifying the narrative in the document. Stronger (as opposed to neutral) language is favoured to convey the purpose of the Product Disclosure Sheet and important information.

Although disclosure requirements call for the use of plain language in communicating information on financial products, 40% of consumers surveyed still found the language used in the Product Disclosure Sheet produced by FSPs difficult to understand. Among the main reasons cited by respondents include the use of technical or legal jargon, the lack of explanations on product specific terminology (e.g. lock-in period, observation date, total permanent disability) and the use of complicated sentences. Consumers were also sometimes overwhelmed by the amount of information in the Product Disclosure Sheet, with key product information often buried in lengthy narratives. Many respondents agreed that the use of larger text and more concise language as well as the use of 'signposts' (e.g. through symbols, diagrams, and prominent titles and sub-headings) would enhance the readability of the Product Disclosure Sheet and help consumers navigate and locate key information in the Product Disclosure Sheet.

Conclusion

Insights drawn from this study will serve as input to the Bank's planned review of the mandatory disclosure regime. The findings of the study suggest that the Product Disclosure Sheet is an important document in helping consumers make informed financial decisions. There is good alignment between the information that consumers find relevant in deciding whether to purchase a financial product, and the information provided in the Product Disclosure Sheet. Efforts to increase awareness among consumers of the existence and purpose of the Product Disclosure Sheet will encourage wider use of the Product Disclosure Sheet in making financial decisions. The Product Disclosure Sheet should also be made more widely available through multiple channels such as at the branches and websites of FSPs. The Bank intends to work with the industry to implement improvements to make the Product Disclosure Sheet and financial agreements¹ more reader friendly, clear and engaging. This will include providing specific guidance to FSPs on more effective styles of presenting information based on consumer feedback from the study. Even with these efforts, there will continue to be consumers who do not seek out important information that they need to know about a financial product. Many consumers may also still not understand or be able to meaningfully compare the products offered to them. In order to bridge the gap, the Bank will work with key stakeholders including financial representatives to undertake targeted financial education strategies to elevate public awareness on the importance of reading and understanding the Product Disclosure Sheet and financial agreements. Efforts will also be pursued to ensure that the Product Disclosure Sheet will be prominently featured and explained during the product sales and distribution process. Additionally, strong enforcement actions will continue to be taken by the Bank against FSPs that fail to comply with transparency and disclosure requirements under standards issued by the Bank.

¹ The study also revealed that almost half of the respondents read no more than half of financial agreements.

takaful operators for misrepresentation represent a significant step in strengthening the rights of insurance policyholders and takaful participants. The obligations and proportionate remedies which are provided under the FSA and IFSA came into force on 1 January 2015. They require an insurer or takaful operator to request that a prospective customer answer specific questions at the pre-contractual stage to support the insurer's/takaful operator's underwriting decision. If it fails to do so, the insurer or takaful operator cannot subsequently dismiss a claim on grounds of non-disclosure by the customer. The provisions also set out various remedies that insurers and takaful operators may rely on depending on the type of misrepresentation made by consumers during the pre-contractual stage. In particular, the laws provide that where a misrepresentation by a consumer is innocent or careless, a proportionate remedy such as a change in terms of the contract or a reduction in the claim amount can be applied. In such cases, the insurer or takaful operator shall not dismiss a claim unless it can show, based on its underwriting considerations, that it would not have accepted the contract if accurate information had been disclosed by the customer at the pre-contractual stage. The provisions replace the existing general requirement for consumers to disclose all information that is material to the decision of the insurer/takaful operator on whether to accept the risk and the rates and terms to be applied. This has been criticised for placing an unreasonable expectation on policyholders to have sufficient knowledge of matters likely to be material to an underwriting decision, and leaving too much discretion for insurers and takaful operators to reject legitimate claims on tenuous grounds of misrepresentation by policyholders.

Enhancements to pre-contractual disclosure obligations and the implementation of proportionate remedies for misrepresentation represent a significant step in strengthening the rights of insurance policyholders and takaful participants

Business conduct standards for payment cards

To ensure that consumers are adequately protected when making card transactions, existing business conduct standards for credit cards were

further enhanced and extended to charge cards and debit cards. The enhancements made reflect the sustained efforts of the Bank and industry to ensure adequate security features of the payment card infrastructure and fair business practices by card issuers with the growing use of payment cards in a wide range of transactions. The enhanced business conduct standards require card issuers to provide timely and relevant information at all contractual stages to better enable cardholders to make informed choices. The standards further prohibit card issuers from imposing excessive charges and late payment penalties, and extend the unauthorised transaction liability limit currently enjoyed by credit card holders to debit card and charge card holders.

In a move to further strengthen public confidence in payment cards and other electronic banking channels, FSPs were also required to take additional measures to provide safety tips and alerts to customers to keep account information safe, while reminding customers to regularly monitor account balances and statements to detect irregularities such as unauthorised transactions. While FSPs are required to institute robust preventive and detective fraud control mechanisms, customers are expected to be personally responsible to undertake appropriate safety measures when using electronic banking services or payment cards. Accordingly, the circumstances in which a customer or FSP should be held liable for a loss arising from an unauthorised transaction have been further clarified to better reflect the balance of responsibilities that lies with both FSPs and customers in securing safe payment card transactions.

Revisions to bonus and dividend payments under participating life policies

Greater financial market volatility and the extended period of low interest rates have posed ongoing challenges to life insurers in managing their investment portfolios. For holders of participating life policies, volatile investment returns can affect the non-guaranteed policy benefits received on their policies. Weak discipline in managing non-guaranteed policy benefits has led to instances where insurers have had to resort to deep bonus and dividend cuts with insufficient warnings to policyholders, resulting in an inequitable allocation of benefits across different groups of policyholders of a participating fund. To ensure that discretionary bonus or dividend adjustments are more equitable and transparent to policyholders, insurers were directed to strengthen

internal governance and oversight arrangements over any proposals to adjust bonuses or dividends. This included clarifying internal policies which must define clear triggers for a review of bonus or dividend payments, and set out rules that are consistently applied for any upward and downward adjustments. Insurers were also required to perform annual sensitivity and stress tests to assess potential events that may lead to future adjustments. In preparation for a bonus adjustment, an insurer must assess the impact of the adjustment on different stakeholders, develop action plans to manage any risks identified and ensure that policyholders are properly informed. Strengthened industry practices in these areas are intended to encourage greater discipline and transparency in bonus and dividend adjustments, consistent with expectations of and disclosures made to policyholders. Further requirements in relation to the management of participating insurance business, including the management of policyholders' expectations are discussed in the chapter 'Regulatory and Supervisory Framework'.

Insurers were directed to strengthen industry practices to encourage greater discipline and transparency in bonus and dividend adjustments for participating life policies

Repricing of medical and health insurance

Medical inflation, caused by among others, increases in the costs of medical consultations, procedures, medications and other medical related products, as well as the increased utilisation of medical services, have resulted in rising claims paid in the medical and health insurance and takaful (MHI) segments in recent years. Since 2013, 12 insurers and takaful operators have repriced 29 MHI products in efforts to ensure the long-term commercial viability of these portfolios. While the repricing of an MHI product is one of the ways in which an insurer or takaful operator ensures that premiums are sufficient to cover claims costs, repricing might lead to protection gaps for policyholders and certificate owners who may no longer be able to afford cover. Similar to observations made in the context of managing discretionary payments under participating life insurance policies, a lack of underwriting discipline

combined with poorly designed policies has also contributed towards sharp increases in premiums that have exposed existing policyholders to the risk of not being able to continue to maintain their policies. While broader efforts in collaboration with relevant government agencies including the Ministry of Health are required to deliver more permanent solutions to rising medical costs, the Bank intensified its review of FSPs' compliance with the requirements set out in the Guidelines on Medical and Health Insurance Business. This is to ensure that the repricing practices are conducted in a manner that is fair to individual policyholders, consistent with the portfolio experience and adequately takes into account policyholders' reasonable expectations of continuing cover. FSPs were directed to strengthen internal processes for the periodic review of premium rates to avoid sharp one-off premium rate adjustments, improve communications with policyholders on the reasons for any rate adjustments, and ensure that policyholders are provided with credible options to maintain their cover. FSPs were also encouraged to establish dedicated avenues for affected policyholders to seek further information and advice.

Motor insurance claims settlement practices

While the implementation of the New Motor Cover Framework has contributed towards improvements in the motor claims settlement process, delays and disputes involving motor repairs and claims continue to be the most common complaint received by the Bank in the general insurance and takaful sector. The Bank continues to actively engage insurers, takaful operators, adjusters and repairers on proposals to raise professional standards and address the leakages that have contributed towards elevated claims in the motor sector. A thematic review of motor claims management practices which was initiated during the year provided useful insights to these engagements with the industry. The Bank expects to complete the review within the first half of 2015 as a basis for considering further improvements to the existing guidelines on claims settlement practices.

Fees and charges

An area being monitored closely by the Bank is the fees and charges imposed by FSPs on individual consumers and small businesses. While market forces can generally be depended on to ensure that fees and charges are competitive, the Bank intervenes in cases where the fees and

charges were not in line with the Bank's guiding principles on fair and reasonable charges. In 2014, enforcement actions were taken against four FSPs, requiring them to refund fees and charges amounting to more than RM238,000 that were found to be in breach of these principles.

Fewer applications were received by the Bank during the year from FSPs to introduce new fees or charges on financial products and services offered to individuals and SMEs, or to increase such fees and charges. The number of applications submitted to the Bank to make such changes declined by 33% in 2014, compared to 2013. Of the 134 applications received for new and upward revisions of fees, 21% were rejected or required to be adjusted downward as compared to 22% during the previous year.

STRENGTHENING REDRESS MECHANISMS FOR CONSUMERS

The Financial Sector Blueprint 2011-2020 calls for the establishment of a financial ombudsman scheme (FOS) to promote the effective and fair handling of disputes faced by consumers against FSPs. In giving effect to this recommendation, the Bank published a concept paper in August which sets out its proposals to transform the existing Financial Mediation Bureau (the Bureau), which currently operates as a voluntary arrangement, into a formalised FOS with expanded powers legislated under the FSA and IFSA. As part of the transformation, the Bank proposes to strengthen the governance and operational arrangements of the Bureau in line with international best practices and based on the fundamental principles of independence, fairness and impartiality, accessibility, accountability, transparency and effectiveness.

The strengthened dispute resolution framework provides for a two-stage dispute resolution process (comprising mediation and adjudication) that allows ample opportunity for disputing parties to review the relevant facts, issues and disagreements in an attempt to reach an amicable agreement. The basis for decisions by the FOS must be clearly explained and are final. While a decision cannot be appealed, a party to a dispute may apply to have a case internally reviewed by the FOS for the purpose of gleaning lessons for dealing with similar cases in the future. As is the case with the Bureau's current arrangements, the FOS' decision shall be binding on the FSP if accepted by the

complainant. However, the complainant may reject the FOS' decision and institute legal proceedings if he is dissatisfied with the outcome of the dispute.

The FOS will have an enlarged membership, with insurance and takaful brokers, and financial advisers joining banks, insurers, takaful operators, development financial institutions and designated payment instrument issuers which are current members of the Bureau. The range of disputes covered under the FOS, both in terms of the monetary value and type of dispute, as well as awards that can be made will also be wider than that provided for under the current arrangement. The FOS will also adopt a more equitable fee structure for member FSPs to better reflect the utilisation of the FOS services. The proposed fee structure will further provide incentives for FSPs to resolve complaints effectively and expediently through their own dedicated complaints functions.

The FOS will be overseen by a board of directors acting in the best interest of the FOS, and independently of any particular group or body which individual directors might belong to. To ensure that the FOS serves its intended objectives, periodic independent reviews will be conducted to assess the efficiency and effectiveness of the FOS' operations.

Following broad support for the proposals published by the Bank, plans are well advanced to complete the transformation of the Bureau by June 2015 in order to enable the FOS to commence operations in the second half of 2015.

Plans are well advanced to complete the transformation of the Financial Mediation Bureau into an approved financial ombudsman scheme which will commence operations in the second half of 2015

In addition to the FOS, the Bank through BNMLINK and BNMTELELINK provides assistance to financial consumers to resolve issues with FSPs. A total of 7,381 complaints against FSPs were lodged with LINK in 2014, a 9.7% reduction from the 8,171 complaints lodged in 2013. Engagements with consumers suggest that the

reduction in the number of complaints received by the Bank largely reflects continuous improvements in the complaint handling practices of FSPs. This was further validated by a consumer satisfaction survey conducted by the Malaysian Productivity Corporation with customers from nine major banks. The survey revealed that only 7% of the respondents who have previously lodged a complaint claimed that their complaints were handled poorly.

WELL-INFORMED AND RESPONSIBLE FINANCIAL CONSUMERS

The growing complexity of financial products and services can overwhelm consumers who are ill-equipped to make informed financial decisions due to their lack of knowledge and skills on financial matters. Such consumers are not able to reap the benefits from participating fully in the financial system to plan for and secure their financial well-being. The challenge to make informed financial decisions is further compounded by the increasing average life expectancy and rising cost of living, as well as changing social norms (including increasing peer pressure to spend beyond one's means). This underscores the importance and urgency of accelerating financial capability initiatives through education.

Financial education initiatives in Malaysia are geared towards promoting financial literacy as an essential life skill. Financial education programmes are accordingly designed and delivered to equip Malaysians of all ages with knowledge on financial management relevant to their stage in life. Particular focus is directed at inculcating good financial management skills among young Malaysians that they will carry through the rest of their lives.

Financial education programmes are designed and delivered to equip Malaysians of all ages with knowledge on financial management relevant to their stage in life

School children are exposed to the basics of managing money and finances from an early age. The Bank collaborates with the Ministry of Education

(MOE) to implement a strategy for financial education in schools centred on three pillars:

- Integrating important aspects of financial education in key subjects in the school curriculum;
- Strengthening the knowledge and skills of teachers and lecturers to effectively deliver financial education to students of all ages; and
- Securing the buy-in of headmasters and other school administrators to act as key partners who can help ensure the success of financial education initiatives in schools.

Encouraging progress was achieved during the year. The newly developed Primary Five curriculum includes elements of financial education, and teachers' guides were developed for Primary Five and Primary Six. A financial education module was also developed and various training programmes are being rolled out for teachers. The integration of financial education in schools is on track following the progressive roll out of financial education elements for Primary Four students in 2014, while similar initiatives for the secondary school will commence in 2017. Financial education is expected to be extended to all primary and secondary school students by 2021.

The content of and approach to delivering financial capability programmes among adults is tailored to the life stage of an individual. This strategy recognises the fact that just as the lifestyle and behaviour of an individual evolves over time, the financial decisions that he has to make will also differ across different stages in life. These stages include entering the workforce, getting married, raising a family and retiring from work. This approach is premised on the belief that sustained behavioural change will be achieved when the relevant financial skills and knowledge is delivered at the time when an individual is motivated to educate himself given his personal circumstances at that particular point in time.

The financial education agenda was further advanced in 2014 with the launch of POWER! (Pengurusan Wang Ringgit Anda) programme targeted at adults already in the workforce. The programme, which is a result of the collaboration between the Bank and the Credit Counselling and Debt Management Agency (Agensi Kaunseling dan Pengurusan Kredit, AKPK), builds on the first series of the POWER! Programme, which primarily targets university students and

young adults. It emphasises prudent management of household finances and covers debt management, building wealth and preparing for unexpected events.

Various other outreach programmes were also conducted for Malaysian adults during the year. Table 4.1 summarises the key financial education initiatives in 2014.

To assess the effectiveness of financial education programmes and their impact on financial literacy, the Bank embarked on a study to measure and track the level of financial literacy and capability of Malaysians. The study, which adopts international best practices for measuring financial literacy, is also intended to identify specific areas of consumer vulnerabilities and enable the Bank to

Table 4.1

Key Financial Education Initiatives in 2014

Strategy	Initiatives
Promote financial capability from an early age	<ul style="list-style-type: none"> • Integrating financial education into the curriculum for national schools and vocational colleges: <ul style="list-style-type: none"> - Incorporated financial education elements in Primary Five Mathematics, Bahasa Malaysia, English and Moral Education curricula and textbooks. - Developed teachers' guides for Primary Five and Primary Six of the same subjects. - Piloted a 40-hour Personal Financial Management module at 15 vocational colleges that will be rolled out to semester five students at 57 other vocational colleges in 2015. • Equipping teachers and lecturers with the knowledge and skills to teach financial education: <ul style="list-style-type: none"> - Taught personal financial management skills to more than 5,000 trainee teachers. - Developed a 20-hour financial education module to prepare a group of main trainers beginning 2015 who will then train other teachers. - Trained over 1,000 Primary Five Mathematics teachers who will then train other teachers to integrate financial education in Primary Five Mathematics. - Trained 57 lecturers from vocational colleges to teach financial education. • Ensuring the readiness and securing commitment of headmasters and school administrators to implement financial education in schools: <ul style="list-style-type: none"> - Briefed more than 500 headmasters on the financial education elements being integrated into the school curriculum and the importance of building financial capability at an early age. - Equipped 21 trainers from the MOE's leadership and education management training institute with knowledge on personal financial management to support training on personal financial management for headmasters.
Targeted financial capability programmes for adults based on significant events at life stages	<ul style="list-style-type: none"> • 220,000 adults attended AKPK's financial education programmes targeted at various consumer segments: <ul style="list-style-type: none"> - Continued to roll out the POWER! programme, attended by over 29,900 young adults aged 18 to 30 years old. - Briefed over 1,000 youth on personal financial management under the Government's <i>Memperkasa Informasi Generasi Muda</i> Programme. - Provided personal financial management training to more than 3,300 students through modules offered by 10 institutions of higher education. - Organised Personal Financial Management briefings and pocket talks at various government offices and other public locations throughout the country, attended by nearly 172,000 individuals. - Organised talks on financial scams and consumer responsibility at various government offices and other public locations throughout the country, attended by over 10,500 individuals. - Organised financial education talks through the Government's 1Malaysia Civil Service Retirement Support programme, attended by 3,200 retirees.
Delivery of timely and useful financial education information	<ul style="list-style-type: none"> • Disseminated financial education information and alerts through weekly newspaper columns, television and radio programmes, and online platforms in different languages. • Continued to promote the POWER! Online Learning Programme, which saw 818 individuals completing the programme. • Brought MobileLINK to 93 rural sub-districts throughout the country to disseminate information on financial management and provide financial advisory services to over 12,000 Malaysians. • Distributed more than 1 million copies of <i>Buku Wang Saku</i> to students. • Further promoting <i>Duitsaku.com</i>, which recorded more than 1 million hits.

target policy and financial education interventions more precisely to these areas. The study is expected to be completed in the first half of 2015.

In addition to educating consumers on personal financial management, the Bank, through its various outreach programmes in 2014, also continued to focus on educating the public on financial scams through intensive print and social media campaigns. The outreach programmes provide information on how financial scams work and how to avoid becoming victims of scams. The Bank also worked closely with consumer groups, government agencies and other community leaders to further extend the reach of its public awareness initiatives. An important channel for warning consumers of potential scams has been the Financial Consumer Alert List maintained by the Bank on its official website. 66 entities were added to the list in 2014 to warn the public of entities which are not authorised to accept deposits or conduct any regulated financial activities. The Financial Consumer Alert List received over 146,000 page views in 2014.

The year also saw the Bank in collaboration with the Royal Malaysia Police (RMP) and the Malaysian Communications and Multimedia Commission taking aggressive measures to combat phone scams. These include blocking the phone numbers used by scammers and prosecuting mule account holders (individuals who allow their bank accounts to be used by scammers to hold or transfer money which is acquired illegally) under the Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 and the Penal Code for facilitating laundering of proceeds of illegal activities. More than 100 investigations have been carried out by the RMP in recent years, of which over 40 cases were successfully prosecuted (Source: RMP). In addition, effective December 2014, the Bank has initiated the sharing of information of individuals reported to be involved in scam activities with banking institutions to facilitate customer due diligence and risk profiling. The Bank also intensified its public communications to advise members of the public to exercise caution when receiving any suspicious phone calls purportedly from an enforcement agency.

2014

PAYMENT AND SETTLEMENT SYSTEMS

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PAYMENT AND SETTLEMENT SYSTEMS

In 2014, the Bank continued to ensure the safety and resilience of the payments infrastructure in the country to support the financial sector and economy. Under the Financial Services Act 2013, the Real-time Electronic Transfer of Funds and Securities System (RENTAS) and the National Electronic Cheque Information Clearing System (eSPICK) are designated as systemically important payment systems, the disruption of which could affect public confidence or monetary and financial stability. These systems are subject to the Bank's oversight and regulatory requirements to preserve their integrity and reliability as critical market infrastructure. Apart from these, the Bank also approves and provides oversight over a number of major retail payment systems and instruments for the purpose of promoting their efficiency, integrity and operational reliability.

These large value payment and settlement (LVPS) system and retail payment systems operated smoothly without any major disruption. The Bank nevertheless continued to direct efforts towards strengthening the business continuity and contingency arrangements for these systems to further increase assurance of their resilience. The arrangements were rigorously tested under disaster recovery live run exercises which were conducted to ensure rapid recovery and timely resumption of the LVPS operations. Measures were also taken to enhance the retail payment systems infrastructure in anticipation of further growth in the volume of retail payment transactions. Collectively, these developments have further reduced systemic risk.

The Bank also continued during the year to promote consumer confidence in the use of electronic payment (e-payment) services. While payment fraud incidents have remained low, fraudsters attempted new methods for perpetrating online banking fraud that require vigilance among members of the public. Apart from the continuous updating of security arrangements by banks and issuers of designated payment instruments to address emerging fraud threats, consumer protection arrangements were also enhanced alongside a sustained programme to educate consumers on how to conduct online payments and transfers safely.

PROMOTING THE STABILITY OF PAYMENT AND SETTLEMENT SYSTEMS

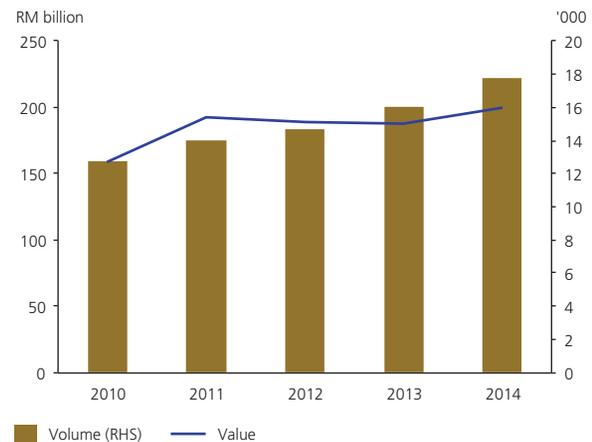
Oversight of Real-time Electronic Transfer of Funds and Securities System (RENTAS)

In 2014, RENTAS settled transactions amounting to RM49.1 trillion, which is 45.9 times of Malaysia's gross domestic product (GDP), compared with RM46.4 trillion in 2013. The average daily transaction volume and value increased by 10.5% and 6.2%, from 16,061 transactions and RM188 billion in 2013 to 17,753 transactions and RM199.7 billion, respectively in 2014 (Chart 5.1). Interbank money market, securities and foreign exchange settlements amounted to RM26.3 trillion or 53.5% of the total value of RENTAS transactions, while the remaining transactions were mainly funds transfers by the Government and corporates. The growth in transaction volume was largely driven by higher third-party funds transfers, which have increased at an average rate of 14.5% over the last four years.

While RENTAS operations continued to sustain a high level of operational availability without any system disruption in 2014, there were four minor incidents in which technical errors in the

Chart 5.1

RENTAS: Daily Average by Volume and Value



Source: Bank Negara Malaysia

operations of the retail payment system resulted in slight delay in settlements of interbank net clearing positions. This demonstrates the dependencies between RENTAS and the operational reliability of retail payment systems which settle through RENTAS. To mitigate the recurrences of such incidents, several measures were taken to enhance the infrastructure of the retail payment systems. There is also a strong incentive for participants to ensure operational reliability through the implementation of a penalty system for disruptions caused in the clearing and settlement process.

As part of ongoing efforts to ensure the ability of RENTAS to resume services in a timely manner in the event of any disruption, a “mid-day failure” simulation exercise was conducted by the Malaysian Electronic Clearing Corporation Sdn. Bhd. (MyClear) to test the effectiveness of disaster recovery (DR) arrangements. This was in addition to the routine monthly DR live runs and biannual DR-to-DR live runs. The exercise, which was carried out on a weekend and involved the participation of 66 RENTAS members, simulated a mid-day RENTAS failure and the activation of RENTAS operations at the MyClear DR site. In the exercise, RENTAS operations resumed within an hour, well within the recovery time objective of two hours.

The settlement frequency of Interbank GIRO (IBG) in RENTAS has been increased from two times to five times daily to enable faster crediting of customers’ accounts. As a result, for IBG transactions conducted between 12.30 p.m. to 5.00 p.m., the funds can now be received on the same day. In order to mitigate interbank credit risks, the interbank settlements for IBG transactions now precede the crediting of customers’ accounts. To cater for the higher settlement frequency of IBG positions, RENTAS operating hours were extended from 6.00 p.m. to 9.00 p.m. with effect from 8 December 2014. To facilitate the evening settlement of the IBG obligations, the Bank also introduced the Automated Collateralised Overnight Funding Facility for IBG participants to obtain funds after the money market closes.

Oversight of Retail Payments

Major retail payment systems and eSPICK

Several key initiatives have been undertaken to enhance the retail payment systems infrastructure in anticipation of further growth in e-payment transactions. In June 2014, a technology refresh exercise was carried out to upgrade the hardware and software of the IBG system. The resultant increase in both the capacity and efficiency of the

IBG system will ensure it is able to cope with the rising volume of IBG transactions. A stress test revealed that the enhanced IBG system would be able to process twice the maximum volume of transactions per window. A technology refresh exercise was also undertaken for the Shared automated teller machine (ATM) Network (SAN) and the domestic debit card system, which increased the capacity of transaction processing.

eSPICK remained resilient and continued to operate without any major disruption throughout the year. Nonetheless, to ensure the continuous reliability of eSPICK, a hardware upgrading exercise will be undertaken in 2015, which is expected to extend its lifespan by another five years.

The Bank also conducts supervision over the payment system operators. In 2014, supervisory activities focused on ensuring the operational reliability of retail payment systems, the adequacy of business continuity arrangements and the ability of the systems to support higher volume of e-payment transactions. These reviews concluded that the systems have sufficient scale and capacity to cater for the anticipated growth in transaction volume. Semi-annual DR live runs were also conducted on the retail payment systems to ensure the systems remain resilient in the event of a disaster at the primary data centre.

The settlement frequency of Interbank GIRO (IBG) in RENTAS has been increased from two times to five times daily

Payments fraud

Fraud related to the use of payment cards, online banking and cheques remained low in 2014 (Chart 5.2 and Chart 5.3). This can be attributed to various measures undertaken to enhance payments security such as the migration to chip-based cards in 2005 and the implementation of a strong authentication method for online transactions since April 2012 which requires cardholders to enter a unique one-time password to authorise online transactions. The majority of online payment card fraud in Malaysia involves foreign e-commerce merchants. About 93% of total online fraud

losses were borne by foreign financial institutions abroad that have yet to implement the strong authentication method, in line with the payment card schemes rules which require the party with weaker security to bear the losses arising from fraud.

Fraud related to the use of payment cards, online banking and cheques remained low in 2014, attributed to various measures undertaken to enhance payments security

In February 2014, the Bank issued regulations to raise the minimum security requirements for debit and charge cards to the same level as credit cards. These security requirements include the implementation of transaction alerts and a strong authentication method for online transactions. The Bank also required financial institutions to only enable card-not-present (CNP) transactions (for mail order, telephone order or online purchases) and overseas transactions for debit and prepaid cards upon the request of cardholders. This further mitigates the risks associated with such transactions. As part of continuous efforts to strengthen the security of payment cards, the Bank has also set a deadline of 1 January 2017 for all payment card issuers and acquirers to enable "Chip and PIN" verification for point-of-sale (POS) transactions.

During the year, a new modus operandi for online banking fraud was detected, which involved the theft of banking credentials from victims' computers or smartphones using sophisticated malware. To address this new threat, banks and issuers of designated payment instruments have further strengthened their risk management measures by recalibrating the risk parameters in their fraud detection system based on the risk profiling of the latest fraud threats in online banking and payment instruments. Safety alerts also continued to be issued to customers at key touch points to educate customers on how to protect themselves against fraud. New and more sophisticated fraud methods can often increase inconveniences suffered by consumers as more time may be required to investigate fraud incidents to ascertain liability. To address

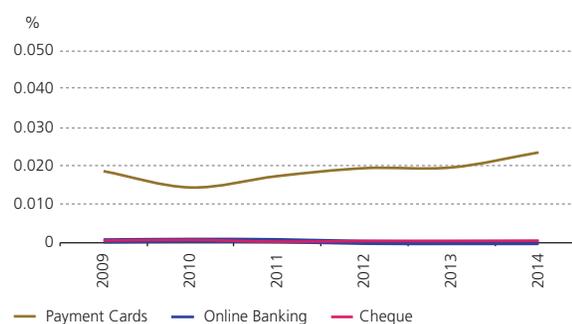
this, financial institutions were required to provisionally credit customer accounts when the investigators' fraud investigations cannot be completed within a reasonable time. This is important to enhance confidence among the public in using e-payments. Nevertheless, to deter the risk of fraudulent claims, the financial institutions also provide adequate warnings to their customers of the actions that can be taken for any attempts to make false claims.

The Bank has set a deadline of 1 January 2017 for all payment card issuers and acquirers to enable "Chip and PIN" verification for point-of-sale (POS) transactions

While cheque fraud has remained negligible relative to total cheque transactions, MyClear is in the process of enhancing current mechanisms for resolving disputes under the eSPICK participation and operation rules to cater for emerging forms of cheque fraud. One such form of cheque fraud has been the interception of cheques sent using pre-printed envelopes provided by payees. Given that precautions taken by consumers remain the first line of defence against fraud, banks have continued to be proactive in sharing information and raising alerts to consumers regarding emerging fraud methods.

Chart 5.2

Fraud, % of Total Transaction Volume



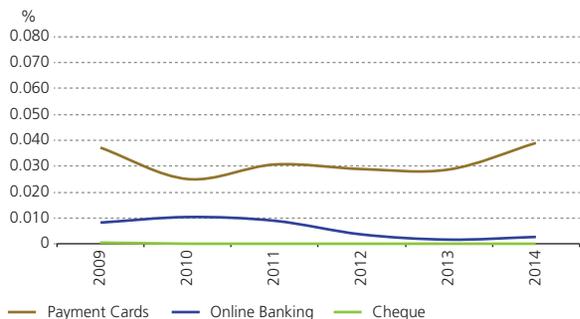
*Payment cards consists of credit card, debit card and charge card

*Online banking refers to online banking transactions conducted by individuals

Source: Bank Negara Malaysia

Chart 5.3

Fraud, % of Total Transaction Value

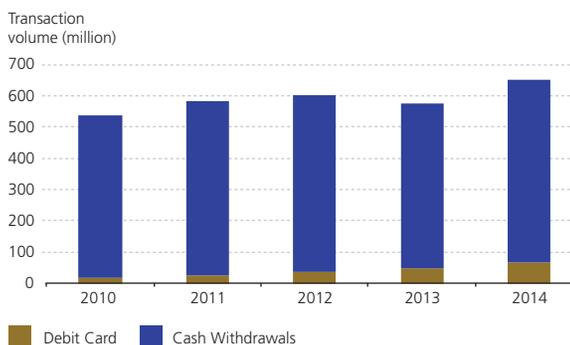


*Payment cards consists of credit card, debit card and charge card
 *Online banking refers to online banking transactions conducted by individuals

Source: Bank Negara Malaysia

Chart 5.5

Transaction Volume of ATM Cash Withdrawals and Debit Card



Source: Bank Negara Malaysia

KEY TRENDS AND DEVELOPMENTS IN THE RETAIL PAYMENT SYSTEMS

Cash Usage

In 2014, the value of cash-in-circulation (CIC) increased by 8.5% to RM68 billion, while the ratio of CIC to GDP remained at 6.4%. Malaysia's CIC-to-GDP ratio, which has increased steadily since 2010, is significantly higher than in advanced countries such as Norway, Sweden, Denmark and United Kingdom (UK) where debit cards are more widely used (Chart 5.4). Compared to the previous year, ATM cash withdrawals increased in 2014 by 10.9% and 10% in volume and value respectively, to 583.8 million transactions amounting to RM315.1 billion. While debit card transactions also increased in the same period to 68.8 million

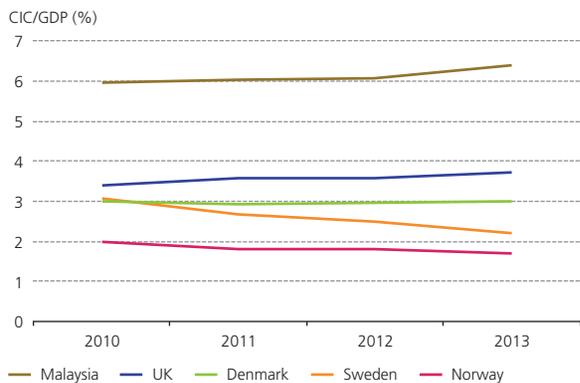
transactions valued at RM14.8 billion, the ratio of debit card transactions to ATM cash withdrawals remained very low at one debit card transaction for every eight ATM cash withdrawals (Chart 5.5). These statistics illustrate the continued prevalent use of cash as a medium of payment in Malaysia.

Non-Cash Retail Payments

The use of e-payments continued to increase while cheque usage declined relative to other non-cash payment instruments (Chart 5.6). In 2014, 92.5% of non-cash payments were made electronically compared to 85.6% in 2010. The total number of e-payment transactions has increased from 1.2 billion in 2010 to 2.2 billion in 2014. On a per capita basis, this is equivalent to an increase from 43 e-payment transactions per person in 2010 to 72 transactions in 2014.

Chart 5.4

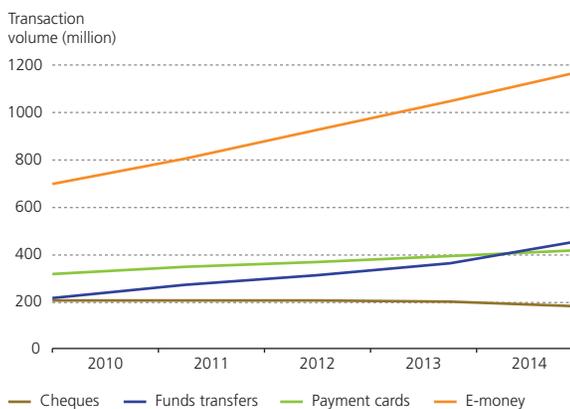
Country Comparison of CIC as part of GDP



Source: Bank Negara Malaysia, European Central Bank Statistical Data Warehouse and Norges Bank

Chart 5.6

Non-cash Retail Payments



Source: Bank Negara Malaysia

There has been a significant decline in the volume of cheques in 2014 to 177.1 million cheques valued at RM1.9 trillion. This represents a decline of 10.1% compared to a decline of 3.3% in the previous year, mainly attributed to the introduction of pricing reforms, enhanced IBG services and awareness campaigns to promote the use of e-payments. (Chart 5.7)

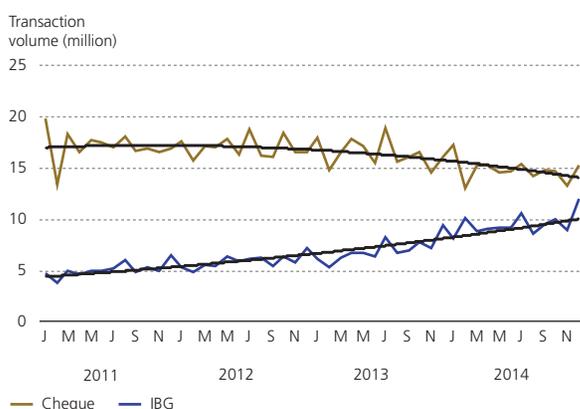
The use of e-payments continued to increase while cheque usage declined relative to other non-cash payment instruments

Encouraging growth of IBG

With the introduction of the flat rate transaction fee of 10 sen in May 2013, IBG transactions have increased by 36.2% from the previous year to 113.6 million transactions valued at RM432.5 billion. To further broaden access to e-payments, banks have enabled ATMs to facilitate electronic funds transfer (EFT) via IBG to cater for segments of the society that do not have access to the Internet. Customers are now able to conduct funds transfers via IBG or Interbank Fund Transfer (IBFT) at 30 sen or less at 9,945 ATMs nationwide, covering 80% of the total ATMs in the country. Banks have also installed self-service Internet kiosks at selected branches for customers to perform IBG and other online banking transactions. Currently about 85% of total bank branches nationwide are equipped with at least one kiosk.

Chart 5.7

Cheque and IBG Transaction Volume



Source: Bank Negara Malaysia

The IBG service has also been improved to enhance user convenience. To facilitate reconciliation of payments, the payer's name and payment reference are now displayed in the beneficiary's bank account statements. Future-dated IBG service has also been introduced to enable IBG transactions to be processed at a later date, similar to post-dated cheques.

Future-dated IBG service has also been introduced to enable IBG transactions to be processed at a later date, similar to post-dated cheques

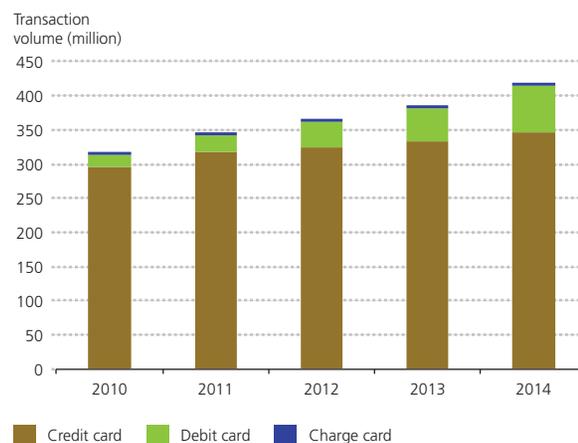
Payment cards

The use of payment cards (debit cards, credit cards and charge cards) has increased by 8.6% and 8.8% in terms of volume and value, from 385.8 million transactions worth RM118 billion in 2013 to 419.1 million transactions valued at RM128.8 billion in 2014. Credit cards remain the most widely used payment card, constituting 82.5% of the total transaction volume, while debit and charge cards accounted for 16.4% and 1%, respectively (Chart 5.8).

Despite the high penetration of secure chip-based payment cards in Malaysia (43.4 million debit cards and 8.2 million credit cards for a

Chart 5.8

Payment Card Spending by Type of Cards



Source: Bank Negara Malaysia

population of 30.3 million), there are only 239,802 POS terminals or eight POS terminals per 1,000 inhabitants. The growth rate of POS terminals has also slowed considerably from 14.6% in 2011 to just 5.3% in 2014, indicating a potential saturation of POS terminals at higher tier merchants who are able to afford the current level of merchant discount rates. The lower ratio of debit card to credit card transactions and the slower growth in POS terminals underscored several distortions in the payment card market which led to the implementation of a series of measures by the Bank to reform the payment card industry.

Payment Card Reform Framework

In 2013 and 2014, the Bank conducted a comprehensive study on interchange fees and payment card rules and practices in Malaysia amid a series of interchange fee hikes in the domestic payment card market. The interchange fee is a fee which is paid by the merchant's bank (acquirer) to the cardholder's bank (issuer) to cover costs incurred in facilitating a payment card transaction. The study revealed that the existing interchange fee regime in Malaysia creates distortionary incentive effects which encourage the promotion of higher cost payment cards at the expense of other more cost-effective payment cards. Operators of payment card networks are competing with each other not by reducing the fees that they impose on issuers and acquirers, but by increasing the interchange fees to incentivise the issuance and promotion of payment cards under their brand. The indiscriminate increase in interchange fees, in turn, is raising the prospect of a system-wide increase in merchant discount rates (MDR), which is likely to be passed on to consumers through higher prices of goods and services. The escalating cost of payment card acceptance would also curb the expansion of the POS network, especially among smaller merchants which are unable to afford the higher MDR cost. The Bank also observed that certain rules and practices within the payment card industry lack transparency and inhibit competition in ways that hinder the wider use and acceptance of more cost-effective payment cards in Malaysia.

Following the study, the Bank issued the Payment Card Reform Framework (Framework) in 2014 with the objective of fostering a more efficient, transparent and competitive payment card industry in Malaysia. In particular, the Framework seeks to ensure that the cost of accepting payment cards is

fair and reasonable while promoting the wider use and acceptance of cost-effective payment cards.

The Bank issued the Payment Card Reform Framework with the objective of fostering a more efficient, transparent and competitive payment card industry

Key measures

The Framework has two key thrusts. The first is introducing an objective and transparent mechanism for the setting of interchange fees for domestic payment card transactions. Under this mechanism, interchange fees for debit, prepaid and credit card transactions are subject to ceilings which are based on the underlying cost structure of the respective payment cards (Table 5.1). Debit and prepaid cards will correspondingly be more cost-effective, which in turn will expand their acceptance by more merchants. As a measure to accelerate the acceptance of payment cards for payments to the Government which account for a significant share of payment transactions, the interchange fee ceiling for debit and prepaid cards will be set at zero for a period of six years.

Table 5.1

Interchange Fee Ceilings for Domestic Payment Card Transactions

Payment Card Transaction	Prevailing Interchange Fee Rates	Interchange Fee Ceiling
Domestic debit card	0.40%	<ul style="list-style-type: none"> • '0.15%' or '50 sen + 0.01%' (whichever is lower) • 0% (for payments to Government)¹
International debit/prepaid card	0.99% - 1.20%	<ul style="list-style-type: none"> • '0.21%' or '70 sen + 0.01%' (whichever is lower) • 0% (for payments to Government)
Credit card	1.32% - 1.80%	<ul style="list-style-type: none"> • 1.10%² (from 2015 to 2020) • 0.48% (from 2021 onwards)

¹ Zero interchange fee for payment to the Government or its agencies for six years (2015 to 2020).

² Ceiling of 1.1% if a Market Development Fund is established, otherwise the ceiling is set at 1.0%.

Source: Bank Negara Malaysia

Following consultations with the industry, a higher interchange fee ceiling above the eligible transaction-related costs for credit card transactions has been maintained for an interim period between 2015 and 2020. This aims to build financial allocations by the industry which will be channelled towards enhancing the domestic payment card infrastructure and to promote the use of debit cards. The payment card industry has committed to a series of annual targets during this period (Table 5.2) which will serve as the basis for ensuring that the financial allocations are being directed towards their intended purpose of expanding the use and acceptance of debit cards for payments. The Bank will closely monitor the achievement of the specified targets, and failure to meet the targets will result in the interim ceiling being lowered to the eligible transaction-related costs level based on a pre-determined formula.

The Framework will introduce an objective and transparent mechanism for the setting of interchange fees for domestic payment card transactions

The second thrust of the Framework is increasing transparency and promoting competition in the payment card market, while safeguarding the interests of consumers (Table 5.3). Measures supporting this thrust are largely aimed at improving price signals and providing merchants with greater control over the costs that they can bear for payment card acceptances. Over the longer term, this is expected to increase payment card acceptance and reduce the likelihood of future increases in MDR costs being passed entirely on to consumers.

Table 5.2

Industry Indicators from 2015 to 2020

Industry Indicators	2015	2016	2017	2018	2019	2020
1) Cumulative POS terminals* *including 30% contactless terminals	280,000	330,000	430,000	560,000	690,000	800,000
2) Debit card transactions (million)	89	137	246	433	681	1,000

Source: The Association of Banks in Malaysia (ABM) and the National Cards Group (NCG)

The Framework is expected to promote the orderly and sustainable growth of the payment card industry over the long term. Consumers will be able to use payment cards more widely as more merchants accept payment cards as a result of lower payment card acceptance costs. In addition to the lower cost of payment card acceptance, merchants will also benefit from the increased convenience and operating efficiencies brought about by wider payment card usage. A higher payment card transaction volume will also generate higher revenue for banks in respect of their acquiring business and reduce the costs incurred in handling cash.

Consumers will be able to use payment cards more widely as a result of lower payment card acceptance costs incurred by merchants

Accelerating the migration to e-payments

Throughout 2014, both the Bank and the banking industry continued to direct considerable effort and resources at improving the accessibility, efficiency and reliability of e-payment services in Malaysia.

With effect from 1 October 2014, a tiered pricing structure was introduced for e-payment services to encourage the use of more cost-effective payment channels. Under the new pricing structure, transactions conducted via online banking channels will attract the lowest fee, followed by transactions carried out at ATMs and lastly, transactions performed over-the-counter (OTC). For example, the fee for IBG transactions is 10 sen via online banking, 30 sen at ATMs and RM2 for OTC.

Table 5.3

List of Measures to Improve Transparency and Promote Competition in the Payment Card Market

Measures	Rationale	Regulatory Requirement
1. Unbundling of MDRs for payment cards	To ensure MDR reflects the cost structure of payment cards	Acquirers to unbundle MDRs for: <ul style="list-style-type: none"> • Domestic debit card transactions • International debit/prepaid card transactions • Credit card transactions
2. Facilitating the identification of debit cards and international prepaid cards	To enable merchants to distinguish debit cards and prepaid cards from credit cards	Issuers to ensure debit cards and international prepaid cards are visually and electronically identifiable
3. Removing restriction on co-badging of debit cards	To increase competition among debit card networks	<ul style="list-style-type: none"> • Any rule or practice that restricts or prevents co-badging of debit cards is prohibited • Issuers to ensure equal prominence is given to the branding of debit card networks in a co-badged debit card
4. No surcharging for debit card and prepaid card transactions	To promote the use of cost-effective payment cards	Acquirers to ensure that merchants do not impose any surcharge on domestic debit card and international debit/prepaid card transactions
5. Empowering merchants to steer customers to use cost-effective payment cards	<p>(a) To enable merchants to prefer/accept the lower-cost payment card to minimise the country's retail payment cost</p> <p>(b) To ensure disclosure of the cost of payment card acceptance to merchants</p> <p>(c) To ensure MDR is reflective of changes in interchange fees, and promote competition among acquirers to lower MDR</p>	<ul style="list-style-type: none"> • Any rule or practice with the following object or effect is prohibited: <ul style="list-style-type: none"> - Restrict or prevent merchants from steering customers to use a particular payment card or network - Restrict or prevent merchants from setting priority routing for co-badged payment cards - Restrict or prevent the number of networks through which a transaction may be routed at the POS - Restrict or prevent merchants from giving equal prominence to all networks at the POS • Merchant statements to contain the following: <ul style="list-style-type: none"> - MDR for each transaction - Interchange fee rate for each transaction - Website address of payment networks where interchange fee rates are published - A notice of reduction in MDR following a reduction in interchange fee, or an explanation if there is no reduction in MDR
6. Prohibition on exclusivity to an account or line of credit	To promote competition among payment card networks and payment systems	Any rule or practice which restricts or prevents an account or a line of credit from being accessed via different payment card networks or payment systems is prohibited
7. Minimum product offering for payment cards	To enhance consumer choice and prevent issuers from charging excessive fees for unwanted payment card features	Issuers shall offer cardholders the option of obtaining a basic payment card with zero or nominal fees. The basic payment card shall facilitate payment to merchants acquired in or outside Malaysia, or in Malaysia only at the cardholder's choice

Source: Bank Negara Malaysia

To sustain the drive for continuous improvements in the e-payment infrastructure and services offered, the Bank introduced the e-Payment Incentive Fund (ePIF) framework, which came into effect on 2 January 2015. Under this initiative, banks are required to channel the cheque processing fees collected into providing incentives

for customers to migrate to e-payments, such as by waiving e-payment transaction fees, security token fees and monthly maintenance fees.

To further promote consumer awareness, transparency and competition, banks have also been required since 1 October 2014 to publish details of

the e-payment services offered at all bank branches and on the websites of banking institutions, the Bank, The Association of Banks in Malaysia (ABM) and The Association of Islamic Banking Institutions Malaysia (AIBIM). The information, which includes the transaction fee, crediting time and transaction limit, will enable the public to compare the e-payment services offered by the banking institutions and select the services that best meet their needs.

With effect from 1 October 2014, a tiered pricing structure was introduced for e-payment services to encourage the use of more cost-effective payment channels

Interoperability of payment cards

The year also saw the launch of the Malaysian Chip Card Specification initiative, an industry effort coordinated by the Malaysian Electronic Payment System Sdn. Bhd. (MEPS) and MyClear, to migrate the domestic debit card from its current proprietary standard to the Europay-MasterCard-Visa (EMV) standard. The use of the EMV standard will improve efficiency, foster greater interoperability and widen the acceptance of the domestic debit cards by merchants across the country. Starting from 2015, cardholders will progressively be issued with new EMV-compliant cards with contactless functionality. The contactless functionality will provide greater convenience to cardholders and also enhance operational efficiency for merchants by reducing transaction times. The migration exercise is expected to be completed by 1 January 2018.

ENHANCING CROSS-BORDER AND REGIONAL COOPERATION

The Bank continues to participate actively in a range of regional forums which have an important role in fostering greater integration of payments and settlement infrastructure as well as enhancing the efficiency and stability of payment systems. The Bank is a member of several major regional payment system working groups, including the Working Group on Payment Systems under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), the ASEAN+3 Cross-border Settlement Infrastructure Forum (CSIF) and the ASEAN Working Committee on Payment and Settlement Systems (WCPSS).

During the year, the WCPSS developed the Principles for Product Transparency and Disclosure on Cross-border Trade Settlement (Principles) to ensure that customers have timely access to information about the charges and service levels offered by financial institutions for cross-border trade settlement in the ASEAN region. The higher level of transparency will also improve settlement efficiency and facilitate trade between ASEAN economies. The first group of countries to implement the Principles were Malaysia, Philippines, Singapore and Thailand, while Brunei, Cambodia, Indonesia, Laos, Myanmar and Vietnam will adopt the Principles by end-2015. As part of efforts towards achieving greater regional economic integration as envisioned under the ASEAN Economic Community (AEC), the WCPSS is also conducting research on the use of local currencies for cross-border trade settlement and the expansion of cross-border retail payment linkages to facilitate cross-border payment card and electronic funds transfer transactions.

ANNEX



2014

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Table A.1

Key Financial Soundness Indicators

	As at end				
	2010	2011	2012	2013	2014 ^p
	% (or otherwise stated)				
Banking System					
Risk-Weighted Capital Ratio	14.8	15.7	15.7	-	-
Core Capital Ratio	13.0	13.7	13.9	-	-
Total Capital Ratio ¹	-	-	-	14.9	15.2
Tier 1 Capital Ratio ¹	-	-	-	13.5	13.3
Common Equity Tier 1 Capital Ratio ¹	-	-	-	12.6	12.6
Return on Assets	1.5	1.6	1.6	1.5	1.5
Return on Equity	16.6	17.4	17.4	15.9	15.2
Liquid Assets to Total Assets ²	15.6	16.0	13.8	11.6	13.1
Liquid Assets to Short-term Liabilities ²	48.1	45.4	42.5	36.5	42.6
Net Impaired Loans Ratio	2.3	1.8	1.4	1.3	1.2
Capital Charge on Interest Rate Risk in the Trading Book to Capital Base ¹	2.0	1.7	1.7	1.5	1.5
Net Open Position in FCY to Capital Base ¹	8.5	6.7	6.1	5.7	4.9
Equity Holdings to Capital Base ¹	1.2	0.9	0.6	0.8	1.3
Insurance and Takaful Sector					
Capital Adequacy Ratio (conventional only)	224.6	222.5	219.1	246.1	253.0
Life Insurance and Family Takaful					
Excess Income over Outgo (RM billion)	14.1	12.7	17.9	13.2	13.8
New Business Premiums / Contributions (RM billion)	11.2	10.9	12.0	12.1	12.8
Capital Adequacy Ratio (conventional only)	253.2	248.5	242.3	260.9	260.1
General Insurance and General Takaful					
Underwriting Profit (RM billion)	0.9	0.5	1.7	1.8	1.8
Operating Profit (RM billion)	2.1	1.7	2.9	3.2	3.2
Gross Direct Premiums / Contributions (RM billion)	14.1	15.4	16.6	17.8	19.0
Claims Ratio	62.1	66.7	57.3	57.1	57.5
Capital Adequacy Ratio (conventional only)	204.4	222.9	227.7	231.7	279.2
Household (HH) Sector					
HH Debt (RM billion)	594.2	674.2	767.6	855.9	940.4
HH Financial Asset (RM billion)	1,399.5	1,519.6	1,712.3	1,902.6	2,012.6
HH Debt-to-GDP Ratio	74.5	76.2	81.5	86.7	87.9
HH Financial Asset to Total HH Debt Ratio	235.5	225.4	223.1	222.3	214.0
HH Liquid Financial Asset to Total HH Debt Ratio	166.9	159.2	159.3	159.4	150.4
Debt Repayment Ratio	47.0	47.4	46.8	47.0	44.2
Impaired Loans Ratio of HH Sector	2.3	1.8	1.5	1.3	1.2
Business Sector					
Return on Assets	5.4	5.5	5.1	4.8	4.9*
Return on Equity	10.0	10.2	9.0	9.3	8.5*
Debt-to-Equity Ratio	39.2	45.5	42.5	40.0	42.7*
Interest Coverage Ratio (times)	8.0	6.9	5.4	7.7	6.4*
Operating Margin	12.6	13.2	12.2	12.9	12.0*
Impaired Loans Ratio of Business Sector	5.2	4.1	3.0	2.8	2.5
Development Financial Institutions³					
Lending to Targeted Sectors (% change)	13.0	7.1	10.1	8.1	6.9
Deposits Mobilised (% change)	20.5	16.1	7.1	7.2	5.3
Impaired Loans Ratio	9.0	7.3	6.3	5.6	4.7
Return on Assets	2.2	2.7	2.5	2.2	1.6

¹ Beginning January 2013, capital components are reported based on Basel III Capital Adequacy Framework

² Beginning January 2012, the computation of liquid assets excludes interbank deposits

³ Refer to development financial institutions under the Development Financial Institutions Act 2002

^p Preliminary

*Based on data from January to September 2014

Source: Bank Negara Malaysia, Bloomberg and internal computation

Table A.2

Key Financial Indicators - Islamic Banking and Takaful Sectors

	As at end				
	2010	2011	2012	2013	2014 ^p
Islamic Banking System	RM million (or otherwise stated)				
Total assets ¹	351,195.0	434,665.5	494,705.20	558,295.0	625,227.7
% of total assets of entire banking system ¹	20.7	22.4	23.8	25.0	25.6
Total financing ¹	222,214.3	268,251.5	314,973.30	370,673.8	427,887.8
% of total financing of entire banking system ¹	22.7	24.3	25.8	27.5	29.2
Total deposits ¹	277,549.8	340,695.8	386,196.8	436,327.6	494,738.3
% of total deposits of entire banking system ¹	22.6	24.4	25.6	26.7	28.2
	%				
Risk-Weighted Capital Ratio	14.9	15.0	14.5	-	-
Core Capital Ratio	12.7	12.1	12.0	-	-
Total Capital Ratio ²	-	-	-	15.1	15.6
Tier 1 Capital Ratio ²	-	-	-	12.8	12.2
Common Equity Tier 1 Capital Ratio ²	-	-	-	12.8	12.2
Return on Assets	1.3	1.0	1.3	1.2	1.1
Net Impaired Financing Ratio	2.1	1.6	1.2	1.0	0.9
Takaful Sector	RM million (or otherwise stated)				
Takaful Fund Assets	14,659.3	16,948.2	19,045.6	20,934.2	22,744.5
Family	12,420.9	14,377.2	16,289.8	17,952.2	19,618.1
General	2,238.3	2,570.9	2,755.9	2,982.0	3,126.4
% of insurance and takaful industry	8.3	8.8	9.0	9.0	9.1
Net Contributions Income	4,423.6	4,863.0	5,887.8	6,204.4	6,314.0
Family	3,392.8	3,703.6	4,574.8	4,803.9	4,769.7
General	1,030.8	1,159.4	1,313.0	1,400.5	1,544.3
% of insurance and takaful industry	12.6	13.0	14.3	14.1	13.3
Family Takaful					
New Business Contributions	2,587.1	2,695.1	3,474.5	3,563.5	3,460.3
General Takaful					
Gross Direct Contributions	1,325.7	1,599.1	1,737.6	1,908.8	2,163.7
Claims Ratio (%)	59.5	67.8	56.9	53.6	47.9

¹ Including development financial institutions under the Development Financial Institutions Act 2002

² Beginning January 2013, capital components are reported based on Basel III Capital Adequacy Framework

^p Preliminary

Table A.3

Banking System¹: Income and Expenditure

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million (or otherwise stated)				
Interest income	65,681.9	73,681.0	83,760.1	83,079.3	89,564.5
Less: Interest expense	31,331.3	38,918.2	46,292.9	43,621.4	48,010.4
Net interest income	34,350.6	34,762.8	37,467.3	39,457.8	41,554.0
Add: Fee-based income	8,562.6	8,951.8	9,125.5	9,617.6	10,165.5
Less: Staff cost	11,467.0	12,841.9	13,810.3	13,561.5	13,702.6
Overheads	12,209.4	11,751.1	12,666.5	13,383.7	14,221.8
Gross operating profit	19,236.9	19,121.6	20,116.0	22,130.2	23,795.1
Less: Impairment ² and other provisions	4,366.9	2,835.6	1,501.9	2,427.1	1,469.1
Gross operating profit after provision	14,870.0	16,286.0	18,614.1	19,703.1	22,326.0
Add: Other income	8,088.7	9,909.6	10,604.9	10,054.5	9,694.9
Pre-tax profit	22,958.7	26,195.6	29,219.0	29,757.6	32,020.8
Pre-tax profit / Average assets (%)	1.5	1.6	1.6	1.5	1.5
Pre-tax profit / Average shareholders' funds (%)	16.6	17.4	17.4	15.9	15.2
Pre-tax profit / Average employee (RM'000)	193.5	213.3	231.9	236.2	256.1
Cost incurred per ringgit of revenue earned (sen)	46.4	45.9	46.3	45.6	45.5
Cost incurred per ringgit of net interest income (sen)	68.9	70.7	70.7	68.3	67.2
Overheads to staff cost (%)	106.5	91.5	91.7	98.7	103.8
Staff cost per employee (RM'000)	96.6	102.7	108.8	108.4	109.6

¹ Includes Islamic banks

² Refers to individual and collective impairment provisions in accordance with the Guidelines on Classification and Impairment Provisions for Loans/Financing

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.4

Commercial Banks¹: Income and Expenditure

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million (or otherwise stated)				
Interest income	63,744.4	71,668.9	81,931.8	81,085.9	87,707.9
Less: Interest expense	30,103.6	37,417.0	44,943.9	42,165.1	46,598.7
Net interest income	33,640.8	34,251.8	36,988.0	38,920.9	41,109.2
Add: Fee-based income	6,590.5	6,904.9	7,620.1	7,874.4	8,180.8
Less: Staff cost	10,550.9	11,736.6	12,789.4	12,399.9	12,496.6
Overheads	11,105.8	10,747.1	12,031.4	12,571.6	13,232.2
Gross operating profit	18,574.5	18,673.1	19,787.3	21,823.8	23,561.2
Less: Impairment ² and other provisions	4,170.7	2,938.6	1,509.0	2,467.4	1,487.0
Gross operating profit after provision	14,403.8	15,734.5	18,278.3	19,356.4	22,074.2
Add: Other income	7,802.8	9,360.4	9,920.3	9,409.3	8,680.0
Pre-tax profit	22,206.5	25,094.9	28,198.5	28,765.7	30,754.2
Pre-tax profit / Average assets (%)	1.6	1.6	1.6	1.5	1.5
Pre-tax profit / Average shareholders' funds (%)	17.2	17.7	17.4	16.0	15.2
Pre-tax profit / Average employee (RM'000)	201.9	219.9	242.3	246.3	264.6
Cost incurred per ringgit of revenue earned (sen)	45.1	44.5	45.5	44.4	44.4
Cost incurred per ringgit of net interest income (sen)	64.4	65.6	67.1	64.2	62.6
Overheads to staff cost (%)	105.3	91.6	94.1	101.4	105.9
Staff cost per employee (RM'000)	95.9	102.8	109.0	106.7	107.6

¹ Includes Islamic banks

² Refers to individual and collective impairment provisions in accordance with the Guidelines on Classification and Impairment Provisions for Loans/Financing

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.5

Investment Banks: Income and Expenditure

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million (or otherwise stated)				
Interest income	1,937.5	2,012.1	1,828.3	1,993.3	1,856.6
Less: Interest expense	1,227.7	1,501.1	1,349.0	1,456.4	1,411.7
Net interest income	709.9	511.0	479.3	536.9	444.9
Add: Fee-based income	1,972.1	2,046.9	1,505.4	1,743.2	1,984.6
Less: Staff cost	916.0	1,105.3	1,020.9	1,161.5	1,206.0
Overheads	1,103.6	1,004.0	635.1	812.2	989.7
Gross operating profit	662.4	448.5	328.7	306.4	233.8
Less: Impairment ¹ and other provisions	196.2	-103.1	-7.1	-40.4	-17.9
Gross operating profit after provision	466.2	551.6	335.8	346.8	251.8
Add: Other income	285.9	549.2	684.6	645.2	1,014.8
Pre-tax profit	752.1	1,100.8	1,020.4	991.9	1,266.6
Pre-tax profit / Average assets (%)	1.1	1.7	1.6	1.7	2.3
Pre-tax profit / Average shareholders' funds (%)	7.8	12.3	11.5	10.6	12.3
Pre-tax profit / Average employee (RM'000)	86.3	117.4	108.4	107.7	143.8
Cost incurred per ringgit of revenue earned (sen)	68.0	67.9	62.0	67.5	63.7
Cost incurred per ringgit of net interest income (sen)	284.5	412.8	345.5	367.6	493.6
Overheads to staff cost (%)	120.5	90.8	62.2	69.9	82.1
Staff cost per employee (RM'000)	105.1	117.9	106.2	131.8	137.0

¹ Refers to individual and collective impairment provisions in accordance with the Guidelines on Classification and Impairment Provisions for Loans/Financing

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.6

Islamic Banking System: Income and Expenditure

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million (or otherwise stated)				
Income	11,994.8	13,643.1	16,415.7	18,106.3	20,416.1
Less: Expense	5,105.5	6,535.8	7,965.1	9,422.9	10,888.9
Net income	6,839.2	7,107.4	8,450.6	8,683.3	9,527.2
Add: Fee-based income	790.1	835.7	1,055.2	1,048.4	1,058.7
Less: Staff cost	1,166.4	1,377.6	1,636.7	1,740.0	1,741.9
Overheads	2,398.6	2,388.1	3,016.8	3,079.2	3,225.5
Gross operating profit	4,064.4	4,177.3	4,852.3	4,912.5	5,618.6
Less: Impairment ¹ and other provisions	1,286.9	1,692.1	609.0	443.8	785.6
Gross operating profit after provision	2,777.5	2,485.2	4,243.2	4,468.7	4,833.0
Add: Other income	409.2	541.7	608.9	444.0	253.1
Pre-tax profit	3,186.8	3,026.9	4,852.1	4,912.7	5,086.1
Pre-tax profit / Average assets (%)	1.3	1.0	1.3	1.2	1.1
Pre-tax profit / Average shareholders' funds (%)	15.8	13.5	18.2	17.0	15.5
Pre-tax profit / Average employee (RM'000) ²	137.6	119.0	173.8	167.0	172.4
Cost incurred per ringgit of revenue earned (sen)	27.1	25.1	25.7	24.6	22.9
Cost incurred per ringgit of net income (sen)	52.1	53.0	55.1	55.5	52.1
Overheads to staff cost (%)	205.6	173.4	184.3	177.0	185.2
Staff cost per employee (RM'000) ²	50.4	54.1	58.6	59.1	59.0

¹ Refers to individual and collective impairment provisions in accordance with the Guidelines on the Classification and Impairment Provisions for Loans/Financing

² Number of employees is estimated based on the percentage of the institutions' Islamic assets

^p Preliminary

Note: Numbers may not necessarily add up due to rounding

Table A.7

Banking System: Network and Workforce

	As at end				
	2010	2011	2012	2013	2014 ^p
Number of institutions	55	56	56	55	54
Commercial banks	23	25	27	27	27
Investment banks	15	15	13	12	11
Islamic banks	17	16	16	16	16
Office network	2,312	2,435	2,481	2,479	2,494
Commercial banks	2,006	2,050	2,056	2,029	2,045
Investment banks	133	133	148	135	135
Islamic banks ¹	2,102	2,147	2,171	2,177	2,192
Number of banks with internet services	26	27	28	31	31
Number of employees	120,580	125,065	126,902	125,071	124,986
Commercial banks	103,093	106,274	107,541	106,006	106,783
Investment banks	8,972	9,577	9,610	8,814	8,801
Islamic banks	8,515	9,214	9,751	10,251	9,402

¹ Includes Islamic bank branches that are shared with conventional bank branches

^p Preliminary

Table A.8

Commercial Banks¹: Commitments and Contingencies

	As at end				
	2010	2011	2012	2013	2014 ^p
	RM million				
Assets sold with recourse and commitments with drawdown	6,247.1	6,509.9	6,053.5	5,284.8	6,762.4
Credit extension commitments	379,644.9	409,756.4	444,293.6	470,299.8	472,371.9
Direct credit substitutes	19,293.0	21,302.3	24,960.5	33,087.9	29,897.3
Foreign exchange related contracts	407,639.0	476,725.8	518,150.2	577,388.4	760,062.7
Interest rate related contracts	643,923.3	695,982.4	716,494.7	772,958.0	791,624.5
Trade-related contingencies	12,154.7	11,721.1	10,644.2	10,677.4	13,720.5
Transaction-related contingencies	35,037.2	41,059.9	45,928.8	50,561.5	57,967.2
Underwriting obligations	1,187.7	789.5	445.0	522.0	466.0
Others	61,185.2	65,938.4	72,179.0	55,541.2	63,046.9
Total	1,566,312.2	1,729,785.7	1,839,149.5	1,976,320.9	2,195,919.2

¹ Includes Islamic banks

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.9

Investment Banks: Commitments and Contingencies

	As at end				
	2010	2011	2012	2013	2014 ^p
	RM million				
Assets sold with recourse and commitments with drawdown	326.9	20.4	19.2	12.4	77.0
Credit extension commitments	2,796.8	3,353.6	3,666.1	5,454.8	5,609.1
Direct credit substitutes	258.2	322.6	201.5	316.6	418.0
Foreign exchange related contracts	2,864.4	3,958.7	5,536.6	7,548.1	7,941.7
Interest rate related contracts	13,852.2	10,573.4	9,161.6	9,779.4	8,957.2
Trade-related contingencies	0.0	1.1	1.1	0.0	0.0
Transaction-related contingencies	10.5	10.5	10.5	10.5	10.5
Underwriting obligations	693.3	717.5	190.3	680.8	90.2
Others	2,343.8	1,523.1	2,205.8	3,402.7	3,296.3
Total	23,146.0	20,480.9	20,992.6	27,205.4	26,399.9

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.10

Life Insurance¹: Income and Outgo

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million				
Net premiums	21,854.2	22,877.7	25,005.7	26,458.1	28,820.9
Less: Net policy benefits	13,035.4	14,015.5	14,342.4	16,357.7	17,997.6
Agency remuneration	3,248.3	3,384.1	3,551.9	3,667.9	3,836.7
Total management expenses	1,852.4	2,092.9	2,287.6	2,481.8	2,632.6
Balance of transaction	3,718.2	3,385.2	4,823.8	3,950.7	4,354.0
Add: Net investment income	5,449.8	6,039.5	6,706.8	7,208.4	7,625.9
Net capital gain (loss)	2,590.0	659.0	2,181.6	-1,344.2	-868.0
Net other income	907.1	1,112.7	1,735.7	1,272.8	522.2
Excess income over outgo	12,665.1	11,196.4	15,447.8	11,087.7	11,634.1

¹ Figures are based on global business of life insurance

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.11

General Insurance¹: Underwriting and Operating Results

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million				
Earned premium income	10,715.2	11,236.9	12,418.7	13,821.3	14,877.3
Less: Net claims incurred	6,731.8	7,483.7	7,126.7	7,934.2	8,689.9
Net commission	1,284.0	1,374.3	1,587.4	1,789.8	1,962.1
Total management expenses	1,895.0	1,990.2	2,220.2	2,477.1	2,667.4
Underwriting profit	804.3	388.7	1,484.3	1,620.1	1,557.9
Add: Net investment income	813.3	924.6	970.1	1,015.7	1,063.7
Net capital gains (loss)	61.9	18.9	19.6	24.8	-28.5
Net other income	229.9	127.2	114.9	180.5	176.1
Operating profit	1,909.4	1,459.5	2,588.9	2,841.1	2,769.3

¹ Figures are based on global business of general insurance

^p Preliminary

Note: Numbers may not necessarily add up due to rounding

Table A.12

Family Takaful¹: Income and Outgo

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million				
Net contributions	3,392.8	3,703.6	4,574.8	4,803.9	4,769.7
Less: Net certificate benefits	1,601.2	1,660.9	1,635.9	1,999.2	1,996.0
Net commissions	531.6	599.2	711.2	761.2	730.5
Total management expenses	414.3	476.5	574.6	642.5	732.5
Balance of transaction	845.7	967.0	1,653.2	1,401.0	1,310.7
Add: Net investment income	447.3	494.2	590.1	659.1	729.8
Net capital gain (loss)	45.0	27.8	54.6	-164.4	-56.4
Net other income	92.4	78.1	155.8	204.4	138.7
Excess income over outgo	1,430.4	1,567.1	2,453.7	2,100.1	2,122.8

¹ Figures are based on global business and actual expenses borne by family takaful funds

^p Preliminary

Note: Numbers may not necessarily add up due to rounding

Table A.13

General Takaful¹: Underwriting and Operating Results

	For the calendar year				
	2010	2011	2012	2013	2014 ^p
	RM million				
Earned contributions income	938.6	1,090.3	1,282.1	1,390.0	1,467.5
Less: Net claims incurred	558.4	738.9	730.0	743.2	703.0
Net commission	85.8	96.7	156.7	192.4	91.9
Total management expenses	181.6	155.9	206.0	247.4	408.8
Underwriting profit	112.7	98.7	189.5	207.0	263.8
Add: Net investment income	68.4	84.5	96.3	102.8	110.6
Net capital gains (loss)	17.7	35.8	41.6	80.4	11.8
Net other income (loss)	3.8	17.5	-18.3	-7.7	-5.3
Operating profit	202.5	236.5	309.1	382.5	380.9

¹ Figures are based on global business and actual expenses borne by general takaful funds

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Table A.14

Development Financial Institutions: Sources and Uses of Funds

	DFIs ¹ under DFIA ²		Non-DFIA ² DFIs ³		Total DFIs	
	As at end					
	2013	2014	2013	2014	2013	2014
	RM million					
Sources:						
Shareholders' equity	27,474.6	28,851.7	7,912.1	8,836.1	35,386.7	37,687.8
<i>Paid-up capital</i>	11,111.1	11,111.1	3,011.5	3,044.5	14,122.6	14,155.6
<i>Reserves</i>	7,604.5	7,219.1	2,602.1	175.4	10,206.6	7,394.5
<i>Retained earnings/losses</i>	8,759.0	10,521.5	2,298.5	5,616.2	11,057.5	16,137.7
Liabilities	151,503.9	164,663.1	55,942.5	61,831.8	207,446.4	226,494.9
of which:						
Deposits accepted	109,727.8	113,511.7	46,574.4	52,228.3	156,302.2	165,740.0
Borrowings	18,051.3	18,271.2	6,643.2	6,823.1	24,694.5	25,094.3
<i>Government</i>	13,499.1	13,971.4	1,773.2	1,764.3	15,272.3	15,735.7
<i>Multilateral/International agencies</i>	2,932.2	2,499.8	27.2	18.2	2,959.4	2,518.0
<i>Others</i>	1,620.0	1,800.0	4,842.8	5,040.6	6,462.8	6,840.6
Debt securities issued	7,455.1	15,546.1	-	-	7,455.1	15,546.1
Total	178,978.5	193,514.8	63,854.6	70,667.9	242,833.1	264,182.7
Uses:						
Assets						
of which:						
Deposits placed	9,161.0	10,400.8	10,203.1	8,093.0	19,364.1	18,493.8
Investments	39,058.5	42,050.7	33,690.9	42,059.1	72,749.4	84,109.8
of which:						
<i>Government securities</i>	25,390.5	26,076.8	-	-	25,390.5	26,076.8
<i>Shares</i>	803.1	861.3	10,668.2	14,193.2	11,471.3	15,054.5
<i>Quoted</i>	754.0	812.2	10,521.6	14,057.0	11,275.6	14,869.2
<i>Unquoted</i>	49.1	49.1	146.6	136.2	195.7	185.3
Loans and advances	120,111.5	128,450.9	7,627.3	8,376.2	127,738.8	136,827.1
Fixed assets	3,741.5	3,757.6	4,721.8	5,686.6	8,463.3	9,444.2
Total	178,978.5	193,514.8	63,854.6	70,667.9	242,833.1	264,182.7
Contingencies:						
Guarantee	405.6	595.0	1,507.9	2,050.7	1,913.5	2,645.7
Export credit insurance	976.2	1,072.9	-	-	976.2	1,072.9
Total	1,381.8	1,667.9	1,507.9	2,050.7	2,889.7	3,718.6

¹ Refers to Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat), Bank Simpanan Nasional (BSN), Bank Pembangunan Malaysia Berhad (Bank Pembangunan), Bank Pertanian Malaysia Berhad (Agrobank), Export-Import Bank of Malaysia Berhad (EXIM Bank) and Small Medium Enterprise Development Bank Malaysia Berhad (SME Bank)

² Development Financial Institutions Act 2002

³ Refers to Lembaga Tabung Haji (LTH), Credit Guarantee Corporation Malaysia Berhad (CGC), Sabah Development Bank Berhad (SDB), Malaysian Industrial Development Finance Berhad (MIDF), Sabah Credit Corporation (SCC), Borneo Development Corporation (Sarawak) Sendirian Berhad (BDC Sarawak) and Borneo Development Corporation (Sabah) Sendirian Berhad (BDC Sabah)

Table A.15

Development Financial Institutions¹ under DFIA²: Sources and Uses of Funds

	As at end-2014						
	Bank Rakyat	BSN	Bank Pembangunan	Agrobank	EXIM Bank	SME Bank	Total
	RM million						
Sources:							
Shareholders' equity	12,418.9	2,506.4	7,384.0	2,454.6	3,003.3	1,084.5	28,851.7
<i>Paid-up capital</i>	2,973.7	-	3,078.7	1,000.0	2,708.7	1,350.0	11,111.1
<i>Reserves</i>	3,811.1	977.4	1,872.9	596.1	-	-38.4	7,219.1
<i>Retained earnings/losses</i>	5,634.1	1,529.0	2,432.4	858.5	294.6	-227.1	10,521.5
Liabilities	79,167.5	31,815.9	24,896.4	10,818.6	8,612.3	9,352.4	164,663.1
<i>of which:</i>							
Deposits accepted	68,717.8	28,312.9	5,928.3	6,732.7	-	3,820.0	113,511.7
Borrowings	2,018.7	20.1	9,153.5	2,063.1	2,284.0	2,731.8	18,271.2
<i>Government</i>	218.7	20.1	8,804.1	2,063.1	170.1	2,695.3	13,971.4
<i>Multilateral/</i>							
<i>International agencies</i>	-	-	349.4	-	2,113.9	36.5	2,499.8
<i>Others</i>	1,800.0	-	-	-	-	-	1,800.0
Debt securities issued	3,020.6	-	5,900.0	-	5,105.3	1,520.2	15,546.1
Total	91,586.4	34,322.3	32,280.4	13,273.2	11,615.6	10,436.9	193,514.8
Uses:							
Assets							
<i>of which:</i>							
Deposits placed	2,283.7	1,246.4	2,112.0	1,096.9	1,970.9	1,690.9	10,400.8
Investments	23,449.7	10,466.1	1,370.0	4,056.7	119.9	2,588.3	42,050.7
<i>of which:</i>							
<i>Government securities</i>	16,430.9	6,911.8	564.4	1,139.7	-	1,030.0	26,076.8
<i>Shares</i>	257.3	168.8	261.3	46.7	-	127.2	861.3
<i>Quoted</i>	245.6	168.8	233.1	46.7	-	118.0	812.2
<i>Unquoted</i>	11.7	-	28.2	-	-	9.2	49.1
Loans and advances	62,104.1	18,766.8	27,064.5	6,866.7	8,786.0	4,862.8	128,450.9
Fixed assets	1,260.3	1,226.4	199.8	506.7	131.0	433.4	3,757.6
Total	91,586.4	34,322.3	32,280.4	13,273.2	11,615.6	10,436.9	193,514.8

¹ Refers to Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat), Bank Simpanan Nasional (BSN), Bank Pembangunan Malaysia Berhad (Bank Pembangunan), Bank Pertanian Malaysia Berhad (Agrobank), Export-Import Bank of Malaysia Berhad (EXIM Bank) and Small Medium Enterprise Development Bank Malaysia Berhad (SME Bank)

² Development Financial Institutions Act 2002

Table A.16

Non-DFIA¹ Development Financial Institutions²: Sources and Uses of Funds

	As at end-2014							
	LTH	CGC	SDB	MIDF	SCC	BDC Sarawak	BDC Sabah	Total
	RM million							
Sources:								
Shareholders' equity	2,953.2	2,994.2	843.0	1,554.9	448.3	33.3	9.2	8,836.1
<i>Paid-up capital</i>	-	1,785.6	535.0	466.1	200.0	25.0	32.8	3,044.5
<i>Reserves</i>	-846.6	626.5	-0.8	365.5	0.6	14.6	15.6	175.4
<i>Retained earnings/losses</i>	3,799.8	582.1	308.8	723.3	247.7	-6.3	-39.2	5,616.2
Liabilities	51,873.3	1,398.5	5,602.8	850.9	1,936.1	112.0	58.2	61,831.8
<i>of which:</i>								
Deposits accepted	51,128.5	-	1,059.8	-	-	-	40.0	52,228.3
Borrowings	-	1,200.5	3,422.0	349.3	1,833.5	17.1	0.7	6,823.1
<i>Government</i>	-	1,189.4	-	331.1	243.8	-	-	1,764.3
<i>Multilateral/International agencies</i>	-	-	-	18.2	-	-	-	18.2
<i>Others</i>	-	11.1	3,422.0	-	1,589.7	17.1	0.7	5,040.6
Debt securities issued	-	-	-	-	-	-	-	-
Total	54,826.5	4,392.7	6,445.8	2,405.8	2,384.4	145.3	67.4	70,667.9
Uses:								
Assets								
<i>of which:</i>								
Deposits placed	6,518.2	1,339.4	43.9	122.6	33.5	-	35.4	8,093.0
Investments	37,961.8	2,664.9	104.7	1,306.5	12.1	8.6	0.5	42,059.1
<i>of which:</i>								
<i>Government securities</i>	-	-	-	-	-	-	-	-
<i>Shares</i>	14,156.7	-	35.7	0.6	-	-	0.2	14,193.2
<i>Quoted</i>	14,021.0	-	35.7	0.3	-	-	-	14,057.0
<i>Unquoted</i>	135.7	-	-	0.3	-	-	0.2	136.2
Loans and advances	-	256.4	5,718.8	120.1	2,276.2	2.9	1.8	8,376.2
Fixed assets	5,589.9	25.0	2.4	27.4	38.8	2.2	0.9	5,686.6
Total	54,826.5	4,392.7	6,445.8	2,405.8	2,384.4	145.3	67.4	70,667.9

¹ Development Financial Institutions Act 2002

² Refers to Lembaga Tabung Haji (LTH), Credit Guarantee Corporation Malaysia Berhad (CGC), Sabah Development Bank Berhad (SDB), Malaysian Industrial Development Finance Berhad (MIDF), Sabah Credit Corporation (SCC), Borneo Development Corporation (Sarawak) Sendirian Berhad (BDC Sarawak) and Borneo Development Corporation (Sabah) Sendirian Berhad (BDC Sabah)

Table A.17

Development Financial Institutions: Financing by Economic Sector

	DFIs ¹ under DFIA ²		Non-DFIA ² DFIs ³		Total DFIs	
	As at end					
	2013	2014	2013	2014	2013	2014
	RM million					
Agriculture, forestry and fishery	6,875.6	7,707.4	309.2	272.8	7,184.8	7,980.2
Mining and quarrying	126.8	125.6	49.7	37.6	176.5	163.2
Manufacturing	4,795.9	5,162.4	500.8	512.7	5,296.7	5,675.1
Electricity, gas and water supply	3,114.0	3,554.3	495.5	468.6	3,609.5	4,022.9
Import and export, wholesale and retail trade, restaurants and hotels	3,067.1	3,412.1	133.6	123.5	3,200.7	3,535.6
Broad property sector	24,623.8	21,740.8	3,010.7	3,383.8	27,634.5	25,124.6
<i>Construction</i>	16,696.9	12,641.0	1,704.0	1,963.2	18,400.9	14,604.2
<i>Purchase of residential property</i>	7,203.1	8,296.0	107.2	90.0	7,310.3	8,386.0
<i>Purchase of non-residential property</i>	231.6	211.5	33.8	28.5	265.4	240.0
<i>Real estate</i>	492.2	592.3	1,165.7	1,302.1	1,657.9	1,894.4
Maritime	2,453.0	2,442.5	-	-	2,453.0	2,442.5
Transport, storage and communication	5,438.9	10,234.5	46.1	40.5	5,485.0	10,275.0
Finance, insurance and business services	3,595.5	4,115.4	198.6	322.3	3,794.1	4,437.7
Consumption credit	62,101.9	66,656.4	1,943.8	2,159.7	64,045.7	68,816.1
<i>of which:</i>						
<i>Purchase of motor vehicles</i>	1,225.0	1,456.7	2.9	1.9	1,227.9	1,458.6
<i>Credit card</i>	710.8	804.3	-	-	710.8	804.3
Community, social and other service activities	2,705.2	2,825.9	7.2	6.1	2,712.4	2,832.0
Purchase of securities	97.1	85.0	-	-	97.1	85.0
Other sectors	1,116.7	388.6	932.1	1,048.6	2,048.8	1,437.2
Total	120,111.5	128,450.9	7,627.3	8,376.2	127,738.8	136,827.1

¹ Refers to Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat), Bank Simpanan Nasional (BSN), Bank Pembangunan Malaysia Berhad (Bank Pembangunan), Bank Pertanian Malaysia Berhad (Agrobank), Export-Import Bank of Malaysia Berhad (EXIM Bank) and Small Medium Enterprise Development Bank Malaysia Berhad (SME Bank)

² Development Financial Institutions Act 2002

³ Refers to Lembaga Tabung Haji (LTH), Credit Guarantee Corporation Malaysia Berhad (CGC), Sabah Development Bank Berhad (SDB), Malaysian Industrial Development Finance Berhad (MIDF), Sabah Credit Corporation (SCC), Borneo Development Corporation (Sarawak) Sendirian Berhad (BDC Sarawak) and Borneo Development Corporation (Sabah) Sendirian Berhad (BDC Sabah)

Table A.18

Development Financial Institutions¹ under DFIA²: Financing by Economic Sector

	As at end-2014						
	Bank Rakyat	BSN	Bank Pembangunan	Agrobank	EXIM Bank	SME Bank	Total
	RM million						
Agriculture, forestry and fishery	437.2	-	-	6,866.6	392.8	10.8	7,707.4
Mining and quarrying	87.3	-	-	-	-	38.3	125.6
Manufacturing	299.3	155.3	2,275.3	-	1,522.3	910.2	5,162.4
Electricity, gas and water supply	100.1	-	2,073.7	-	1,363.4	17.1	3,554.3
Import and export, wholesale and retail trade, restaurants and hotels	164.8	317.6	1,119.3	-	518.2	1,292.2	3,412.1
Broad property sector	3,663.1	6,436.3	8,857.4	-	2,146.8	637.2	21,740.8
<i>Construction</i>	1,403.8	-	8,857.4	-	1,804.8	575.0	12,641.0
<i>Purchase of residential property</i>	1,911.6	6,384.4	-	-	-	-	8,296.0
<i>Purchase of non-residential property</i>	159.6	51.9	-	-	-	-	211.5
<i>Real estate</i>	188.1	-	-	-	342.0	62.2	592.3
Maritime	-	-	2,401.2	-	41.3	-	2,442.5
Transport, storage and communication	297.3	4.0	8,329.8	-	829.6	773.8	10,234.5
Finance, insurance and business services	2,009.7	115.1	-	-	1,624.9	365.7	4,115.4
Consumption credit	54,920.4	11,736.0	-	-	-	-	66,656.4
<i>of which:</i>							
<i>Purchase of motor vehicles</i>	1,118.5	338.2	-	-	-	-	1,456.7
<i>Credit card</i>	468.8	335.5	-	-	-	-	804.3
Community, social and other service activities	41.1	...	1,996.5	-	-	788.3	2,825.9
Purchase of securities	84.1	0.9	-	-	-	-	85.0
Other sectors	-	1.3	11.3	-	346.7	29.3	388.6
Total	62,104.4	18,766.5	27,064.5	6,866.6	8,786.0	4,862.9	128,450.9

¹ Refers to Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat), Bank Simpanan Nasional (BSN), Bank Pembangunan Malaysia Berhad (Bank Pembangunan), Bank Pertanian Malaysia Berhad (Agrobank), Export-Import Bank of Malaysia Berhad (EXIM Bank) and Small Medium Enterprise Development Bank Malaysia Berhad (SME Bank)

² Development Financial Institutions Act 2002

... Negligible

Table A.19

Non-DFIA¹ Development Financial Institutions²: Financing by Economic Sector

	As at end-2014							
	LTH	CGC	SDB	MIDF	SCC	BDC Sarawak	BDC Sabah	Total
	RM million							
Agriculture, forestry and fishery	-	4.2	268.4	-	0.2	-	-	272.8
Mining and quarrying	-	0.6	37.0	-	-	-	-	37.6
Manufacturing	-	53.2	392.0	67.5	-	-	-	512.7
Electricity, gas and water supply	-	0.6	468.0	-	-	-	-	468.6
Import and export, wholesale and retail trade, restaurants and hotels	-	96.8	...	26.7	-	-	-	123.5
Broad property sector	-	69.4	3,193.5	-	116.2	2.9	1.8	3,383.8
<i>Construction</i>	-	69.4	1,890.9	-	-	2.9	-	1,963.2
<i>Purchase of residential property</i>	-	-	0.5	-	87.7	-	1.8	90.0
<i>Purchase of non-residential property</i>	-	-	-	-	28.5	-	-	28.5
<i>Real estate</i>	-	-	1,302.1	-	-	-	-	1,302.1
Maritime	-	-	-	-	-	-	-	-
Transport, storage and communication	-	7.2	28.3	5.0	...	-	-	40.5
Finance, insurance and business services	-	14.6	291.7	16.0	-	-	-	322.3
Consumption credit	-	-	-	-	2,159.7	-	-	2,159.7
<i>of which:</i>								
<i>Purchase of motor vehicles</i>	-	-	-	-	1.9	-	-	1.9
<i>Credit card</i>	-	-	-	-	-	-	-	-
Community, social and other service activities	-	6.1	-	-	-	-	-	6.1
Purchase of securities	-	-	-	-	-	-	-	-
Other sectors	-	3.7	1,039.9	5.0	-	-	-	1,048.6
Total	-	256.4	5,718.8	120.2	2,276.1	2.9	1.8	8,376.2

¹ Development Financial Institutions Act 2002

² Refers to Lembaga Tabung Haji (LTH), Credit Guarantee Corporation Malaysia Berhad (CGC), Sabah Development Bank Berhad (SDB), Malaysian Industrial Development Finance Berhad (MIDF), Sabah Credit Corporation (SCC), Borneo Development Corporation (Sarawak) Sendirian Berhad (BDC Sarawak) and Borneo Development Corporation (Sabah) Sendirian Berhad (BDC Sabah)

... Negligible

Table A.20

Development Financial Institutions: Selected Data

	As at end					
	2013			2014		
	Branch	ATM	Staff	Branch	ATM	Staff
DFIs under DFIA¹:						
Bank Kerjasama Rakyat Malaysia Berhad	145	599	4,695	174	650	4,642
Bank Simpanan Nasional	400	982	6,760	403	885	6,961
Bank Pembangunan Malaysia Berhad	-	-	331	-	-	331
Bank Pertanian Malaysia Berhad	184	255	3,488	190	258	3,347
Export-Import Bank of Malaysia Berhad	-	-	296	-	-	298
Small Medium Enterprise Development Bank Malaysia Berhad	18	-	1,024	29	-	1,028
Sub-total	747	1,836	16,594	796	1,793	16,607
Non-DFIA¹ DFIs:						
Lembaga Tabung Haji	120	-	2,050	121	-	2,090
Credit Guarantee Corporation Malaysia Berhad	16	-	473	16	-	500
Sabah Development Bank Berhad	-	-	87	-	-	88
Malaysian Industrial Development Finance Berhad	5	-	288	5	-	293
Sabah Credit Corporation	12	-	186	12	-	184
Borneo Development Corporation (Sarawak) Sendirian Berhad	-	-	34	-	-	36
Borneo Development Corporation (Sabah) Sendirian Berhad	-	-	18	-	-	20
Sub-total	153	-	3,136	154	-	3,211
Total	900	1,836	19,730	950	1,793	19,818

¹ Development Financial Institutions Act 2002

Table A.21

Total Outward and Inward Remittances

	2010	2011	2012	2013	2014
	RM million				
Total outward¹	13,414.9	15,682.1	19,736.4	25,132.5	32,128.8
<i>Remitted via:</i>					
Banks	6,712.3	7,791.1	8,922.2	10,992.6	14,660.9
Money services business licensees ²	6,702.6	7,891.0	10,814.2	14,139.9	17,468.0
Total inward³	4,696.0	5,215.1	6,359.4	7,991.4	10,312.5
<i>Remitted via:</i>					
Banks	4,202.1	4,654.0	5,755.7	7,211.2	9,331.8
Money services business licensees	493.9	561.1	603.7	780.2	980.7
<i>As at end of period</i>					
No. of remittance service providers	81	80	79	77	77
Commercial banks	40	41	43	43	43
Development financial institutions	2	2	2	2	3
Money services business licensees ⁴	39	37	34	32	31

¹ Refers to total funds remitted from Malaysia to other countries for workers' remittances and remuneration for employees

² Refers to non-bank remittance service providers and development financial institutions licensed under the Money Services Business Act 2011

³ Refers to total funds remitted from other countries to Malaysia for workers' remittances and remuneration for employees

⁴ Excludes development financial institutions

Table A.22

Basic Payments Indicator

	2010	2011	2012	2013	2014
Population (million)	28.6	29.1	29.5	29.9	30.3
GDP (RM million)	797,327	885,339	941,949	986,733	1,070,008
Cash in circulation (CIC) (RM million)	47,685.2	53,488.5	57,395.6	62,710.2	68,029.4
Transaction Volume Per Capita (unit):					
Cheque ¹	7.2	7.1	6.9	6.6	5.9
E-payments:	43.1	49.2	55.1	64.2	72.0
Credit card	10.3	10.9	11.0	11.1	11.4
Charge card	0.2	0.1	0.1	0.1	0.1
Debit card	0.6	0.9	1.2	1.7	2.3
E-money	24.5	27.7	31.3	35.0	38.8
Other cashless instruments ²	...	0.2	0.9	1.0	1.0
Interbank GIRO	1.7	2.1	2.4	2.8	3.8
Direct Debit	...	...	...	...	...
ATM ³	1.4	1.4	1.6	1.5	1.8
Internet banking ⁴	4.3	5.6	6.3	7.3	8.8
Mobile banking ⁴	...	0.1	0.2	0.5	0.7
RENTAS - Third party transactions ⁵	0.1	0.1	0.1	0.1	0.1
Intrabank direct debit and standing instructions ⁶	-	-	-	3.0	3.1
Transaction Value Per Capita (RM):					
CIC	1,668.0	1,840.5	1,945.0	2,096.3	2,248.0
Cheque ¹	64,437.0	68,125.3	68,899.4	68,845.2	64,047.9
E-payments:	340,325.6	446,921.6	512,358.2	539,300.4	572,344.4
Credit card	2,791.6	3,055.4	3,188.2	3,333.9	3,485.7
Charge card	164.0	185.4	218.9	241.5	282.9
Debit card	164.5	215.3	292.1	382.9	488.9
E-money	94.7	119.7	143.8	164.4	174.6
Other cashless instruments ²	...	1.0	2.6	4.4	3.3
Interbank GIRO	4,437.7	5,716.8	7,172.5	9,535.9	14,293.1
Direct Debit	132.0	166.3	279.5	376.1	488.9
ATM ³	1,094.3	1,282.9	1,387.7	1,477.8	1,806.6
Internet banking ⁴	47,429.8	64,264.0	62,650.4	75,556.7	88,476.0
Mobile banking ⁴	4.2	24.4	124.2	260.3	400.8
RENTAS - Third party transactions ⁵	284,012.6	371,890.5	436,898.4	428,537.2	449,721.8
Intrabank direct debit and standing instructions ⁶	-	-	-	19,429.3	12,721.7
Turnover to GDP:					
CIC (%)	6.0	6.0	6.1	6.4	6.4
Cheque ¹ (times)	2.3	2.2	2.2	2.1	1.8
E-payments (times):	12.2	14.7	16.1	16.4	16.2
% of GDP:					
Credit card	10.0	10.0	10.0	10.1	9.9
Charge card	0.6	0.6	0.7	0.7	0.8
Debit card	0.6	0.7	0.9	1.2	1.4
E-money	0.3	0.4	0.5	0.5	0.5
Other cashless instruments ²	...	...	...	...	...
Interbank GIRO	15.9	18.8	22.5	28.9	40.4
Direct Debit	0.5	0.5	0.9	1.1	1.4
ATM ³	3.9	4.2	4.3	4.5	5.1
Internet banking ⁴	170.1	211.0	196.3	229.1	250.2
Mobile banking ⁴	...	0.1	0.4	0.8	1.1
RENTAS - Third party transactions ⁵ (times)	10.2	12.2	13.7	13.0	12.7
Intrabank direct debit and standing instructions ⁶	-	-	-	58.9	36.0

¹ Cheques cleared via eSPICK

² Refer to single purpose payment cards

³ Refer to payment transactions via ATM, including own and third party funds transfer. Exclude cash withdrawals

⁴ Exclude non-financial transactions, credit card, IBG and RENTAS third party transactions performed online

⁵ Refer to Government, custom duty and third party payments via Interbank Funds Transfer System. Third party payment refers to transaction with a minimum amount of RM10,000, where the beneficiary or ordering party is a non-RENTAS member

⁶ Refer to payments that are directly debited by the banks from the current and savings account. Data available from 2013

... Negligible

Note: Numbers may not necessarily add up due to rounding

Table A.23

Cashless Payment Instruments: Transaction Volume

	2010	2011	2012	2013	2014	2013	2014
	Million					% Annual change	
Cheque¹	206.7	204.9	203.8	197.1	177.1	-3.3	-10.1
Credit card	294.9	316.9	325.3	332.4	345.9	2.2	4.1
Charge card	4.7	3.9	4.1	4.0	4.4	-2.3	8.0
Debit card	18.3	25.1	36.0	49.4	68.8	37.0	39.4
<i>International debit</i>	13.3	19.8	29.7	41.9	60.5	41.1	44.2
<i>Domestic debit²</i>	5.0	5.4	6.3	7.4	8.4	17.7	12.7
E-money	699.3	804.8	923.0	1,048.0	1,175.0	13.5	12.1
<i>Card-based</i>	692.2	797.4	914.6	1,028.0	1,153.0	12.4	12.2
<i>Network-based</i>	7.1	7.4	8.5	20.1	22.0	137.0	9.4

¹ Cheques cleared via eSPICK

² Domestic PIN-based ATM card

Table A.24

Cashless Payment Instruments: Transaction Value

	2010	2011	2012	2013	2014	2013	2014
	RM million					% Annual change	
Cheque¹	1,842,189	1,979,858	2,033,221	2,059,504	1,938,218	1.3	-5.9
Credit card	79,810	88,797	94,085	99,733	105,485	6.0	5.8
<i>Purchases</i>	76,285	85,364	91,270	97,291	103,081	6.6	6.0
<i>Cash advances</i>	3,525	3,432	2,815	2,442	2,405	-13.3	-1.5
Charge card	4,689	5,388	6,459	7,223	8,563	11.8	18.5
<i>Purchases</i>	4,651	5,359	6,435	7,202	8,544	11.9	18.6
<i>Cash advances</i>	37	28	24	21	19	-11.8	-10.2
Debit card	4,704	6,256	8,619	11,454	14,795	32.9	29.2
<i>International debit</i>	2,202	3,239	4,954	7,092	10,051	43.2	41.7
<i>Domestic debit²</i>	2,502	3,016	3,665	4,362	4,743	19.0	8.8
E-money	2,708	3,477	4,244	4,919	5,284	15.9	7.4
<i>Card-based</i>	2,113	2,424	2,983	3,361	3,837	12.7	14.1
<i>Network-based</i>	595	1,054	1,261	1,557	1,447	23.5	-7.1

¹ Cheques cleared via eSPICK

² Domestic PIN-based ATM card

Table A.25

Payment Systems: Transaction Volume and Value

	2010	2011	2012	2013	2014	2013	2014
	Million/RM billion					% Annual change	
RENTAS¹							
Transaction volume	3.2	3.4	3.6	4.0	4.4	10.5	10.1
Transaction value	39,434.6	47,175.6	46,169.4	46,437.7	49,127.3	0.6	5.8
Interbank GIRO							
Transaction volume	49.8	60.4	70.1	83.4	113.6	19.0	36.2
Transaction value	126.9	166.1	211.7	285.3	432.5	34.8	51.6
	'000/RM million						
FPX							
Transaction volume	488.9	878.4	1,440.9	2,211.7	3,099.7	53.5	40.2
Transaction value	309.9	618.9	821.6	1,372.2	4,191.4	67.0	205.4
Direct Debit							
Transaction volume	438.6	575.7	708.8	924.2	1,278.4	30.4	38.3
Transaction value	3,774.0	4,832.0	8,248.2	11,251.9	14,796.2	36.4	31.5

¹ Malaysia's large-value payment system, Real-time Electronic Transfer of Funds and Securities System

Table A.26

Payment and Securities Transactions Handled by RENTAS

Transaction Volume	2010	2011	2012	2013	2014	2013	2014
	'000					% Annual change	
Total	3,152.7	3,425.0	3,588.7	3,967.1	4,367.2	10.5	10.1
IFTS¹	3,059.1	3,310.3	3,467.5	3,847.7	4,257.3	11.0	10.6
Money market operations	98.2	95.9	90.8	87.3	88.1	-3.9	0.9
Foreign exchange settlement	74.0	85.9	91.8	100.0	107.6	8.9	7.6
<i>of which: USD CHATS²</i>	<i>42.0</i>	<i>44.4</i>	<i>41.2</i>	<i>47.8</i>	<i>53.7</i>	<i>16.1</i>	<i>12.3</i>
Third party transactions	2,086.1	2,449.4	2,701.5	3,020.2	3,383.8	11.8	12.0
Others	800.8	679.0	583.4	640.2	677.8	9.7	5.9
SSDS³	93.6	114.7	121.2	119.4	110.0	-1.5	-7.9
Transaction Value	RM billion						
Total	39,434.6	47,175.6	46,169.4	46,437.7	49,127.3	0.6	5.8
IFTS¹	37,437.6	44,227.9	43,153.2	43,903.3	46,743.0	1.7	6.5
Money market operations	18,354.9	21,473.2	17,520.1	18,656.7	18,935.5	6.5	1.5
Foreign exchange settlement	2,618.9	3,831.6	3,955.7	3,839.6	4,966.6	-2.9	29.4
<i>of which: USD CHATS²</i>	<i>1,681.6</i>	<i>2,414.3</i>	<i>2,401.6</i>	<i>2,594.8</i>	<i>3,595.2</i>	<i>8.0</i>	<i>38.6</i>
Third party transactions	8,119.6	10,807.9	12,892.9	12,819.7	13,609.5	-0.6	6.2
Others	8,344.1	8,115.2	8,784.4	8,587.2	9,231.5	-2.2	7.5
SSDS³	1,997.0	2,947.7	3,016.3	2,534.5	2,384.3	-16.0	-5.9
Turnover to GDP (times)	49.5	53.3	49.0	47.1	45.9		
Daily average:							
Transaction volume ('000)	12.7	14.0	14.6	16.1	17.8	9.6	10.5
Transaction value (RM billion)	159.0	192.6	188.4	188.0	199.7	-0.2	6.2

¹ Interbank Funds Transfer System

² Payment versus Payment (PvP) link established in 2006, for interbank settlement of ringgit-US dollar trades through RENTAS USD CHATS

³ Scripless Securities Depository System for Malaysian Government Securities, Treasury bills, and scripless public debt securities

Note: Numbers may not necessarily add up due to rounding

Table A.27

Payment Channels: Transaction Volume and Value

Transaction Volume	2010	2011	2012	2013	2014	2013	2014
	Million					% Annual change	
Internet banking ¹	153.3	198.4	227.3	269.8	350.7	18.7	30.0
<i>Individual</i>	104.7	141.3	161.7	194.8	252.2	20.4	29.5
<i>Corporate</i>	48.6	57.1	65.6	75.0	98.5	14.2	31.3
Mobile banking ¹	0.7	2.2	7.1	16.1	23.3	124.6	45.1
ATM ²	38.8	42.1	46.4	45.3	53.7	-2.5	18.7
Transaction Value	RM million						
Internet banking	1,415,351	1,934,208	2,978,435	3,457,627	4,108,271	16.1	18.8
<i>Individual</i>	115,575	153,648	171,825	224,852	304,177	30.9	35.3
<i>Corporate</i>	1,299,776	1,780,560	2,806,610	3,232,775	3,804,094	15.2	17.7
Mobile banking	138	852	4,237	9,243	14,677	118.2	58.8
ATM ²	31,286	37,283	40,950	44,208	54,672	8.0	23.7

¹ Exclude non-financial transactions

² Refer to payment transactions via ATM, including own and third party funds transfer. Exclude cash withdrawals

Note: Numbers may not necessarily add up due to rounding

Table A.28

Payment Transactions by Channels

Transaction Volume	2013			2014		
	Internet banking	Mobile banking	ATM	Internet banking	Mobile banking	ATM
	Million					
Funds transfer	107.9	6.8	29.5	162.2	11.5	38.7
Bill payment ¹	55.0	3.2	4.1	62.7	4.1	4.1
Investment in share and unit trust	5.8	...	0.1	6.3	...	0.1
Re-load	20.6	4.8	3.1	23.1	5.9	2.8
Card and loan repayment	19.0	1.2	8.5	22.2	1.6	8.1
Transaction Value	RM million					
Funds transfer	2,351,127	7,215	31,847	2,669,945	11,965	43,042
Bill payment ¹	12,813	463	3,473	16,588	536	3,013
Investment in share and unit trust	58,019	...	1,826	66,165	...	1,475
Re-load	365	72	145	433	92	128
Card and loan repayment	24,380	1,392	6,776	29,382	1,947	6,913

¹ Include insurance payments

... Negligible

Table A.29

ATM Cash Withdrawals in Malaysia

	2010	2011	2012	2013	2014	2013	2014
	Million					% Annual change	
Volume of cash withdrawals	518.8	556.8	565.7	526.5	583.8	-6.9	10.9
Value of cash withdrawals	RM million						
	255,308.7	279,484.7	294,149.1	286,491.2	315,144.5	-2.6	10.0
Average value per transaction (RM)	492.1	501.9	520.0	544.1	539.8	4.7	-0.8

Table A.30

Number of Electronic Funds Transfer at Point-of-Sale (EFTPOS) Terminals

As at end of period	2010	2011	2012	2013	2014
	Unit				
Total terminals ¹	181,562	208,092	220,829	227,832	239,802
<i>of which:</i>					
International brand payment cards	178,677	205,551	218,307	225,190	236,081
Domestic debit ²	105,731	123,991	138,937	158,204	184,910
Terminals per 1,000 inhabitant	6	7	7	8	8

¹ Terminals that accept international brand payment card and domestic debit. Include terminals acquired by non-bank acquirers

² Domestic PIN-based ATM card

Table A.31

Number of Cards and Users of Payment Instruments and Channels

As at end of period	2010	2011	2012	2013	2014	2013	2014
	'000					% Annual change	
Number of cards/accounts:							
Credit card	8,547	8,281	8,150	8,128	8,160	-0.3	0.4
Charge card	181	154	138	155	142	12.8	-8.8
Debit card	29,941	34,993	38,165	40,039	43,385	4.9	8.4
<i>Of which: Domestic debit¹</i>	20,992	22,426	20,772	18,769	18,241	-9.6	-2.8
E-money	74,701	84,178	91,008	97,735	45,557	7.4	-53.4
Number of subscribers:							
Internet banking	9,848	11,873	13,678	15,524	17,600	13.5	13.4
<i>Individual</i>	9,638	11,637	13,430	15,225	17,254	13.4	13.3
<i>Corporate</i>	209	236	248	299	346	20.6	15.6
<i>Penetration rate (%) to population</i>	34.4	40.9	46.4	51.9	58.2		
Mobile banking	898	1,560	2,446	4,379	5,639	79.0	28.8
Penetration rate (%):							
<i>to population</i>	3.1	5.4	8.3	14.6	18.6		
<i>to mobile phone subscribers</i>	2.6	4.3	5.9	10.2	12.9		

¹ Domestic PIN-based ATM card

Table A.32

Number of Participants and Instrument Issuers

As at end of period	2010	2011	2012	2013	2014
	Unit				
RENTAS	64	68	68	68	68
<i>Bank Negara Malaysia</i>	1	1	1	1	1
<i>Banks</i>	55	56	56	55	55
<i>DFIs</i>	5	6	6	6	6
<i>Non-banks</i>	3	5	5	6	6
SPICK/eSPICK	45	46	48	47	46
Credit card	26	25	26	25	26
<i>Banks</i>	22	21	22	22	23
<i>Non-banks</i>	4	4	4	3	3
Debit card¹	23	22	22	25	25
<i>International debit card</i>	8	9	10	13	14
<i>Domestic debit²</i>	14	13	13	13	13
<i>Others³</i>	9	11	10	10	10
Charge card	6	6	6	7	7
<i>Banks</i>	4	4	4	6	6
<i>Non-banks</i>	2	2	2	1	1
E-money⁴	21	21	25	25	24
<i>Banks</i>	6	6	7	6	7
<i>Non-banks</i>	15	15	18	19	17
Internet banking	25	26	29	29	30
Mobile banking	11	13	13	13	13
FPX	7	7	10	11	11
<i>Banks</i>	7	7	7	8	8
<i>Non-banks</i>	-	-	3	3	3
Direct Debit	12	13	16	17	17
<i>Banks</i>	12	13	13	14	14
<i>Non-banks</i>	-	-	3	3	3
Interbank GIRO	24	26	28	29	30

¹ There are banks issuing more than one type of debit card

² Domestic PIN-based ATM card

³ Cards with both international debit and domestic (PIN-based) debit card functions

⁴ Include international brand prepaid card