



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Preface

The Financial Stability and Payment Systems Report 2018 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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BANK NEGARA MALAYSIA
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Governor's Statement

The year 2018 has been eventful. Developments that unfolded underscored the importance of financial stability to the sustainable growth of the Malaysian economy. In the face of heightened uncertainties driven by both domestic and external forces, Malaysia's financial system has remained resilient. On the external front, unresolved trade tensions, policy uncertainties and fluctuations in commodity prices weighed on financial market conditions and business performance. On the domestic front, Malaysia experienced an unprecedented transition of government at the federal level. Throughout these developments, strong financial institutions and orderly market conditions have continued to support financial intermediation. In particular, credit flows to the economy have been sustained, with institutional arrangements in place to pre-emptively address problem assets arising in segments of the household and business sectors that are facing more challenging conditions. Public confidence in the safety and soundness of financial institutions also remains high.

In 2018, the Bank remained vigilant to risks arising from the elevated level of household debt. While direct risks to financial stability are largely contained given the strong capital buffers of banks, risks to the broader economy and indirectly to the financial system, could be substantial if households become more vulnerable to financial shocks and this in turn impacts consumption. These risks have continued to recede. Continuing adjustments in the housing market are also helping to reduce housing debt burdens and encourage a more sustainable housing market. The measures implemented to promote responsible lending therefore remain relevant and necessary. In the commercial property sector, the Bank remains concerned over the potential for existing, and possibly further oversupply of office and retail space, to cause property prices to adjust sharply lower. In an environment of slower global growth and more uncertain financial market conditions, the Bank also continued to pay close supervisory attention to ensuring that banks remain prudent in managing their external exposures, including those arising from the increasing significance of their overseas operations.

Going into 2019, against a backdrop of sustained growth in the Malaysian economy and signs of less tighter global financial conditions from earlier market expectations, risks to domestic financial stability are not expected to change significantly. That said, we cannot afford to be complacent. Completing the domestic implementation of the relevant Basel III prudential reforms which were finalised at the international level last year, remains a focal point of regulation and supervision to reinforce a safe and sound banking system. Malaysian banks are also implementing these standards from a position of strength, thus minimising short-term costs while securing longer-term resilience to support the economy through difficult times. In the insurance sector, enhancements to valuation standards that drive capital requirements are planned in the coming year. This will lay the ground for a further examination of areas in which capital standards may need to be further strengthened. In parallel with capital and liquidity reforms, further progress in recovery and resolution planning will serve to mitigate the impact of adverse developments affecting financial institutions on the broader financial system and economy. In 2019, the Bank also plans to clarify and test crisis management arrangements as part of efforts to strengthen the collective capacity of the financial system to respond to crises.

In recent years, issues of culture and conduct have shifted into focus amid revelations of large-scale misconduct involving financial institutions in a number of jurisdictions. This has continued in the past year, underscoring both the financial and reputational ramifications that can undermine trust in the financial system. An important lesson from these episodes has been the need to actively influence a positive culture through an unambiguous tone from the top that is matched by consistent incentives, policies and practices. In Malaysia, an increased emphasis on culture was one of several key changes made to corporate governance standards applicable to financial institutions in 2016. This has been accompanied by a closer examination of cultural drivers of behaviour in financial institutions as part of the Bank's supervision, in line with the more active role expected of boards and senior management in raising standards of responsible and ethical conduct. The ongoing consultations with the industry on measures to strengthen accountabilities at an individual level are a further move in this direction.

The transformation of financial services through digitisation has also introduced new dimensions to the Bank's management of risks to financial stability. The Bank continues to actively reduce barriers to innovation, drawing on insights and evidence gathered from the Regulatory Sandbox. This recognises the potential for developments in financial technology to increase efficiency, support better risk management and provide greater and more inclusive benefits to society. At the same time, the Bank expects similar risks to be treated consistently under the prudential and market conduct frameworks to ensure a level-playing field between new entrants and incumbents. It has been equally important for the Bank and financial institutions to understand new risks associated with advances in financial technology - including liquidity, concentration, operational and conduct risks. Certainly, increasing operational and cyber resilience, both at the institutional and system levels, will be a key area of focus with the more pervasive use of technology in the provision of financial services. The Bank will continue to closely monitor developments in this area - and adapt regulations as appropriate to maintain confidence in the financial system.

Looking ahead, shifts in Malaysia's economic priorities and structure will present new challenges for the financial system. In this Report, we examine the demand conditions in SME financing more closely and consider policy measures to further improve access to financing for innovative firms, both from traditional bank and alternative sources. Regulatory and structural reforms are also being pursued to increase the impact of development financial institutions in addressing the nation's contemporary development priorities more effectively and sustainably. In Islamic finance, further progress in the implementation of value-based intermediation strategies will reinforce a stronger alignment between finance and the real economy. In addition, measures to catalyse the development of insurance and takaful solutions for segments of society that are underserved to strengthen their resilience to financial shocks - are expected to gain greater traction in the coming years. Collectively, these developments will serve to promote effective financial intermediation supportive of the changing needs of the economy, while maintaining strong foundations for financial stability.



Nor Shamsiah Yunus

Governor

27 March 2019

Key Highlights on Financial Stability and Payment Systems in 2018

Domestic financial stability was preserved



Risks to financial stability were largely contained



Orderly financial market conditions



Sustained debt servicing capacity of households and businesses



Firm demand for affordable housing to support continuing adjustment towards a more sustainable housing market



Manageable risks from external exposures of banks and corporates



Financial institutions remained resilient with strong buffers

Banking Sector

CET 1 capital ratio	13.1%
Net impaired loans ratio	0.9%
Loan loss coverage ratio	97.9%

Insurance and Takaful Sector

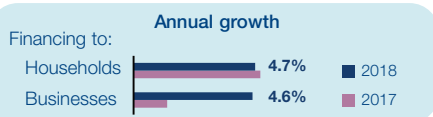
Capital adequacy ratio	245%
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- Sufficient banking system liquidity including under stress scenarios
- Continued improvements in asset quality

Financial intermediation remained supportive of economic activities



Sustained access to financing for households and businesses



Growth in insurance and takaful accompanied by broader coverage and more competitive market



Enabling innovative and inclusive financial services:



Specialised Regulatory Sandbox
for testing of high impact innovations



Digital Innovation Hub
promotes inclusive finance for low-income segment



imSME aggregator
matches SMEs' financing needs with suitable financial solutions



Open API
supports improved access and quality in financial services through seamless access to data

Major progress made in 2018:



29,500 policies sold under *Perlindungan Tenang* for protection of underserved Malaysians



Introduction of a national B40 protection scheme



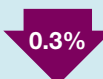
Greater innovation and differentiation in pricing for fire & motor protection

Further migration to e-payments

Continuous efforts to displace cash and cheques gained significant momentum



Reduction in volume of cheques
(since 2011)



Decline in cash-in-circulation to GDP
(between 2016 - 2018)
vs
(between 2013 - 2015: +0.4%)



Greater use of debit cards
through increased POS terminals nationwide



Substantial increase in mobile payments
for low value transactions



Credit transfer services gained traction

Continued focus on promoting financial integrity

Malaysia upgraded by the Financial Action Task Force on its technical compliance rating of the AML/CFT framework

Further advances made to strengthen safeguards against money laundering & terrorism financing risks



Reduced cash transaction reporting from RM50,000 to RM25,000 effective 1 Jan 2019



Conducting study on the introduction of economy-wide cash transaction limits



Reviewing the MSB Act 2011 to strengthen enforcement against illegal MSB activities



Increased use of data analytics for supervision and surveillance



Publication of enforcement actions

Key Highlights on Box Articles

Understanding Financing through the Lens of Small and Medium Enterprises (SMEs)



Key survey findings...

- 1) Difficulty in accessing financing not a key constraint to SME growth

SMEs continued to have access to financing



- 2) Common financing barriers among pockets of SMEs



Holistic efforts to enhance the financing ecosystem

Existing policy priorities remain relevant to support SME growth

Encourage greater innovation by FIs	Enhance efficiency in financing processes
Strengthen SMEs' financial capabilities	Increase credit enhancement products

Areas for further development to address emerging needs of SMEs for financing:

- Establish a secured transaction framework to expand the range of assets that can be used as collateral
- Formalise unregistered firms through streamlined business registration processes, appropriate incentives and market access opportunities
- Promote alternative finance with risk-return characteristics that complement bank financing

Expanding Insurance and Takaful Protection for the B40 Population



Bridging the protection gap of the B40 income group



(Effective 1 January 2019)

- Immediate benefits covered for critical illness and hospitalisation
- Simple and easy to understand
- Convenient process for claim submission
- Dedicated channel for all enquiries and claims
- Compliments *Perlindungan Tenang*
- Operate at cost, non-profitable



Achieving long-term objective to transition the B40 to a sustainable private insurance and takaful market

- 1 Encourage take up of insurance and takaful products among the B40

- Awareness of insurance and takaful
- Empowerment through education
- Positive experience through quality services

- 2 Encourage supply of affordable private insurance and takaful solutions

- Understanding B40 profile
- Direct servicing experience
- Pilot test innovation including digital solutions

Strengthening Shariah Compliance Risk Culture

Effective compliance with Shariah principles critical in preserving confidence and stability in Islamic Finance

Two-tiered governance structure



Industry level

Shariah Advisory Council

Provide certainty & uniformity of Shariah interpretations



Institution level

Shariah Committee

Advise the board & management on Shariah matters

Shariah risk management, review & audit functions

Provide independent assurance of Shariah compliance effectiveness

Shariah organisational practices in IFIs:

Setting the tone from the top

Stronger focus on organisational culture and behavioral norms that promote Shariah compliance

Strengthened first line of defence

Greater empowerment and accountability to business units for the management of Shariah risks

Aligning incentive frameworks

Reward systems that relate performance measures to Shariah expectations

Building strong foundation in Shariah knowledge and applications

Strengthened recruitment practices and investments in training and developments

Shariah Governance Framework will be further strengthened to promote Shariah compliance

Executive Summary



Executive Summary

Risk developments and assessment of financial stability in 2018

Domestic financial stability continued to be preserved in 2018. Global developments, including the pace of monetary policy normalisation in some advanced economies, escalating global trade tensions and geopolitical risks, as well as volatility in crude oil prices drove investor behaviour. Domestically, policy uncertainties following the 14th General Election (GE14) also weighed heavily on investor sentiment. Amid these developments, domestic financial market conditions remained orderly, supported by strong local institutional investors, including financial institutions. Prudent risk management by financial institutions and limited risks from the external borrowings of Malaysian corporates also contributed to contain market risk exposures at manageable levels.

The banking system and the insurance and takaful sector remained resilient, supported by healthy profits and strong capital and liquidity buffers. Improvements in asset quality continued to be observed. Liquidity and funding conditions also remained conducive for financial intermediation activities. These factors continue to underpin sustained public confidence in the Malaysian financial system.

Household debt remained elevated although it has expanded at a slower pace in recent periods and more in line with income growth. Debt repayments continued to be supported by income and employment growth. At the aggregate level, households also maintained healthy financial buffers. Lower income households, however, remain vulnerable, although their share of household debt has continued to decline over the years following the implementation of responsible lending standards. While the overall quality of household debt remained sound with low aggregate impairment and delinquency ratios, some households are showing signs of difficulty in servicing their debt. This is

mainly evident among lower income borrowers with personal financing, and borrowers with larger housing loans (i.e. above RM500,000) and who are more dependent on variable income sources. Given these developments, existing macroprudential measures remain relevant in strengthening household resilience.

In the property market, growth in house prices continued to ease amid weaker demand for higher-priced properties which remain unaffordable for most buyers and less exuberant activity in the housing market in recent years. This is contributing to adjustments in housing supply towards more affordable segments. Affordability constraints have continued to increase the stock of unsold housing units. However, risks of a disorderly correction in the housing market is not expected. With firm housing demand (especially by owner-occupiers) continuing to outstrip new supply in the foreseeable future, coupled with measures by the Government in coordination with the private sector to better align housing demand and supply, the outlook for the housing market is expected to gradually improve. In the non-residential property segment, risks remain of a further deterioration in oversupply conditions with the large incoming supply of office and retail space. However, this poses minimal direct risks to financial stability, given the low exposures of banks to riskier segments of the housing and commercial property markets. Additionally, the Bank's sensitivity analysis indicates that banks' capital buffers are sufficient to withstand a broad price correction in the domestic property market, including its potential spillovers to the other economic sectors.

Businesses recorded a slight deterioration in financial performance, amid supply disruptions in the commodities sector, a relatively weaker ringgit and uncertainties surrounding GE14. However, their overall debt servicing capacity and liquidity positions remained healthy and above prudent thresholds. Firms in the oil and gas-related, real estate and construction sectors

continued to face headwinds, but this will not have a significant impact on domestic financial stability. Factors supporting the lower risk profile of corporate external borrowings – namely the substantial share of borrowings which are of a longer-term duration, hedged against currency risks, and represented by intercompany loans and trade credits – further limit risks to broader financial stability.

The Bank's multi-year solvency stress tests on banks and insurers continue to affirm the resilience of banks and insurers under simulated scenarios of severe macroeconomic and financial strains. Banks' and insurers' capital positions remained above the regulatory minimum throughout the stress periods. In 2019, risks to domestic financial stability are assessed to remain broadly stable across the different sectors and risk areas. The Bank continues to maintain close vigilance over the pace and level of debt accumulation and risk taking behaviour to prevent a build-up of vulnerabilities that could expose the financial system to future risks.

Development of the financial sector

Financing by the banking sector remained supportive of economic activity in 2018, with total outstanding financing growing faster by 5.6%, driven mainly by household financing. Business sector financing also recorded a stronger growth of 5.4%. Financing to small and medium enterprises (SMEs) accounted for half of total outstanding financing to businesses, with RM65.5 billion in loans approved to over 108,700 SME accounts in 2018. Ongoing initiatives to address financing barriers that still exist among pockets of SMEs remain an important priority. Among them include improvements in documentation requirements, capacity building support for SMEs in the area of financial management and new approaches to credit assessments that leverage on technology and big data. The implementation of an online financing aggregator platform ("imSME"), operated by the Credit Guarantee Corporation, has helped reduce search costs and expand financing sources to meet the increasingly diverse financing needs of SMEs. At a broader level, initiatives being pursued to facilitate the use of moveable property as collateral, a more holistic approach to the development of alternative finance and measures to encourage businesses to formalise, are needed to further enhance access to financing for SMEs, particularly in new growth and innovative areas.

The Fintech Regulatory Sandbox (Sandbox) continued to serve an important role in enabling the Bank to ensure that regulation remains responsive to financial innovation. During the year, the Bank introduced specialised thematic tracks to the Sandbox (Specialised Sandbox) to allow for a more targeted and efficient testing approach for high-impact innovations. Further progress was also made in facilitating Open Application Programme Interface (API) adoption in the financial services sector to encourage healthy competition and improve the quality and efficiency of financial services. While the focus to date has mainly been on facilitating access through Open APIs to publicly available and product-related data, further work will be undertaken on secure methods for allowing third-party access to a broader scope of financial information, with the customers' consent. This will be accompanied by a careful assessment of the risks and safeguards necessary to protect consumers and the integrity of financial services.

As part of its mandate to promote an inclusive financial system, the Bank also partnered with the United Nations Capital Development Fund (UNCDF) and the Malaysia Digital Economy Corporation (MDEC) to launch the Digital Innovation Hub and Inclusive Financial Accelerator Program. These initiatives aim to support greater use of technology by service providers in offering inclusive financial solutions. Work continues to progress in strengthening the capacity of development financial institutions (DFIs) to effectively contribute to economic growth and social development. A key development during the year was the implementation of an enhanced performance measurement framework to provide better capture and integrate the developmental impact and financial performance of DFIs. In parallel, the Bank is also engaging with the Government to review the DFI landscape to take into account developments in the financial system and changes in Malaysia's economic structure and priorities. This seeks to provide a sharper focus in the mandates of DFIs while optimising performance and synergies.

Access to financial services in Malaysia remains high, with financial access points available in sub-districts across the nation providing almost full accessibility to financial services. Latest indicators of financial inclusion also showed an improved take up of financial products and greater usage of digital channels to conduct financial transactions. These developments further contribute to greater financial inclusion which

is concerned not only with access, but also the responsible use of financial services in a way that improves financial well-being.

The Malaysian insurance and takaful sector recorded an increase in total premiums and contributions of 4.9% while total assets correspondingly grew by 3.2%. However, measures of insurance and takaful penetration were little changed reflecting the uneven protection coverage of the Malaysian population, with lower income segments of the population remaining largely without insurance and takaful protection. In this regard, efforts continue to be intensified to support the development of affordable insurance and takaful products, including those offered under *Perlindungan Tenang*. This is further complemented by the implementation of the national B40 protection scheme which aims to help the bottom 40% household income group understand and experience insurance and takaful, and eventually support them to secure protection over the longer term from the insurance and takaful market.

The phased liberalisation of motor and fire tariffs entered its third year, with insurance companies and takaful operators adopting further differentiation in pricing based on an expanded set of risk rating factors. Greater pricing flexibility also led to the introduction of over 200 new motor and fire insurance and takaful products by insurers and takaful operators during the year to meet different risk protection needs. As important are stronger pricing incentives that are being introduced to encourage safer driving and safer vehicles. This should lead to improvements in overall claims experience and more sustainable premium rates over time.

The implementation of the Life Insurance and Family Takaful (LIFE) Framework progressed further with the expansion of products available through direct distribution channels, the gradual removal of limits on operational costs to encourage a more competitive and diverse insurance and takaful market, and the implementation of the Balanced Scorecard Framework for agents which is delivering better consumer outcomes. In efforts to maintain affordable insurance coverage, a Medical Cost Containment Taskforce was also established by the industry to study the drivers of medical claims inflation and potential cost containment measures.

The Islamic finance sector continued to chart positive growth in 2018, with Shariah-compliant financing from Islamic banks growing by 10.5% to account for a higher share of 36.6% of total banking sector financing. Total takaful net contributions similarly expanded by 15.9% with an increased market share of 16.6% of total premiums and contributions. The implementation of value-based intermediation (VBI) strategies by Islamic banks gained further momentum with industry-led initiatives that included the finalisation of the VBI Strategy Paper, sharing of VBI banking practices and development of implementation tools to support the operationalisation of VBI. Moving forward, the Bank is increasing its focus on the role of mainstream finance in supporting the transition to a sustainable economy, and understanding the impact of environmental and social risks on institutional resilience and financial stability more broadly. To this end, the Bank became a member of the Network for Greening the Financial System comprising central banks and supervisors engaged in the development of research and sound regulatory and supervisory practices in managing climate and environmental risks.

In the money services business (MSB) sector, the increased offering and use of digital MSB services continued to accelerate the migration of remittances to formal channels, while reducing the cost of transactions for consumers. Regulatory changes introduced to allow qualified remittance service providers to conduct electronic Know-Your-Customer (eKYC) when onboarding new individual customers have further reduced costs and improved access in locations where remittance service providers do not have a physical presence. During the year, three electronic remittance service providers were approved to conduct eKYC. In addition, the Project Greenback 2.0 was implemented in a second champion city, Kota Kinabalu as part of continuing efforts to educate the public, particularly the migrant communities and SMEs, on the use of authorised MSB services and e-remittance solutions, and reduce remittance costs through increased transparency and access to information.

Measures continued to be taken to develop the onshore foreign exchange market to bolster its resilience to shocks. These included greater flexibility accorded to fund managers to dynamically manage their foreign exchange risk and hedge their positions. In 2018, the Bank announced further changes to its foreign exchange administration

policies aimed at improving operational efficiencies and facilitating risk management by businesses and financial institutions. Measures were also taken to provide greater transparency on beneficial ownership in the debt securities market and establish a framework for the operation of electronic trading platforms.

Regulatory and supervisory framework

The Bank's regulatory and supervisory activities in 2018 continued to focus on preserving the resilience of the financial system against emerging risks in a more challenging environment. This was supported by a sustained focus on strengthening risk management practices in the banking and insurance and takaful sectors, particularly in response to risks associated with the rapid pace of technological change and increasing reliance on third-party arrangements. A stronger focus on culture in the Bank's regulatory and supervisory approach also reflects efforts by the Bank to drive behaviour that is consistent with the responsible management of financial institutions and society's expectations.

In the first half of 2019, the Bank will issue proposals on enhanced regulatory requirements and policy measures for domestic systemically important banking institutions (D-SIBs) to reduce the probability and impact of their distress or disorderly failure on the financial system and the economy. This will include requiring D-SIBs to hold additional capital buffers in the form of Common Equity Tier 1. The Bank also completed a review of technology risk management standards to ensure that new and emerging dimensions of risk are managed appropriately, in particular from increased exposures to cyber threats and compromised access to confidential data.

Following extensive engagements with the industry and further progress towards the implementation of recovery plans for financial institutions, the Bank finalised revised standards on the management of outsourcing risks. The standards have sought to balance the benefits of outsourcing in increasing efficiency and supporting the management of risks across financial groups, with the potential costs of over-reliance on third parties, reduced supervisory oversight and added complexity to business operations and their recovery. The Bank is also undertaking a holistic review of the existing regulatory framework for DFIs to reflect the roles

and specific mandates of DFIs, and ensure that prudential standards remain appropriate to the risk profiles of individual DFIs. This envisages greater differentiation at an individual institution level, while ensuring that market distortions are minimised. As part of the review, the Bank plans to consult on proposed revisions to 10 core prudential standards applicable to DFIs over the coming year.

In the insurance and takaful sector, the Bank concluded revisions to standards on the conduct of investment-linked (IL) business, as part of the Life Insurance and Family Takaful Framework to support the long-term development of the insurance and takaful industry. The revisions aim to ensure that the rapid growth of IL business is supported by responsible practices that are consistent with the fair treatment of policy owners and takaful participants. The Bank also published proposed revisions to the Takaful Operational Framework to accord recognition to a wider range of Shariah instruments within takaful business in line with advancements in the development of Shariah standards.

Malaysia's continuous efforts to preserve the integrity of the financial system and combat money laundering and terrorism financing (ML/TF) risks resulted in the upgrading of Malaysia's technical compliance ratings of its Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) framework by the Financial Action Task Force. The National Coordination Committee to Counter Money Laundering also endorsed the results of the National Risk Assessment which assessed the threat levels for serious crimes that pose ML risks, and vulnerabilities of financial and non-financial sectors to ML/TF risks. Guided by the outcomes of the NRA, the National AML/CFT Strategic Plan will be reviewed in 2019 to incorporate strategies to address identified gaps and vulnerabilities. This will include enhancements to existing legal and regulatory frameworks to combat financial crimes and the reallocation of resources towards areas posing higher risks.

Measures also continued to be taken during the year to mitigate risks from the abuse of cash for criminal activities. Effective 1 January 2019, the Bank reduced the cash transaction reporting threshold from RM50,000 to RM25,000 to facilitate enhanced monitoring of suspicious transaction patterns. The Bank is also considering other measures, such as a limit on high-value cash transactions, to address the use of cash to store, move and disburse proceeds

from illicit activities. In addition, the on-going review of the Money Services Business Act 2011, currently under public consultation, will further strengthen the ability to crack down on illegal money services business activities which have also been a means for criminal actors to move illicit cash proceeds.

Effective and timely enforcement actions by the Bank continue to serve as a credible deterrent against non-compliances with applicable laws and regulations. As earlier announced, beginning from 2019, details of individual enforcement actions are now published on the Bank's website.

Market conduct and consumer empowerment

Risks to financial consumers from the elevated level of household debt remained a key focus of the Bank's regulation and supervision of market conduct in 2018. In particular, the Bank took specific measures to ensure that banking institutions act fairly when repricing loans after a borrower fails to make repayments on time, and do more to help individuals pay off their credit card debt faster to avoid higher financing charges and persistent debt traps. Banking institutions were also required to revise terms and conditions in housing loan and financing contracts that were found to be unfair to consumers or unnecessarily complex.

These measures were a subset of a broader initiative by the Bank to establish a set of overarching standards on the fair treatment of financial consumers by financial service providers (FSPs). The standards which were issued for consultation during the year, address expectations of FSPs to align their internal governance, conduct and operations with fair consumer outcomes. This includes establishing reward and remuneration systems that are consistent with the fair treatment of financial consumers, ensuring fair contract terms, providing clear and concise product information and offering advice or recommendations that are appropriate to a customer's needs and financial circumstances. Improvements in FSPs' conduct towards consumers continue to be reinforced through supervisory and enforcement actions by the Bank. In 2018, such actions were taken against 51 FSPs for non-compliances with financial conduct rules and regulations.

Financial education remained a key focus of the Bank to empower and protect financial consumers. The Bank continued to work closely with its partners in

the Financial Education Network (FEN) to expand the reach and coverage of financial education initiatives. Based on the results of a follow up assessment on Malaysia's Financial Literacy and Capability (MYFLIC) Index (which measures the level of knowledge, behaviour and attitudes of Malaysian consumers on financial matters) conducted during the year, the level of financial knowledge among Malaysians remains generally low. This in turn has an important influence on financial attitudes which leave a significant proportion of Malaysians ill-prepared to deal with unexpected expenditures and life events, including retirement. These findings will be used to inform priorities and targeted interventions under the national strategy for financial education that is being finalised by the FEN.

Payment and settlement systems

The payment and settlement systems remained resilient and operated without any major disruptions throughout the year. Focus continued to be centred on enhancing the cyber and operational resilience of the large value payment system infrastructure (RENTAS), both within the Bank's own environment and that of Payments Network Malaysia Sdn. Bhd. (PayNet) and participants of RENTAS. The Bank achieved full compliance with all mandatory and advisory Society for Worldwide Interbank Financial Telecommunication (SWIFT) security controls, which was affirmed through an independent external review of the Bank's compliance. The Bank and financial institutions are also increasingly deploying effective control measures in an 'assumed breached' environment to complement existing defences against cyberattacks.

In the retail payments area, retail electronic payments continued to record strong double-digit growth. Given the corresponding demand for immediate payments and the increasing net debit exposures in real-time retail payment systems, financial institutions have been required to improve the monitoring and management of their intraday liquidity positions and exposures. While payment fraud losses remained low, measures continued to be undertaken by financial institutions to strengthen safeguards against fraud attempts. Alongside ongoing measures to educate consumers on payments security, strengthened procedures and controls for the registration and change of mobile phone numbers used by customers to receive Transaction Authorisation Codes (TAC) were implemented by financial institutions to further protect customers against social engineering fraud.

During the year, further progress was made in the migration to e-payments. The volume of cheques reduced by more than half from 204.9 million in 2011 to 101.4 million in 2018. While cash usage remains prevalent in Malaysia for retail transactions, the ratio of cash-in-circulation to Gross Domestic Product (CIC/GDP) also started to demonstrate a declining trend. The expansion of e-payment acceptance points among retail merchants, coupled with the migration of payment cards to support PIN and contactless functionalities contributed to the increased use of payment cards. In particular, debit card transactions grew strongly by 51.5% to 245.7 million transactions in 2018 (2017: 162.2 million).

The adoption of credit transfer services has continued to gain traction. This was largely driven by the substantial growth in the usage

of Instant Transfer, following the fee waiver for transactions of RM5,000 and below for individuals and SMEs. Mobile payments have also gained momentum in displacing cash for low value transactions, with total mobile payment transactions recording a significant increase to 23.7 million transactions in 2018 (2017: 1.2 million). This was supported by an expanded network of merchants that accept mobile payments. With the growing presence of non-banks in the mobile payment segment, the Bank implemented the Interoperable Credit Transfer Framework (ICTF) to enable interoperability between banks and non-banks via a shared payment infrastructure. This aims to preserve competition and innovation in the payment market, while optimising positive network effects that are critical to benefit users of different payment services.

Risk Developments and Assessment of Financial Stability in 2018

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Risk Developments and Assessment of Financial Stability in 2018

OVERVIEW

Domestic financial stability continued to be preserved in 2018 supported by orderly financial markets and resilient financial institutions. Domestic financial markets experienced bouts of increased volatility due to external and domestic factors. The pace of monetary policy normalisation in the United States of America (US), escalating global trade tensions, rising geopolitical concerns and uncertainties in global oil prices were major themes that drove investor behaviour for most parts of the year, with emerging market economies (EMEs), including Malaysia, largely experiencing net portfolio outflows. Policy uncertainties immediately following the 14th General Election (GE14) also weighed heavily on investor sentiment. Domestic financial market conditions remained orderly, supported by strong domestic institutional investors, including financial institutions. In particular, financial institutions remained resilient with healthy profitability and strong capital and liquidity buffers. Improvements in asset quality continued to be observed. Liquidity and funding conditions also remained conducive for financial intermediation activities. These factors have contributed towards sustained public confidence in the Malaysian financial system.

Domestic financial stability was sustained and well-supported by sound institutions and orderly financial market conditions

The Financial Stability Committee (FSC) of the Bank met four times in 2018. While noting that risks to domestic financial stability are contained (Diagram 1.1), the FSC remained vigilant over elevated levels of domestic debt and imbalances in the property market that continued to be a source of potential vulnerability. Risks to financial stability from household and non-financial corporate debt are judged to

be largely mitigated by the sustained overall debt servicing capacity of borrowers and prudent credit underwriting and risk management practices of financial institutions. Further, cross-cutting measures, including macroprudential policies, implemented since 2010 have also led to more sustainable aggregate household debt accumulation. Pockets of vulnerabilities continue to persist among low-income borrowers, who are more vulnerable to adverse shocks given their low financial buffers. However, their share of household borrowings has continued to decline in recent years. Although businesses were slightly more leveraged amid weaker earnings, their overall debt servicing capacity remains strong relative to prudent thresholds. Business conditions in the oil and gas (O&G), property and construction sectors are expected to remain challenging. However, direct exposures of financial institutions to firms in these sectors are low. For the property sector, expectations of continued orderly adjustments to the mismatch in housing demand and supply will also mitigate risks of broader spillovers to the financial system. Importantly, banks continue to maintain strong financial buffers to weather against potential losses stemming from households, businesses and the property market, including under severe stress scenarios.

While market expectations of tighter global financial conditions appear to have eased somewhat going into 2019, close vigilance over the pace and level of debt accumulation and risk-taking behaviour is warranted to prevent a build-up of vulnerabilities that could expose the financial system to future risks. The FSC therefore continues to view current prudential measures to be appropriate to manage these risks and ensure that financial intermediation activities to support the economy will continue to be sustained. Strong and resilient financial institutions will remain a key strength underpinning domestic financial stability.

Diagram 1.1: Outlook of Risks to Domestic Financial Stability

Risk Area	Sector	Risk Outlook	Direction of Risks (2019 vs 2018)
Credit risk	Household	<ul style="list-style-type: none"> Pockets of risks are expected to persist among more leveraged borrowers that have taken loans to purchase higher-valued properties and for personal use. Borrowers who are more dependent on variable income and those earning lower income and living in urban areas may also face greater challenges servicing their debt. Government initiatives are expected to partly alleviate cost of living pressures, while stable income and employment prospects along with responsible lending practices will continue to support overall household debt servicing capacity. 	↔
	Property market	<ul style="list-style-type: none"> Continued soft market conditions amid affordability issues may see the level of unsold housing units rise further in the short term. However, adjustments in house prices are expected to be orderly given continued firm demand for affordable homes and housing by owner-occupiers, sustained lending by banks and policies by the Government aimed at better aligning housing demand and supply. Risks are expected to remain elevated in the office space and shopping complex segment, given the large incoming supply. Further unabated supply will increase future risks. 	↔
	Non-financial corporations	<ul style="list-style-type: none"> Business conditions are likely to remain challenging in the O&G, property-related and construction sectors. Volatility in global oil prices could adversely impact income and investment in the O&G sector but the gradual recovery from recent supply disruptions should provide some support to firms. Property developers may continue to record sluggish sales performance amid a soft property market. Businesses generally have healthy financial buffers. However, uncertainties from a prolonged trade war may impact businesses more broadly, resulting in lower profitability and investments, which could erode these buffers. 	↔
Market risk		<ul style="list-style-type: none"> The pace of US monetary policy normalisation, escalating trade tensions and rising geopolitical risks may lead to non-resident outflows from the region which could pose upward pressure on yields and reduce market liquidity. The presence of strong domestic institutional investors, including financial institutions, is expected to continue providing support and liquidity to domestic financial markets on the back of attractive valuations. 	↔
Liquidity and funding risk		<ul style="list-style-type: none"> Persistent and prolonged outflows may reduce overall liquidity to levels that could lead to market fragmentation and drive funding costs higher. Banks are expected to remain resilient to funding shocks, supported by adequate liquidity buffers and continued progress in accumulating stable sources of longer-term funding. 	↔
Contagion risk		<ul style="list-style-type: none"> Contagion risk from non-bank financial institutions (NBFIs) to the financial system is expected to remain low. Measures to strengthen the governance and management of some NBFIs will support improvements in performance and greater resilience to changes in financial market conditions going forward. 	↔

↔ Stable ↑ Increasing ↓ Decreasing

Note: Sectors shaded in purple indicate that risks are elevated at current levels.

Source: Bank Negara Malaysia

CREDIT RISK

Household Debt Continued to Expand at a Slower Pace

In 2018, the growth of household debt slowed further to 4.7%¹ (Chart 1.1), mainly driven by slower growth in loans extended by non-bank financial institutions (NBFIs). As a proportion of gross domestic product (GDP), total household debt declined to 83% as at end-2018 (Chart 1.2). Residential property loans remained the primary contributor to household debt growth (Chart 1.3), although lending has been curtailed by reduced housing affordability, particularly among low- to middle-income households. Meanwhile, loans for the purchase of securities² registered strong growth, bolstered by the sustained performance of ASNB funds which continued to offer attractive returns. At the same time, some banks were also rebalancing their exposures towards more secured lending, with more banks offering ASNB financing facilities. Growth in loans for consumption³ trended lower towards the end of 2018, as stronger demand for hire purchase and personal loans during the three-month tax holiday from June to August tapered off with the imposition of the Sales and Services Tax (SST) in September.

At the aggregate level, households continue to be well-placed to manage their debt repayments, supported by continued income and employment growth. The ratio of household assets to debt remained high at four times. Household financial assets expanded at a slower rate in 2018 but continued to outpace the growth of debt (Chart 1.4). The slower expansion of financial assets reflected lower valuations of equity holdings and unit trust funds, amid the weaker equity market performance in 2018. Notwithstanding this, households continued to maintain comfortable levels of financial assets and liquid financial assets (LFA) at 2.1 times and 1.4 times of debt, respectively. About two-thirds of household financial assets are liquid assets, mostly in the form of deposits and unit trust funds, which provide them with ready access to funds to meet debt obligations and adjust to unexpected changes in their financial circumstances. Individuals earning below RM3,000

per month, however, remained vulnerable, given their low financial buffers. With an LFA cover of less than one time (0.6 times) of outstanding debt, borrowers in this group face substantially higher risks of defaulting on their loans in the event of an income shock.

Following the implementation of responsible lending standards by banks, the share of vulnerable household borrowers has continued to decline over the years (Chart 1.5). Further, various government initiatives to alleviate cost of living pressures, such as the higher minimum wage, price ceiling on retail fuel prices and cash grants via *Bantuan Sara Hidup*, will lend some support to lower-income households.

Although household debt remains elevated, risks to financial stability are mitigated. Current macroprudential measures implemented since 2010 have guided a more sustainable pace of growth in household debt, with debt in recent periods expanding more in line with income. About two-thirds of household borrowings are secured by property or securities, thus substantially reducing the net exposures of financial institutions to households. Banks also continue to observe prudent lending and risk management practices, with loan affordability assessments in place to prevent an excessive build-up of debt by households. Debt service ratios⁴ (DSR) for the bulk (70%) of newly-approved loans have remained below 60%.

The quality of household debt remained intact, with risks largely limited to loans for the purchase of higher-valued properties and personal financing

The overall quality of lending by both banks and non-banks to households remained sound with the aggregate impairment ratio improving to 1.2%, and the aggregate delinquency ratio at a low and stable level (1.2%). Pockets of risks, however, remain. Borrowers with housing loans originated in earlier periods for the purchase of properties priced above RM500,000 and who experience greater variability in their income are showing some signs of difficulty in servicing their debt. Higher incidents of default in personal financing also continued to be observed among borrowers earning less than RM5,000 per month, and those living in urban areas who are experiencing higher costs of living (refer to the Info Box titled 'Insights on the Trends and Usage of Personal Financing'). This is consistent with data from the Credit Counselling

¹ Extended by banks, development financial institutions (DFIs) and major NBFIs.

² About 85% of outstanding securities loans are for the purchase of Amanah Saham Nasional Berhad (ASNB) units, the bulk of which are fixed price.

³ Primarily motor vehicles, credit card and personal use.

⁴ The ratio of total monthly bank and non-bank debt obligations to monthly disposable income (net of statutory deductions).

Chart 1.1: Household Sector – Annual Growth of Debt

Growth of household debt continued to moderate...

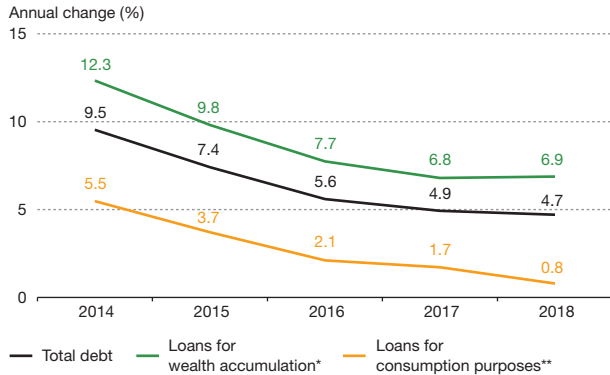


Chart 1.2: Household Sector – Key Ratios

...with debt-to-GDP ratios declining further

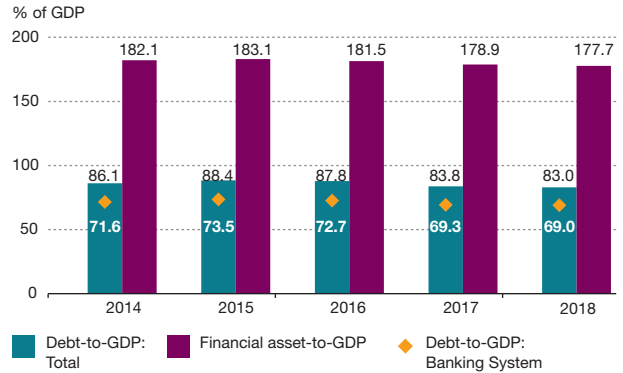


Chart 1.3: Household Sector – Contribution to Growth in Debt

Slower debt growth was driven mainly by moderation in residential property and motor vehicle loans

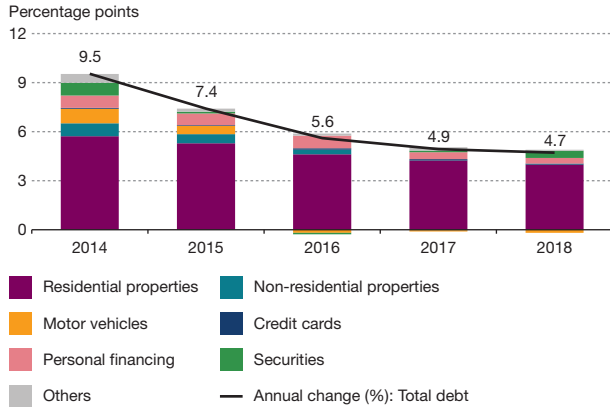


Chart 1.4: Household Sector – Debt and Financial Assets

Growth of financial assets continued to outpace that of debt

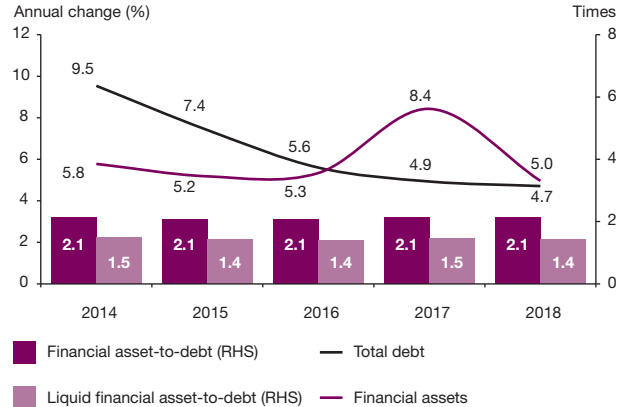


Chart 1.5: Household Sector – Debt by Monthly Income Group

Share of borrowings by vulnerable borrowers declined further

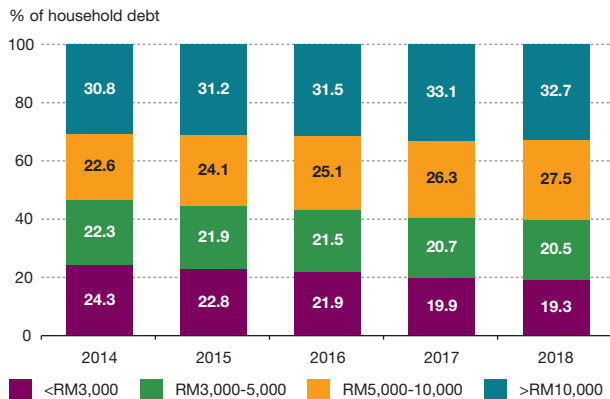
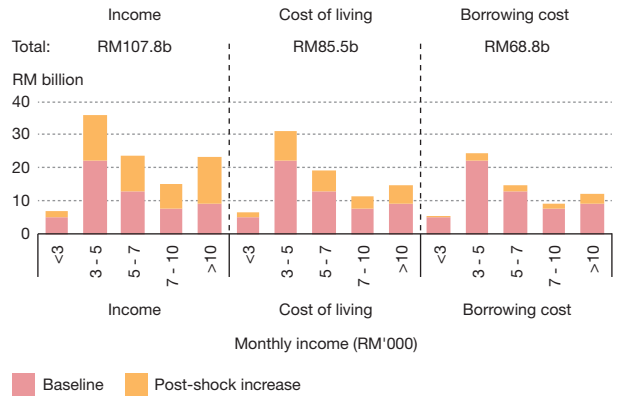


Chart 1.6: Household Sector – Potential Losses to Banks Under Pre- and Post-Shock Scenarios

Potential losses remain within banks' total excess capital buffer



* Residential properties, non-residential properties and securities
 ** Primarily motor vehicles, personal financing and credit card

Source: Bank Negara Malaysia, Bloomberg, Securities Commission Malaysia and Department of Statistics, Malaysia

Table 1.1

Shock Assumptions and Results of Sensitivity Analysis on Household Debt

Scenarios		Parameters (Magnitude)	Share of borrowers with negative FM (%)	Potential losses to the banking system (RM billion)
Baseline			6.4	60.3
Shocks	Income	Decline in total income ¹ (↓ 10%)	12.0	107.8
	Cost of living	Increase in basic expenditure ² (↑ 20%)	9.9	85.5
	Borrowing cost	Higher funding costs ³ (↑ 50bps)	7.4	68.8

Note:

¹ Larger than the decline in aggregate household disposable income of 8.7% during the Asian Financial Crisis in 1998

² Close to triple that of 2009 - 2016 CAGR of 7.3% for expenditures on basic necessities

³ Based on the increase in the average lending rate (ALR) following two consecutive increases in Overnight Policy Rate in 2006

Source: Bank Negara Malaysia, Department of Statistics, Malaysia and Oxford Economics

and Debt Management Agency's (*Agensi Kaunseling dan Pengurusan Kredit*, AKPK) Debt Management Programme (DMP) which showed that borrowers in this segment have grown as a share of overall DMP participants since 2017. Such borrowers account for about 80% of DMP participants and were found to commonly overestimate their ability to cope with higher costs of living and debt obligations due to poor financial planning. These developments underscore the continued relevance of existing macroprudential measures in strengthening household resilience.

Banks are expected to remain resilient to potential losses from household lending under stressed scenarios. Based on a sensitivity analysis that simulates the impact of income, cost of living and borrowing cost shocks on borrowers' financial margin (FM),^{5,6} potential losses to the banking system from borrowers with negative FM are estimated to remain within banks' excess capital buffers, which stood at RM143.1 billion as at end-2018 (Table 1.1). Income shocks would have the greatest impact in increasing the share of borrowers with negative FM and associated credit losses to banks (Chart 1.6).

Insights on the Trends and Usage of Personal Financing

The growth of personal financing (PF), which drove the earlier rapid expansion in household debt, has moderated significantly following the implementation of a series of cross-cutting measures¹ since 2012 [2018: 2.3%; 2017: 2.8%; 2008: 25.2% (peak)]. The moderation in growth was driven primarily by NBFIs, which accounted for more than 40% of total PF. As a result, the share of PF to total household debt has trended downwards to 14.5% as at end-2018 [2013: 16.4% (peak)]. While risks to financial stability from PF exposures are assessed to be limited given the low level of debt-at-risk² (2.7% of total household debt), rising default incidents in PF and a sharp increase in the share of bankrupt borrowers with PF from 2010 warrant continued vigilance (Chart 1.7). A survey³ conducted by the Bank of banking institutions and borrowers that sought assistance from AKPK provided further insights on the profile and use of PF by borrowers, including distressed borrowers.

¹ Guidelines on Responsible Financing (subsequently re-issued as Policy Document in 2013) and Policy Document on Personal Financing were implemented in 2012 and 2013, respectively.

² The proportion of PF debt held by borrowers with negative FM to total household debt.

³ The survey comprises two parts – (i) outstanding loans extended by major PF creditors; and (ii) distressed borrowers with PF who approached AKPK within a one-month period in September 2018.

⁵ Please refer to the Box Article in FSPSR 2017 titled 'Indebted to Debt: An Assessment of Debt Levels and Financial Buffers of Households' for details on the FM methodology.

⁶ Shocks are applied individually and calibrated to parameters that are more severe than that historically observed. The analysis does not account for the shocks to occur simultaneously as the likelihood of this is assessed to be very low.

About half of total outstanding PF is held by lower-income borrowers (that is, with monthly earnings below RM5,000). The share of PF to their total borrowings stood at 26.6%, almost double that of the average borrower (14.5%). PF is used mainly for consumption purposes (Chart 1.8). Notably, more than one-third of PF are for discretionary consumption expenditure to support lifestyle choices, which include the purchase of durable goods and expenses for weddings and festive seasons. This was similarly observed among distressed borrowers (Chart 1.9), which points to persisting behavior of spending beyond one's means (refer to additional information provided under 'Financial Capability and Inclusion Demand Side Survey 2018' in Chapter 4). A sizeable share of PF (15%) is also used for consumption of necessities which include emergency- and medical-related expenses, mostly by borrowers earning RM10,000 and below and living in urban centres. These borrowers face greater difficulty coping with living costs and unexpected expenses due to poor financial planning.

Close to half of PF were taken to accumulate assets, mainly to make down payments for house purchases and for business purposes. Notably, among distressed borrowers with PF, such borrowings included a significant share utilised for home renovations. Given that the appreciation of home values from such expenditure may not always correspond to amounts spent on renovation, highly-leveraged borrowers may find themselves in a negative equity position with debt burdens they cannot afford.

While incidents of impairment of PF have increased, the level remained low at 0.2% of total household debt as at end-2018. Reflecting strengthened underwriting practices of banks and NBFIs, DSRs for newly-approved PF have generally been below 60% with improvements observed in vintage default rates for PF in recent years.

Chart 1.7: Bankruptcy Cases by Purpose

Rising and significant share of personal financing among bankrupt borrowers

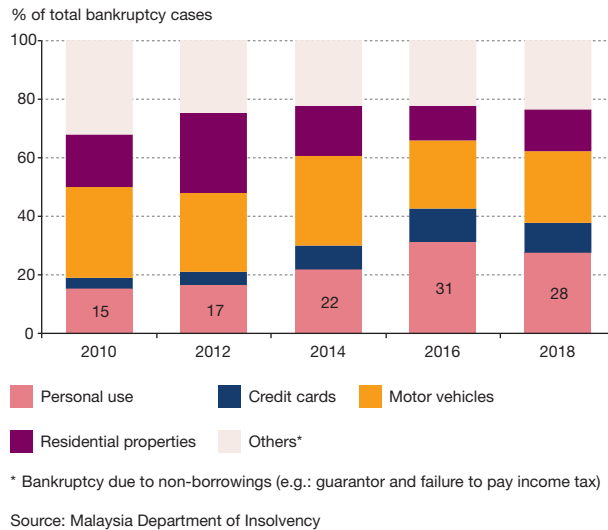
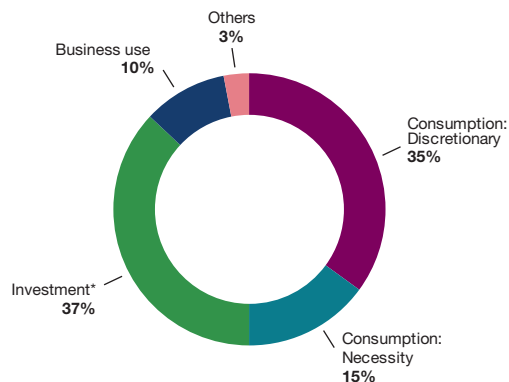


Chart 1.8: Outstanding Personal Financing by Usage

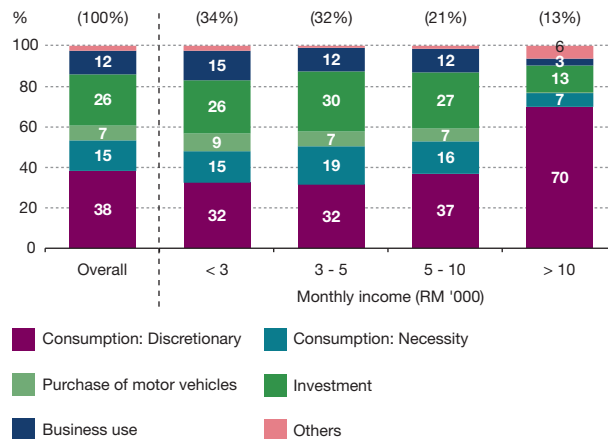
Sizeable PF was used to finance discretionary spending to support lifestyle...



* Includes PF used for the purchase of motor vehicles
Source: Bank Negara Malaysia

Chart 1.9: Composition of AKPK Customers with PF by Usage and Monthly Income Group

...with similar trend observed among the distressed borrowers, mainly those in the lower-income groups



Note: (..) denotes the share of total responses by income group
Source: Credit Counselling and Debt Management Agency (AKPK)

House Price Growth Continues to Moderate, While Oversupply Conditions Persist in the Non-Residential Property Market

House prices⁷ continued to grow more moderately in the first half of 2018 at 4%, with preliminary data for 3Q 2018 suggesting a further moderation to 1.1%. The easing in house price growth has been reflective of weaker demand for properties in the higher-priced segments which remain unaffordable for most buyers, and subdued activity in the housing market over the last six years. This is contributing to adjustments in housing supply towards more affordable segments in the past two years with an increasing share of new housing launches targeting properties priced below RM500,000. During the first nine months, despite fewer launches of new housing units, higher activity in this price segment across key states⁸ supported a marginal growth in the total volume of housing transactions. In other states, house prices at this level are, however, still unaffordable. This contributed to the further increase in the stock of unsold⁹ housing units by 22.5% in the nine months to September 2018. Despite this, a large and broad-based decline in house prices which could increase risks of a disorderly correction in the housing market is not expected for several reasons. Broad house price movements are largely driven by landed residential property transactions (76% of MHPI weightage) which continue to experience firm demand.¹⁰ Demand for housing is also expected to remain supported by continued income growth and formation of new households.

Affordability remains an issue in the residential property market, while oversupply of office and retail space persists in the non-residential property market

Houses priced above RM250,000 continued to form the bulk of new launches and total unsold housing units, adding to the housing supply and

demand mismatch in some locations. While the Government has introduced several measures¹¹ to address the structural mismatch, closer coordination with the private sector will be important to guide a smooth transition to a more sustainable housing market, while gradually reducing the level of unsold properties. With firm demand for affordable homes continuing to outstrip new supply in the foreseeable future, coupled with measures to improve financing affordability, the outlook for the housing market is expected to gradually improve along with greater alignment between demand and supply conditions.

In the non-residential property segment,¹² market activity was subdued in the first nine months of 2018. The commercial segment, which comprises shops, as well as office space and shopping complexes (OSSC), recorded higher transaction volumes and values, in particular for properties priced above RM500,000. Meanwhile, higher transactions in the industrial segment were driven mainly by properties priced RM1 million and above.

Notwithstanding the uptick in market activity in the commercial segment, the large incoming supply of new and planned office space in the Klang Valley and retail space nationwide is expected to exacerbate existing oversupply. This is despite the moderation observed in the loan approval rate for the construction of OSSC to 73.1% (2017: 79.7%). There remains a risk that these additional commercial spaces would remain unabsorbed, given the continued deterioration in vacancy rates even at current levels of supply, and potential headwinds to the domestic economy. With the average rental rate of office space in the Klang Valley remaining depressed, risks of property prices adjusting sharply lower remain elevated. Building owners continued to offer generous incentives to increase tenant demand, including rent holidays and discounts to asking rents. Such inducements will likely further depress effective rental rates.

⁷ Measured by the Malaysian House Price Index (MHPI).

⁸ Refer to Kuala Lumpur, Selangor, Johor and Penang.

⁹ Refers to unsold properties that have been completed (overhang) and unsold properties currently under construction. These properties encompass all residential properties as well as serviced apartments and small office home office (SOHO). (Source: National Property Information Centre).

¹⁰ The share of unsold landed residential properties has continued to decline from 46% in 1Q 2015 to 33% in 3Q 2018.

¹¹ Efforts include the creation of a single authority for affordable housing, integration of demand and supply database for planning purposes, adoption of more advanced and cost-efficient construction technology, and development of the rental market. Measures to promote home ownership and reduce the number of unsold housing units were also announced in Budget 2019, specifically aimed at enhancing affordability for first-time home buyers, lower-income households and civil servants.

¹² Consists of office space, shopping complexes, shops, hotels, land and factories.

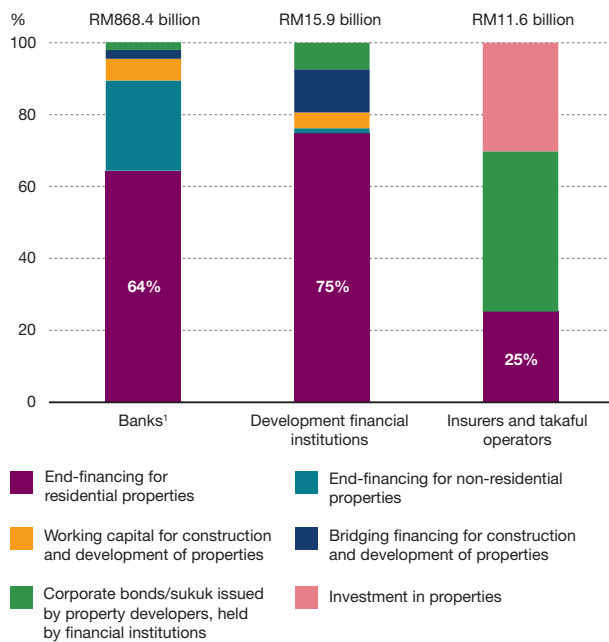
In 2018, total financial institutions' exposure¹³ to the domestic property market (RM901.3 billion, grew at a slower rate of 5.9% (2017: 7.1%), in line with reducing housing affordability and elevated risks associated with the oversupply in the non-residential property market. End-financing for residential properties remained the largest contributor to growth (Chart 1.11). Consistent with lower affordability, loan applications continued to be largely concentrated in loans for houses priced below RM500,000. First-time house buyers continued to account for the bulk (69%) of total residential property loan borrowers. Speculative activities also remained subdued (Chart 1.12).

Despite higher level of unsold properties, eligible first-time home buyers continued to have access to house financing

Overall loan approval rates have trended slightly lower at 71.3% (Chart 1.13). Based on a survey conducted by the Bank, the primary reason for loan rejections was

Chart 1.10: Property Market – Financial Institutions' Exposures to the Property Market

Financial institutions' exposures are mostly related to end-financing for the purchase of residential and non-residential properties



¹ Excludes MBSB Bank

Source: Bank Negara Malaysia

¹³ This includes exposures of banks, DFIs, insurers and takaful operators.

due to applicants being already too indebted or having insufficient income to meet scheduled loan repayments, even without considering the prospect of a future increase in interest rates.

The growth of bank financing to the non-residential property segment was stable at 2% in 2018, driven largely by end-financing to purchase shops. While end-financing for the purchase of OSSC continued to grow, banks remained largely cautious in lending to this segment. Similar to loans for the construction of OSSC, lower loan approval rates were also observed for the purchase of OSSC at 66.7% (2017: 76.8%).

Risks from property sector remain contained, with lending quality intact

Overall, the quality of banks' loans for the purchase of residential and non-residential properties remained sound, supported by prudent underwriting and valuation practices. On aggregate, impairment and delinquency ratios for such loans remained low (Chart 1.14) and vintage default rates have continued to improve in recent years (Charts 1.15 and 1.16). In line with enhanced credit risk management standards, more robust assessments by banks on the viability of property development projects have been observed. These include greater consideration of location-specific factors such as the impact of new developments on properties in the surrounding area in credit assessments.

Amid softer market conditions, the earnings performance of property developers has been under pressure from margin compressions and ongoing efforts to clear existing inventories. For the year, property developers continued to record lacklustre performance. While the liquidity position of firms in the sector, as measured by the median cash-to-short-term-debt ratio (CASTD), has been low at below one time (0.7 times) since 2016, the debt servicing capacity, as measured by the median interest coverage ratio (ICR), remained healthy at four times, which is comfortably above the prudent threshold of two times.

Risks to financial stability from developments in the property market remain contained. An orderly transition to a more sustainable housing market is a welcome development to reduce longer-term risks from high household debt and sharp housing market corrections. Banks' exposures to property developers with larger stocks of unsold housing units are estimated to be less than 2% of total credit exposures of banks.

Chart 1.11: Property Market – Annual Growth of End-Financing by Segment

End-financing to purchase residential and non-residential properties continued to grow albeit at a moderate pace



Chart 1.13: Property Market – Approval Rate for Loans by Purpose

Eligible home buyers continued to have access to house financing. Banks remained cautious amid oversupply situation in the OSSC segments

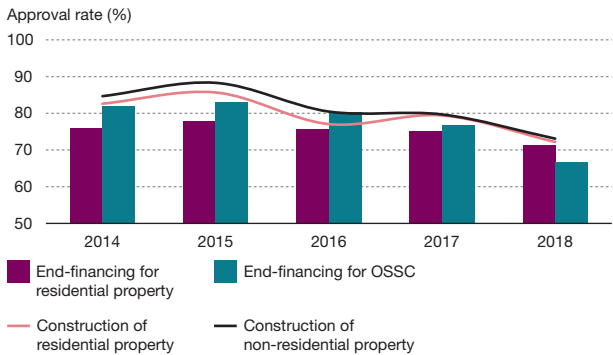
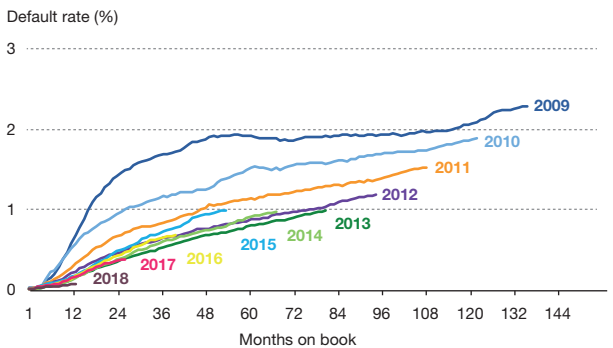


Chart 1.15: Property Market – Vintage Analysis for Residential Property Loans in the Banking System

Vintage default rates for residential and non-residential property loans originated in recent years continued to improve



Note: Data include impaired loans written off by banks

Source: Bank Negara Malaysia

Chart 1.12: Property Market – Borrowers with Three or More Housing Loans and Early Settlement of Housing Loans

Speculative activities in the residential property market remained subdued

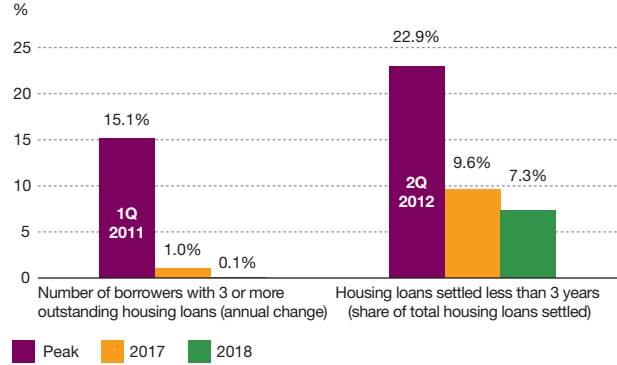


Chart 1.14: Property Market – Impairment Ratio for End-Financing by Segment

Asset quality remained sound

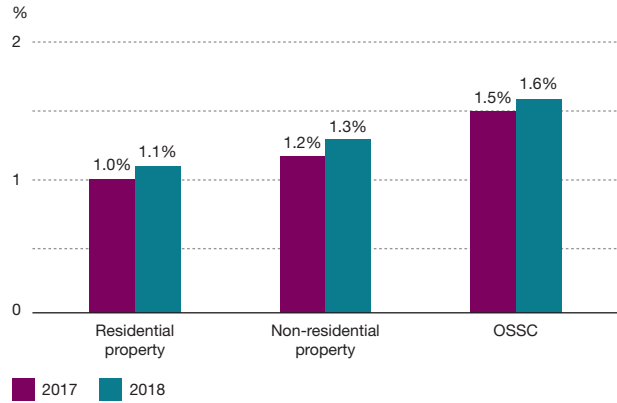
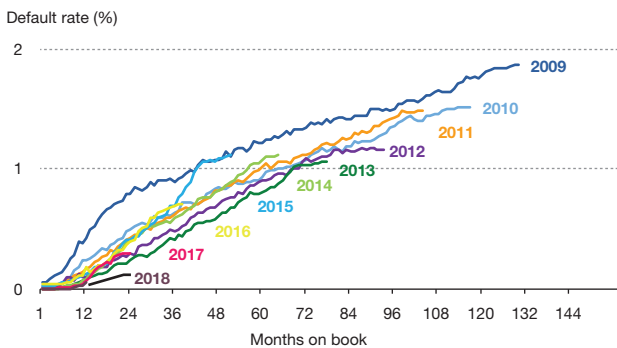


Chart 1.16: Property Market – Vintage Analysis for Non-Residential Property Loans in the Banking System



Similarly, exposures of banks to the OSSC segments remain small, accounting for 3.4% and 6.5% of banks' total outstanding loans and holdings of corporate bonds and sukuk, respectively. The Bank's sensitivity analysis also indicates that banks' capital buffers continue to be sufficient to withstand a broad price correction (50% decline in property prices) in the domestic property market, including its potential spillovers to other economic sectors. Financial stability risks from a more generalised downward correction in house prices are further mitigated by the bulk of residential property loans being extended to owner-occupiers. These borrowers have a strong incentive to maintain loan repayments in the event of financial stress or negative equity on their homes, compared to investment buyers. Further, 72% of outstanding housing loans have a loan-to-value ratio of 80% and below, thus limiting potential losses to the banking system.

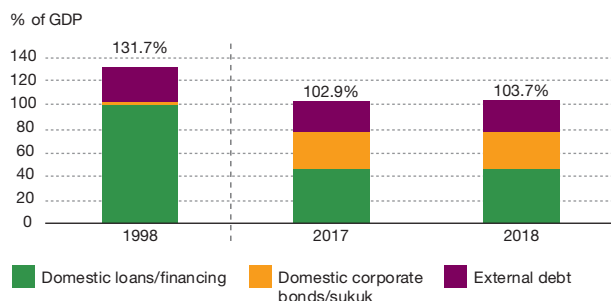
Debt Servicing Capacity of Overall Businesses Remains Healthy Despite Higher Leverage

In 2018, non-financial corporate (NFC) debt grew annually by 6.5% to 103.7% of GDP (Chart 1.17), driven by the construction, manufacturing and real estate sectors. Business activity continued to be primarily supported by domestic financing, which accounts for 74% of total NFC debt.

Outstanding bonds and sukuk¹⁴ recorded a strong expansion, supported by higher corporate bond issuances by businesses in the real estate, construction and utilities sectors. Meanwhile, loans extended by banks and DFIs

Chart 1.17: Business Sector – Non-Financial Corporate Debt-to-GDP Ratio

Higher debt driven by new bond and sukuk issuances



Source: Bank Negara Malaysia

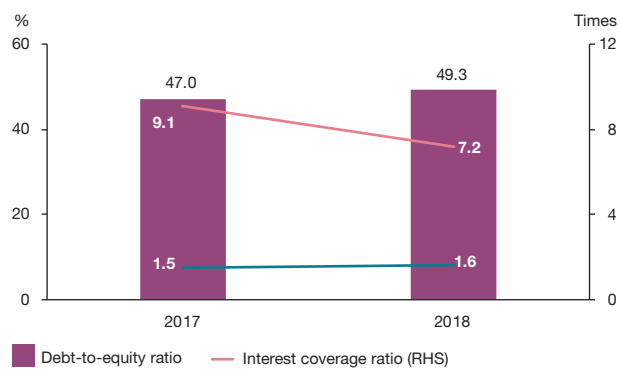
¹⁴ Corporate bonds and sukuk excluding issuances by Cagamas, financial institutions and non-residents.

recovered from very low growth in 2017, with positive and stronger loan growth recorded across most business sectors (4.6%; 2017: 1.3%). Financing to the wholesale and retail and manufacturing sectors, which account for about 36% of banks' business loans, was largely driven by higher business activity during the three-month tax holiday. Outside these sectors, credit supply by banks also remained supportive of business activity, with continued access to financing for small and medium enterprises (SMEs) as reflected by stable loan approval rates (refer to the Box Article in Chapter 2 titled 'Understanding Financing Through the Lens of SMEs').

Businesses recorded a slight deterioration in financial performance¹⁵ during the year (Chart 1.18), amid supply disruptions in the commodity sectors, the relatively weaker ringgit and uncertainties immediately after GE14. The higher overall leverage¹⁶ of businesses largely reflected lower retained earnings by plantation companies following the decline in crude palm oil prices. Amid more challenging business conditions, weaker earnings performance in most sectors resulted in a lower median ICR. Notwithstanding this, overall businesses continued to maintain comfortable debt servicing and liquidity positions that were well above prudent thresholds.¹⁷

Chart 1.18: Business Sector – Leverage, Debt Servicing Capacity and Liquidity Indicators

Healthy financials continued to support debt servicing capacity



Note: Prudent thresholds for ICR and CASTD are two times and one time, respectively

Source: Bloomberg and Bank Negara Malaysia estimates

¹⁵ Based on financial data of 120 companies listed on Bursa Malaysia, covering major economic sectors and about 85% of market capitalisation (excluding financial institutions).

¹⁶ Measured by the median debt-to-equity ratio.

¹⁷ Prudent thresholds for ICR and CASTD are two times and one time, respectively.

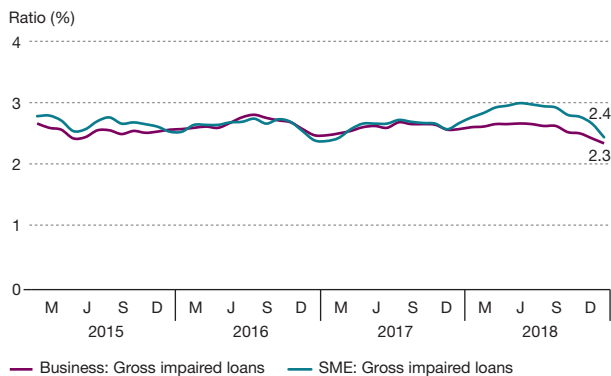
The overall quality of business borrowings from the banking system remained sound, with the ratio of impaired loans at a low and stable level (Chart 1.19). The year saw a higher number of downgrades in domestically-rated corporate bonds (2018: 8; 2017: 4), mostly reflecting firm- or sector-specific developments. These exposures posed little risks, accounting for only 0.4% of total corporate bonds/sukuk held by financial institutions. Firms in the O&G-related, real estate¹⁸ and construction sectors continued to face headwinds (Chart 1.20). While contract awards to O&G service providers have increased from 2017, the positive impact of new contracts on earnings will likely only materialise in the medium term. Most O&G players, particularly those in the upstream segment, have continued to rationalise their debt levels, as reflected in the lower median leverage ratio of 39.9%. This should improve future debt servicing capacity. While the impaired loans ratio for the O&G-related sectors remained elevated at 10.2%, banks have already largely provided against losses in this sector.

High overall quality of business borrowings, despite slight deterioration in financial performance

In the construction sector, the Government's cancellation or deferment of major infrastructure projects has had limited direct impact on asset quality given the low exposures of financial institutions to firms involved in such projects (3.6%

Chart 1.19: Business Sector – Gross Impaired Loans

Overall quality of lending remained sound

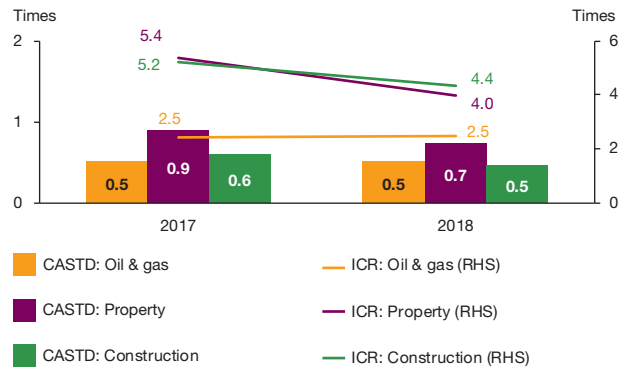


Source: Bank Negara Malaysia

¹⁸ For developments in the real estate sector and the performance of property developers, please refer to the credit risk assessment on the property sector.

Chart 1.20: Business Sector – Liquidity and Debt Servicing Capacity Indicators for Selected Sectors

Satisfactory debt servicing capacity of firms in sectors with weaker credit risk outlook



Note: Prudent thresholds for ICR and CASTD are two times and one time, respectively

Source: Bloomberg and Bank Negara Malaysia estimates

of total outstanding loans and bonds/sukuk held by banks). The impaired loans ratio for the construction sector increased but remained relatively low at 2.7%. This was mainly driven by firms in the civil engineering segment and SMEs involved in non-residential property development, which were affected by the slower public expenditure and oversupply in the OSSC segment.

Limited impact to banks from potential credit losses from severe shocks on Malaysian corporations

During the year, corporate external borrowings grew at a faster rate, primarily driven by firms in the manufacturing and construction sectors. The increase was also partly due to valuation effects from the weaker ringgit. On aggregate, risks to domestic financial stability from external foreign currency (FCY) borrowings continued to be mitigated by several factors. 76% of corporate external debt are medium- to longer-term debt, thereby limiting rollover risks. Three-quarters of external FCY debt are also hedged against currency risks, either through financial derivatives or FCY revenue streams from overseas operations. The lower risk profile of corporate external borrowings is further attributed to the share of debt (about half) represented by intercompany loans (mainly by resident firms that are part of multinational corporations) and trade credit facilities which are backed by export receivables.

Based on a sensitivity analysis of large NFC borrower groups,¹⁹ banks are able to withstand potential credit losses from severe shocks.²⁰ Cumulative potential credit losses from exposures to these borrowers are estimated to be about one-third of banks' excess capital buffers. Post-shock, large borrower groups may face short-term liquidity constraints, but are expected to be able to meet their debt obligations from earnings, with their ICR at 2.2 times.

In 2019, business activity is expected to be supported by sustained demand and continued income and employment growth. Continued growth in private sector investments will further support business performance. However, downside risks remain from slower global growth, an escalation of trade tensions between the US and People's Republic of China (PR China) and volatility in global oil prices which could adversely impact income and investments in the private sector. On the domestic front, firms in the commodity sectors are expected to recover from supply disruptions, while businesses more generally continue to adjust to changes in operating conditions arising from recent policies and greater competition. At current leverage and debt servicing levels, the debt servicing capacity of overall businesses is expected to remain generally healthy although firms in some sectors may be more vulnerable to financial strains. Any impact to the banking system will not be significant.

MARKET RISK

Domestic Financial Markets Remained Orderly Despite Continued Volatility

Domestic financial markets continued to experience bouts of volatility in 2018 due to both domestic and external developments. Similar to other regional financial markets, the domestic markets experienced cumulative portfolio investment outflows during the year amounting to RM44 billion. Nevertheless, orderly market conditions were preserved as

¹⁹ Large NFC borrower groups represent corporations with aggregate credit exposures (include direct financing and holdings of corporate bonds and sukuk) exceeding RM1 billion with Malaysian financial institutions. In 2018, financial institutions' exposure to these borrowers stood at 41.5% of exposures to businesses.

²⁰ Up to 30% depreciation in the ringgit, a 50% decline in operating profit, and a 50 and 100 basis points increase in borrowing costs for ringgit and FCY borrowings, respectively.

domestic institutional investors stepped in to take advantage of attractive valuations. Market stress, measured through the Financial Market Stress Index, peaked temporarily in June immediately after GE14 but has since declined back to the low levels observed in 2017 as greater policy clarity was provided with the tabling of Budget 2019 by the Government (Chart 1.21). Brief episodes of slightly higher equity and bond market volatility were, however, observed following sharp movements in crude oil prices and US equity markets in the last quarter of 2018. Investor sentiment in the region, including Malaysia, was also affected by uncertainties surrounding the pace of monetary policy normalisation in the US, escalating trade tensions between major economies and rising geopolitical risks. These external developments are expected to continue to weigh on investor sentiment in 2019.

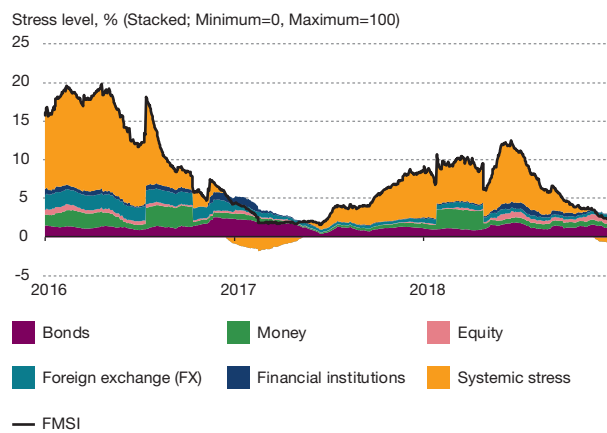
Market risk exposures of financial institutions remained manageable despite continued volatility in the financial markets

Banks

Banks' treasury portfolio expanded during the year, mainly attributed to higher holdings of government and corporate bonds in the banking book following the broad sell-off of government bonds by non-resident investors, a trend also observed across regional markets. Consequently, interest rate risk

Chart 1.21: Financial Market – Financial Market Stress Index (FMSI)

Overall market stress trended upwards, before declining back to around 2017 lows



Source: Bloomberg, Reuters and Bank Negara Malaysia estimates

in the banking book rose to 4.5% of total capital (2017: 3.5%). While the size of banks' trading book has also increased, it continues to remain relatively small (17.6% of total securities; 2017: 10.6%). Banks' foreign exchange (FX) net open position (NOP) declined to 5.8% of total capital (2017: 6.1%), reflecting more cautious positions taken by banks under uncertain market conditions that prevailed during the year. FX NOP exposures continued to be dominated by exposures to the US dollar. The contribution of net trading and investment gains to bank profits before tax remained largely unchanged at 17.9% (2017: 17.3%). Active risk management and hedging by banks continued to contain market risk exposures at manageable levels, well within prudent value-at-risk and loss limits set by individual banks.

Insurers and takaful operators

Holdings of financial assets by insurers and takaful operators similarly expanded in 2018 in tandem with the growth of insurance funds. For life insurers and family takaful operators, a substantial portion of their investment holdings remained in medium- to long-term corporate bonds to match their longer-term liability structure. In contrast, general insurers and takaful operators continued to hold largely cash and deposits as well as liquid structured products given the shorter-term liability structure.

Equity holdings declined from 2017 as insurers and takaful operators pared down their holdings amid the weaker equity market performance in the second half of the year. Correspondingly, capital allocated for equity risk decreased to 7.7% of total capital available as at end-2018 (2017: 9.1%). Investments in equities continued to comprise mainly blue-chip stocks and are well-diversified across different economic sectors.

The capital charge for interest rate risk carried by insurers and takaful operators remained stable at 3% of total capital available. Overall, insurers and takaful operators' trading activities delivered a weaker performance compared to the previous year, with recorded net losses from trading activities of RM6.5 billion. This was driven largely by the lower valuation of equities. Nevertheless, its impact on overall industry profitability remained manageable.²¹

²¹ For details on profitability drivers, please refer to the 'Resilience and Performance of the Insurance and Takaful Sector' section.

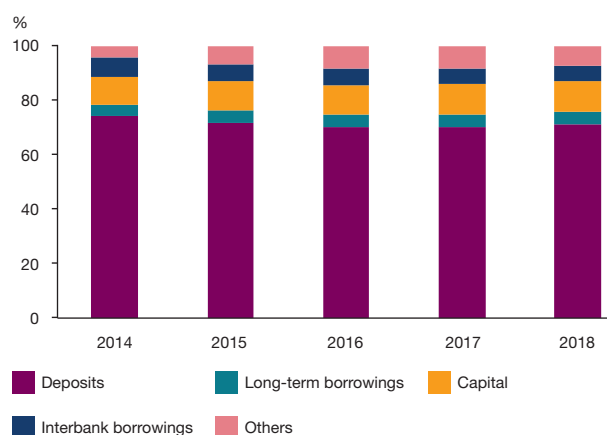
LIQUIDITY AND FUNDING RISK

Banks Maintained Sufficient Liquid Assets to Weather Periods of Uncertainties

Ample liquidity in the banking system remained supportive of financial intermediation. Banks' liquidity buffers to meet potential exigent needs continued to be largely supported by stable funding sources comprising deposits and long-term borrowings (Chart 1.22). This was reflected in the banking system's loan-to-fund (LTF) and loan-to-fund-and-equity (LTFE) ratios which have been sustained at levels around 80% and 70%, respectively (Chart 1.23). The industry Liquidity Coverage Ratio (LCR), which measures the amount of high-quality liquid assets (HQLA) that banks hold to meet liquidity needs in a stressed scenario over a 30-day period, has also been rising steadily in line with the transition towards full implementation of the strengthened liquidity requirements since 2015. Banking system surplus ringgit liquidity placed with the Bank²² rose in the second half of 2018 to RM171.8 billion (June 2018: RM156.2 billion; 2017: RM176.2 billion) as outflows from non-resident investors subsided. At current surplus liquidity levels, the Bank's stress tests continue to affirm the banking system's resilience to a large reversal of capital flows.

Chart 1.22: Banking System – Composition of Funding Liabilities by Instrument

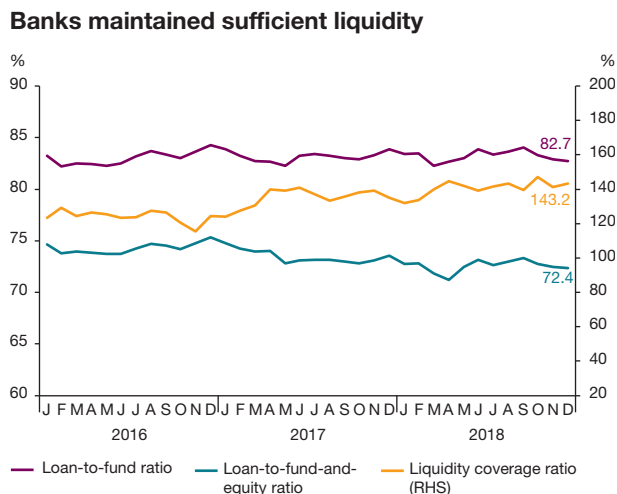
Deposits and long-term borrowings account for more than 70% of total funding liabilities



Source: Bank Negara Malaysia

²² Comprises placements, reverse repos and statutory reserves with the Bank.

Chart 1.23: Banking System – Liquidity Coverage Ratio, Loan-to-Fund Ratio and Loan-to-Fund-and-Equity Ratio



Banks' domestic activities continued to be funded predominantly by domestic funding sources, with deposits constituting the bulk (71%) of total funding liabilities. Growth in retail and corporate deposits remained firm and continued to account for 70% of deposit funding. Deposits from NBFIs also grew, reflecting higher cash holdings by these institutions amid continued uncertainty in global financial markets. Competition for deposits has been more restrained in response to supervisory measures to address year-end window dressing behaviour. As a result, funding conditions measured by the 3-month KLIBOR and weighted average cost of funds remained broadly stable since the increase in the Overnight Policy Rate (OPR) in January 2018.

Banks remained prudent in managing maturity and currency mismatches

Similarly, funding risks from banks' FCY activities (representing less than 15% of the total banking system balance sheet) remained low (Diagram 1.2). Deposits and long-term funds account for a significant share (60%) of total FCY funding. The share of external debt held by domestic banking groups (DBGs) and locally-incorporated foreign banks (LIFBs) has remained broadly stable over the years (Chart 1.24), with little signs of excessive reliance on external and cross-currency funding observed among these banks (refer to the Info Box titled 'FCY Liquidity Management Practices of Banks'). The FCY funding needs of LIFBs

are generally managed through intragroup borrowings from related parties abroad. These borrowings are typically matched to financing exposures in terms of amount, currency and tenure. Meanwhile, DBGs also took pre-emptive measures to build up additional FCY liquidity buffers in anticipation of maturing obligations and tighter global liquidity conditions (Chart 1.25). This contributed to the growth in short-term external debt of the banking system in the first half of 2018, which has since been on a declining trend as the borrowings were retired upon maturity amid improving market conditions. Overall, external funding comprised less than 10% of total banking system funding liabilities, with non-residents accounting for only 6% of total banking system deposits (Chart 1.26).²³

Only about a quarter of banks' FCY external debt constitute 'debt-at-risk'.²⁴ This comprised less-stable funding²⁵ sourced from unrelated non-resident counterparties which accounts for less than 3% of total banking system funds. Banks' holdings of liquid FCY assets²⁶ are more than double the level of external debt-at-risk, further bolstering their capacity to mitigate the impact of potential FCY funding shocks (Chart 1.27). Banks' FX NOP also remains low (Chart 1.28).

CONTAGION RISK

Contagion Risk from Non-Bank Financial Institutions Remained Contained

The risk profile of non-bank financial institutions²⁷ (NBFIs) and the nature of their interlinkages with the domestic financial system remained broadly unchanged (Chart 1.29). During the year, an NBFi was brought within the remit of formal regulation by the Bank, following its merger with a licensed bank. This resulted in a slightly lower share of household financing and deposits contributed by the activities of NBFIs. On aggregate, NBFIs' share of total

²³ For further information on Malaysian banks' external debt, please refer to the Box Article 'Malaysia's Resilience in Managing External Debt Obligations and the Adequacy of International Reserves' in Bank Negara Malaysia Annual Report 2018.

²⁴ Refers to the proportion of banks' external debt that is more susceptible to sudden withdrawal shocks.

²⁵ Refers to financial institutions' deposits, interbank borrowings and short-term loans.

²⁶ Comprise cash and cash equivalents, unencumbered debt securities held and interbank placements.

²⁷ Refer to NBFIs not regulated by the Bank. Their activities include credit provision, securitisation, facilitation of credit creation and management of retirement and public funds.

Diagram 1.2: Banks' External Debt – Use and Risk Profile

Risks arising from banks' external debt exposures are generally low due to 'back-to-back' nature

External debt is primarily used for:



The exposures broadly matched in terms of:



Chart 1.25: Banks' External Debt – by Type of Exposure and Instrument

47% of total external debt are intra-group exposures which are less susceptible to sudden withdrawal shocks

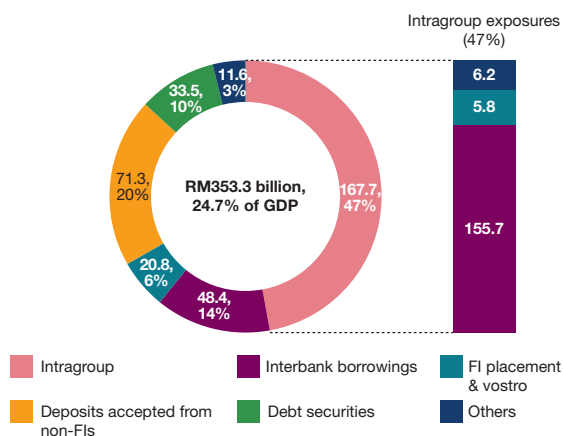
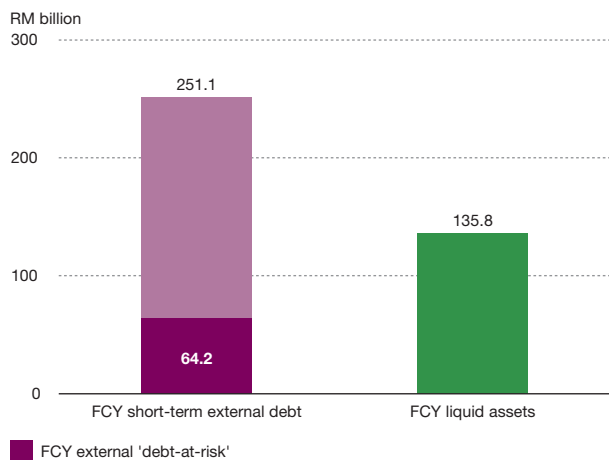


Chart 1.27: Banking System – Foreign Currency External 'Debt-at-Risk' and Liquid Assets

Banks maintain substantial FCY liquid assets of more than two times the FCY external 'debt-at-risk'



Note: 1. Banks' external debt in this context refers to external debt of DBGs, LIFBs and LIBFC banks
2. Banking system or onshore banks refer to only DBGs and LIFBs

Source: Bank Negara Malaysia

Chart 1.24: Banks' External Debt – by Type of Bank

41% of banks' external debt are attributable to foreign banks operating in LIBFC

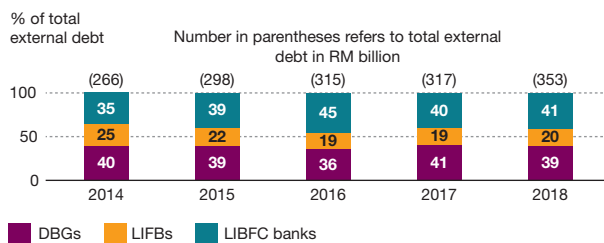


Chart 1.26: Banks' External Debt – by Instrument

External funding, however, remains small relative to total banking system funding

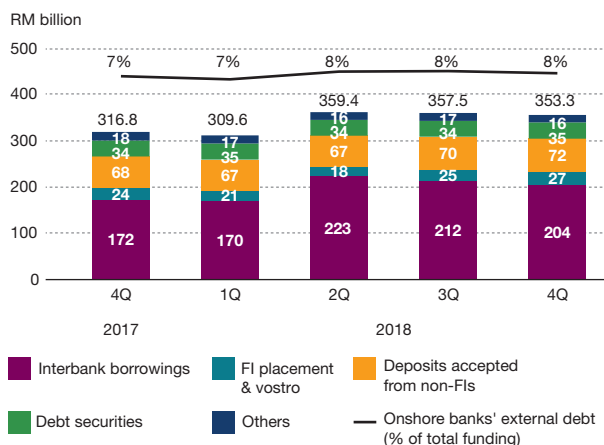
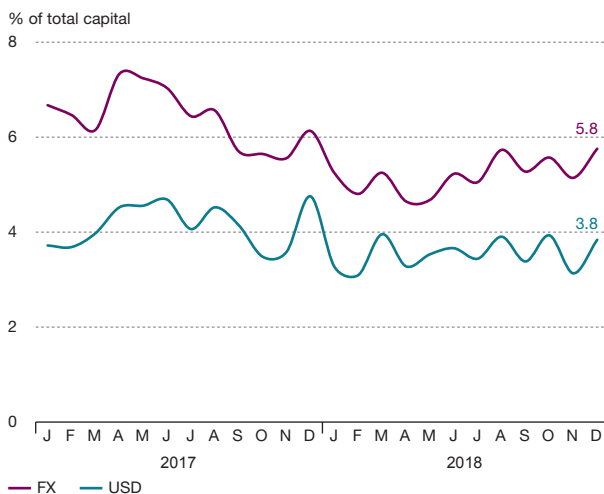


Chart 1.28: Banking System – FX and USD Net Open Position as Percentage of Capital

FX and USD net open positions remain low



FCY Liquidity Management Practices of Banks

The adoption of sound liquidity risk management practices has enabled Malaysian banks to weather more volatile FCY liquidity conditions in recent periods.

Banks have increasingly aligned their liquidity management and performance management frameworks to manage maturity mismatches when undertaking FCY exposures. The term liquidity premium factored in funds transfer pricing reflects the risk of sourcing such funds. In most banks, this premium is incorporated into the performance measurement of business units through risk-adjusted earnings to ensure the prudent use of FCY funds. Risk and incentive frameworks further promote better liquidity risk profiles by, among others, rewarding historically-stable depositors with better rates.

Banks also actively monitor the stability and diversity of existing funding sources to better anticipate and manage the volatility and timing of outflows using various internal risk metrics and limits. The proportion of stable medium- to long-term FCY funding, and less stable funding in the interbank market through currency swaps and short-term borrowings, are monitored at various levels in a bank. Risk limits are set and enforced through reporting to and oversight by the bank's risk management control functions to prevent an over-reliance on volatile short-term funding.

Banks also closely track maximum cumulative outflows (MCO) over various time periods. This is used to maintain a minimum survivability period limit ranging from 21 to 30 days to ensure that banks are able to survive continuous outflows over the specified timeframe. In addition, the LCR is monitored across various currencies to complement other liquidity measures. In most banks, the overall FCY liquidity positions, including positions of overseas operations, are escalated to, and deliberated by the Asset and Liability Committee (ALCO) at least on a monthly basis, while limits are deliberated and approved by the board of directors.

Apart from risk limits, banks regularly conduct stress tests to anticipate future outflows arising from bank-specific and market-wide shocks. Such shocks include (i) applying more conservative run-off estimates for large depositors; and (ii) simulating the non-rollover of wholesale funding from non-resident banks. Stress test results are then used to inform contingency funding plans and pre-emptive management actions. This may include actions to bolster FCY liquidity buffers as observed in the first half of 2018.

financial system assets remained broadly stable, with retirement funds and the fund management industry continuing to make up the bulk of total NBFIs' assets (Chart 1.30).

NBFIs' significant holdings of financial assets and equity interests in domestic banks continued to be the key channels for transmission of risks to the financial system. About 40% and 45% of financial assets held by large NBFIs are in bonds and equities, respectively. NBFIs' investments in the bond market are predominantly in long-term government debt securities and highly-rated corporate bonds.

On aggregate, risks from a rapid and large-scale disposal of financial assets by NBFIs remain low, given the medium- to long-term investment horizon of most NBFIs and the strategic nature of their shareholdings in domestic banks. Several large NBFIs have also gradually diversified their investment portfolio into foreign markets and currencies. This has supported the sustained overall profitability of NBFIs as a group. During periods of portfolio outflows,

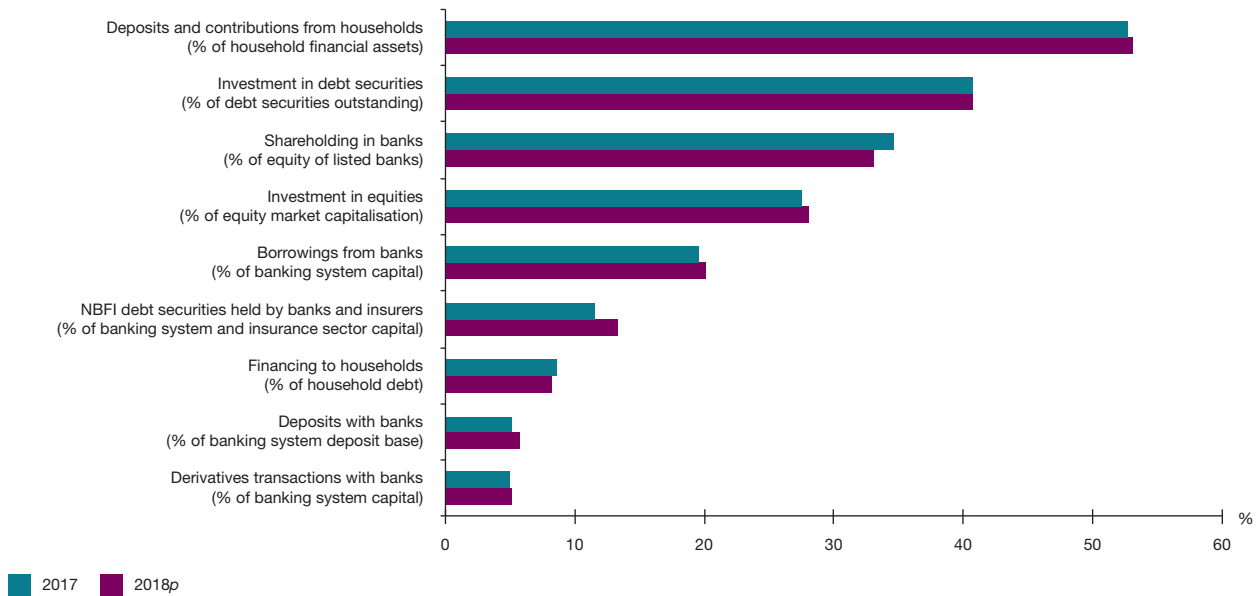
NBFIs continued to play an important role in providing liquidity in the domestic financial markets through their purchases of financial assets that were sold by non-resident portfolio investors.

NBFIs hold sufficient amount of liquid assets to manage liquidity risk

Risks to financial stability from NBFIs' maturity transformation activities remained well-contained. NBFIs that are more reliant on market funding have shown an increasing preference for longer-term funding over the past few years, with an average remaining maturity for bonds issued by NBFIs of 6.7 years as at end-2018, thus containing funding and rollover risks. However, a few NBFIs remained susceptible to higher withdrawal risk as they intermediate a sizeable amount of demand deposit-like liabilities. These entities continue to hold sufficient liquid assets in the form of cash, deposit placements and government securities to withstand liquidity shocks, including from sustained heavy withdrawals.

Chart 1.29: Non-Bank Financial Institutions – Interlinkages with the Financial System

No material change to channels and magnitude of NBFIs' interlinkages with the financial system

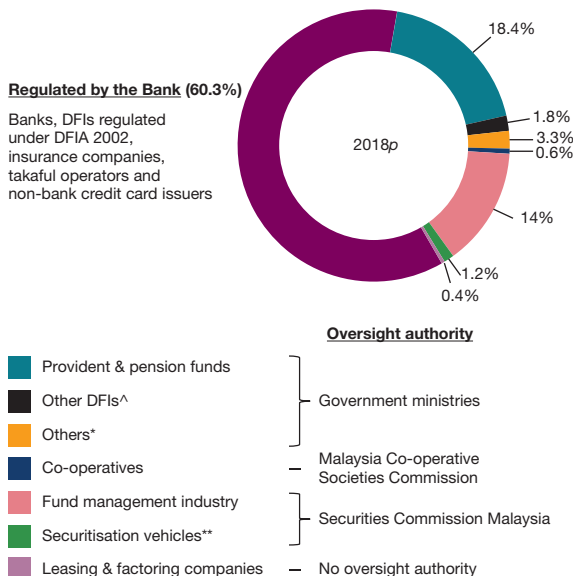


p Preliminary

Source: Bank Negara Malaysia, Securities Commission Malaysia, Malaysia Co-operative Societies Commission and published financial statements

Chart 1.30: Financial System – Composition of Assets

NBFIs accounted for about 40% of total financial system assets



p Preliminary

^ Development Financial Institutions (DFIs) that are not regulated by the Bank under the Development Financial Institutions Act 2002 (DFIA 2002)

* Refers to pawn brokers, money lenders, non-bank providers of credit and hire purchase financing, non-bank provider of education financing, non-bank providers of housing credit, government-owned trustee company, and social security organisation

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

Source: Bank Negara Malaysia, Securities Commission Malaysia, Malaysia Co-operative Societies Commission and published financial statements

Ongoing measures to encourage greater transparency and to strengthen the governance and integrity of NBFIs will further mitigate financial stability risks. The Bank also continues to enhance its surveillance of risks posed by NBFIs, supported by better data obtained from NBFIs and more frequent engagements with larger NBFIs and other regulators on emerging risks.

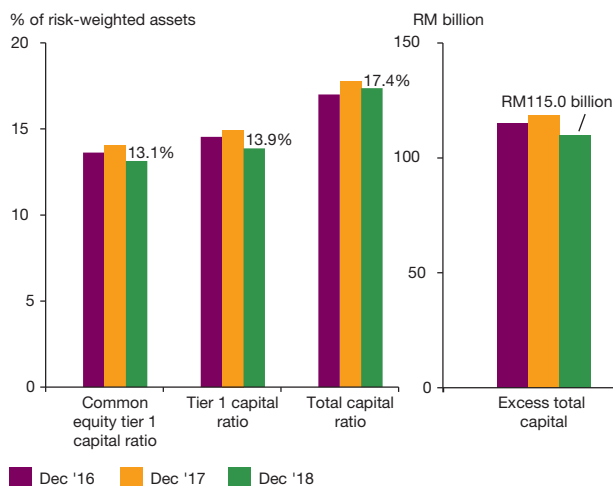
RESILIENCE AND PERFORMANCE OF THE BANKING SECTOR

Banks Continued to Maintain Healthy Capitalisation Amid Sustained Profits and Improved Asset Quality

Banks' capital position remained strong in 2018. The 'Day 1 impact' from higher provisions under new impairment standards in the Malaysian Financial Reporting Standards (MFRS 9) resulted in lower capital ratios compared to levels in 2016 and 2017. Notwithstanding this, banks continued to maintain sizeable excess capital buffers above the regulatory minimum (Chart 1.31). The bulk of bank capital (about three-quarters) is held in high quality loss-absorbing instruments comprising paid-up ordinary share capital, retained earnings and reserves.

Chart 1.31: Banking System – Capital Ratios

Banks maintained strong capitalisation



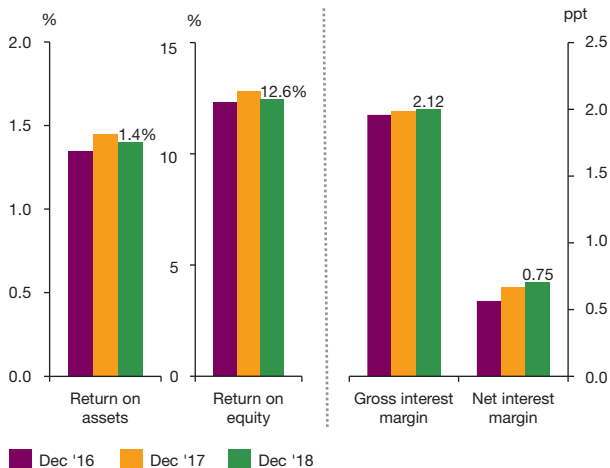
Note: Excess total capital refers to total capital above the regulatory minimum, which includes the 2018 capital conservation buffer requirement and bank-specific higher minimum requirements

Source: Bank Negara Malaysia

The banking system continued to record healthy profits in 2018, largely supported by income from financing activities and continued efficiency gains (Chart 1.32). Pre-tax profits grew at a slower pace, contributing to slightly lower annual returns on assets and equity. The slower profit growth was mainly due to higher provisions set aside by banks with the implementation of MFRS 9 and an increase

Chart 1.32: Banking System – Profitability

Banking profitability remained healthy



Note: Net interest margin is the financing margin net of impairment provisions and operating costs

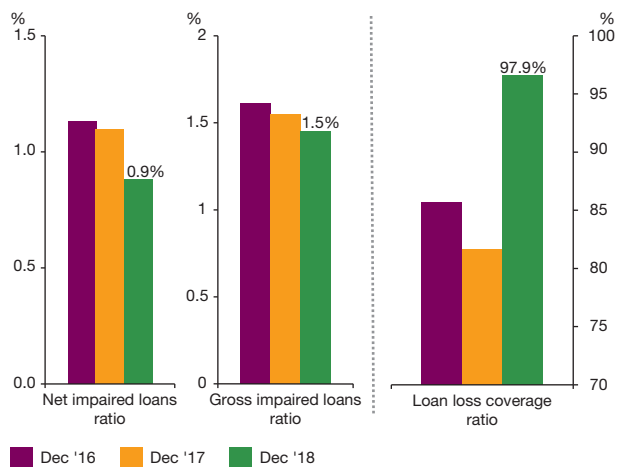
Source: Bank Negara Malaysia

in interest expenses on deposits, in line with the OPR hike in January. The impact from provisions was, however, cushioned by the regulatory reserves²⁸ which banks have been required to maintain since 2010. Financing margin (net of impairment provisions and operating costs) edged marginally higher, with a majority of banks reporting lower costs of operations. Trading and investment income also came in higher for the year, supported by favourable financial market conditions in the earlier part of the year.

Banks' asset quality remained sound and at an aggregate level continued to improve with gross and net impaired loans declining in both absolute value and as a share of total loans from the previous year (Chart 1.33). A closer examination of household loans, however, shows certain segments exhibiting higher incidents of impairment. In particular, impairments of loans for the purchase of higher-valued properties and personal loans have recently been on an increasing trend. The implementation of responsible financing standards is helping to ensure that newer loans granted since 2012 are of sound quality, as revealed by the improving vintage of loans granted in more recent years. Banks have also continued to be proactive in managing their credit risk. A number of banks

Chart 1.33: Banking System – Asset Quality and Loan Loss Coverage

Banking asset quality continued to improve



Source: Bank Negara Malaysia

²⁸ As part of the Bank's regulation, banks are now required to maintain, in aggregate, provisions for performing and underperforming credit exposures and regulatory reserves of no less than 1% of all credit exposures, net of provisions for those non-performing.

have intensified their monitoring and pre-emptive restructuring of accounts exhibiting signs of temporary repayment difficulties. Banks are also increasing the rigour of stress tests on exposures to vulnerable sectors and simulating the impact of major global or market events on banks' asset quality, capital and liquidity buffers. In addition, the loan loss coverage ratio of banks has strengthened further with the implementation of MFRS 9 which calls for a more forward-looking approach to provisioning.

Overseas Operations Maintained Sound Financial Position

The overseas operations²⁹ of DBGs continued to expand amid sustained growth in regional economies. Profitability from overseas operations increased, supported by continued improvements in asset quality, enhanced operational efficiency and higher income contribution from non-financing activities such as wealth management and bancassurance. Major overseas subsidiaries of banks also continued to maintain sound capital positions. The overall asset quality of overseas operations improved across all markets, in line with stronger group oversight by parent banks in Malaysia (Chart 1.34).

DBGs' overseas operations continued to be predominantly funded in local currency deposits (66%³⁰ of total funding), thus minimising the risks associated with cross-border funding and currency mismatches. The low reliance on wholesale markets or parent bank funding has also continued to shield DBGs from market volatility and liquidity shocks affecting overseas operations. The LCR ratios of major overseas subsidiaries remained well above 100%.

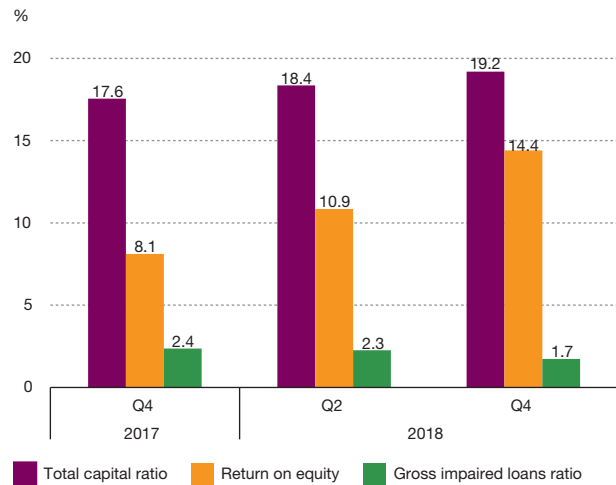
The Bank continues to monitor developments in DBGs' overseas operations as part of its consolidated supervision framework. Regular engagements with host regulators through supervisory colleges and bilateral meetings continued to be held throughout the year. Such engagements remain vital to the timely exchange of information and identification of emerging risks, as well as coordination of supervisory responses where relevant.

²⁹ Refers to DBG's overseas offices (branches and subsidiaries) operating outside of Malaysia and Labuan International Business and Financial Centre.

³⁰ Reflects the median share of customer deposits across all overseas operations.

Chart 1.34: Domestic Banking Groups – Key Financial Soundness Indicators of Overseas Operations

Financial performance of overseas operations remained sound



Note: Refers to median key financial soundness indicators of selected overseas operations

Source: Bank Negara Malaysia

RESILIENCE AND PERFORMANCE OF THE INSURANCE AND TAKAFUL SECTOR

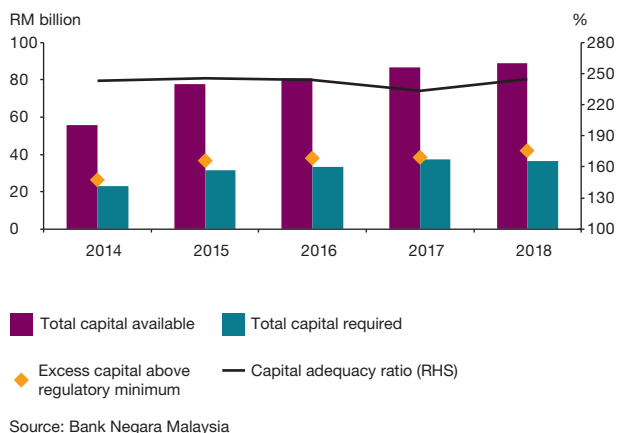
The Insurance and Takaful Sector Remained Resilient with Strong Capitalisation Despite Lower Profitability

The insurance and takaful sector remained resilient in 2018. The aggregate capital adequacy ratio (CAR) stood at 245%, well above the minimum regulatory level (Chart 1.35). Insurance and takaful risk,³¹ which accounted for half of total capital required, remained largely stable in line with the overall business mix which was broadly unchanged. Market risk exposures declined on lower equity valuations amid the weaker performance of the domestic equity market. Insurers and takaful operators also sold down equity as part of risk management strategies and this had an impact on profitability levels. Credit risk exposures remained relatively stable, with over 90% of corporate bonds held rated AA- and above or guaranteed by the Government. Counterparty risks from reinsurance arrangements, including external reinsurance exposures, remained limited on the back of sustained credit ratings of (re)insurers.

³¹ Refers to the risk of underestimation of insurance and takaful liabilities, adverse claims experience, expense and lapse.

Chart 1.35: Insurance and Takaful Sector – Capital Adequacy Ratio

Aggregate capital adequacy ratio (CAR) remained well above the regulatory minimum of 130%

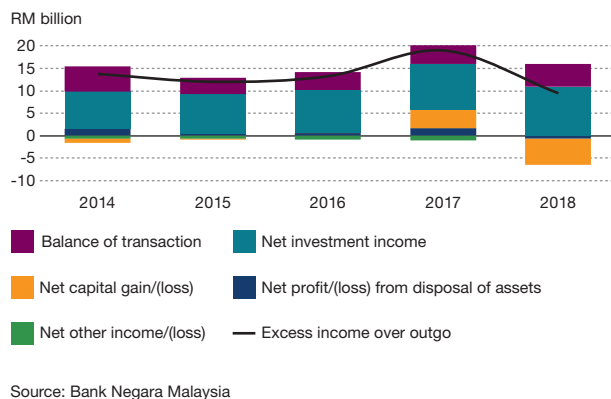


The insurance and takaful sector recorded lower profitability in 2018. This was largely due to life and family businesses (Chart 1.36), which experienced net unrealised investment losses from equity and bond holdings. Investment yields³² were also substantially lower at 2% (2017: 8.3%). Despite the weaker investment outturn, profitability continued to be supported by higher growth in total net premiums, particularly from existing policies, an improvement in overall expenses, and a slower increase in net policy benefits paid out.

New business of life insurers and family takaful operators grew at a slower pace as sales of new

Chart 1.36: Life Insurance and Family Takaful Sector – Composition of Income and Outgo

Lower excess income over outgo driven by unrealised losses



³² Sum of dividends, coupons received, realised and unrealised gains as a percentage of total investments.

investment-linked policies were impacted by the lower risk appetite of consumers given the weaker financial market performance (Chart 1.37). In contrast, new business of traditional policies recorded higher growth, largely driven by mortgage-related business on sustained demand for residential mortgages.

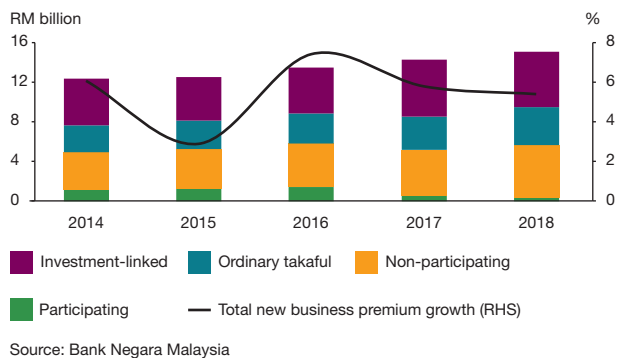
Insurers and takaful operators recorded lower profitability amid weaker financial market performance

Operating profits of general insurers and takaful operators improved, supported by higher underwriting profits (Chart 1.38). This was largely attributed to the higher growth in motor premiums, in line with increased sales of motor vehicles during the tax holiday period. The contribution of the motor segment to overall profitability also improved following pricing adjustments to better align premiums with risks from motor ‘Comprehensive’ and ‘Third Party, Fire and Theft’ policies.³³ Profitability was further supported by a release of reserves in the fire segment due to better claims experience.

Gross direct premiums expanded at a stronger pace (Chart 1.39). Apart from the motor business, the fire and medical and health segments also recorded higher premium growth, in line with the continued increase in medical costs and sustained demand for group medical policies. The marine, aviation and transit segment continued to contract on weak demand for offshore oil-related insurance. Nevertheless, the contraction, which

Chart 1.37: Life Insurance and Family Takaful Sector – New Business Premium Growth and Product Composition

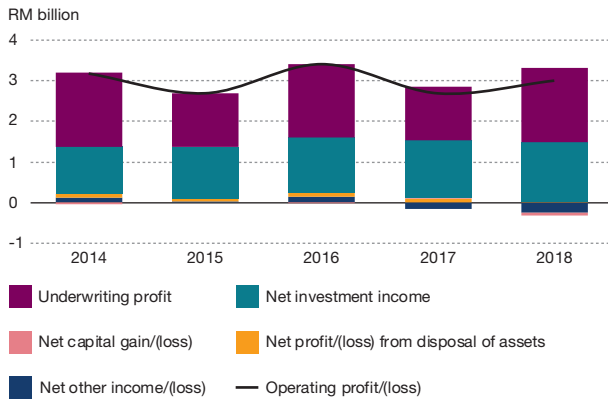
New business continued to grow albeit at a slower pace



³³ The liberalisation of the motor tariffs for these two motor segments commenced on 1 July 2017 as part of Phase II of the overall pricing reform.

Chart 1.38: General Insurance and Takaful Sector – Composition of Operating Profits

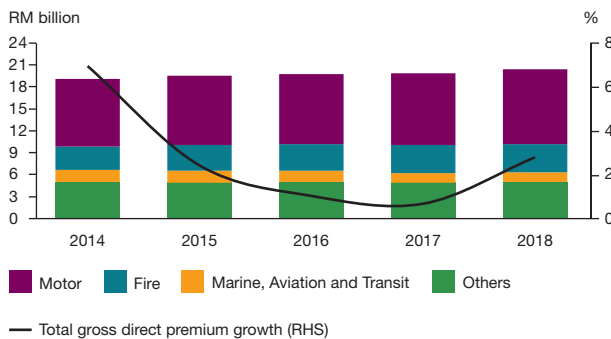
Higher operating profits supported by improved underwriting profits



Source: Bank Negara Malaysia

Chart 1.39: General Insurance and Takaful Sector – Gross Direct Premium Growth and Product Composition

Gross direct premium grew at a higher pace



Source: Bank Negara Malaysia

could be attributed to a slow recovery in the O&G sector, has limited impact to the general sector given its small share (6%) of total gross direct premiums.

MULTI-YEAR SOLVENCY STRESS TEST FOR BANKS AND INSURERS

The latest multi-year solvency stress test exercise conducted by the Bank continued to affirm the resilience of banks and insurers under simulated scenarios of severe macroeconomic and financial strains (refer to Info Box titled ‘Solvency Stress Test Scenarios, Key Assumptions and Shock Parameters’). Banks remain well-positioned to absorb potential losses using available capital and earnings buffers, with post-stress capital ratios of the banking system continuing to be well above regulatory minima (Chart 1.40).

A significant portion (more than 90%) of the banking system’s losses³⁴ are driven by credit risk under both adverse scenarios. Under severe macroeconomic conditions assumed in the adverse scenarios, loan impairments are expected to increase significantly throughout the stress test horizon. Gross impairment ratios rose up to 8.6% (Chart 1.41), comparable to the industry’s worst experience in the past decade. Under Adverse Scenario 2, 56% of the total losses are due to banks’ credit exposures to businesses (Chart 1.42). These are mainly driven by selected large NFC borrower groups with weak financial standing prior to the shocks or borrowers in sectors that have been identified as having weaker credit risk outlook. The remaining losses from businesses are largely attributed to smaller exposures in the general construction and real estate-related sectors. Exposures to households contribute to 35% of total losses, mainly from motor vehicle loans which account for 48% of total losses from household lending. Over a third of these losses are associated with borrowers earning less than RM5,000 per month. Credit losses from housing loans account for about a quarter of total household losses. Minimal impact is observed from market risk and external funding shocks. The impact of contagion risk arising from interbank exposures, an enhancement introduced in this year’s exercise, is also assessed to be limited at 6.3% of total losses (for more details, refer to Info Box titled ‘Assessing Contagion Risk in the Domestic Banking System’). Losses from contagion risks are estimated to be lower if related counterparty exposures are excluded.

Financial institutions remain resilient under simulated severe stress scenarios

At the institutional level, seven banks breached the minimum regulatory capital requirement, weighed down by relatively smaller earnings buffers, and more concentrated exposures to selected large borrowers. Nonetheless, these banks collectively account for only 9.7% of total banking system assets.

Similarly, the insurance sector is expected to remain resilient under stressed conditions with the aggregate CAR of both the life and general insurance sectors

³⁴ The exercise adopts a conservative approach to these exposures which disregards risk mitigants such as guarantees that could otherwise reduce the potential losses faced by banks.

Solvency Stress Test Scenarios, Key Assumptions and Shock Parameters

The stress test exercise models a series of tail-risk events under three scenarios (one baseline and two adverse), which assumes different GDP growth paths for Malaysia over a four-year horizon (2019-2022). The exercise excludes (i) any policy intervention by authorities and (ii) management actions by the institutions to allow the Bank to assess the immediate capacity of banks and insurers to withstand severe shocks without additional interventions or assistance.

The first adverse scenario (AS1) simulates a V-shaped growth path with the magnitude of recession equivalent to 2.5 standard deviations of the long-term GDP growth rate from the baseline. This scenario assumes heightened trade tensions that escalate into a multilateral trade war, a sharp economic slowdown in the US and PR China following tighter credit conditions, and an increase in financial market volatility due to a disorderly Brexit and uncertainties in European Union policies. Regional growth is assumed to weaken amid the sluggish external demand. Against this backdrop, Malaysia is assumed to experience an initial sharp recession in 2019, followed by a strong rebound before normalising to the baseline growth trajectory. The second adverse scenario (AS2) simulates an L-shaped growth path where a cumulative decline at the end of the stress test horizon of six standard deviations is calibrated from the baseline. In this scenario, a synchronised slowdown in the US and PR China, coupled with prolonged trade tensions and sustained capital outflows amid financial stress in EMEs are assumed to trigger an initially milder decline in growth, followed by a slow and weak recovery.

Table 1.2

Solvency Stress Test: Key Assumptions and Shock Parameters Applied under Assumed Adverse Scenarios

Key assumptions	AS1 – V-shaped recession	AS2 – L-shaped, protracted recession
Balance sheet and income projections		
o Decline in loan growth (compounded annual growth rate)	o 3%	o 6%
o Annual decline in banks' income growth, differentiated across segments (interest income, fee-based and other income)	o Up to 21%	o Up to 17%
o Annual decline in insurers' premium income	o Up to 30%	o Up to 28%
Credit risk shocks		
o Probability of default (PD) shocks		
• Business loans	• 5% to 10%	• 5% to 12%
• Household loans	• 1% to 11%	• 2% to 13%
o Loss given default (LGD) shocks		
• Business loans	• 44% to 56%	• 44% to 61%
• Household loans	• 18% to 76%	• 19% to 76%
o Default of top corporate borrowers with large borrowings from the financial system	o Corporations that have weak financial standings (below prudent thresholds) under simulated shocks	
Market risk shocks		
o Annual increase in MGS yields	o Up to 56 bps	o Up to 62 bps
o Annual increase in corporate bond yields	o Up to 72 bps	o Up to 71 bps
o Annual decline in FBM KLCI	o Up to 34%	o Up to 23%
o Annual depreciation against major currencies	o 13% to 30%	o 6% to 15%
External funding risk shocks		
o Reversal of claims by non-residents	o Up to 30% of interbank borrowing and deposits	o Up to 15% of interbank borrowing and deposits
General insurance risk shocks		
o Increase in claims ratio	o Up to 30%	o Up to 16%
Contagion risk shocks		
o Interbank	o Deterioration in counterparty bank's solvency	
o Banks to insurers	o Deterioration in value of bonds issued by banks that fail the stress test under the adverse scenarios	

Source: Bank Negara Malaysia

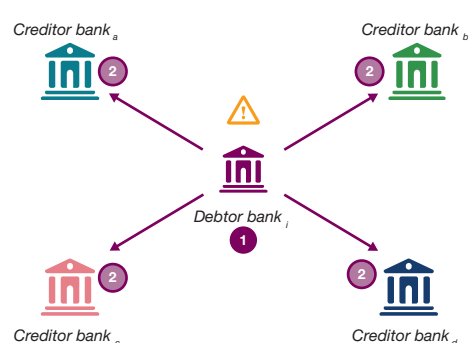
remaining above the regulatory minimum throughout the stress test horizon (Chart 1.43).

In comparison to the first half of 2018 exercise, credit risk shocks have been revised to reflect differentiated probability of defaults by economic sector and losses from holdings of bonds issued by financially-weak large corporates, consistent with parameters used for banks' stress test. In addition, losses arising from exposures to banks that fail the stress test under the adverse scenarios

are also accounted for. With these refinements, the credit risk impact accounts for the largest component of total losses for both life and general insurers in the assumed economic stress scenarios, accounting for up to 58% and 82% of total losses, respectively. For life insurers, valuation losses arising from adverse financial market conditions continue to significantly impact the capital level (up to 42% of total losses). For general insurers, the second largest contributor to total losses is attributed to shocks related to higher claims (Diagram 1.4).

Assessing Contagion Risk in the Domestic Banking System

Diagram 1.3: Illustration of Contagion Risk in the Domestic Interbank Market



1. Initial losses suffered by banks

- Banks incur direct losses from credit, market and external funding risk shocks under each adverse scenario, placing them under distress.
- A distressed bank's capacity to repay counterparties in the domestic interbank market is then assumed to decline as its creditworthiness deteriorates.

2. Additional losses due to contagion

- Banks that lend to a distressed bank(s) will incorporate information about the reduced creditworthiness into the valuation of their interbank lending exposure to distressed bank(s), thereby incurring losses.
- The losses incurred by the creditor bank is assumed to be proportionate to the relative loss of capital incurred by the debtor bank. For example, if the debtor bank incurs x% of loss in capital, the creditor bank is assumed to experience an equal relative loss of x% on their interbank lending exposure to the debtor bank.

As banks' operations become increasingly interconnected, any distress faced by, or default of a bank can generate broader spillover effects and increase the likelihood of distress in other banks. To assess the potential impact of such contagion in the domestic banking system, a network simulation module has been incorporated into the Bank's macro solvency stress test. This module is developed based on the DebtRank algorithm which was first introduced in a study on a group of global financial institutions that received emergency liquidity assistance from the US Federal Reserve between 2008 to 2010 and adapted to Malaysian banks' domestic interbank lending exposures.

Reference

Battiston, S., Puliga, M., Kaushik, R., Tasca, P. and Caldarelli, G. (2012): 'DebtRank: Too Central to Fail?' Financial Networks, the FED and Systemic Risk. Scientific Reports, 2(1).

Bardoscia, M., Barucca, P., Codd, A. and Hill, J. (2017): 'The Decline of Solvency Contagion Risk', Staff Working Paper No. 662. Available at: <https://www.bankofengland.co.uk/-/media/boe/files/working-paper/2017/the-decline-of-solvency-contagion-risk>.

Severe Pandemic and Flood Events Simulation on Insurance and Takaful Industry

For insurers and takaful operators, the multi-year solvency stress test exercise is also supplemented by an industry-wide stress test to assess the resilience of the insurance and takaful industry against prescribed severe but plausible insurance risk events, namely severe pandemic and flood events over a one-year time horizon. This year, the pandemic scenario has been refined to reflect a more severe influenza-type pandemic event with spillover effects to financial markets; while the impact of a flood scenario is modelled to better reflect geographical locations with significant financial exposure to flood risk. Results from this industry-wide stress test also affirm the industry's overall resilience against the prescribed scenarios. Post-stress, aggregate capital adequacy ratios for both life and family sector and general sector remain above the regulatory minimum of 130%.

Chart 1.40: Banking System – Post-Shock CET1 Capital Ratios

Post-stress capital ratios are well above regulatory minima

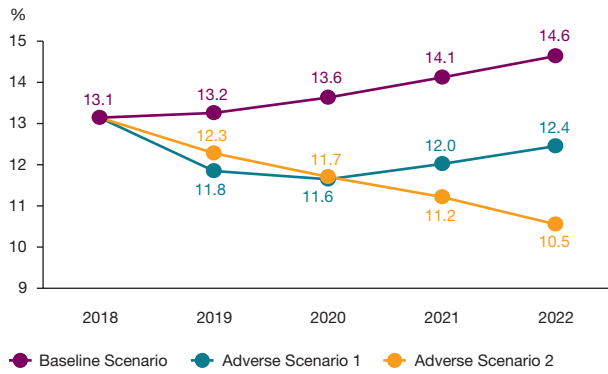


Chart 1.41: Banking System – Gross Impaired Loans Ratio

Asset quality expected to deteriorate across the stress test horizon

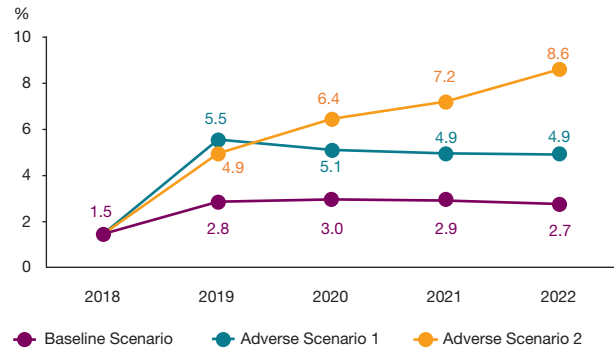


Chart 1.42: Banking System – Loss Drivers in Adverse Scenario 2

Credit risk losses comprise about 90% of total losses

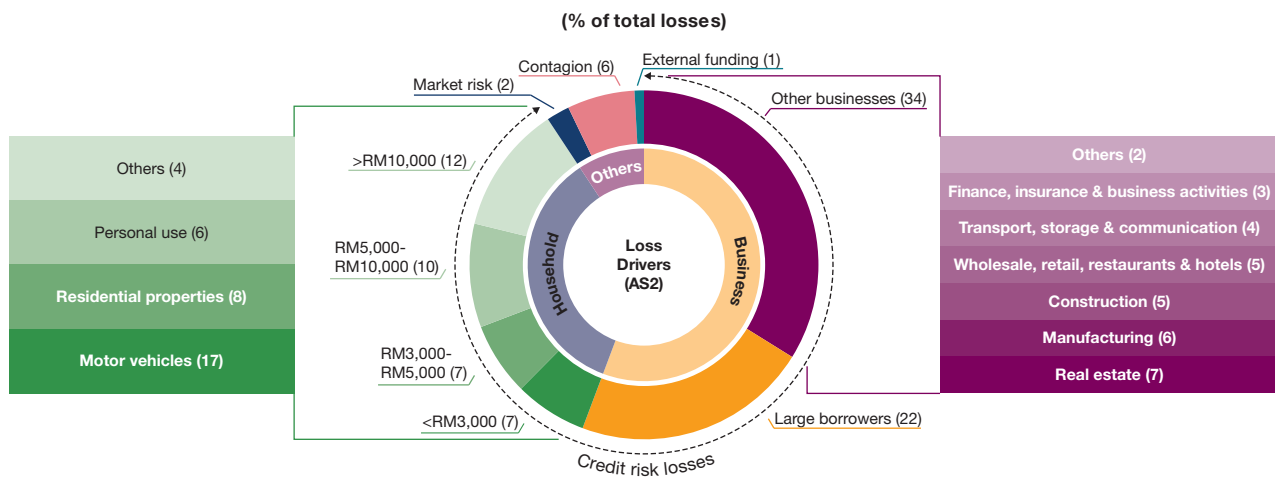


Chart 1.43: Insurance Sector – Post-Shock Capital Adequacy Ratio

Post-stress CAR remain above regulatory minimum of 130%

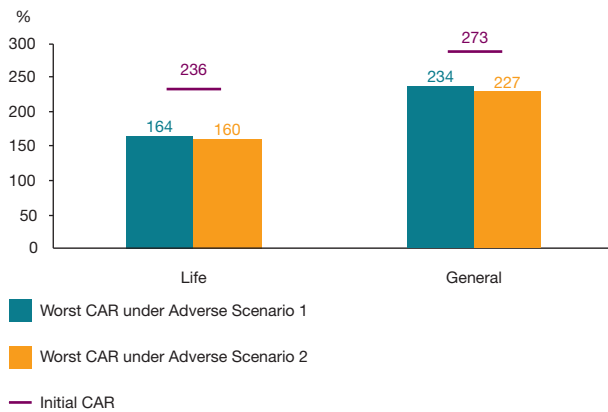
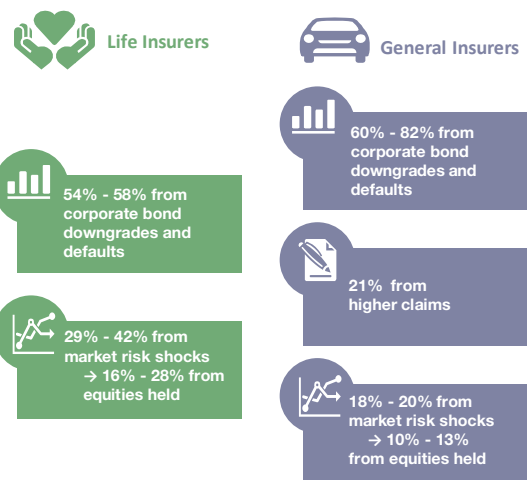


Diagram 1.4: Insurance Sector – Key Loss Drivers under Adverse Scenarios



Source: Bank Negara Malaysia

Development of the Financial Sector

37	Banking
43	Insurance and Takaful
47	Islamic Finance
50	Money Services Business (MSB)
51	Financial Markets
55	<i>Box Article: Understanding Financing through the Lens of Small and Medium Enterprises (SMEs)</i>
65	<i>Box Article: Expanding Insurance and Takaful Protection for the B40 Population</i>

Development of the Financial Sector

BANKING

Financing by the banking sector (including Islamic banks) remained supportive of economic activity throughout 2018 (Chart 2.1). Total outstanding financing grew faster by 5.6% to RM1,673.5 billion (2017: 4.1%). Household financing, which accounted for 57.3% of total financing extended by the banking sector expanded by 5.6% during the year (2017: 5.1%) after a period of moderating growth that followed the implementation of macroprudential measures in 2013 to encourage more responsible lending. The uptrend was largely driven by higher securities financing. Business sector financing similarly recorded a stronger growth of 5.4% (2017: 1.8%), contributed mainly by financing to the construction sector to support infrastructure projects such as the Pan Borneo Highway and LRT 3. Small and medium enterprises (SMEs) continued to be supported by the banking sector during the year, with RM65.5 billion in financing approved to over 108,700 SME accounts. Financing to SMEs remains a strategic focus of banking institutions, having increased substantially over the years to account for about half of outstanding financing to businesses (Diagram 2.1). Further insights on SME financing needs are elaborated in Box Article 'Understanding Financing through the Lens of SMEs'.

Development financial institutions (DFIs) continue to play an important role in supporting strategic economic sectors and advancing Malaysia's developmental and socio-economic objectives. Total outstanding financing by DFIs amounted to RM143.1 billion as at end-2018, mainly channelled to infrastructure, SMEs, exports, agriculture and underserved household segments. In particular, financing to SMEs and the agricultural sector registered double-digit growth of 11.7% and 10.7%, respectively. DFIs also account for the bulk (75.5%) of financing to micro entrepreneurs under the *Skim Pembiayaan Mikro* which saw a total of RM292.2 million disbursed during the year. Total outstanding financing under the scheme stood

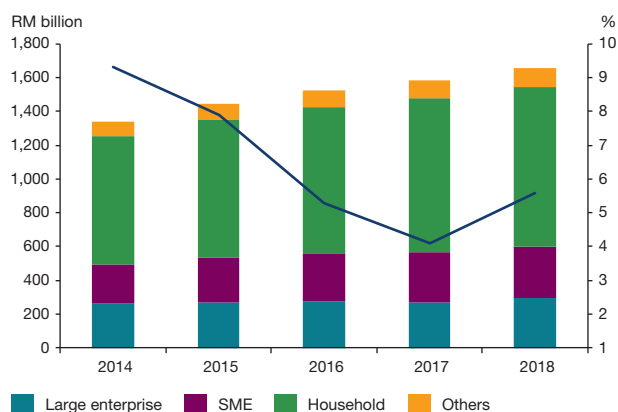
at RM910.7 million as at end-2018. Specialised products were also introduced by DFIs in late 2017 to assist the bottom 40% household income (B40) group, including a targeted microfinancing programme for agro-based micro entrepreneurs. To date, a total of RM5.2 million of financing has been channelled to more than 1,600 microfinance accounts under the programme.

Fostering innovation through the Fintech Regulatory Sandbox

The Bank supports technological advances that can improve the quality, efficiency and accessibility of financial services. The Fintech Regulatory Sandbox (Sandbox) continues to be an important avenue to test innovative financial solutions and business models. The seven solutions, covering insurance aggregators, digital remittance, digital identification (electronic Know-Your-Customer, eKYC) and secured chat banking that were approved in 2017 continued to be live-tested throughout 2018. Drawing on

Chart 2.1: Outstanding Banking Sector Financing

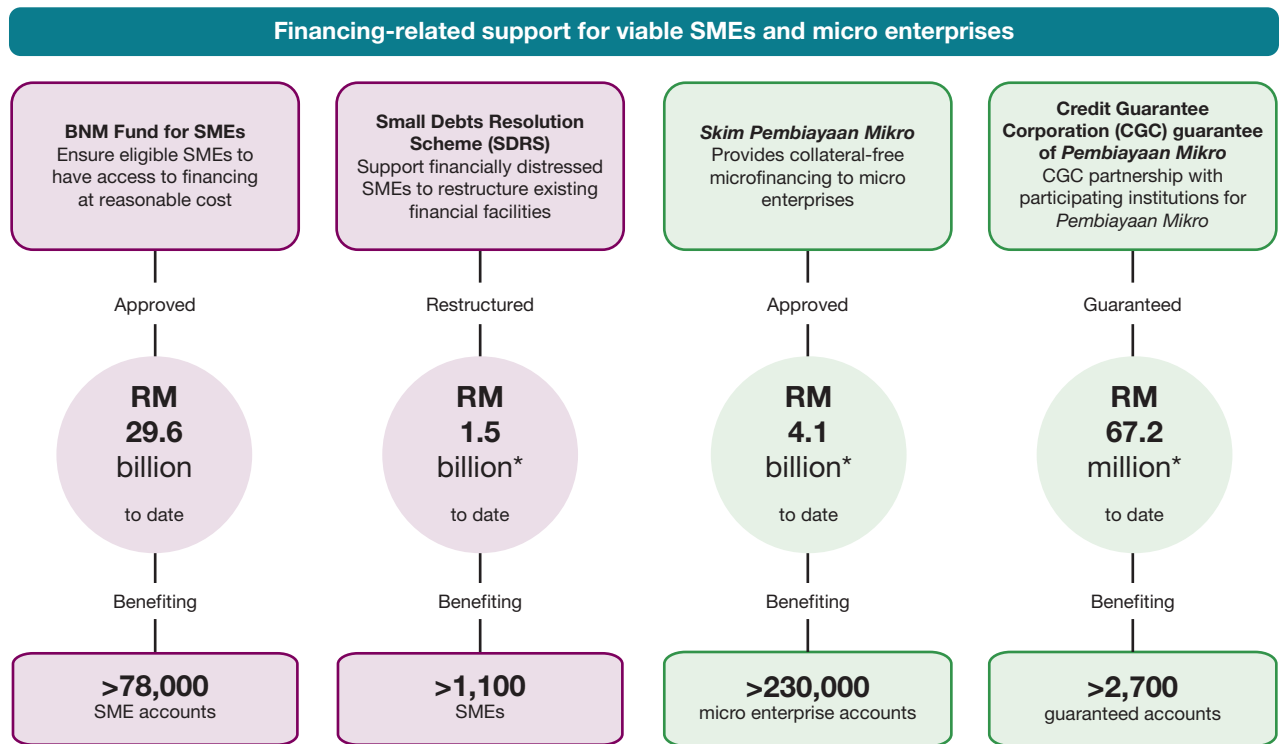
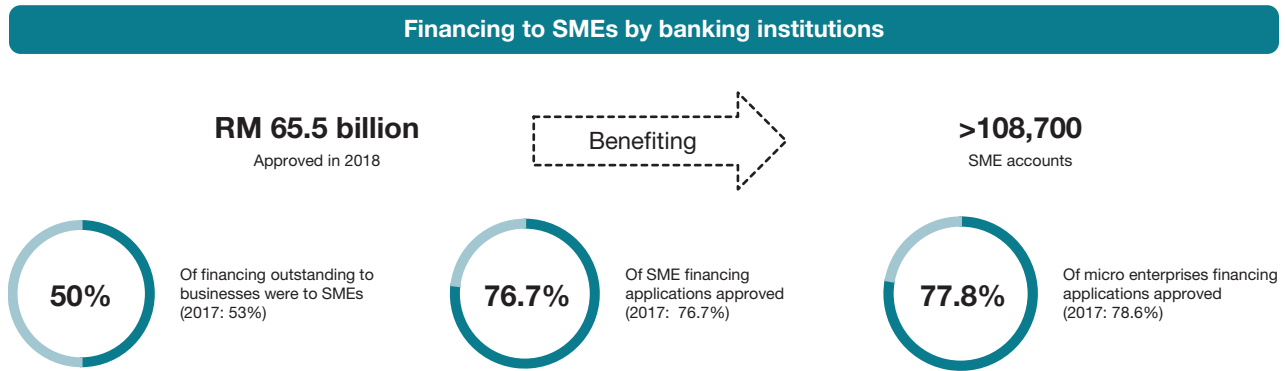
Growth of banking sector financing picked up in 2018



Source: Bank Negara Malaysia

Diagram 2.1

Key Statistics on SME Financing



* figures include financing from DFIs

Source: Bank Negara Malaysia

feedback received during the testing phase, several of the Sandbox participants were able to improve and expand their product offerings to better meet consumer needs. By 2019, all solutions are expected to conclude live-testing and exit the Sandbox. Firms with viable solutions will be able to offer their products in the market under a regulatory regime that has been suitably adapted through the Sandbox process.

In 2018, the Bank received 17 new applications to test innovative financial solutions and business models in the Sandbox. Applications received during the year, which are being reviewed by the Bank, were noticeably more diverse and sophisticated in nature. These include solutions in digital banking, peer-to-peer insurance and the use of artificial intelligence across the financial services value chain.

To accelerate the deployment of high-impact innovations that have a proven or clear potential to improve financial services, the Bank has introduced a specialised thematic track for the Sandbox (Specialised Sandbox). This allows for a more targeted approach in identified high-impact areas, while continuing to provide wide coverage of other innovative solutions.

Building on its well-defined scope, the Specialised Sandbox uses more focused and standardised testing parameters for more efficient experimentation and better performance data collection. The first Specialised Sandbox focuses on eKYC processes given the potential to enable more efficient and accessible financial services through digital on-boarding. Two Fintech companies and seven banks have been approved to test their eKYC technology under the Specialised Sandbox track.

The Specialised Sandbox uses more focused and standardised testing parameters for more efficient experimentation and performance data collection

Facilitating Open Application Programme Interface (API) adoption

Significant progress was made in the Bank's work on facilitating Open API adoption within the financial services sector. In January 2019, the Bank issued a policy document on Publishing Open Data using Open API. The policy document sets out the Bank's recommendations to the industry in developing and publishing Open APIs on publicly available data. The recommendations include design considerations for Open APIs as well as security measures to protect against cybersecurity threats, proportionate to the sensitivity of data being shared through Open APIs. The publication of Open APIs by financial institutions is expected to increase the pace of financial innovation by enabling open and portable access to data and services. This in turn can promote competition, and improve the quality and efficiency of financial services.

The recommendations dovetail with the Bank's ongoing efforts with the industry to develop technical specifications for Open APIs. Led by the Bank, the Open API Implementation Group (IG) was formed in March 2018 to identify and develop standardised Open APIs for high-impact use cases. Membership of the IG

is diverse, comprising selected financial institutions, Fintech firms and relevant agencies based on the specific use cases. The IG has developed standardised specifications for Open APIs on product information in relation to SME financing, credit card and motor insurance/takaful. Leveraging on these specifications, IG members are expected to publish their Open APIs in the first half of 2019. It is envisioned that this will be a catalyst for more innovative solutions that enable customers to access and compare financing and insurance/takaful products from a wide range of providers, and in turn choose the services that are best matched to their specific needs.

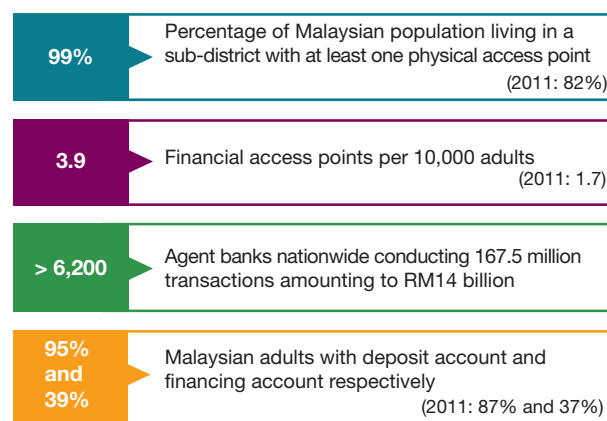
Moving forward, further work will be undertaken on secure methods for allowing trusted third parties to access a broader scope of banking and insurance/takaful information through Open APIs, with the customer's consent. This will be done in collaboration with the industry to assess the risks involved, establish the enabling regulatory environment and identify necessary safeguards to protect consumers and the integrity of financial services.

Promoting meaningful access to financial services

Malaysia has made significant strides in financial inclusion, as a result of intensified efforts over the years in promoting access and usage of financial services to all segments of the society. Financial access points are present in almost all sub-districts, propelled by the introduction of agent banks since 2012, while supply-side data provided by financial institutions show that 95% of Malaysian adults have deposit accounts (Diagram 2.2).

Diagram 2.2

Selected Financial Inclusion Indicators



Source: Bank Negara Malaysia

The Bank periodically conducts a demand-side survey at the national level to supplement the supply-side data on financial inclusion, as well as to identify on-the-ground issues relating to financial access and usage. The latest survey conducted in 2018 highlighted an improved take-up of financial products and greater usage of digital channels (Diagram 2.3).

In December 2018, the Bank, in collaboration with three financial institutions and Technology Park Malaysia piloted a Community Empowerment Programme with low-income communities in Sabah and Terengganu to help the community save and invest. In addition to providing suitable financial products for the community, the financial institutions also helped with the provision of communal infrastructure to enhance the productivity of economic activities. In one programme, this included the provision of drying cabins to expedite the time required to produce dried fish and anchovies, which contributed towards improving the income prospects for the community and making them more bankable in turn.

Leveraging on technology to drive financial inclusion

The Bank views digital innovation as an important enabler to promote greater access, quality and responsible usage of financial services. To this end, the Bank partnered with the United Nations Capital Development Fund (UNCDF) and Malaysia Digital Economy Corporation (MDEC) to launch the Digital Innovation Hub (Innovation Hub) and Inclusive Fintech Accelerator Program (Accelerator Program).

The Innovation Hub is largely aimed at meeting the needs of the low-income segment of the population, with a focus on enabling service providers (including financial institutions and Fintech start-ups) to use technology in promoting inclusive finance. The Innovation Hub also seeks to build a community of innovative and resourceful developers. Participating service providers are expected to benefit from the cross-fertilisation of ideas and market research generated via the Innovation Hub, particularly to better tailor their products and services to meet the requirements of the underserved in Malaysia.

Under the Innovation Hub, the Accelerator Program was launched during the year. The Program aims

to address specific financial inclusion pain points within Malaysia, with four key focus areas: spending, saving, borrowing and financial planning. The first of a series of accelerator programmes was jointly organised by the Bank and UNCDF in December 2018, with further programmes and initiatives lined up in the coming year.

The Innovation Hub is largely aimed at meeting the needs of the low-income segment, by enabling greater use of technology in promoting inclusive finance

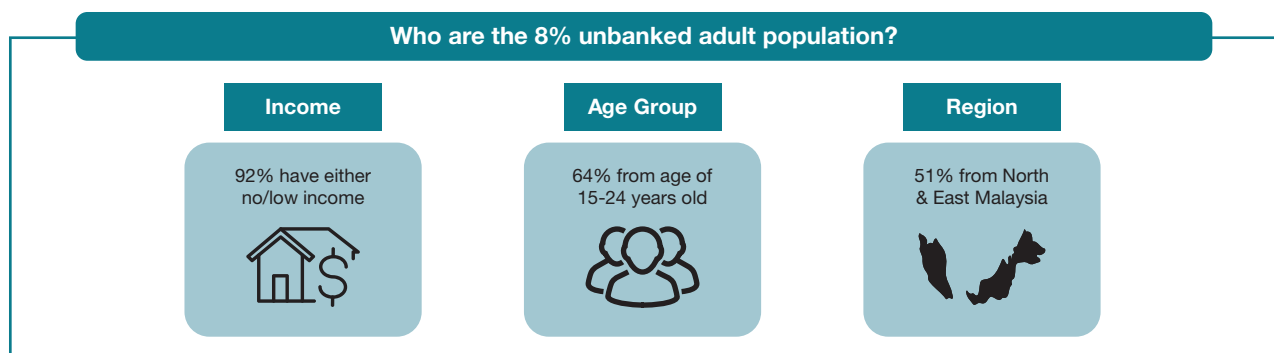
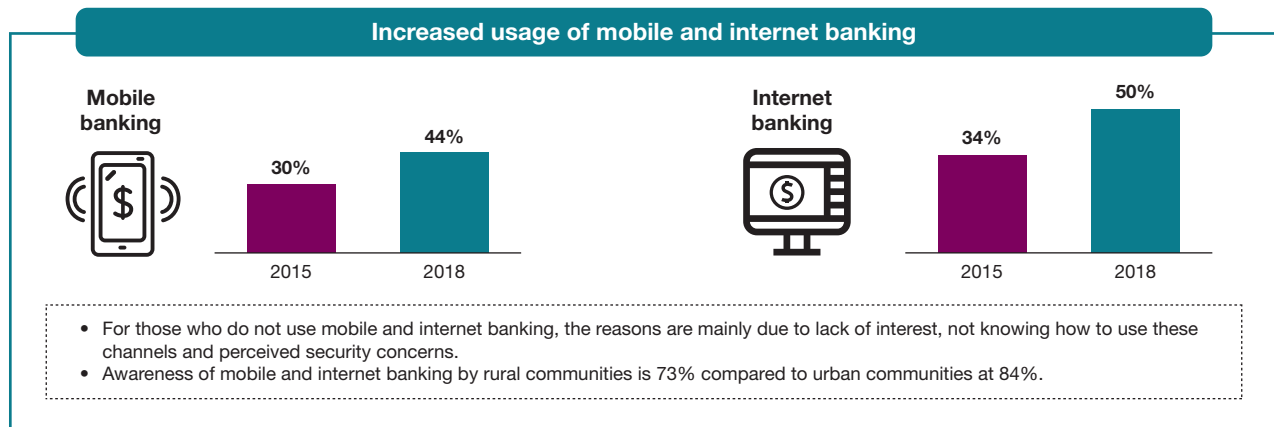
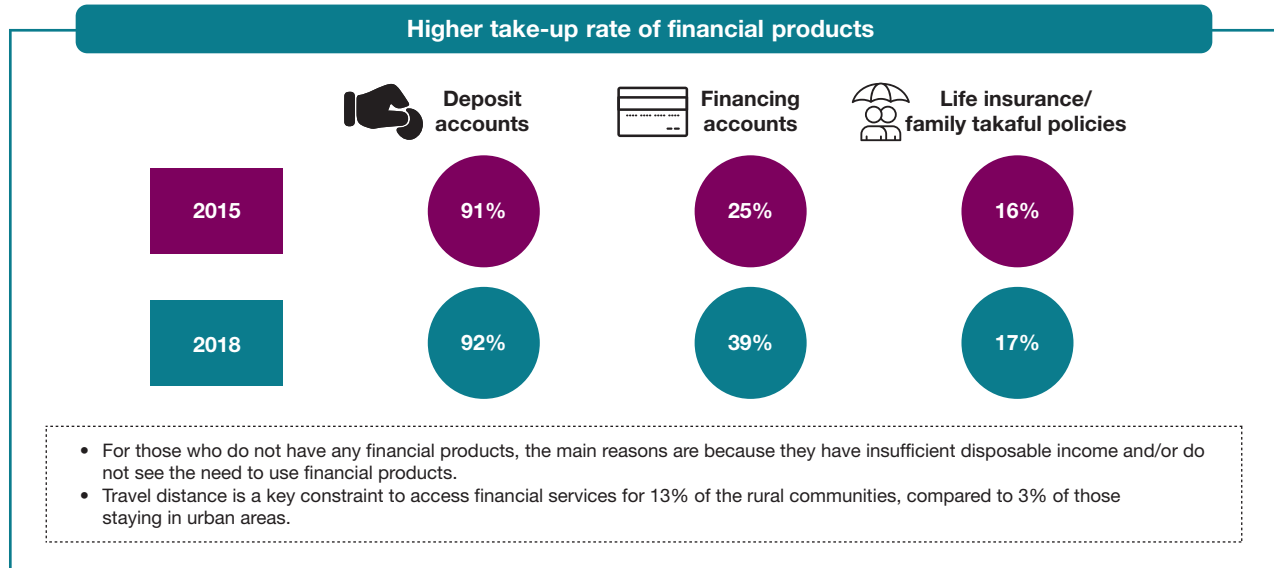
Improving access to finance for SMEs

As part of ongoing initiatives to support the increasingly diverse financing needs of SMEs, an online financing aggregator platform or “imSME”, operated by the CGC was launched in February 2018. The imSME matches SMEs’ financing needs with suitable financing products from various institutions while minimising the search costs associated with financing. Since its launch, financing amounting to RM46.9 million was approved for 405 SMEs. In addition, 2,515 SMEs that did not initially qualify for financing were assisted by the imSME’s Financial Advisory Team, which provides practical guidance and support to these SMEs to address their financing needs. 41% of the SMEs assisted were able to secure financing from financial institutions and alternative financiers (such as peer-to-peer platforms). The remaining were referred to capacity building agencies that will work with these SMEs to improve their eligibility for financing. Financial institutions have also been reminded to improve the information that they provide to SMEs on fees and charges, the reasons for financing rejection and the available avenues to lodge complaints to better empower SMEs to take actions in relation to their financing requirements.

While SME access to financing has improved significantly over the years, there are pockets of SMEs that still face issues in obtaining financing from financial institutions. The Bank continues to work with the industry and relevant ministries and agencies to address specific access issues, and at the same time intensify awareness programmes. During the year, over 8,100 SMEs attended 50 awareness programmes organised by the Bank across the nation. More than 1,100 SMEs also

Diagram 2.3

Key Findings of Demand Side Survey 2018



Source: Bank Negara Malaysia

participated in more targeted financial seminars and clinics which covered areas such as sources of financing, financial management, financing

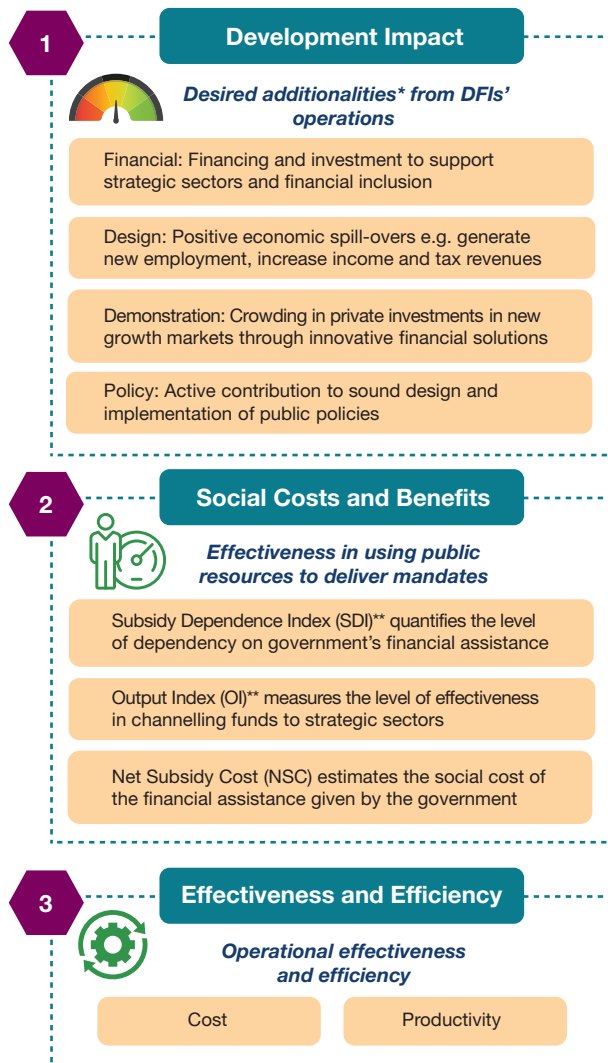
application requirements and processes, avenues to seek information and redress, e-payments and business insurance or takaful protection.

Enhancing the role of DFIs

DFIs continue to play an important role in promoting economic growth and social development. In 2018, the Bank collaborated with the World Bank and DFIs to develop an enhanced performance measurement framework for DFIs. The new framework aims to capture the broader contributions of DFIs by moving beyond the narrow focus of financing growth indicators, and integrating developmental key performance indicators (KPIs) to measure the socio-economic impact of DFIs' operations (Diagram 2.4).

Diagram 2.4

The New Performance Measurement Framework for DFIs



* Additionalities refer to the positive impact attributable to DFIs beyond that which is delivered under a fully commercial or profit-driven environment

** Both SDI and OI are also intended to promote financial sustainability and minimise credit market distortions

Source: Bank Negara Malaysia

The framework aims to encourage a stronger alignment between the performance of DFIs and their development impact. Further, in supporting the development of strategic and new growth sectors, the framework emphasises the need for DFIs to be financially sustainable, while minimising credit market distortions. The framework is being operationalised in phases and will continue to evolve as DFIs refine their KPIs to better reflect their mandates. Preliminary results of the measurement framework during the year suggest that the impact of DFIs extends well beyond providing the necessary financing to also include creating employment opportunities and upskilling targeted segments (Diagram 2.5).

Work continues to progress in building the necessary systems and capabilities within DFIs to effectively monitor and evaluate performance and development outcomes. This has been actively supported by the Bank, working with its partners, including the World Bank and relevant government ministries and agencies. Going forward, institutionalising the new framework and ensuring its effective implementation will continue to be a key priority for DFIs and a focus of the Bank's regulatory and supervisory activities. In parallel, the Bank is also engaging with the Government to review the DFI landscape to take into account developments in the financial system and changes in Malaysia's economic structure and priorities. This seeks to provide a sharper focus in the mandates of DFIs while optimising performance and synergies.

Diagram 2.5

Preliminary Developmental Outcomes Based on Selected Schemes by DFIs

Financial Additionality	
74%	Percentage of DFI financing portfolios to underserved segment (2016 – 2017)
3,024	Start-ups received agriculture financing (2015 – 2017)
Design Additionality	
570 jobs	Jobs created and revenue increase as reported by 44 survey respondents who obtained total RM2.2 billion financing for cross-border ventures (2010 – 2017)
RM6.75 billion	
502 SMEs	SMEs with improved profitability, sales growth, technology use and export-market penetration due to intensified value-added assistances provided (2016 – 2017)
Demonstration Additionality	
7.8%	Loan syndication portfolio against total financing in 2017, as a proxy for crowding-in of private investments (2016: 4.6%)

Source: Bank Negara Malaysia

Efforts are also being pursued to enhance DFIs' capability and capacity to deliver their mandates effectively. Specialised development finance programmes developed in collaboration with the Asian Institute of Chartered Bankers, the Iclif Leadership and Governance Centre and the World Bank were introduced. These complemented development-focused technical programme offerings that were led by the Association of Development Finance Institutions of Malaysia.

INSURANCE AND TAKAFUL

The Malaysian insurance and takaful sector recorded higher total premiums and contributions which increased by 4.9% to RM66.6 billion (2017: RM63.5 billion). Total insurance and takaful assets correspondingly increased by 3.2% to RM309.1 billion (2017: RM299.5 billion). Insurance and takaful penetration, measured as the percentage of total gross premiums and contributions over GDP remained at 4.7%. Insurance and takaful density, measured as the percentage of total gross premiums and contributions per capita, rose marginally to RM2,050 (2017: RM1,980) as at end-2018. Insurance/takaful coverage also remains uneven with the vast majority of Malaysians, mainly in the lower income segments, without insurance/takaful protection. This is reflected in the penetration rate of life insurance and family takaful, measured as the percentage of Malaysians who own at least one individual or group life insurance policy or family takaful certificate, which was little changed at 41%.

During the year, six composite insurers and takaful operators converted their composite licenses into separate single life/family and general licenses, while five composite insurers and takaful operators retained only their life/family licenses. This completed the process for the conversion of composite licenses

which began in 2013 to strengthen the management of general and life/family insurance and takaful business, as required under the Financial Services Act 2013 (FSA) and Islamic Financial Services Act 2013 (IFSA).

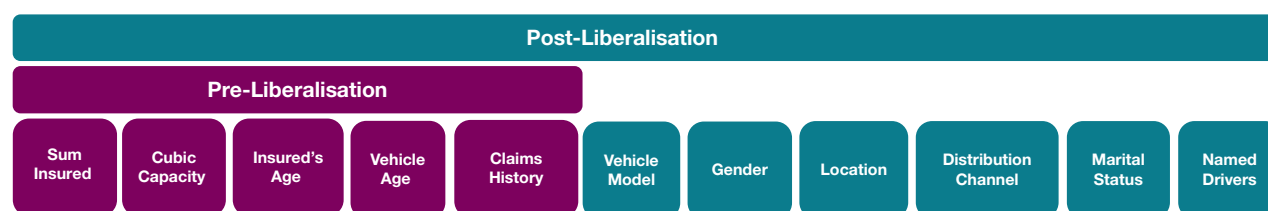
Phased liberalisation of motor and fire tariffs

The phased liberalisation of the motor and fire insurance tariffs, which commenced in 2016, entered its third year. Phase I, which took effect on 1 July 2016, enabled the introduction of new products and add-on covers priced at market-determined rates. Phase II, which commenced on 1 July 2017, saw the removal of tariff rates for 'Comprehensive' and 'Third Party, Fire and Theft' products to allow for further pricing reforms.

Further differentiation in pricing to reflect risks continued to be observed in 2018 based on an expanded set of risk rating factors used by insurers and takaful operators in setting premiums and contributions (Diagram 2.6). During the year, 17 general insurers and takaful operators filed premium and contribution revisions with the Bank for six vehicle classes. In the mass market vehicle segment, premiums and contributions generally varied within a 10% range of former tariff rates. About 34% of policies and certificates experienced lower rates than the tariff, 10% of policies and certificates saw rates unchanged and 56% of policies and certificates saw rates increase compared to the tariff. Meanwhile in the higher-risk vehicle segments, particularly theft-prone vehicles, premium and contribution rates increased by up to 30%. In other vehicle segments with better claims experience, rate decreases by up to 60% from the tariff rates were observed. More importantly, stronger pricing incentives for safe driving and vehicle

Diagram 2.6

Commonly Used Rating Factors



Source: Bank Negara Malaysia

security are expected to lead to improvements in the overall motor claims loss experience. This in turn will support more sustainable premium and contribution rates over time.

New motor and fire product innovations offered in the market increased by 39% to 249 new products in 2018 (2017: 179 new products), mainly driven by new motor products to meet different risk protection needs, such as:

- i) E-hailing extension cover that provides coverage for the driver, vehicle, passengers and third parties during the use of private cars for e-hailing services, in line with the requirements set by the Ministry of Transport;
- ii) Products using telematics to monitor consumer driving habits, thereby enabling the offering of lower premiums or contributions to reflect safer driving; and
- iii) Pay-as-you-drive endorsements where drivers with low mileage are eligible to receive a refund, upon completion of the twelve-month policy period.

Moving forward, the Bank expects the adoption of technologies such as the use of telematics or usage-based products to gain more traction. This will facilitate further refinements to pricing based on individual risk profiles.

The Bank expects the adoption of technology and usage-based products to enable the industry to refine their pricing based on individual risk profiles

The Bank is currently developing proposals for the next phase of liberalisation. These will consider appropriate and gradual adjustments of premiums and contributions for compulsory 'Third Party' motor and fire products, including their timing. While the compulsory 'Third Party' motor insurance/takaful segment continues to make losses with an aggregate combined ratio of 108% in 2018, improvements in the overall motor portfolio experience as a result of the liberalisation under Phases I and II are expected to mitigate the impact of under-pricing at the current level of premiums and contributions.

Progress of Life Insurance and Family Takaful (LIFE) Framework

Through the LIFE Framework issued in November 2015, the Bank has set out a roadmap of reforms

to support the long-term development of the life insurance and family takaful industry. In 2018, further progress was made in the implementation of these reforms:

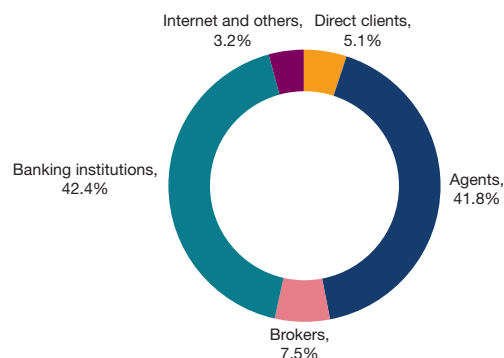
j) Greater accessibility and outreach of life insurance and family takaful products

Since June 2017, life insurers and family takaful operators have been required to offer pure protection term products via direct distribution channels. Customers are also provided with tools to facilitate self-assessment of the suitability and affordability of a product. Direct distribution channels, such as the Internet, are intended to promote an additional and convenient channel for the public to purchase insurance/takaful products. As of 2018, their share of new premiums and contributions has increased to 3.2% from the previous year (2017: 2.4%) as more policyholders become aware of alternative access channels, although it remains low (Chart 2.2).

With effect from March 2019, products offered through direct distribution channels will be expanded to include pure protection critical illness and medical and health insurance/takaful products. As such products are more varied in their design and coverage across the industry, insurers and takaful operators will be required to comply with strengthened disclosures to provide customers with appropriate information to make informed purchasing decisions.

Chart 2.2: Life Insurance and Family Takaful - New Premiums and Contributions by Distribution Channels

Agency and bancassurance continue to be main channels of new business



Source: Bank Negara Malaysia

ii) **Gradual removal of limits on operational costs**

The limits on commissions and agency-related expenses for investment-linked products will be liberalised in tandem with the implementation of the Minimum Allocation Rate (MAR) for investment-linked insurance and family takaful products starting July 2019 and July 2020, respectively (see Chapter 3 'Regulatory and Supervisory Framework'). This is expected to promote a more competitive and diverse insurance/takaful market, while safeguarding consumers' interests through the MAR, which sets out the minimum proportion of premium/contribution to be allocated to the policy owner/takaful participant's unit fund.

The progressive liberalisation of commission limits is being undertaken in parallel with reforms to agency incentives aimed at mitigating risks of mis-selling. In this regard, the first year of implementation of the Balanced Scorecard (BSC) framework which came into effect on 1 January 2018, has shown positive results in contributing to better consumer outcomes. Significant improvements were observed in the sales process, with a comprehensive customer fact-finding process completed in 77% of sales, as compared to only 28% in 2016. This underscores greater care and diligence exercised by agents to properly assess consumers' needs prior to recommending an insurance/takaful product. Policy and certificate persistency has also improved, with a higher share of 73% and 68% of agents meeting or exceeding the persistency targets in the first and second year, respectively (2016: 66% and 61%). In addition, agents were more committed to their professional development, with 85% meeting required Continuous Professional Development (CPD) hours (2016: 72%).

Developments in Medical and Health Insurance and Takaful

As part of efforts to control medical claims inflation which has driven the cost of medical and health insurance/takaful higher in recent years, a Medical Cost Containment Task Force was established by the industry in 2018. The Task Force, which comprises high-level industry representatives and technical experts, will initiate a study on the drivers of medical claims inflation and potential cost containment measures. The study is expected to be published by the third quarter of 2019 and will provide evidence-based analysis to inform future initiatives. The Task Force, in

collaboration with the Association of Private Hospitals Malaysia, will also consider measures to achieve meaningful price transparency for healthcare services that can contribute towards lower costs and enable individuals to make informed decisions about their medical care. This includes making information on the cost of common procedures more readily available to the public and increasing the level of transparency in itemised charges for healthcare services.

Perlindungan Tenang

The *Perlindungan Tenang* initiative launched in November 2017 encourages insurers and takaful operators to offer affordable, accessible and simple products that are targeted to meet the needs of underserved Malaysians, in particular the bottom 40% household income (B40) group. Ten insurers and takaful operators currently offer *Perlindungan Tenang* products.

Life insurance or family takaful products sold under *Perlindungan Tenang* cost between RM5 and RM13 per month in premiums/contributions for sum assured/participated between RM15,000 to RM33,000. Since its launch, over 29,500 policies and certificates have been sold, comprising 28,900 life policies and family takaful certificates and over 600 fire or flood policies and certificates. The announcement in Budget 2019 of a two-year stamp duty exemption for *Perlindungan Tenang* products is expected to further reduce the cost of purchase and encourage higher take-up.

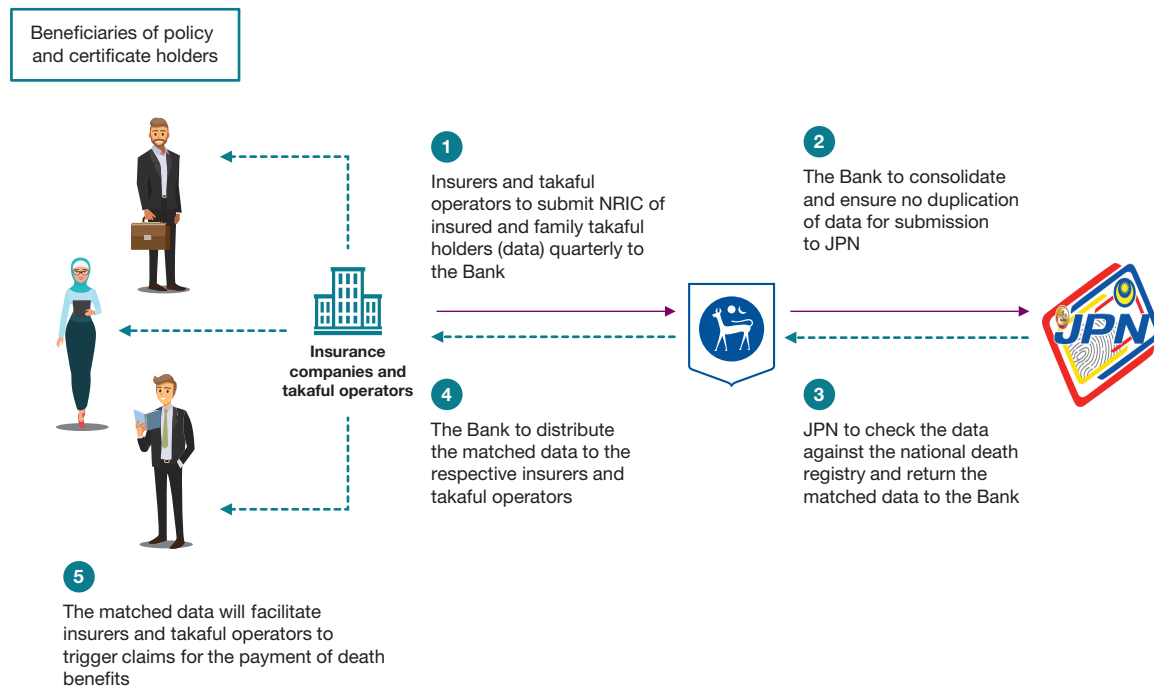
A B40 protection fund was also announced in Budget 2019 to complement the *Perlindungan Tenang* initiative. The fund, which is elaborated in the Box Article 'Expanding Insurance and Takaful Protection for the B40 Population', will enable B40 policy and certificate holders to understand and experience insurance/takaful, and eventually support them to secure protection over the longer term from the insurance/takaful market.

Enhancing claims process through data-checking arrangement with National Registration Department (Jabatan Pendaftaran Negara, JPN)

Based on industry estimates, more than RM300 million in insurance and takaful benefits are unclaimed by beneficiaries due to records that are not updated by policy and certificate holders. To improve the efficiency

Diagram 2.7

Data-checking Arrangements with JPN



Source: Bank Negara Malaysia

of the claims process and to reduce the incidence of unclaimed death benefits among Malaysians, the Bank is finalising arrangements with JPN to facilitate the conduct of periodic checks by insurers and takaful operators against the national death registry (Diagram 2.7). This will enable insurers and takaful operators to pro-actively contact and pay the benefits to the rightful beneficiaries. The arrangement is expected to be operational in 2019.

Promoting regional cooperation in the insurance sector

The Bank hosted the 21st ASEAN Insurance Regulators’ Meeting (AIRM) in November 2018. Areas of common interest were discussed, including the development of microinsurance to increase insurance penetration, observance of the revised International Association of Insurance Supervisors (IAIS) Insurance Core Principles, risk financing and management of catastrophe risk and regional capacity-building initiatives supported by the ASEAN Insurance Training and Research Institute. Public-private partnerships

were also recognised as an important way to promote financial resilience against disaster risks and digitalisation in the insurance sector.

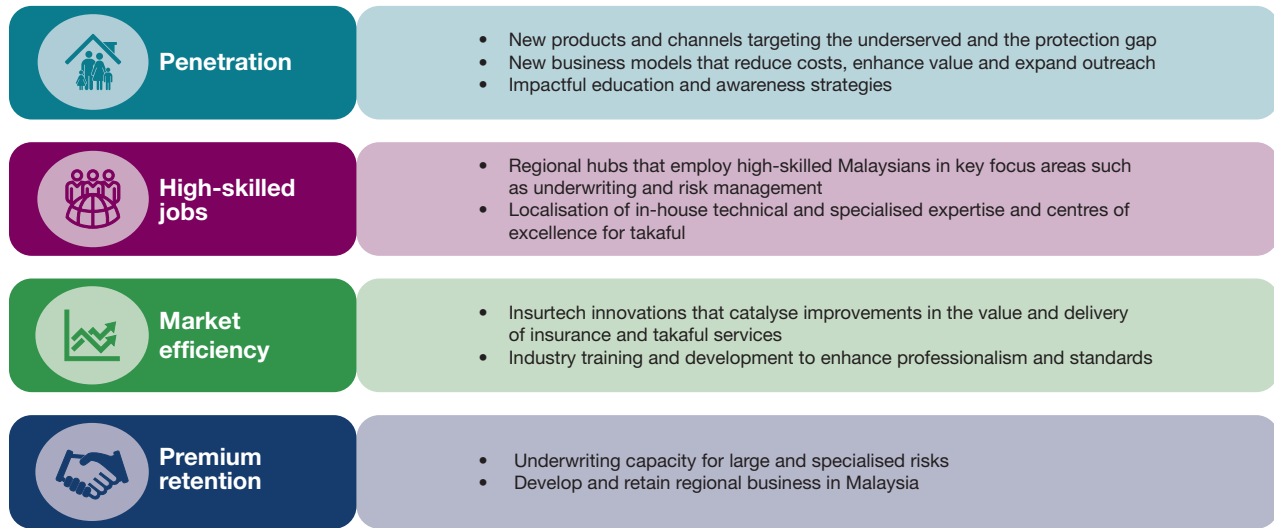
Greater regional insurance integration continued to progress with ASEAN member countries agreeing upon guiding principles for the implementation of the ASEAN Insurance Integration Framework (Framework). As part of Malaysia’s commitment to the Framework, Malaysia has liberalised the cross-border supply of marine, aviation and transit (MAT) insurance to allow regional insurers to underwrite MAT insurance of Malaysian risks with the Bank’s approval. This would increase the capacity and lower the costs for insurance of MAT risks.

Securing meaningful value propositions for Malaysia

In line with the ‘best interest of Malaysia’ (BIOM) criteria for shareholding as set out in the FSA and IFSA, the Bank continues to facilitate the commitment and delivery of meaningful value propositions from shareholders that apply to acquire

Diagram 2.8

Priority Development Areas in the Best Interest of Malaysia



Source: Bank Negara Malaysia

substantial interests in insurance companies and takaful operators. As a result of commitments made, insurers and takaful operators have taken steps to establish actuarial and operation hubs, and innovation labs in Malaysia. Moving forward, the Bank is providing more focus to such propositions by identifying priority development areas (Diagram 2.8) and elaborating expectations for commitments to these priorities to be reflected in and aligned with the business and growth strategies set out for operations in Malaysia. This aims to ensure that commitments are translated into long-term economic benefits for the country, and delivered sustainably.

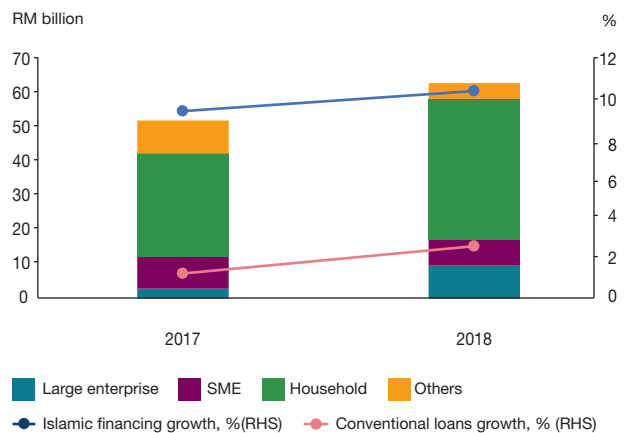
ISLAMIC FINANCE

In 2018, financing by Islamic financial institutions grew by 10.5% to RM668.7 billion (2017: 9.4%) (Chart 2.3). The share of Shariah-compliant financing as a proportion of total banking sector financing increased further to 36.6%, as compared to 34.9% in 2017. This significant growth was partly contributed by the injection of additional Islamic financing assets arising from a merger between an Islamic bank and a non-bank institution in early 2018. Islamic financing to both households and businesses grew by 11.5% and 8.9% respectively, with home financing to households (+5.9%) and financing to large corporates (+4.6%) being the primary contributors to overall financing growth. Growth of business financing to

SMEs moderated to 8.9% (2017: 12.5%), in line with the more moderate growth of the economy. On the funding side, Islamic deposits and investment accounts saw steady growth of 10.2% to RM742.3 billion (2017: 11.7%). Islamic banks' pre-tax profits grew by 14.8% to RM7.7 billion (2017: 19.8%), resulting in returns on equity (ROE) of 15.7% and on asset (ROA) of 1.1% despite higher provisions following the implementation of MFRS 9 for the banking industry. This compares with the ROE of 12.0% and ROA of 1.5% achieved by conventional banks in Malaysia.

Chart 2.3: Growth of Islamic Financing

Islamic financing grew by 10.5% during the year



Source: Bank Negara Malaysia

Strong demand for Shariah-compliant protection solutions sustained the growth of the takaful industry in 2018. The total net contributions of family and general takaful business grew 15.9% to RM9.56 billion (2017: 9.5%), with an increased market share of 16.6% (2017: 15.2%) of total insurance and takaful premiums and contributions. Total assets of takaful funds correspondingly grew by 7.1% to RM31.37 billion (2017: 9.3%).

Both the family and general takaful industry remained highly concentrated in selected business segments. During the year, new family takaful business grew by 13.1% to reach RM 4.91 billion in gross contributions (2017: 10.0%). Mortgage term and investment-linked plans, which accounted for 65.1% of total contributions (2017: 64.6%), continued to drive new business growth. In general takaful, motor and fire products remain dominant, accounting for 82.4% (2017: 80.7%) of business underwritten. Initiatives by takaful operators in the more recent period to diversify into new business lines, including commercial and trade-related risks, have yet to show a significant impact. For the year, gross general takaful contributions increased by 9.0% to RM2.79 billion (2017: 6.3%, RM2.56 billion).

The takaful sector remained profitable, albeit at a lower level. Excess income over outgo of family takaful was RM2.17 billion, a decline of 14.0% from 2017 (2017: RM2.53 billion), due to higher costs and benefit payments to takaful participants. Meanwhile, operating profits of general takaful declined by 33.0% to RM201.8 million (2017: RM301.2 million), on account of increased new business strain as a result of heightened competition in the takaful industry.

Value-based intermediation (VBI) reinforcing the positive impact of Islamic finance

Following its conceptualisation in 2017, the final Strategy Paper on VBI which focuses on strengthening the roles and impact of Islamic finance has since been issued by the Bank and the VBI Community of Practitioners (CoP), an industry group comprising nine Islamic banks. VBI encapsulates the industry's vision for Islamic banks to be more impact-driven, reinforcing the overarching intent of Shariah to promote good and prevent harm. Importantly, VBI is also consistent with global finance initiatives in support of achieving the United Nation's (UN) Sustainable Development Goals (SDG).

Awareness and support for VBI gained momentum during the year. The 6th biennial Global Islamic Finance Forum (GIFF) 2018 organised by the Association of Islamic Banking and Financial Institutions Malaysia (AIBIM) which was themed "Value-based Intermediation – Beyond Profit" culminated in the industry's collective commitment and action plans towards contributing to a sustainable financial ecosystem. During the event, the Bank in collaboration with the industry issued an Implementation Guide for VBI that provided useful insights on value-based banking practices and VBI case studies. In addition, two new tools were published for public consultation to facilitate the operationalisation of VBI – a VBI Financing and Investment Impact Assessment Framework (VBIAF) and the VBI Scorecard. The VBIAF provides guidance on the assessment of financing and investment applications taking into consideration economic, social and environmental impacts, while the VBI Scorecard supports the implementation of impact-based performance measurement frameworks in Islamic financial institutions.

The Bank, in collaboration with the industry issued an Implementation Guide for VBI that provides insights on value-based banking practices and case studies

Islamic banks continued to make progress in driving the VBI agenda through enhanced offerings and strong institutional commitments. The year saw the issuance of the world's first SDG sukuk by a licensed foreign Islamic bank, which references the UN's SDGs for the use of its proceeds. Meanwhile, to support an efficient energy sector, a local banking group has offered preferential financing rates for the purchase of new hybrid vehicles and Green Building Index certified residential properties. Several CoP members have also made global commitments to sustainable finance through their participation in global networks such as the Global Reporting Initiative, Global Alliance for Banking on Values and Principles for Responsible Banking (an initiative by the UN Environment Programme Financial Initiative).¹

¹ UNEPFI is a partnership between United Nations Environment and the global financial sector created in the wake of the 1992 Earth Summit with a mission to promote sustainable finance. More than 230 financial institutions, including banks, insurers, and investors, work with UN Environment to understand today's environmental, social and governance challenges, why they matter to finance, and how to actively participate in addressing them.

The Bank has also been admitted as a plenary member of the Network for Greening the Financial System (the Network) since October 2018. This membership is in line with the increasing focus on promoting sustainable finance and understanding the impact of environmental and social risks on institutional resilience and financial stability more broadly. The Network consists of a group of central banks and supervisors engaged in forward-looking research in the area of environmental and social risks. The Bank's participation will serve to inform Malaysia's regulatory and supervisory response to the management of risks by financial institutions arising from environmental changes.

Moving forward, the Bank and the industry aim to work closely with government agencies, civil societies and the public to increase awareness and encourage more active participation in supporting sustainable financial solutions.

Intensifying Islamic finance support towards growth of halal businesses

Islamic finance is recognised by the Government as a key enabler to support the growth of the halal industry. In 2018, the Islamic finance industry came together to participate in the Malaysia International Halal Showcase (MIHAS). A total of 865 business leads were generated at the event. A profit rate subsidy of 2% has also been earmarked by the Government in the 2019 Budget as part of an RM1 billion SME Shariah-Compliant Financing Scheme to finance halal exporting companies. The scheme will be made available through Islamic financial institutions.

Going forward, the Islamic banking industry is expected to increasingly leverage on the facilities available through the Asian Development Bank (ADB) Trade Finance Programme and Supply Chain Finance Programme to further expand its capacity in financing the halal industry. The programme offers, among others, guarantee facilities which help manage trade financing risks, in particular for trade with higher-risk emerging markets.

Developing talent ecosystem for Islamic finance

Talent development continues to be a key priority, with significant inroads being made to strengthen the talent development ecosystem for Islamic finance.

The Strategic Coordination Committee (SCC)² established by the Bank in September 2017 continues to play an important role in harnessing the complementarities between the existing professional bodies and training providers in Islamic finance, namely the Association of Shariah Advisors in Islamic Finance, the Chartered Institute of Islamic Finance Professionals and the Islamic Banking and Finance Institute Malaysia (IBFIM). A collaborative framework has also been initiated between these institutions to leverage on their combined expertise, experience, and resources to advance the professional development of the Islamic finance workforce.

The Bank has continued to pave the way for greater integration of Islamic finance within the higher education curriculum, particularly through the publication of the Educators' Manuals on Shariah standards and operational requirements. The Bank, in collaboration with the International Council of Islamic Finance Educators (ICIFE), International Shariah Research Academy, and IBFIM, has published the Educators' Manuals on *musyarakah* (profit and loss sharing), *mudarabah* (profit sharing), *tawarruq* (asset purchase on a deferred basis with subsequent sale to third party for cash), *ijarah* (leasing) and revised *murabahah* (cost plus profit). Fourteen universities have since agreed to adopt the Educators' Manual as part of their academic syllabus. A series of training programmes on the manuals were also conducted for faculty members. In 2019, two additional Educators' Manuals will be developed, namely on *istisna'* (construction or manufacturing) and *qard* (loan).

A key milestone for the International Centre for Education in Islamic Finance (INCEIF) during the year was the award of the prestigious accreditation by the Association to Advance Collegiate Schools of Business (AACSB) International, placing INCEIF's academic programmes among a select 5% of business programmes in the world that are AACSB-accredited. The AACSB accreditation recognises institutions that demonstrate a focus on

² Comprises representatives from the Bank and heads of the Islamic finance talent affiliates institutions i.e. INCEIF, International Shariah Research Academy (ISRA), IBFIM, Association of Shariah Advisors in Islamic Finance (ASAS) and Chartered Institute of Islamic Finance Professionals (CIIF). The Committee was established in 2017 to develop strategies to raise the quality and range of talent offerings available to meet the needs of the Islamic financial sector, and to address overlaps to maximise operating and financial synergies across the Islamic finance talent affiliates institutions.

excellence in all areas, including teaching, research, curriculum development and student learning. The achievement reinforces INCEIF's important role and impact in building a high-quality talent pool for Islamic finance industries across the globe.

MONEY SERVICES BUSINESS (MSB)

During the year, outward remittances grew significantly by 23.3% to RM40.64 billion (2017: RM33 billion). The increased offering and use of digital MSB services continued to accelerate the migration of remittances to formal channels. It is estimated that over RM900 million of total remittances recorded were transactions previously conducted through informal channels, compared with an estimated RM500 million in 2017.

Reflecting the increasing adoption of technology within the sector, there were more service providers offering electronic remittance (e-remittance) in 2018, with 20 companies (2017: 17) offering mobile and web-based remittance services catering to both retail and corporate customers. Several providers have also introduced e-remittance for the purpose of trade payments. Following regulatory changes in November 2017 to allow qualified remittance providers to conduct eKYC when on-boarding new individual customers, three e-remittance providers obtained the Bank's approval during the year to implement eKYC processes. The effective use of regulatory technology to conduct eKYC enables remittance service providers to authenticate identity documents and perform facial recognition of customers remotely, with the ultimate aim of achieving outcomes that are comparable or superior to face-to-face procedures. This has had a significant impact in encouraging the wider use of formal remittance channels, by reducing the costs of conducting customer due diligence (CDD) and improving access in locations where remittance service providers do not have a physical presence. On average, the cost of e-remittance transactions was 2.1% in 2018, lower than the average cost for over-the-counter remittance transactions of 2.9%.

During the year, the retail currency exchange business recorded a turnover of RM79.4 billion (2017: RM79.2 billion). This was supported mainly by sustained demand for common currencies such as the Singapore dollar, US dollar, Chinese Renminbi and regional currencies from both

inbound and outbound travellers. In the wholesale segment, a lower turnover of RM13.5 billion was recorded in 2018 (2017: RM15.5 billion), as more currency exchange providers sourced and cleared foreign currencies through banks and other retail currency exchangers.

Beyond improving access and efficiency, e-remittance has helped to reduce transaction costs for customers

Digitalisation has also gained traction in the currency exchange segment with the introduction of the multi-currency electronic wallet. This innovative product enables customers to exchange and make payments in various currencies electronically, eliminating the need to carry physical foreign currencies.

The MSB Advisor aggregator mobile application introduced in 2017 by the Malaysian Association of MSB further promotes the use of authorised MSB channels. The application enables customers to electronically search for the best deals, locate the nearest authorised MSB operators and review their services, providing greater convenience to consumers both before and after using an MSB service. Consumers can also use the application to report illegal MSB activities to the Bank.

Outreach to promote formal MSB channels

The Bank continues to direct efforts toward educating the public on the importance of dealing only with authorised service providers and the risks of using informal channels. During the year, the Bank took Project Greenback 2.0 to its second Malaysian champion city, Kota Kinabalu (GBKK). The two-year GBKK builds on the success of the first Project Greenback 2.0 in Johor Bahru, and continues the close collaboration between the Bank and the World Bank. Initiatives implemented under the GBKK centred on educating foreign workers on identifying formal MSB channels and promoting the use of e-remittance solutions among individuals and businesses on a wider scale.

Over the course of 10 outreach programmes that were conducted from March until December 2018, GBKK reached out to more than 9,000 people covering both foreign and domestic workers. Under the GBKK, more than 2,400 new users signed up for e-remittance services, with the total transaction value

Project Greenback 2.0

Project Greenback 2.0 (Greenback 2.0) is an initiative developed by the World Bank aimed at increasing the efficiency and transparency in the remittance market through the use of innovative approaches. Greenback 2.0 also supports the implementation of the SDG, developed by the United Nations, to achieve the reduction of remittance costs and eradication of poverty. This includes cooperation between migrant communities, remittance industry players and public authorities to promote financial education focusing on remittance services and targeting migrant workers. The initiative was launched in 2011 in selected cities (Remittance Champion Cities) starting with Turin (Italy) and Montreuil (France). In Malaysia, the project has been rolled out in two cities: Johor Bahru (in 2015 as the first Remittance Champion City in Asia) and Kota Kinabalu (in 2018), through a collaborative effort between the World Bank and the Bank, with support from the industry players, government agencies, businesses and foreign worker communities.

in Kota Kinabalu increasing to RM12.2 million for the period March to December 2018 (49% higher than the value recorded over the same period in 2017). Greater competition and increased efficiency in the provision of remittance services have also significantly reduced the cost of remittance transactions in Kota Kinabalu to 2.4% for the period March to December 2018 (2017: 4.5%). In other parts of Malaysia, similar outreach programmes have also been carried out in areas with a significant presence of foreign workers and SMEs.

Fostering international partnerships

During the year, the Bank collaborated with the International Fund for Agricultural Development and the World Bank to jointly organise the first Asia-Pacific regional Global Forum on Remittances, Investment and Development (GFRID) 2018 in Kuala Lumpur. The GFRID was attended by over 400 practitioners from public and private sectors across 50 countries to share best practices and build partnerships in maximising the development impact of remittances. The event culminated in the identification of specific actionable outcomes directly linked to the UN's 2030 Agenda for Sustainable Development and its SDGs. These include: (i) strengthening the collection, analysis and application of remittance-related data to foster effective policies on remittance and consumer empowerment; (ii) promoting regulatory harmonisation in the region to encourage innovation and increase market efficiency, while safeguarding the integrity of remittance services; and (iii) leveraging on remittance to advance the financial inclusion agenda. Such outcomes are envisaged to foster greater collaboration among authorities and the MSB industry to increase the development impact of remittance services in supporting sustainable development and inclusive growth in the region.

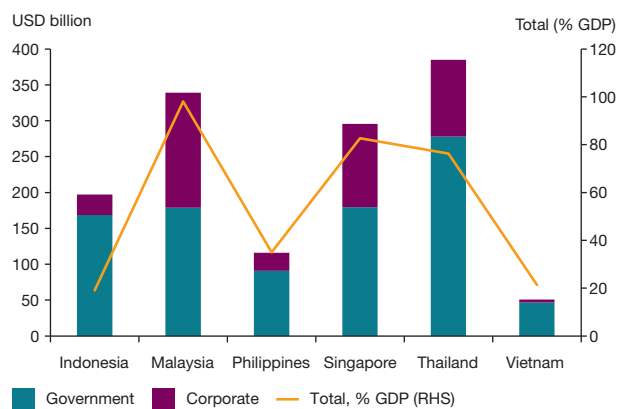
FINANCIAL MARKETS

In 2018, the Malaysian bond market continued to remain an important source of financing for both the public and corporate sector, retaining its position as one of the largest markets in Southeast Asia (Chart 2.4). Outstanding government and corporate bonds grew by 8.8% to RM1.4 trillion in 2018, which represents 51.7% and 46.7% of GDP, respectively (2017: RM1.3 trillion, government: 49.7% of GDP; corporate: 45.7% of GDP). Sukuk, at 60.1% of total outstanding debt securities (2017: 58.8%), continued to dominate issuances (Chart 2.5).

Various external developments during the year including the normalisation of monetary policy by the Federal Reserve and global volatility triggered by the US-China trade tensions contributed to a global risk-off sentiment, which saw portfolio outflows from emerging markets including Malaysia.

Chart 2.4: ASEAN Outstanding Local Currency Debt Securities Market

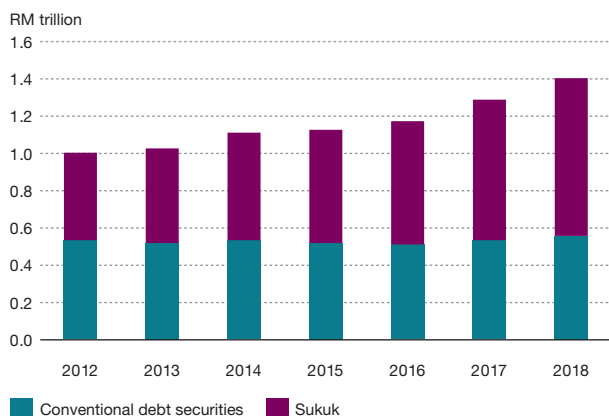
The Malaysian debt securities market continues to stand as one of the largest in ASEAN



Source: Asian Bonds Online

Chart 2.5: Outstanding Debt Securities and Sukuk (Government and Corporate)

Sukuk dominates total outstanding debt securities



Source: Bank Negara Malaysia

Nevertheless, the depth of the debt securities market continued to support orderly market conditions. This was underpinned by strong financial institutions and domestic institutional investors, as reflected in continued active secondary trading in the government securities market which recorded a turnover of RM1.2 trillion in 2018.

Bond yields remained stable amid strong demand for Malaysian Government Securities (MGS) and Malaysian Government Investment Issues (MGII). The average bid-to-cover ratio recorded in 2018 was 2.293 times (2017: 2.198 times), with active participation from mainly banking institutions, insurance companies and domestic institutional investors.

Bond yields remained stable while demand for MGS and MGII remained strong, reflecting active participation from mainly banking institutions, insurance companies and institutional investors

The share of non-resident holdings of Malaysian government bonds declined from 27.7% to 22.7% as of December 2018, with the composition of stable investors such as other central banks, pension funds and insurance companies increasing relative to short-term investors. Stable investors represent more than half of non-resident holdings of Malaysian government bonds at 52%, lending greater resilience to the domestic bond markets.

In contrast with the more bullish performance in 2017, the ringgit depreciated by 1.8% against the dollar to close at RM4.1385 in 2018 on broad US dollar strength (Chart 2.6). Downside risks for the ringgit were mitigated by Malaysia's continued current account surplus of the balance of payments and sound economic fundamentals.

The implementation of several financial market development initiatives in 2016 has helped to bolster the domestic market's resilience to shocks. Ringgit volatility increased marginally to 4.6% (Chart 2.7), largely due to the combination of domestic election outcomes, global external headwinds and oil price volatility during the year. In the foreign exchange (FX) market, bid-ask spreads for USD/RM remained stable at 24 pips on average for 2018 (2016 and 2017 average: 35 pips), supported by sufficient domestic market liquidity.

Measures to manage the spillover from the USD/RM non-deliverable forwards (NDF) market complemented by the further development of the onshore FX derivatives market had helped to stabilise the onshore rates despite the volatile capital flows experienced by emerging markets. Speculative transactions on the ringgit subsided with a significant decline recorded in the daily average NDF volume, while the volume of domestic spot and forward contracts had risen with the daily onshore forward turnover increasing by more than one-third compared to 2017 (Chart 2.8). Greater flexibility accorded to fund managers to dynamically manage their FX risk and hedge their positions further supported the development of the onshore

Chart 2.6: Ringgit Exchange Rate against the US dollar

Ringgit depreciated 1.8% against the US dollar in 2018



Source: Bank Negara Malaysia

Chart 2.7: Onshore USD/RM One-Month Implied Volatility

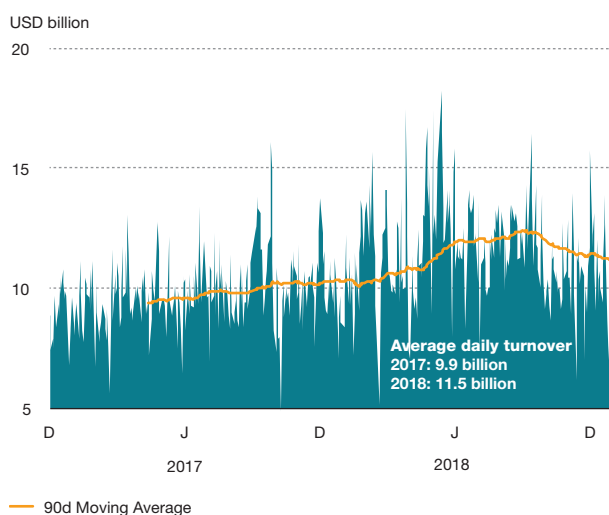
Ringgit volatility remained stable throughout 2018



Source: Bank Negara Malaysia

Chart 2.8: Daily FX Turnover

Average daily turnover in the onshore market increased in 2018



Source: Bloomberg

FX market. As at end-2018, more than 80 fund managers had registered with the Bank for dynamic hedging flexibilities, with total eligible assets exceeding RM120 billion.

The progressive liberalisation of foreign exchange administration (FEA) policies over the years has contributed to the greater decentralisation of reserves which are held by corporates and financial institutions, thus enabling external obligations to be met without creating claims on the Bank's

international reserves. As at end-2018, the international reserves stood at USD101.4 billion, which is sufficient to finance up to 7.4 months of retained imports and is 1.0 time the short-term external debt.

Enhancement of FEA policies

On 17 August 2018, the Bank announced further changes to the FEA policies aimed at improving operational efficiencies and facilitating risk management by businesses and financial institutions, while at the same time preserving financial stability in times of greater global uncertainty.

Enhancing financial markets' transparency and efficiency

In May 2018, the Bank implemented requirements to provide greater transparency on the beneficial ownership of debt securities through segregated account structures maintained in RENTAS. Compliance, which must be observed at the investment execution level, is mandatory for all resident and non-resident investors in RENTAS debt securities. The operationalisation of this initiative is also in line with global developments, notably the adoption of the Legal Entity Identifier as a unique identifier for the maintenance of accounts.

Enhancements were also undertaken to the Ringgit Operations and Monitoring System operated by the Bank to strengthen its surveillance of the FX market. This system facilitates reporting by all licensed onshore banks of their FX transactions and positions on a daily basis to the Bank for the purpose of monitoring market conditions. The enhancements support more effective near-time surveillance by the Bank of FX conversions and flows.

In line with greater digitalisation in the financial sector, the Bank is also working towards the creation of a framework for electronic trading platforms, which will detail the form of establishment and other requirements to be complied with by platform providers. This is envisaged to improve market efficiency and productivity, whilst supporting client diversity through enhanced access provided for wholesale market participants. An Exposure Draft is expected to be published in the first half of 2019.

Enhancements to FEA policies in August 2018:

i. Greater flexibility in the management of export proceeds

Exporters are allowed to automatically sweep export proceeds into their Trade Foreign Currency Accounts maintained with onshore banks to meet up to six months' foreign currency obligations without the need to first convert proceeds into ringgit. The flexibility is available upon exporters establishing their six months' foreign currency obligations with their respective onshore banks.

ii. Flexible hedging of foreign currency obligations

Greater flexibility is provided, upon application to the Bank, for residents to hedge:

- foreign currency obligations beyond six months (i.e. for current account obligations and foreign currency loan repayments); and
- foreign currency exposures arising from invoices issued in foreign currency under international pricing practices for domestic trade in goods and services.

iii. Wider access for non-residents to the onshore financial market

Non-resident corporations are now allowed to trade in ringgit-denominated interest rate derivatives via the Appointed Overseas Offices, subject to back-to-back arrangements with onshore banks. This aims to further deepen the onshore market for interest rate derivatives to support risk management activities by businesses.

Understanding Financing through the Lens of Small and Medium Enterprises (SMEs)

By Karunajothi Kandasamy, Samuel Lee and Ng Shyue Jer

Introduction

Small and medium enterprises (SMEs)¹ play a critical role in generating income, employment, innovation, and facilitating social cohesion. With about one million establishments² in the country, SMEs contribute 37.1% of the Malaysian GDP, 66% of employment and 17.3% of exports.³ The positive linkage between entrepreneurship and growth is well established⁴, but a growing body of research focusing on the importance of finance in supporting SME development shows that firms with access to loans grow at a faster rate than those without such access.⁵

As part of the Bank's functions to promote a sound, progressive and inclusive financial sector, efforts have been directed towards developing a holistic SME financing ecosystem. This includes addressing information asymmetry and market imperfections, which are key barriers to finance. There have been significant strides made in the areas of credit information; credit guarantees; specialised funds; advisory services; redress and debt resolution arrangements. Financing to SMEs now constitute 48.7% of total financing outstanding by financial institutions to businesses (2010: 37.6%) and 17.5% of total financing outstanding (2010: 14.4%).

In 2018, as part of ongoing efforts by the Bank to promote continued access to financing for SMEs, a demand-side SME Finance Survey (the Survey) was conducted to obtain a better understanding of the financing needs and behaviour of SMEs. This article presents the Survey findings, which provide insights on the following:

1. Key characteristics and financing behaviour of Malaysian SMEs;
2. Underlying challenges in financing; and
3. Policy implications moving forward.

Survey Scope and Methodology

A total of 1,529 formal⁶ SME businesses participated in the Survey, which covered firm and entrepreneur characteristics, business performance and challenges, as well as access to finance and usage of financial services. A stratified sampling approach was deployed to ensure representativeness of the national distribution. In addition, a sample of 223 informal businesses was also surveyed to understand their unique financing needs and concerns.

Profile of SMEs

The majority of Malaysian SMEs are microenterprises (77%) and the bulk of these businesses are concentrated in the services sector (89%).⁷ In terms of legal set-up, SMEs mostly operate as sole proprietors (61%, Diagram 1).

Insights from the Survey Findings

1. Key Characteristics and Financing Behaviour of Malaysian SMEs

The Survey showed that more than 90% of the SMEs served the domestic market, with 7% exporting their products and services. About 83% of SMEs reported utilising Information and Communications Technology (ICT) in their business operations (Diagram 2), with 22% that have their own website and 14% that operate online stores. More than half of the respondents (53%) used professional services including auditors, accountants or financial advisors to manage their financial accounts.

¹ Includes microenterprises.

² Based on the 2018 estimates by the Department of Statistics, Malaysia.

³ 2017 data on GDP, employment and exports sourced from the Department of Statistics, Malaysia.

⁴ Beck, Demiurgic-Kunt, Levine, 2005. SMEs, Growth and Poverty, National Bureau of Economic Research (NBER) working paper series.

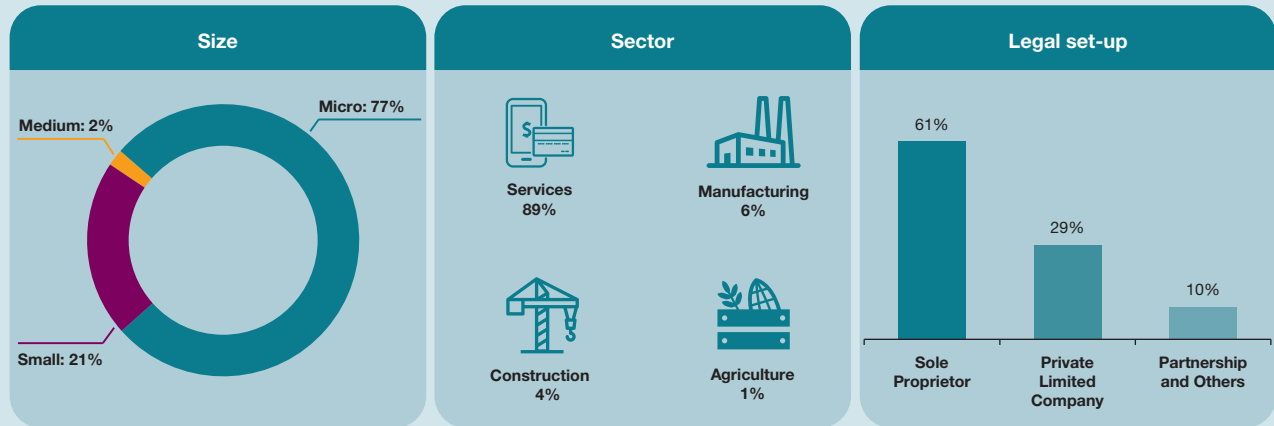
⁵ Ayyagari, Juarros, et al. 2016. Access to Finance and Job Creation; Firm Level Evidence across Developing Countries, World Bank Group.

⁶ Registered with the Companies Commission of Malaysia (SSM).

⁷ Based on the 2016 Economic Census, Department of Statistics, Malaysia.

Diagram 1

Profile of SMEs by Size, Sector and Legal Set-up



Source: Department of Statistics, Malaysia

Diagram 2

Characteristics of Malaysian SMEs

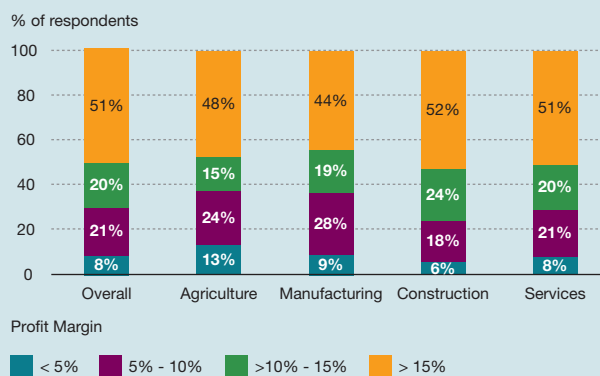


* Less than 3 years in operation

Source: Bank Negara Malaysia

Despite the challenging business environment in the first quarter of 2018, a majority of SMEs (71%) recorded profit margins of above 10% (Chart 1) and were able to maintain positive cash flows. Manufacturing firms reported higher levels of productivity and paid higher wages for new graduate hires compared to other sectors.

Chart 1: Profit Margin of SMEs by Sector

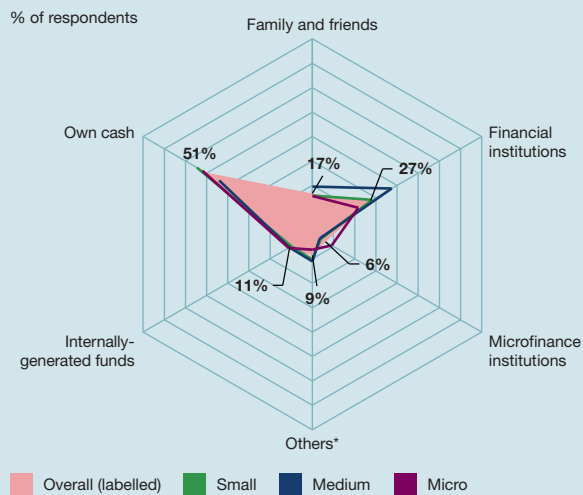


Source: Bank Negara Malaysia

On financing, respondents reported utilising funds from a variety of sources, both internal and external, with own cash contributions being the main source. Among other funding sources, about 27% of the respondents had facilities with financial institutions, followed by family and friends, internally-generated funds and microfinance institutions (Chart 2). In the microenterprise segment, 22% had financing facilities with financial institutions, including 9% of respondents who secured financing under the *Pembiayaan Mikro*⁸ facility.

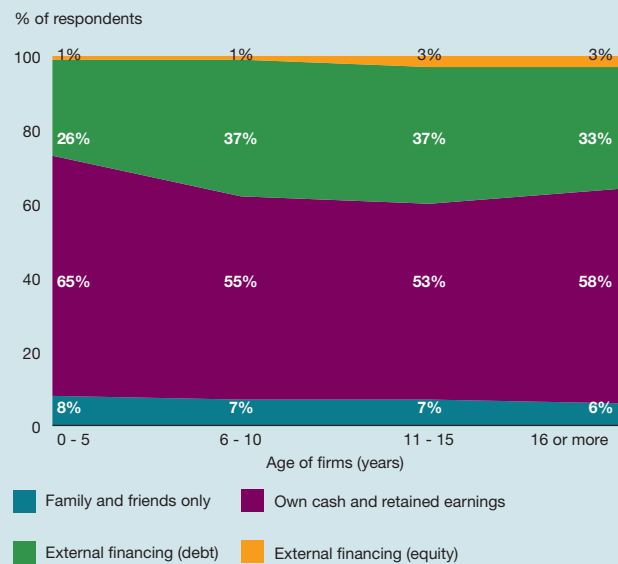
Sources of financing also vary through the business lifecycle. At the initial stage, young firms tend to rely on their own cash and informal sources such as family and friends. This is consistent with most research findings, which attribute such behaviour typical of young firms to information opacity; lack of collateral, track record and financial skills; as well as high transactional costs.⁹ As businesses mature (typically after five years in operation), they tend to rely more on external financing in the form of both debt and equity, including bank financing (Chart 3).

Chart 2: Sources of Financing by Firm Size



* Others include alternative finance and Government grants
 Note: Figures labelled refer to % of total firms. Firms can provide multiple answers
 Source: Bank Negara Malaysia

Chart 3: Sources of Financing by Age of Firms



Source: Bank Negara Malaysia

Among the SMEs that had applied for financing, most indicated that they were able to secure financing. About 22% of the respondents had applied for financing in the six months prior to the Survey, with the majority (94%) of their applications being approved.

- About 13% applied to financial institutions with 91% of their total financing applications approved, while the remaining 9% applied to other sources,¹⁰ with a 99% approval rate.
- Women-owned firms reported higher demand for financing (33% of women-owned firms applied versus 22% for all respondents), but experienced a lower approval rate of 83% (overall: 94%) mainly due to the lack of track record and insufficient documentation. Most of these firms obtained unsecured financing from microfinance institutions, banking institutions and development financial institutions.
- About 44% of the respondents were first-time borrowers.
- The main purposes of the financing applications were for the purchase of assets (building, property, machinery and equipment: 23%), working capital (22%) and starting a new business (19%).
- On average, the majority of the applications (89%) was approved within one month and the funds were disbursed within the subsequent month (87%).

⁸ A specialised microfinance scheme that is non-collateralised for business financing of up to RM50,000.

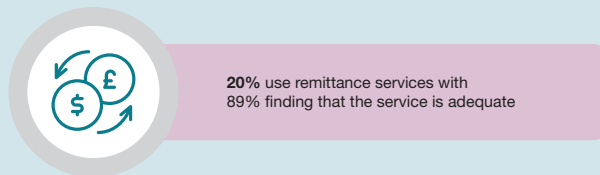
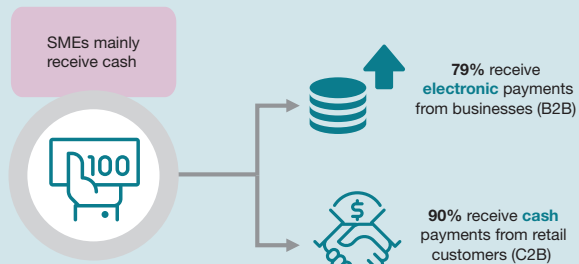
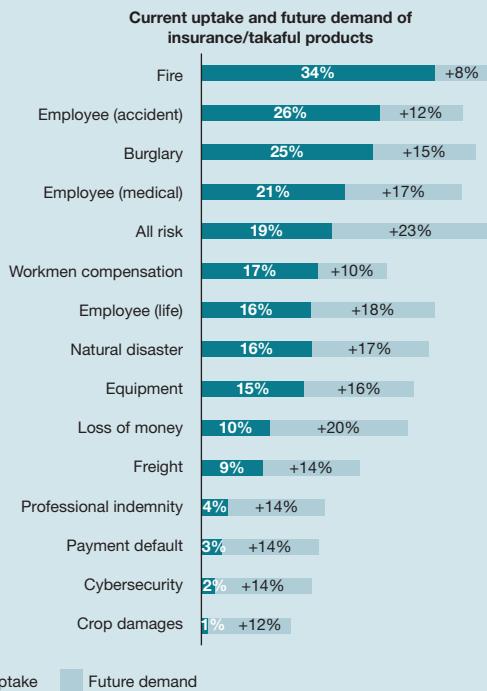
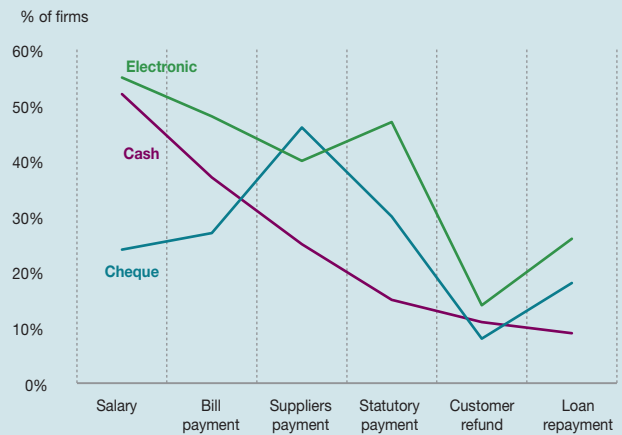
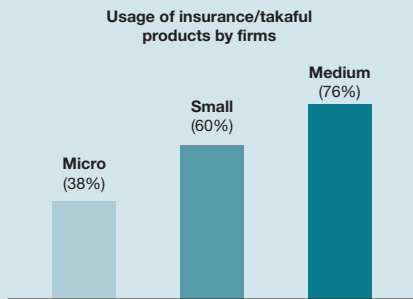
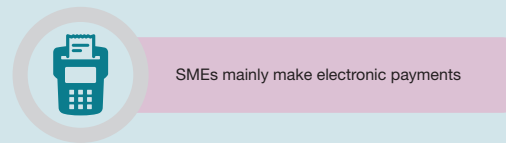
⁹ Berger, Udell, 1998. *The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle*; Organisation for Economic Co-operation and Development (OECD), 2015. *New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments*.

¹⁰ The main providers of other sources were Amanah Ikhtiar Malaysia (AIM) and TEKUN.

The Survey also provided insights on SMEs' usage of other financial services, such as insurance, takaful and e-payments (Diagram 3). More than half of the respondents have insurance or takaful products, although this was less prevalent among microenterprises. While the current take-up has been low, potential future demand for insurance and takaful by SMEs is significant for all products across the board, with emerging interest particularly in securing protection for risks associated with cyber security, professional indemnity, payment default and damages in crops. SMEs mainly made electronic payments, but preferred cash in receiving payments from customers. It was also observed that cheques remained popular for payments to suppliers and other B2B (business to business) transactions.

Diagram 3

SMEs' Usage of Other Financial Services



Note: Firms can provide multiple answers

Source: Bank Negara Malaysia

2. Underlying Challenges in Financing

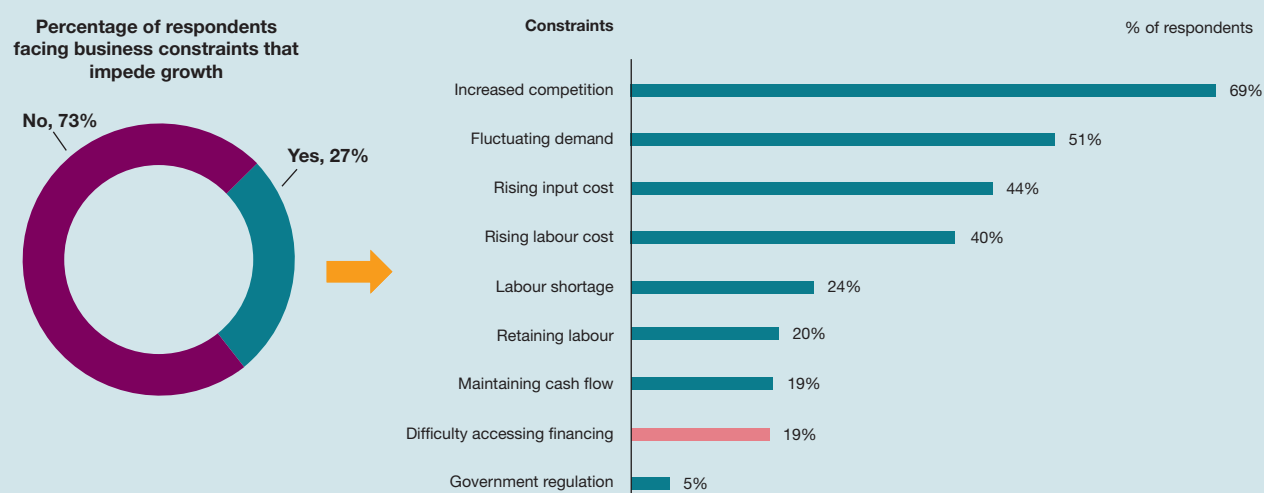
a) Financing barriers mainly relate to documentation, costs and business viability

Among the key constraints to business growth, difficulty in accessing sufficient financing was ranked low, second to last out of the nine constraints identified by SMEs (Chart 4). Nevertheless, the findings from the Survey revealed some financing barriers faced by SMEs:

- SMEs that experienced rejections of their financing applications cited insufficient documentation, insufficient cash flow to meet repayments and non-viable business plans as the main reasons for rejection.
- SMEs involved in automation, innovation, manufactures of goods, and exports experienced higher rejection rates compared to the overall SMEs (Chart 5). Firms that automated stated insufficient collateral and projects perceived to be of higher risk as key reasons for rejection. The rejected applications were mainly for the purchase of machinery and equipment and ICT tools, as well as undertaking research and development (R&D). These projects could be deemed to be higher risk as they may involve moveable and intangible assets with low salvage value in the event of commercial failure, and involve the use of new and untested processes with high uncertainty on returns.¹¹ Innovative firms cited insufficient documentation as a key factor for rejection. Exporting and manufacturing firms that faced greater difficulty obtaining financing were mainly firms that were newly established with limited repayment track records.
- Businesses that needed financing but did not apply (41%) were either cautious in taking on debt, unsure of their repayment capacity, or found the application process too difficult.
- About 46% of the respondents stated that the financing products offered by financial institutions did not meet their business needs due to high financing costs (50%), insufficient financing amount (42%) and onerous documentation requirements (29%). The average financing rate that respondents were willing to pay was 3.88%, well below the average lending rates to SMEs of 6.18% at the time of the Survey (second quarter 2018).

The challenges raised by businesses in the Survey point to opportunities for improvements in the on-boarding process of financial institutions (including documentation requirements) and financial management capabilities of SMEs to enhance their creditworthiness. New approaches to credit assessments by leveraging on technology and big data also present opportunities to increase access to financing for SMEs.

Chart 4: Business Constraints Faced by SMEs



Note: Firms can provide multiple answers

Source: Bank Negara Malaysia

¹¹ OECD, 2004. Financing Innovative SMEs in a Global Economy.

Chart 5: Rejection Rate of Financial Institutions for Key Segments



Source: Bank Negara Malaysia

b) Funding is the most sought after form of government assistance

The Survey indicated that the main constraints to SME growth were factors associated with operating and business conditions, namely increasing competition (69% of respondents), fluctuating demand (51%), rising input costs (44%) and rising labour costs (40%). However, when asked which form of government assistance would be most useful, financial assistance (e.g. grants, soft loans, guarantees) was consistently preferred by a significant majority of SMEs as being most useful (Chart 6). This could suggest that SMEs lacked awareness on other forms of government assistance which could be better suited to address specific challenges faced, including capacity building support, regulatory responses or access to new markets.

Findings from the Survey further suggest that certain factors such as the level of education, membership in trade associations, and ICT usage are positively linked with higher awareness (Chart 7). These factors can be leveraged upon in the development of future awareness programmes to ensure more effective outreach.

c) Higher demand for financing for automation and technology

About 19% of the respondents indicated that they have automated their operations, 15% actively leveraged on technology to innovate or introduced new products and processes, while some 17% (especially medium-sized firms) were preparing for Industry 4.0.¹² Businesses that had automated their operations (mainly in the wholesale trade, computer and IT-related services, and machinery and engineering equipment manufacturing) reported higher revenue per worker on average by about 90%, compared to those that did not automate. The move to automate therefore holds significant potential for enhancing the growth and contribution of SMEs to the economy, for which financing will be a key enabler.

Firms using technology¹³ generally had higher demand for financing compared to the overall respondents (Chart 8), but also faced higher rejection rates. In particular, for automating firms the purpose of financing was mainly to

¹² Industry 4.0 or Fourth Industrial Revolution is a name given to the current trend of automation and data exchange in manufacturing technologies. It includes amongst others cyberphysical systems, the Internet of things, cloud computing, cognitive computing, big data and autonomous robot.

¹³ Refers to firms that automate and enhance productivity as well as innovate.

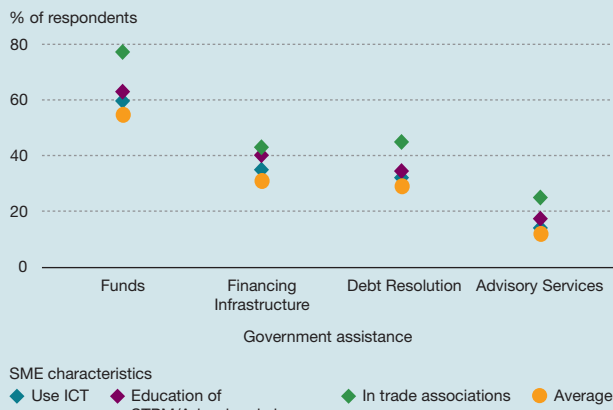
Chart 6: Government Assistance Deemed Most Useful by SMEs versus the Key Constraints Faced



Note: Firms can provide multiple answers
 Source: Bank Negara Malaysia

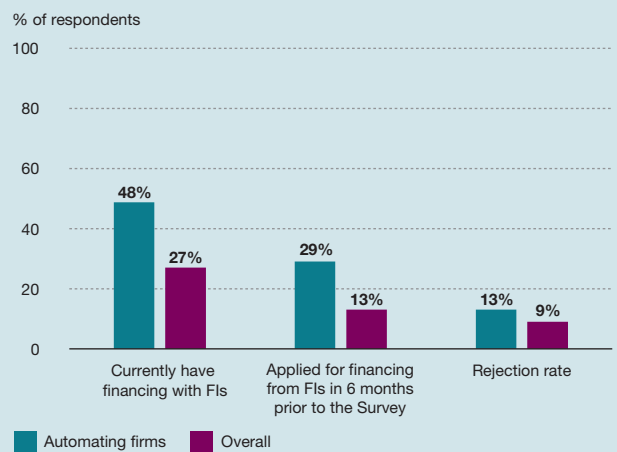
purchase machinery and equipment and ICT tools including hardware and software, as well as to undertake R&D activities. Such financing can involve higher risks associated with uncertain values and security attached to intangible or movable assets, including their ability to generate cash flows, hence resulting in the higher rejection rate. A further reason may be a lack of customised products in the market for financing automation due to inadequate experience in evaluating innovative technologies and pricing the associated risks.¹⁴

Chart 7: SME Awareness on Government Assistance



Note: Firms can provide multiple answers
 Source: Bank Negara Malaysia

Chart 8: Financing Behaviour of Automating Firms



Source: Bank Negara Malaysia

¹⁴ Shroder, 2017. The Challenges of Industry 4.0 for Small and Medium-sized Enterprises.

At the same time, the Survey revealed that automating firms were open and willing to share information with financial service providers. They also have higher ownership of assets (three times higher than those not automating). Therefore there are opportunities to better understand the distinct profile and financing needs of automating firms, enhance and customise product offerings for automation, as well as review collateral policies and the supporting infrastructure to tap into movable assets and intangibles as acceptable collateral.

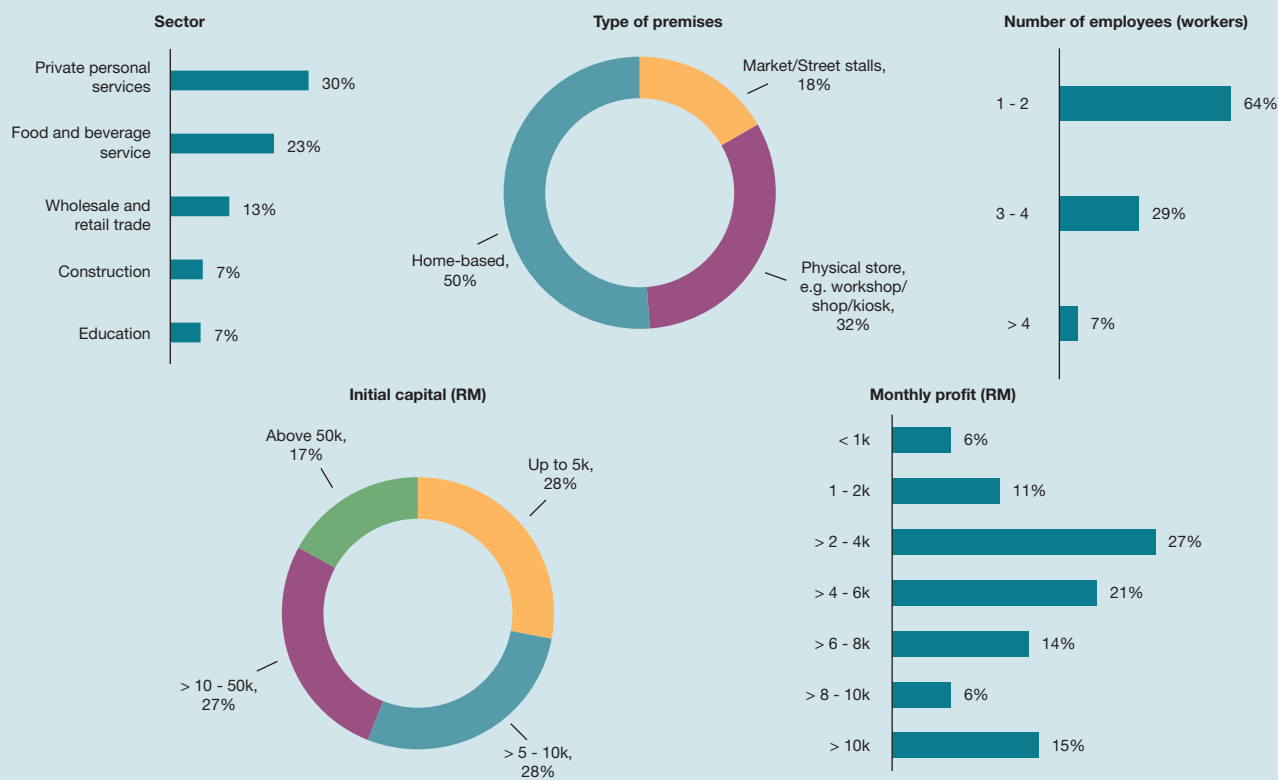
d) Persistence of informal businesses further limits access to finance

The Survey also revealed that unregistered firms¹⁵ generally recorded higher profitability averaging at 17.7%, compared to 16.1% by formal SMEs. These firms rely heavily on funds from family and friends and own cash at the initial stage, and continue to depend on family and friends, and internally-generated funds even as their business expands, with low access to external financing. The lack of access to critical resources and assistance could limit their scope for growth.¹⁶

Only 6% of the owners of unregistered firms indicated that they intended to formalise their business in the next two years. The World Bank Enterprise Surveys indicated that common reasons for firms not registering include the lack of information on how to register, time taken to register, taxes to be paid, and the lack of perceived benefits from formalisation. Other studies have also highlighted high entry costs, strict labour regulations, lack of access to resources and a complicated registration process as being deterrents to formalisation.¹⁷ These factors, potentially also relevant in the case of Malaysia, could be further examined through future surveys to encourage greater formalisation of businesses.

Diagram 4

Key Characteristics of Informal SMEs



Note: As % of respondents, k denotes thousand

Source: Bank Negara Malaysia

¹⁵ Businesses not registered with the Companies Commission of Malaysia (SSM). However, 36% of these firms have been registered with other authorities such as local authorities, ministries, societies and associations.

¹⁶ International Finance Corporation (IFC), 2013. Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises.

¹⁷ Ibid.

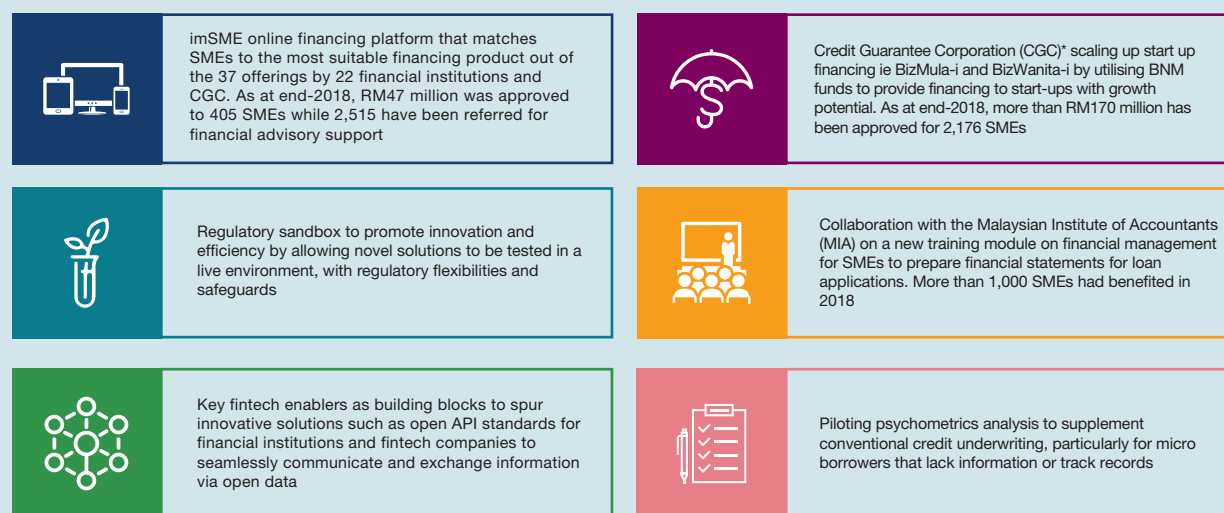
3. Policy Implications

The Survey findings affirm that existing policy priorities, which are directed at encouraging greater innovation by financial institutions, enhancing the efficiency of financing processes, credit enhancement products for SMEs and strengthening the financial management capabilities of SMEs remain relevant in light of barriers to financing that still exist among pockets of SMEs. Recent initiatives by the Bank in collaboration with key stakeholders are described in Diagram 5. In addition, areas for further development to address new and emerging needs of SMEs for financing include:

- a) Establishment of a secured transaction framework:** The on-going effort to establish a modern and unified movable property security interest legislation, and a centralised collateral registry for movable assets in Malaysia marks an important step in improving the infrastructure for access to finance particularly for SMEs. Currently, unincorporated firms that make up close to 70% of SMEs do not have a legal framework to use movable assets as collateral. The new framework would broaden the range of assets that SMEs can use to borrow (e.g. machinery and equipment, intellectual property, inventories, agriculture products) in addition to more conventional collateral in the form of building or property.¹⁸ A World Bank study¹⁹ has shown that secured transactions increased access to bank finance by 8 percentage points and lowered the cost of financing by 3 percentage points.
- b) Formalisation to enhance access to finance:** Given that the informal segment is estimated to account for about 29.6% of Gross National Income in Malaysia,²⁰ well designed incentives for businesses to formalise will further expand access to financing for such businesses to grow. This should be accompanied by measures to identify and address the key reasons for businesses choosing not to formalise. Impact studies²¹ in other countries have shown that just addressing business registration processes and costs alone proved to have little effect on encouraging firms to formalise, but when combined with monetary incentives (e.g. grants) or market access opportunities (e.g. criteria to bid for public procurements), they provide stronger inducements for firms to register.

Diagram 5

Recent Initiatives to Enhance SME Financing



* CGC Malaysia assists marginal but potentially viable SMEs, particularly those with inadequate collateral and track record to obtain financing from financial institutions, via guarantee schemes.

Source: Bank Negara Malaysia

¹⁸ Statistics from United Nations Commission on International Trade Law (UNCITRAL) indicated that 78% of capital stock worldwide is in movable assets.

¹⁹ Across 73 countries in 2013.

²⁰ Estimate by Friedrich Schneider in 2012 in 'The Shadow Economy and the Work in the Shadow: What Do We (Not) Know?'

²¹ IFC, 2013. Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises.

Studies²² have also shown that access to benefits such as social protection schemes, commercial finance services and business development services as well as facilitative tax administration (increasing the threshold for taxation) have contributed to the formalisation of firms. Such incentives should be balanced with better enforcement, which may include stiffer penalties for non-compliance with business regulations, to reap the full benefits of policy interventions.

c) Promote alternative finance: A well-diversified financial landscape is necessary for SMEs to have access to a wide range of financing options best suited to meet their specific needs and for different stages of their business life-cycle. Moving forward, alternative finance is expected to play a bigger role in complementing bank financing to bridge the “financing gap” in catering to firms that are ill-suited to financing by deposit-funded banks. Amongst these include technology-based start-ups and innovative firms. High asymmetries in information and sparse financial information, reliance on intangibles, high uncertainty on returns, as well as informal governance and management arrangements that tend to be characteristics of such firms, especially in their early stages, pose particular challenges to traditional bank lending, and can disproportionately increase the risk of losses to depositors.²³ Currently, alternative finance, which includes venture capital, equity crowdfunding, angel investments, leasing, factoring and peer-to-peer financing, accounts for less than 3%²⁴ of total SME financing in Malaysia and is fragmented with numerous players. A more holistic approach to its development with greater coordination among relevant authorities would serve to build an enabling ecosystem with appropriate regulations, incentive systems and supporting infrastructure to foster and accelerate the growth of alternative finance in supporting SMEs.

²² International Labour Organisation (ILO), 2016. Policies, Strategies and Practices for the Formalisation of Micro and Small Enterprises.

²³ OECD, 2016. New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments; Bravo-Biosca, 2013. Access to Finance for Innovation: Rationales and Risk of Public Intervention.

²⁴ Compiled from data sourced from Bank Negara Malaysia, Securities Commission, SME Corporation Malaysia and various authorities. In comparison, alternative finance accounts for over 20% share of SME finance in the United States.

Expanding Insurance and Takaful Protection for the B40 Population

By Liung Miao Shan and Siti Nur Shuhada Nor Baharin

This box article describes the features, operationalisation and the intended outcomes of the *Skim Perlindungan Nasional B40, mySalam* (the Scheme) that was recently introduced by the Government effective 1 January 2019. The Scheme aims to reduce the vulnerability of households in the bottom 40% income group (B40) to income shocks from unexpected hospitalisation or critical illnesses. It is applicable to eligible *Bantuan Sara Hidup Rakyat* household recipients aged between 18 and 55 years old.

The Scheme complements the Bank's ongoing initiatives to increase insurance and takaful coverage, particularly among the underserved segment, thus strengthening business and household resilience to financial shocks. To this end, the Bank launched the *Perlindungan Tenang* initiative in December 2017, which attracted participation from 10 insurance and takaful players to provide simple and affordable insurance and takaful products. Through innovations to product design and the customer journey, such as digitalising distribution channels and claims submissions, insurers and takaful operators have become more responsive to the needs of this segment.

Understanding the Needs of the B40 Income Group

A key risk faced by the B40 is the immediate financial ramifications of a temporary loss of income owing to the inability to work as a result of hospitalisation or illness. The Financial Capability and Inclusion Demand Side (FCI 2018) Survey¹ found that 62% of those who struggled to make ends meet over the period of 12 months surveyed are from the most vulnerable segment earning less than RM1,000 a month. Low-income households earning less than RM2,000 did not fare much better, with them spending 95% of their earnings on living costs, leaving them with little savings against economic shocks or emergencies. 86% of respondents that cited difficulties raising emergency cash of RM1,000, an amount roughly equivalent to one month's minimum wage, are from the low-income households earning less than RM1,500 a month. For the B40, a diagnosis of a critical illness or a protracted period of hospitalisation could plunge the household into poverty or debt in a matter of weeks, particularly if the spouse has to also take on the role as caregiver. These observations on the B40 are consistent with national reports² and feedback from insurers and takaful operators.

Barriers to obtain affordable and suitable insurance and takaful protection still exist, as products that are currently available on the market are better suited to the needs of the more affluent market segments. Product and process complexities have also made understanding insurance inherently difficult for many. This in turn discourages demand for insurance and takaful, particularly among the B40. Based on consumers surveyed in FCI 2018, among those who have never purchased any insurance and takaful products, three in five indicated that it was due to a lack of general understanding on insurance and takaful, or because they did not know how to assess or choose such products. Financial and information constraints typically faced by the B40 further compounds the difficulty that they face in making decisions on insurance and takaful purchases.

Based on data published by the Employees Provident Fund, Malaysia's existing social protection system provides benefits for only 38% of working age Malaysians³, with the rest (approximately 13.7 million people) excluded from such protection. This remaining group includes the self-employed, informally employed (such as day earners) and housewives. Notwithstanding recent public policies⁴ to expand coverage to these subgroups, many of these individuals are low-income workers, and interruptions to their income stream owing to an inability to work can have a significant impact on their well-being as well as that of their dependants. This need remains underserved by both private insurance and takaful and public social protection.

¹ Bank Negara Malaysia, 2018.

² The State of Households – Different Realities, Khazanah Research Institute, 2018.

³ Defined to be those aged 16 to 60 years old.

⁴ Self-employed Employment Injury Scheme under Social Security Organisation (SOCSO) and *Caruman Sukarela Insentif Suri* (i-Suri) under Employees Provident Fund (EPF).

Scheme to Bridge the Protection Gap and Transition the B40 to a Sustainable Private Market

Given the observed gaps above, the Scheme will provide immediate protection for the eligible B40. The Scheme has also been designed to meet the following longer-term objectives:

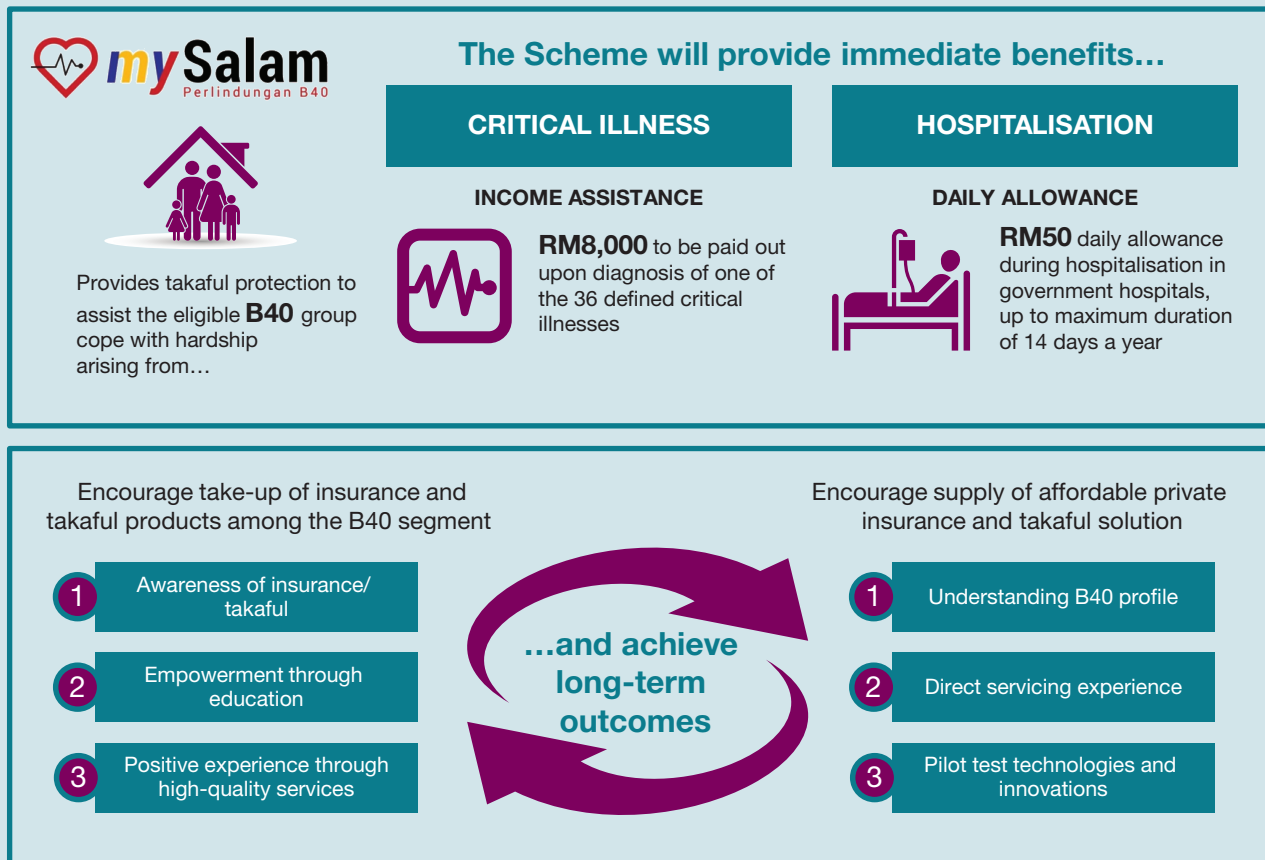
A) Encourage take-up of insurance and takaful among the B40 by building greater awareness, a positive experience and trust

A key barrier to the take-up of insurance and takaful coverage lies in its particular nature where the benefits of being covered are not immediately apparent, while the costs are. With limited resources, this trade-off is even more pronounced among the B40 segment. The Scheme therefore seeks to provide opportunities for the B40 to experience first-hand the financial benefits of insurance and takaful, and to build positive familiarity and confidence in related procedures. Various studies⁵ have shown that having personal experience with insurance products can create a sustainable demand for insurance. By providing protection against temporary income displacement, the Scheme deals with a key risk facing the B40.

Under the Scheme, participating insurers and takaful operators must meet defined servicing standards in line with *Perlindungan Tenang* principles. The standards include product features and services that provide convenient access and are easy to understand and to claim for benefits covered. This is critical to allow the

Diagram 1

Objectives and Intended Outcomes of the *Skim Perlindungan Nasional B40, mySalam*



Source: Bank Negara Malaysia

⁵ Using Subsidies for Inclusive Insurance: Lessons from Agriculture and Health, International Labour Organization, 2014.

B40 to have positive user experiences and develop greater confidence in insurance and takaful. To this end, the Scheme has introduced a dedicated online portal and hotline to service all enquiries and claims. In addition, the Scheme will continue to explore more effective outreach and distribution channels, such as via hospitals.

B) Promote the supply of commercially viable and affordable insurance and takaful products and services that meet the needs of the underserved segment

The Scheme is designed based on core insurance and takaful principles and is not intended to serve as a form of long-term social welfare. It will be provided for a limited period with the intention of eventually migrating the B40 to fully subscribe to private insurance and takaful products.

At present, the lack of data on the B40 is often cited by the industry as a challenge in facilitating product design and pricing. With this Scheme, comprehensive B40 data such as claims and customer profiles collected over the duration of the Scheme will support more accurate and sustainable product design and pricing. This will encourage broader and more competitive private market solutions that cater to the underserved segments. In addition, the Scheme will also serve as a testbed for the development of innovative delivery channels, including digital solutions and public-private partnerships to effectively reach and serve the target segments.

In the longer term, it is envisaged that affordable private insurance and takaful will be more widely available to and accessed by various segments of society and the economy to manage a wide range of financial risks and life events.

Operational Sustainability to Support Longer-Term Objectives

The Scheme is funded by the insurance and takaful industry. Initial funding will be provided by foreign insurance shareholders that elect to contribute to the Scheme in lieu of their commitment to reduce their shareholdings to not more than 70%. Contributions to the Scheme will similarly promote the objectives of divestment to achieve greater long-term economic benefits for Malaysia through wealth sharing and higher insurance penetration.

A trust fund has been set up to manage the contributions from insurers and takaful operators to the Scheme. In this initial stage, the Scheme will pay premiums or contributions from the fund on behalf of the B40 to participating insurers and takaful operators for standardised coverage. The product will be underwritten and serviced by participating insurers and takaful operators at cost with profits ploughed back into the Scheme.

The Scheme leverages on the existing infrastructure of insurers and takaful operators to deliver effective and efficient servicing. Additional supporting infrastructure to accommodate the high volume of servicing, such as the aforementioned online portal, will be developed by the Scheme for use by all participating insurers and takaful operators. This model will allow the Scheme to manage its costs and ensure its sustainability over the duration of the Scheme.

The Scheme is expected to play a key catalytic role in the development of suitable insurance and takaful products and services for the underserved segments in Malaysia. It also presents unique opportunities for industry players to gain an in-depth understanding of customer needs and encourage more Malaysians to protect themselves against financial shocks through insurance and takaful protection.

Regulatory and Supervisory Framework

71	Regulatory Developments
77	Supervisory Developments
80	Strengthening and Safeguarding Financial System Integrity
85	Enforcement Actions
87	<i>Box Article: Strengthening Shariah Compliance Risk Culture</i>

Regulatory and Supervisory Framework

In 2018, the Bank's regulatory and supervisory activities continued to focus on ensuring that the financial system remains resilient against emerging risks amid a more challenging environment. Further progress was made in the implementation of the Basel III reforms package. This continued to be supported by a sustained focus on strengthening risk management practices in the banking and insurance sectors, particularly in response to risks associated with the rapid pace of technological change and increasing reliance on third party arrangements. A stronger focus on culture has also been an increasingly important part of the Bank's regulatory and supervisory approach in efforts to drive behaviour that is consistent with the responsible management of financial institutions and society's expectations.

Malaysia's efforts to preserve the integrity of the financial system and combat money laundering (ML) and terrorism financing (TF) risks have resulted in the Financial Action Task Force (FATF) Plenary upgrading Malaysia's technical compliance ratings of its Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) framework. This places Malaysia among jurisdictions that are highly rated for their technical compliance with FATF Recommendations. The National Coordination Committee to Counter Money Laundering (NCC) has also endorsed the results of the National Risk Assessment (NRA), which will provide important inputs for the NCC to review the National AML/CFT Strategic Plan in 2019 to further enhance the identification of, and safeguards against, ML/TF threats and vulnerabilities at the national level.

REGULATORY DEVELOPMENTS

Implementation of Basel III standards and other global reforms

Domestic implementation of the Basel III reforms continued to be a focus of the Bank's regulatory activities in 2018 to ensure that Malaysia's banking system remains strong and resilient. Since the implementation of the Liquidity Coverage Ratio (LCR) in 2015, banking institutions had transitioned smoothly to fully comply with the phased-in minimum requirements in accordance with global timelines. The LCR promotes short-term resilience to liquidity shocks by requiring banking institutions to hold adequate liquidity buffers to withstand a 30-day liquidity stress scenario. As at January 2019, all banking institutions reported LCR levels of above the 100% minimum ratio (refer to 'Liquidity and Funding Risk' in the Chapter on 'Risk Developments and Assessment of Financial Stability in 2018').

Extension of the Net Stable Funding Ratio (NSFR) observation period

In October 2018, the Bank announced the extension of the NSFR observation period to 31 December 2019. The NSFR complements the LCR by promoting long-term resilience of banking institutions' liquidity risk profiles. The requirements incentivise banking institutions to fund their activities with sufficient stable funding on an ongoing basis. As at end-2018, the average NSFR for the banking industry stood at 109.3%, with 83% of banking institutions reporting NSFR levels of at least 100% (2017: 107.6%; 76% of banking institutions). While most banking institutions are expected to be well-positioned to meet the NSFR minimum requirement of 100%, the Bank is conducting

further work on the liquidity risk management practices of banking institutions as additional input to the finalisation of the NSFR requirements. Although progress in the implementation of NSFR globally remains uneven, the Bank remains committed to its implementation in Malaysia and aims to finalise the NSFR requirements in the first half of 2019.

Enhancements to Pillar 3 disclosures

As part of efforts to strengthen market discipline through the provision of meaningful and comparable information on the risk profiles of banking institutions, the Bank published an exposure draft on revised requirements for financial institutions to disclose key information relating to regulatory capital and risk exposures (“Pillar 3” requirements) in June 2018.

The Pillar 3 exposure draft aims to provide clear, comprehensive and consistent disclosures of key information relating to a financial institution’s regulatory capital and risk exposures

Building on the existing Pillar 3 disclosure requirements issued in 2010, the key proposals are broadly aligned with the requirements set by the Basel Committee on Banking Supervision (BCBS) and aim to provide clear, comprehensive and consistent disclosures to users. Common templates were introduced to improve consistency of disclosures and ease comparability of banking institutions’ risk profiles within and across jurisdictions. The proposed revisions also complement financial reporting by providing more granular data on regulatory metrics, supported by additional qualitative information. This seeks to enable more meaningful assessments by market participants. The Bank also took the opportunity to consolidate all existing regulatory disclosures, including those on capital, credit risk-weighted assets, Leverage Ratio, LCR and remuneration practices, into a single document for easier reference.

Industry feedback received during the consultation period was largely focused on the operational cost of compliance. In this regard, the Bank is considering options to preserve the intended objectives of the proposed revisions, while minimising undue operational burdens on banking institutions. The Bank expects to finalise the requirements earliest in 2020.

Framework on domestic systemically important banking institutions (D-SIBs)

In light of the increasing size, complexity and regional footprint of some domestic banking groups, their failure is more likely to cause market-wide disruptions that could threaten financial stability. It is therefore crucial to hold these banking groups to higher prudential standards to ensure their continued resilience and reduce the moral hazard associated with expectations of publicly-funded bail-outs.

The D-SIBs framework will establish enhanced regulatory requirements and policy measures for D-SIBs to reduce the probability and impact of their distress or disorderly failure on the financial sector and the economy

In the first half of 2019, the Bank will issue an exposure draft that sets out the assessment methodology to identify D-SIBs and the corresponding applicable regulatory requirements. The D-SIBs framework is developed in line with the principles outlined by the BCBS framework on global systemically important banks (G-SIBs). The framework will establish enhanced regulatory requirements and policy measures for D-SIBs to reduce the probability and impact of their distress or disorderly failure on the financial sector and the economy. This will include requiring additional capital buffers in the form of Common Equity Tier 1 (CET1) to be maintained by D-SIBs. The exposure draft will also impose supplementary reporting requirements to facilitate the Bank’s identification and assessment of D-SIBs.

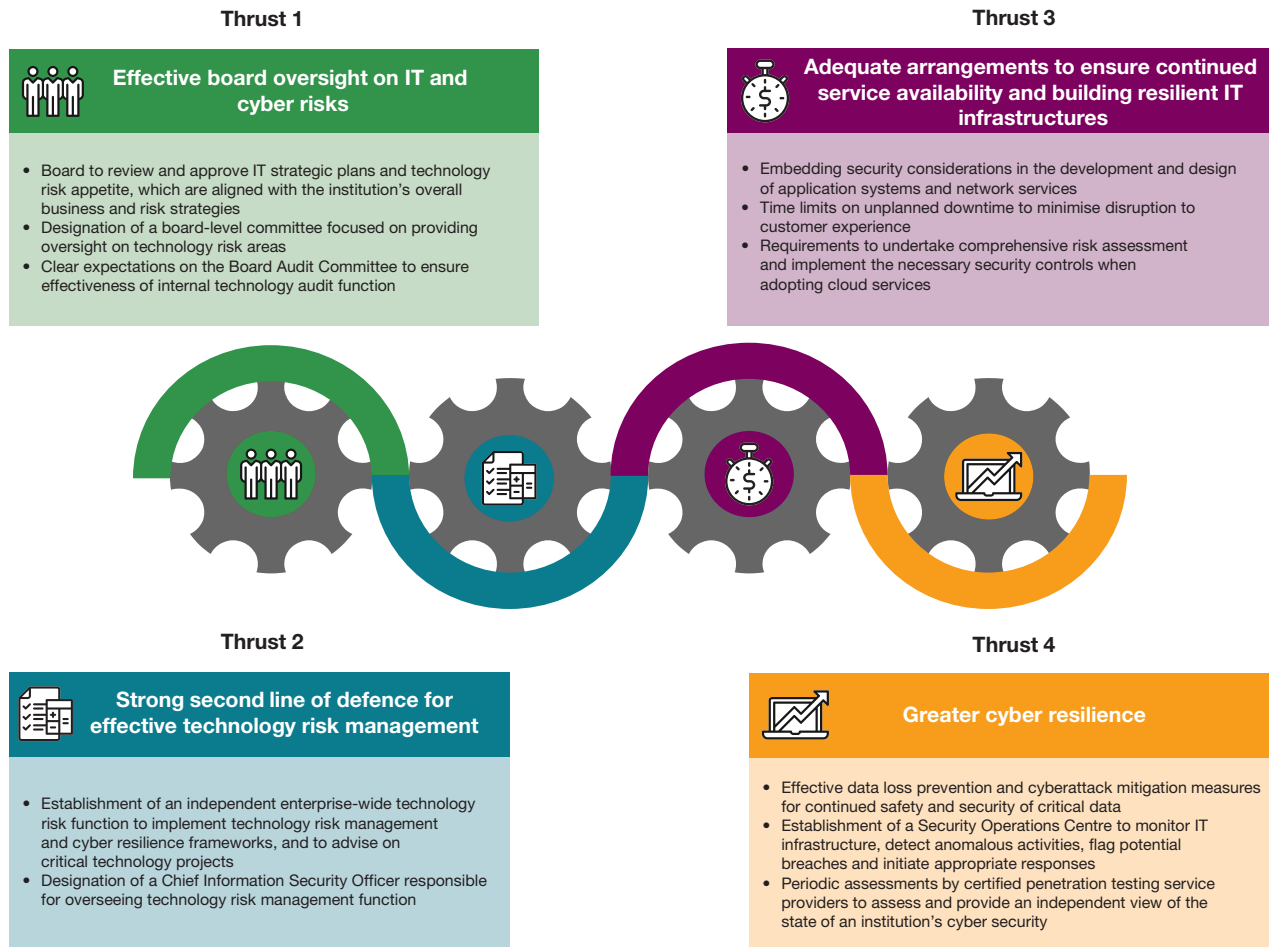
Strengthening conduct, culture and risk management in the financial industry

Enhancements to requirements on risk management in technology

The digitalisation of financial institutions’ business operations has spurred the offering of more diverse, efficient and innovative financial services. However, this poses new dimensions of risk that must be managed appropriately, in particular from increased exposures to cyber threats and compromised access to confidential data. In September 2018, the Bank issued the exposure draft on Risk Management in Technology (RMIT) to enhance and streamline existing policies on technology

Diagram 3.1

Key Thrusts of the Risk Management in Technology Framework



Source: Bank Negara Malaysia

risk management. The proposed requirements raise regulatory and supervisory expectations (Diagram 3.1) for financial institutions to ensure: (i) effective board oversight over information technology (IT) and cyber risks; (ii) a strong second line of defence for effective technology risk management; (iii) adequate and sufficiently tested arrangements to ensure continued service availability and resilient IT infrastructure; and (iv) strengthened monitoring and independent assurance to promote greater resilience to cyberattacks. Industry feedback mainly sought further clarity on the use of cloud services and parameters applied to define critical services and systems which are subject to heightened regulatory requirements. These will be addressed in the finalisation of the RMIT policy in 2019.

Finalisation of revised outsourcing standards

Following extensive engagements with the industry and further progress made towards the implementation

of recovery plans for financial institutions, the Bank issued the revised standards on the management of outsourcing risks in December 2018. The finalisation of the standards has sought to balance the benefits that outsourcing can bring to financial institutions in terms of increasing efficiency and visibility to risks across the financial group, with the potential costs of over-reliance on third parties, reduced supervisory oversight and added complexity to business operations and their recovery. Over the longer term, the hollowing out of internal capacity within financial institutions to manage key risks was also an important consideration that informed the final standards. In achieving this balance, the final standards require financial institutions to clearly identify material outsourcing arrangements and maintain adequate safeguards over outsourcing arrangements that must include senior management accountability for outsourced activities, audit access

to service providers and business continuity plans that are commensurate with the nature and risk of the outsourcing arrangements. Financial institutions must also maintain complete information on all outsourcing arrangements for the purpose of ongoing supervisory and risk assessments. The standards have been in effect since 1 January 2019, with a six-month transition period for institutions to complete an internal register of all outsourcing arrangements, perform a gap analysis of existing arrangements against the enhanced requirements and develop an action plan to address identified gaps. All existing outsourcing arrangements entered into by financial institutions are expected to fully comply with the standards by 1 July 2022.

Enhanced accountability through responsibility mapping

In April 2018, the Bank concluded preliminary consultations with the industry on the Responsibility Mapping discussion paper. The paper provides an overview of the Bank's proposed approach to strengthen the accountability framework of senior managers in financial institutions. This complements existing expectations for senior management of financial institutions to promote prudent and ethical conduct by clarifying accountabilities at an individual level, and ensuring that a material failure by senior managers to discharge their responsibilities is met with appropriate consequences. Preliminary ideas were shared on areas covering interactions between entity-level and group-wide senior roles, basic duties of senior managers, 'double hatting' and joint responsibility roles, and collective decision-making. Further engagements with the industry will be carried out over the course of 2019 to better understand how the proposed approach to responsibility mapping can be implemented in a way that meaningfully strengthens accountability frameworks and drives culture improvements.

Proportionate regulatory approach for development financial institutions (DFIs)

As Malaysia's economic landscape and structure continue to evolve, the Bank will be reviewing the mandates of DFIs to ensure that their developmental objectives are aligned with the nation's economic strategies. In line with this initiative, the Bank is undertaking a holistic review of the existing regulatory framework for DFIs to better align the role of DFIs in supporting the wider objectives, including growth and financial inclusion. This review builds on the Bank's existing approach in implementing differentiated prudential requirements between DFIs and banking institutions, as well as progress being made to

significantly strengthen performance measurement and accountability frameworks for DFIs (refer to 'Banking' in the Chapter on 'Development of the Financial Sector'). The latter is also particularly important to minimise market distortions and ensure that the prudential framework remains appropriate to the specific risk profiles of individual DFIs. The Bank's regulatory and supervisory approach aims to provide greater differentiation at the individual institution level reflecting the nature, size, complexity and specific roles and mandates of each DFI. This is expected to enable DFIs to increase their developmental impact and to achieve this in a sustainable manner. Over the coming year, the Bank plans to consult on proposed revisions to 10 core prudential standards applicable to DFIs as part of the review.

Policy enhancements to investment-linked (IL) business for insurers and takaful operators

As part of the phased implementation of the Life Insurance and Family Takaful Framework (LIFE Framework) to support the long-term development of the insurance and takaful industry, the Bank conducted a review of standards applicable to the conduct of IL business during the year, with the revised standards issued in January 2019. The standards strengthen requirements to ensure that the rapid growth of IL business in recent years is not achieved at the expense of the responsibility of insurers and takaful operators to ensure the fair treatment and appropriate protection of policy owners and takaful participants.

Key requirements in the revised IL business standards include:

- (i) the introduction of the Minimum Allocation Rate (MAR) to protect customer account values in tandem with the removal of commission limits which will take effect in July 2019 (for life insurers) and July 2020 (for family takaful operators), respectively. The MAR will also result in commissions being spread over a longer term, which incentivises better sales and servicing practices as well as persistency management for long-term IL policies/takaful certificates;
- (ii) strengthened expectations for insurers and takaful operators to conduct more robust sustainability tests to ensure an IL policy/takaful certificate can sustain its coverage until the end of its contractual term; and
- (iii) improved disclosures in IL product illustrations to help customers better understand the key risks and benefits of IL policies/takaful certificates, thereby facilitating more informed decisions.

Regulatory framework for Islamic finance

The growing complexity in the Islamic financial business observed in recent years stemmed from the increasing demand for Islamic financial solutions to be more differentiated and targeted. This has resulted in the development of more sophisticated and complex bespoke Islamic financial solutions to navigate the changing environment of Islamic finance. To ensure that the regulatory framework for Islamic finance remains responsive to the changing environment, increased focus was directed by the Bank to:

- (i) promote effective integration of Shariah governance and risk management within the operations and processes of Islamic financial institutions (IFIs);
- (ii) strengthen compliance with Shariah standards in the operationalisation of Shariah contracts; and
- (iii) encourage innovation, particularly in the takaful industry, by clarifying the application of a wider range of Shariah contracts for takaful product offerings.

The Bank expects to finalise the Shariah Governance Framework in the second half of 2019, incorporating changes in response to feedback received to the exposure draft issued in 2017. The framework aims to progress IFIs from a largely compliance-based and process-driven

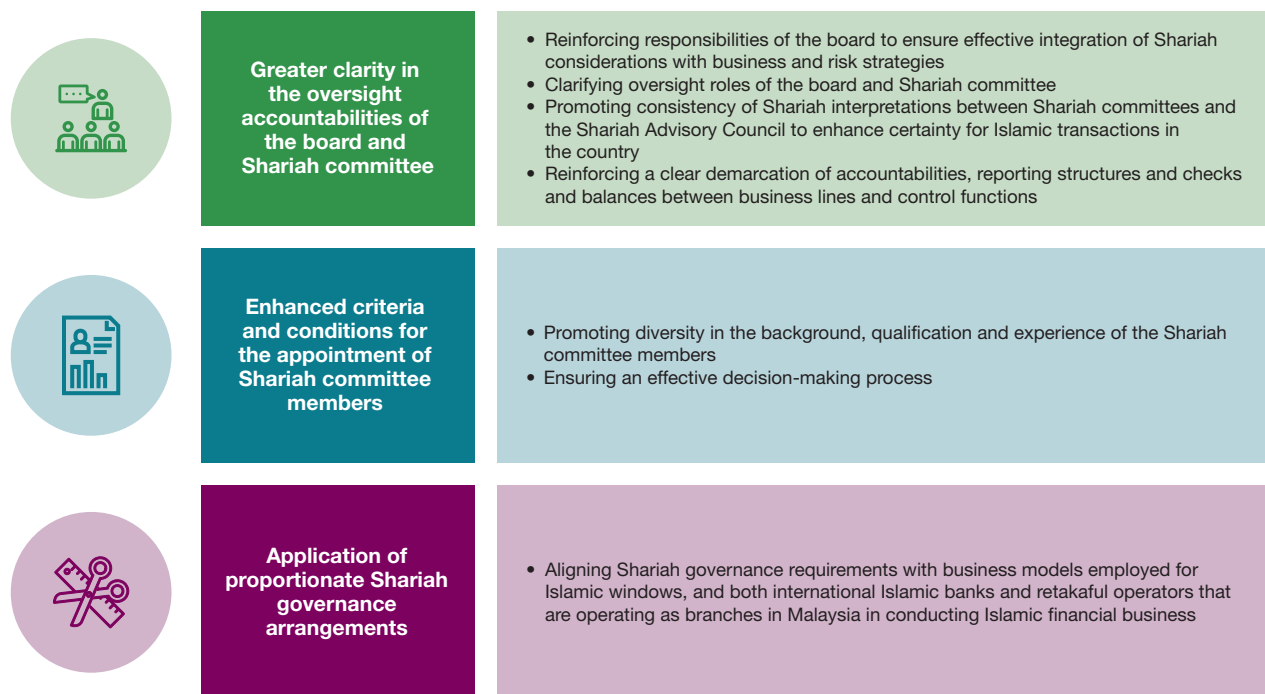
focus to a more closely integrated approach to Shariah governance that is well-embedded in the business and risk strategies of IFIs (see Diagram 3.2).

The Bank also made further progress during the year in the development of Shariah parameters and operational requirements governing the application of Shariah contracts in Islamic financial transactions. The compendium of Shariah standards was expanded to include *bai` al-sarf* (exchange of money) and *rahn* (pledge) (Table 3.1), bringing the total number of standards issued to date to 14.

The Bank additionally sought to provide greater clarity in the application of Shariah contracts to deal with the specificities of takaful business in the proposed revisions to the Takaful Operational Framework which was published for public consultation in May 2018 (Diagram 3.3). The proposed revisions accord recognition to a wider range of Shariah instruments within takaful business in line with advancements in the development of Shariah standards. The revisions are expected to encourage greater product innovation and differentiation in product offerings while strengthening takaful fund management practices, in turn increasing the diversity and growth potential of the takaful market in Malaysia. The Bank plans to issue the final standards in the first half of 2019.

Diagram 3.2

Key Policy Considerations in Finalising the Shariah Governance Framework



Source: Bank Negara Malaysia

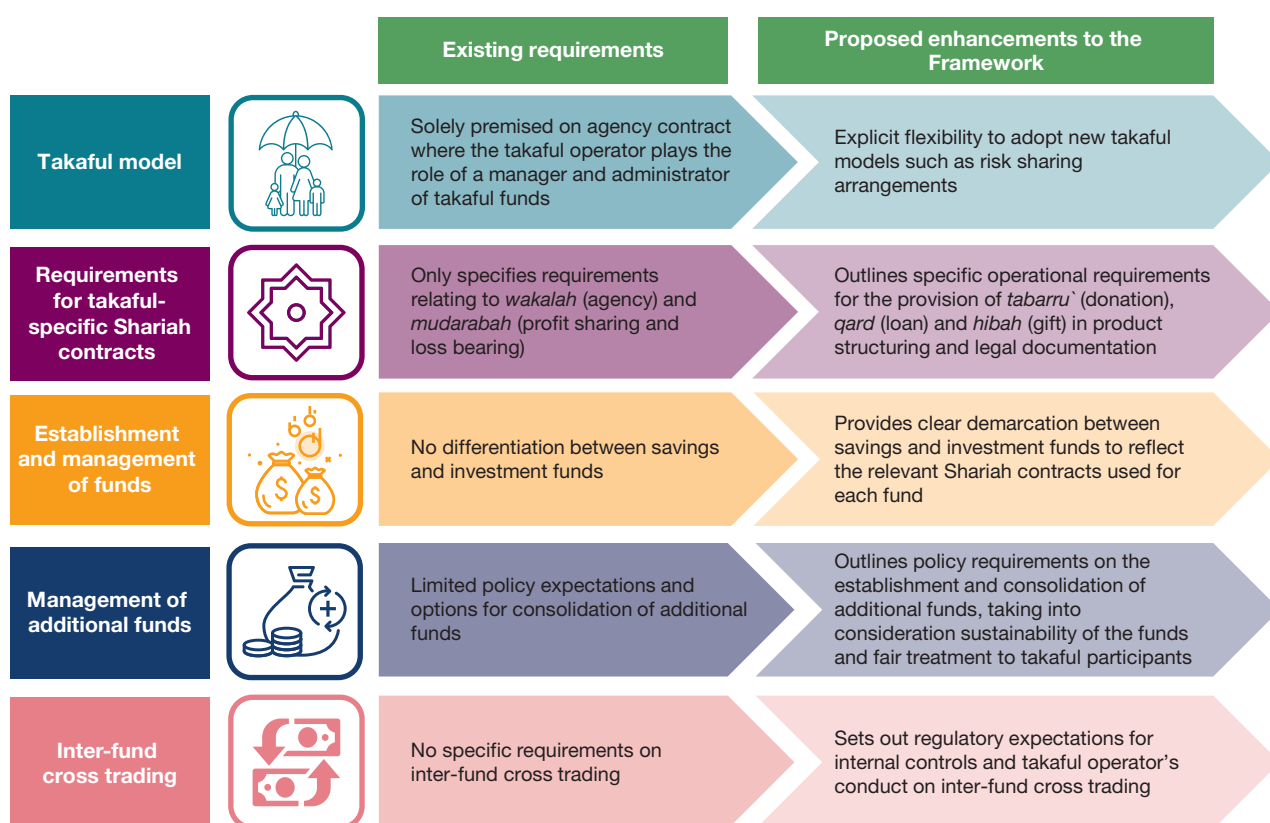
Table 3.1

Shariah Standards Issued in 2018		
Shariah contracts	<i>Rahn</i> (Pledge)	<i>Bai` al-sarf</i> (Exchange of money)
Application	Pawnbroking and secured financing	Foreign currency deposits, financing or investment, remittance and bureau de change
Description	Define accepted uses of collateral and allowable charges	Clarify the approach to spot settlement and rate of exchange for currency exchange
Intended impact	Consistent practices on the use of collateral as a risk mitigant in Islamic financing solutions (e.g. Islamic pawnbroking businesses)	Smooth operations and strong market practices for currency exchange

Source: Bank Negara Malaysia

Diagram 3.3

Proposed Enhancements to the Takaful Operational Framework



Source: Bank Negara Malaysia

SUPERVISORY DEVELOPMENTS

Implementation of accounting standards

MFRS 9

The Malaysian Financial Reporting Standards 9: Financial Instruments (MFRS 9), which is based on a more forward-looking approach to estimate provisions, came into full effect on 1 January 2018, in line with the global implementation timeline. To ascertain the adequacy of oversight and controls, the methodology and models used to estimate expected credit losses (ECL) and system capabilities, the Bank conducted a thematic review on banking institutions' implementation of MFRS 9. Overall, banking institutions transitioned reasonably smoothly to the new accounting standard, helped by their regulatory reserves which mitigated the impact of additional provisions. Banking institutions also generally demonstrated robust implementation approaches, although improvements in certain aspects of implementation were required for some banking institutions. Key observations made during the thematic review are summarised in Diagram 3.4.

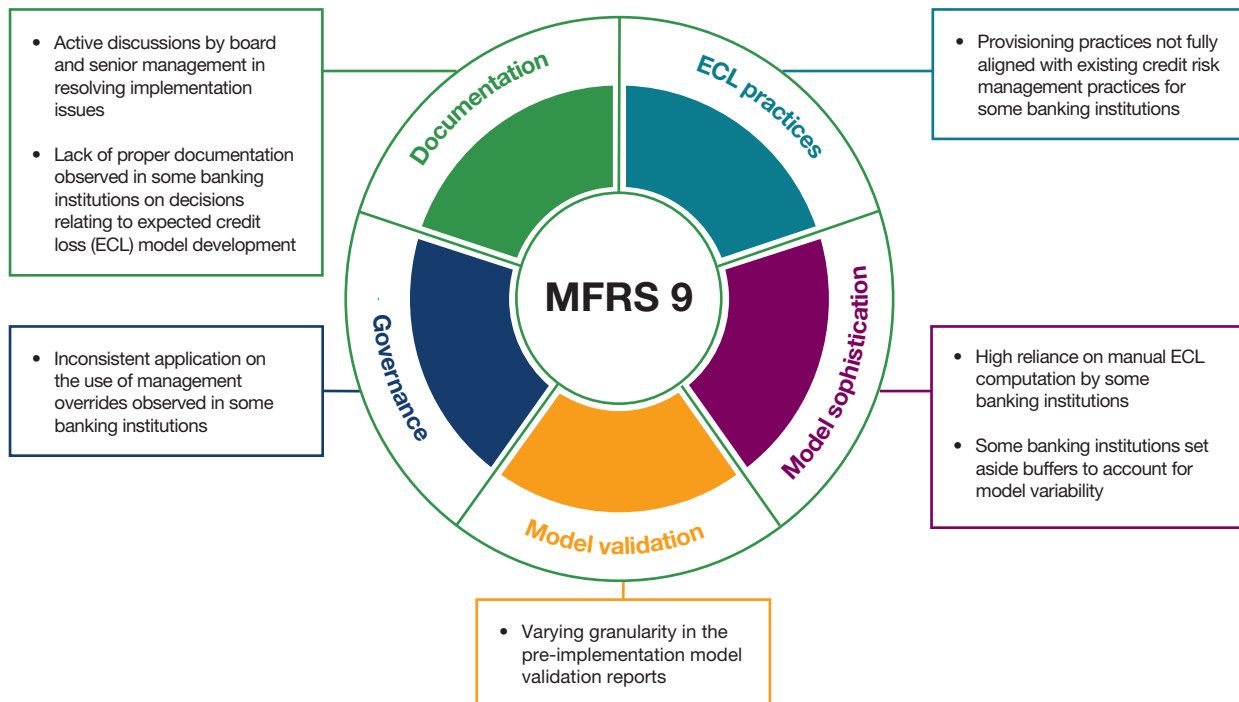
The thematic review also confirmed the expected variability in provisioning practices across banking institutions, which are mainly driven by differences in the underlying data used, modelling approaches available to estimate ECL and the application of expert judgement. In response to this observation, the Bank conducted a hypothetical portfolio evaluation (HPE) exercise in October 2018 to ascertain the degree of variability in provisioning levels. Under this exercise, nine banking institutions were provided with a hypothetical portfolio of mortgage and corporate exposures and were required to estimate ECL provisions based on internal models and methodologies. The Bank is currently engaging with individual banking institutions and external auditors to finalise the assessment of the HPE exercise. Findings from both the thematic review and the HPE exercise will be used to determine whether a regulatory response is needed to ensure that the MFRS 9 is implemented in line with its intended outcomes.

MFRS 17

The MFRS 17: Insurance Contracts will markedly change insurers' and takaful operators' (ITOs) recognition, measurement and presentation of insurance and takaful contracts in their financial

Diagram 3.4

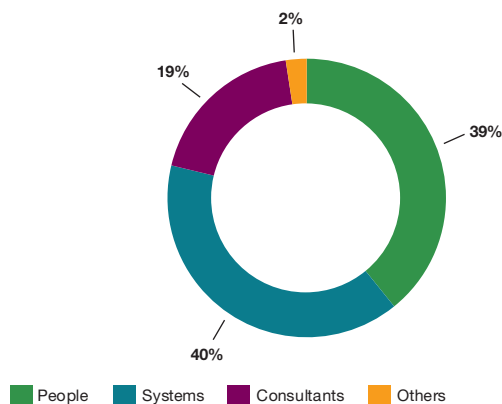
Key Observations in the Malaysian Financial Reporting Standards 9 (MFRS 9) Thematic Review



Source: Bank Negara Malaysia

Chart 3.1: Estimated MFRS 17 Budget Allocation

Systems and people constitute the largest proportion of estimated implementation costs



Source: Bank Negara Malaysia

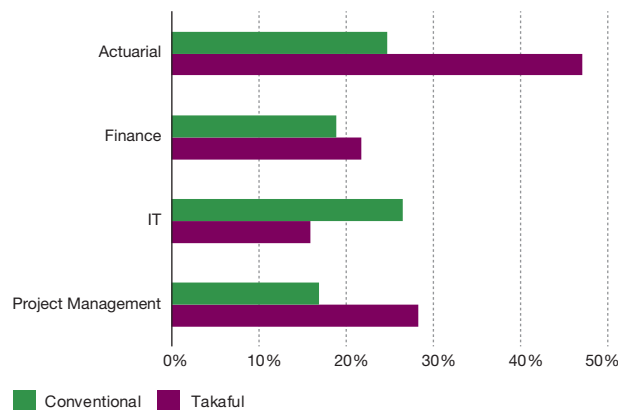
statements. In 2018, the Bank undertook various industry-wide surveys to gauge the level of preparation by ITOs to implement the standard and better understand the operational and technical issues faced in implementation.

A majority of ITOs have set up project management teams to spearhead the adoption of the standards, with key deliverables, broad project plans and monitoring mechanisms identified. However, progress across the industry remains uneven, with many ITOs still working on gap analyses. In addition, internal estimates of the implementation costs and resource requirements also show significant variance across the industry, reflecting the differences in operational capabilities and access to external support. The bulk of implementation costs is attributed to upgrading systems and people (Chart 3.1). ITOs reported the highest demand for talent in the actuarial, finance, IT and project management fields, and this is more pronounced in the takaful industry (Chart 3.2). Considerable reliance on external expertise is thus expected to address this gap.

A number of interpretation and application issues have been identified by the ITOs, mostly relating to newly introduced concepts in the standards, including contract boundaries and the measurement of reinsurance contracts. There are additional challenges for takaful operators: (i) the new standards do not directly address some of the unique features of takaful contracts, such as the sharing of surplus and its

Chart 3.2: Proportion of Vacancies for MFRS 17 Expertise

High demand for talent, particularly actuarial expertise in the takaful industry



Source: Bank Negara Malaysia

recognition as liabilities; and (ii) there is a need to ensure that any proposed new methodologies are consistent with Shariah principles. The Bank will consider these issues along with changes to the prudential requirements on valuation methodologies in developing supplementary regulatory requirements to support the implementation of MFRS 17 in a manner consistent with prudential objectives. The Bank plans to consult on these requirements in the second half of 2019.

Managing conduct in the wholesale financial market

Following the issuances of the Code of Conduct for the Malaysia Wholesale Financial Markets and the Principles for a Fair and Effective Financial Market for the Malaysian Financial Market in 2017, the Bank conducted a thematic review to assess banking institutions' compliance with expectations set out in these documents. The assessment centred on 14 banking institutions with large treasury operations, specifically the market makers for foreign exchange transactions and principal dealers. The summary of the thematic review is reflected in Diagram 3.5.

Enhancing risk management and reserving practices for insurers and takaful operators

In recent years, the Bank has observed the steadily declining sales of traditional participating life business, with the total number of in-force

Thematic Review on Wholesale Market Conduct

Areas reviewed



- Adequacy of risk management practices and surveillance systems in identifying, monitoring and mitigating wholesale market misconduct
- Design of incentive structures that may lead to wholesale market misconduct (e.g. remuneration, gift and entertainment practices)
- Effectiveness of internal policies, procedures and processes in identifying and mitigating actual or potential misconduct by dealers

Key results of review



- Robust internal policies, procedures and processes are in place to promote fair and transparent wholesale market conduct
- Active discussions are held between the board and senior management on wholesale market misconduct, facilitating timely remedial actions
- Heightened scrutiny observed by the board and senior management on wholesale market conduct issues, particularly where a breach has been identified

Areas for improvement



- Potential to employ more sophisticated trade surveillance monitoring systems, including automation of processes in detecting trade anomalies and potential misconduct
- Continuous development of skills and expertise of control functions to improve their ability to accurately identify and address weaknesses in current processes for mitigating wholesale market misconduct

Source: Bank Negara Malaysia

participating life policies shrinking by 14.6% from 2013 to 2017. In contrast, IL business experienced significant growth, with a 42.7% growth recorded in the total number of in-force policies over the same period. The decline in participating life policies was also accompanied by an increased interest in alternative products such as non-unitised and non-discretionary account-based savings products. In an informal survey conducted in 2018, half of the conventional life insurers expect a further decline in the traditional participating life business. Among the reasons cited for slower growth were: (i) a shift in insurers' business strategy from traditional insurance products to alternative products; and (ii) the low consumer understanding on how a traditional participating policy works, including the non-guaranteed nature of bonuses paid under such policies.

Given the decline in the participating life business, it is important for insurers to better anticipate and manage the risks arising from the smaller risk pools, and assess the impact on claims, expenses and investment returns arising from the shrinking business. In this regard, the Bank has required insurers to assess the financial impact of these trends on the solvency of the participating funds and take pre-emptive measures to ensure their ability to meet policyholders' reasonable expectations over the long-term. To strengthen the level of transparency in IL and other account-based products and achieve greater consistency in sales practices, the

Bank has also enhanced the disclosure practices for these products so that consumers are given relevant and adequate information to facilitate their decision-making.

In addition, observations of inconsistent practices among general ITOs in the management of claim liabilities and high risk business lines have led to the issuance of supervisory requirements for general ITOs to maintain adequate case reserves for unpaid claims in line with the statute of limitations, and strengthen risk management practices for long-term fire insurance and takaful business.

Improving supervisory capacity and international cooperation

As regional and international linkages expand, the Bank continues to cultivate close cooperation arrangements with other central banks and supervisory authorities in order to promote effective oversight over financial institutions with cross-border operations. In November 2018, the Bank signed a Memorandum of Understanding (MoU) with the Dubai Financial Services Authority to promote effective supervision of financial institutions operating in both countries. The MoU outlines cooperation and coordination in the areas of exchange of information, facilitation of cross-border on-site supervision, issuance of licences and combating ML/TF risks.

During the year, the Bank also participated in supervisory college meetings of 10 foreign financial institutions with operations in Malaysia, and hosted one for a regionally-active domestic banking group. Bilateral meetings with five other foreign supervisory authorities were also held to facilitate effective coordination of supervisory oversight and activities involving cross-border financial groups. In addition to facilitating deliberations on key risks and supervisory concerns, these avenues of cooperation provided the Bank with a more comprehensive view of group-wide risks faced by financial institutions and actions being taken to address such risks.

The Bank also took part in two crisis management groups (CMGs) conducted by the United Kingdom Prudential Regulatory Authority for a global systematically important insurer and an Asian CMG coordinated by the Hong Kong Monetary Authority for a G-SIB. These CMGs aim to improve the readiness of home and key host authorities in effectively managing the recovery and resolution process of an institution by uncovering potential barriers to the implementation of a financial institution's recovery and resolution plans, and understanding their effects on the markets in which the institution operates.

STRENGTHENING AND SAFEGUARDING FINANCIAL SYSTEM INTEGRITY

Results of the 2017 NRA

Malaysia remains committed to protecting the integrity of the financial system from money laundering and terrorism financing abuse. In this regard, the Bank, 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 NCC, plays a pivotal role in coordinating nationwide efforts to strengthen the AML/CFT regime in Malaysia. In July 2018, the NCC endorsed the results of the NRA that was conducted in 2017. The NRA is a periodic assessment to identify, assess and understand ML/TF risks in the country. Utilising datasets spanning three years from 2014 to 2016, the NRA assessed the following areas: (i) serious crimes that pose ML threats; (ii) terrorism and TF risks, including a specific assessment on the vulnerabilities of non-profit organisations (NPOs) to TF risk; and (iii) vulnerabilities of financial and non-financial sectors to ML/TF risks.

Key findings on serious crimes are summarised in Table 3.2. Recognising that these risks are continually evolving, the NCC has committed to conduct the NRA every three years, to facilitate better understanding of the prevailing ML/TF risk landscape and strengthen the responsiveness of risk controls to changes in the risk environment.

Table 3.2

Terrorism and Terrorism Financing (TF) Risk and Money Laundering Threat of Serious Crimes

Type of serious crime	Threat level	Type of serious crime	Threat level
Corruption	High	Counterfeiting of currency	Medium
Fraud		Environmental crimes	
Illicit drug trafficking		Illegal remittance	
Organised crimes		Insider trading and market manipulation	
Smuggling		Kidnapping	
Counterfeiting and piracy of products	Medium High	Murder	Low
Forgery		Extortion	
Robbery and theft		Illicit arms trafficking	
Human trafficking/migrant smuggling		Illicit trafficking of stolen goods	
Sexual exploitation		Sea robbery	
Tax evasion			
Terrorism and TF			

Source: Bank Negara Malaysia

Guided by the outcomes of the NRA, the National AML/CFT Strategic Plan will be reviewed in 2019 to incorporate strategies to address the identified gaps and mitigate vulnerabilities. These include strategies to enhance the existing legal and regulatory frameworks to combat financial crimes, reallocate resources towards areas that pose higher risks and sectors facing high vulnerabilities, and intensify outreach efforts to enhance the level of awareness on ML/TF risks.

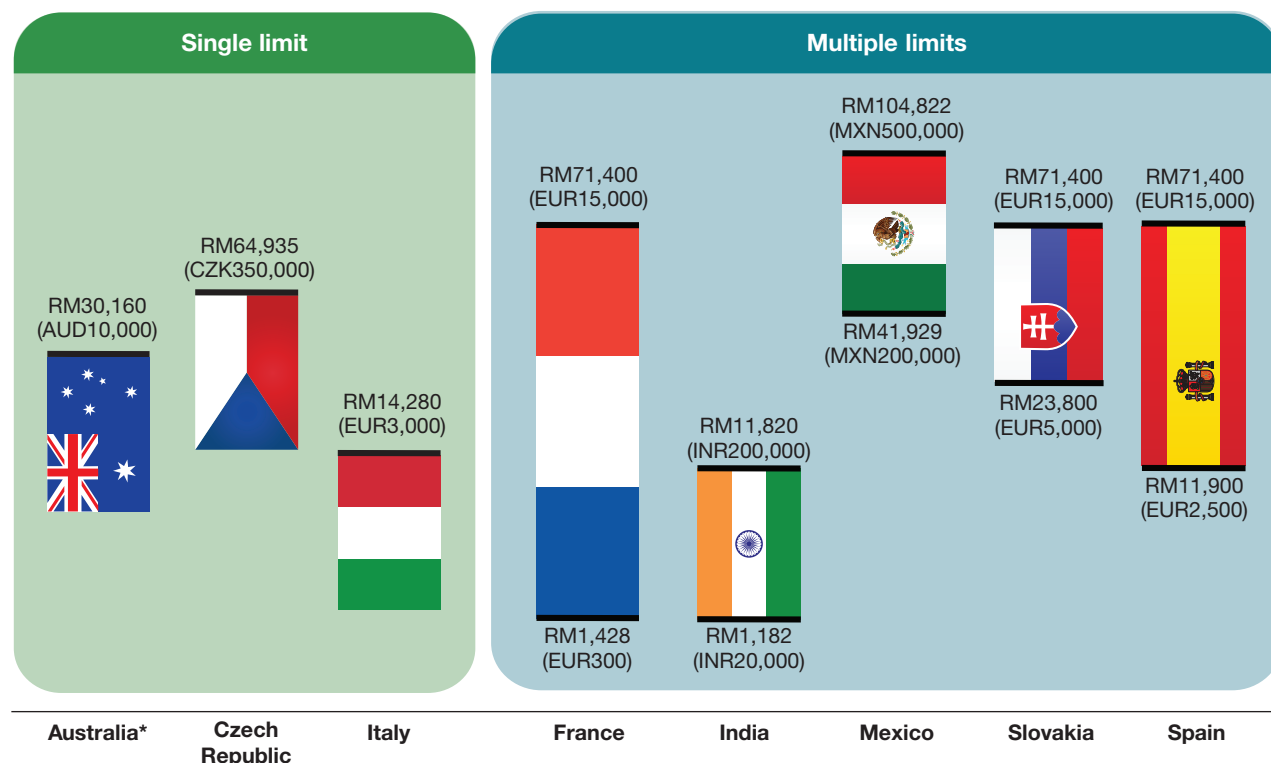
Strengthening the ML/TF framework

As evidenced by the 2017 NRA's findings, cash is extensively used by criminals to store, move and disburse illegal proceeds. Given that the use of cash as a medium of payment remains prevalent in Malaysia, measures continue to be taken to mitigate the risk of abuse of cash for criminal activities. Effective 1 January 2019, the Bank reduced the cash transaction reporting threshold from RM50,000 to RM25,000. The cash threshold reports (CTRs), a submission requirement imposed on banking institutions

and other reporting institutions from various sectors since 2006, complements the suspicious transaction reports (STRs) as a valuable source of information used for financial crime investigations by law enforcement agencies (LEAs) in Malaysia. Recent assessments have shown that the current threshold of RM50,000 is disproportionately high relative to other countries, and does not appropriately reflect the size and prevalence of cash usage in the Malaysian economy. This facilitates proceeds from illegal activities being placed by criminals in financial institutions at amounts just below the threshold to avoid detection. By lowering the threshold, such behaviour can be more easily detected through enhanced monitoring and better visibility on suspicious transaction patterns. Other potential measures are also being considered by the Bank, in collaboration with other LEAs, to complement the CTRs and STRs in responding to risks of abuse of cash for criminal activities. This includes studying the suitability of introducing an economy-wide transaction limit for cash transactions made in Malaysia. This measure is similarly imposed in a few jurisdictions (Diagram 3.6).

Diagram 3.6

Implementation of Cash Transaction Limit(s) in Selected Jurisdictions



* Effective 1 July 2019

Note: For jurisdictions with multiple limits, the limits differ according to categories such as purpose of transaction, business sector, parties involved and whether parties to the transaction are residents or non-residents. Currency conversions are based on average exchange rate for the year 2018

Source: The Australian Government the Treasury, European Consumer Centre, Central Board of Direct Taxes – India, Forbes

To promote greater awareness and understanding of ML/TF risks as well as to foster closer collaboration between financial institutions and LEAs, the Bank published several 'red flag' and typologies reports throughout the year. These reports provide critical intelligence on financial crimes such as terrorism and proliferation financing, corruption and fraud. These reports also elaborate emerging trends and techniques used in financial crimes, to facilitate improved identification and early detection by reporting institutions, while assisting LEAs in combating such crimes.

The Bank reduced the cash transaction reporting threshold from RM50,000 to RM25,000 to enhance monitoring of potentially suspicious transaction patterns

The Bank also introduced a public-private partnership (PPP) platform in early 2017 to enable closer collaboration between LEAs and selected financial institutions. The PPP facilitates prompt and effective exchange of financial intelligence in combatting ML/TF risks as evidenced by the increased number and improved quality of STRs on TF, identification of new entities suspected to be connected to TF, and swifter enforcement actions by LEAs. Towards the end of 2018, the Bank hosted the 2018 Compliance Conference with the theme "National Risk Assessment: Achieving Compliance and Enforcement Equilibrium", bringing together more than 1000 local participants from both the financial and non-financial sectors. The conference provided an important opportunity for the Bank and LEAs to share the latest developments on ML/TF activities and regulatory priorities to combat ML/TF risks effectively.

Re-rating of Malaysia's technical compliance of FATF Recommendations

In October 2018, the FATF Plenary acknowledged Malaysia's Third Year Follow-Up Report on measures taken to address gaps identified in the 2015 Mutual Evaluation exercise conducted on Malaysia's AML/CFT framework. Reflecting the substantial progress made, the Plenary agreed to the re-ratings of the level of Malaysia's technical compliance in respect of four FATF Recommendations (Table 3.3). In particular, the following efforts were recognised in the revised ratings:

- (i) the enhancements to Malaysia's legal framework to address deficiencies in transposing the

United Nations Targeted Financial Sanctions on Proliferation designations into domestic freezing obligations and prohibitions;

- (ii) the establishment of dedicated platforms to enhance coordination and collaboration between LEAs, such as the Sub-committee on Implementation and Enforcement of Cross Border Cash and Bearer of Negotiable Instruments;
- (iii) strengthened risk assessments on the NPO sector;
- (iv) the issuance of guidance, 'red flag' reports, typologies and updates to support the effective implementation of preventive measures against ML/TF risks, and enhanced reporting of suspicious transactions; and
- (v) enhanced collaboration arrangements through PPP platforms.

Following the outcome of the re-rating exercise, Malaysia is rated "Compliant" or "Largely compliant" for 38 out of 40 FATF Recommendations (Table 3.4). Ongoing initiatives are being taken to address gaps identified in the remaining two FATF Recommendations, relating to transparency and beneficial ownership of legal persons and legal arrangements, including undertaking risk assessments and making the necessary legislative amendments to facilitate full compliance to the FATF Recommendations.

Enhancing AML/CFT supervision

Banking and insurance sectors

In 2018, the Bank consolidated its supervisory resources to further strengthen its focus and specialisation in the supervision of ML/TF risks within the financial sector. This resulted in the establishment of a dedicated AML/CFT unit within the supervision sector. During the year, the unit (collectively with prudential supervisors) conducted on-site AML reviews on 54 banking institutions, six DFIs and 49 ITOs. The reviews indicated that financial institutions have made notable progress in strengthening their AML/CFT controls and practices. There was also increased vigilance in tackling illegal financial schemes and mule accounts, with improvements observed in the policies and processes of financial institutions to identify and close these accounts. To enhance the skill sets of staff, there was also greater commitment by financial institutions to promote professional certifications among compliance personnel. Financial institutions continue to make further investments in

Table 3.3

Re-ratings of Technical Compliances

FATF Recommendation	Mutual Evaluation (2015)	3rd Year Follow-Up (2018)
5. Terrorist financing offence	LC	C
7. Targeted financial sanctions related to proliferation	PC	C
32. Cash couriers	LC	C
34. Guidance and feedback	LC	C

C – Compliant
 LC – Largely compliant
 PC – Partially compliant

Source: Financial Action Task Force

technology, systems, and manpower to improve the transaction monitoring and screening processes. This is complemented by ongoing efforts to strengthen the competence of front-line staff and assurance functions, particularly in conducting risk assessments for business segments or customer categories with higher inherent ML/TF risks.

Work is in progress to further enhance the Bank's AML/CFT supervisory activities through greater usage of technology and data analytics

The Bank also enhanced its AML/CFT Risk-Based Supervisory Framework to incorporate the NRA methodologies and risk assessments for TF. Work is in progress to further enhance the Bank's AML/CFT supervisory activities through greater usage of technology and data analytics.

Designated Non-Financial Businesses and Professions (DNFBPs)

The 2017 NRA indicated medium high to high ML/TF risks faced by a few DNFBP sectors such as dealers in precious metal and stones, lawyers, company secretaries, moneylenders and pawnbrokers. This is predominantly driven by high risk characteristics, including easy access, a degree of customer anonymity, and high risk products and services, while the control measures in place are generally found to be weak to marginal. Accordingly, the Bank's DNFBP supervision division intensified its review of the five higher risk sectors in 2018. The review highlighted improved implementation of AML/CFT obligations in

Table 3.4

Latest Overall Ratings of Technical Compliances

Rating	Mutual Evaluation (2015)	3rd Year Follow-Up (2018)
Compliant	16	20
Largely compliant	21	18
Partially compliant	3	2*
Non-compliant	0	0

* Recommendation 24 on transparency and beneficial ownership of legal persons and Recommendation 25 on transparency and beneficial ownership of legal arrangements

Source: Financial Action Task Force

some areas, with strengthened institutional infrastructure embedded as part of the reporting institutions' business operations. These include basic customer due diligence (CDD), record keeping and management information systems. Nevertheless, key gaps remain in a number of areas, including the conduct of CDD on beneficial owners, enhanced and ongoing due diligence, risk assessment and customer risk profiling, and controls for combating terrorism financing.

Awareness of ML/TF risks and effective controls remain a key barrier to effective compliance by DNFBPs. In view of this, the Bank launched the National AML/CFT Compliance Programme in 2018, with the motto "Comply to Protect". A total of 32 awareness sessions were conducted in eight major cities in Malaysia throughout the year, including the inaugural Compliance Conference 2018 for DNFBPs which attracted more than 390 participants. Moving forward, supervisory activities for DNFBP sectors will be further intensified, especially in sectors identified in the 2017 NRA as having higher exposure to ML/TF risks. The Bank will also be undertaking a comprehensive review of the AML/CFT requirements for DNFBPs and Other Non-Financial Sectors (Sector 5), to provide additional guidance on the implementation of AML/CFT measures in these sectors, taking into account their associated ML/TF risks.

Digital assets

The evolution of digital assets continues to be observed. This has been characterised by developments in initial coin offerings (ICOs), the use of digital tokens as a means of payment, and the trading or exchange of digital assets

through digital currency exchangers (DCEs). Recognising the potential risks that these developments can pose to the integrity of the financial system, DCEs were designated as reporting institutions under the AMLA in February 2018, and required to make a declaration on their activities to the Bank. Minimum disclosure requirements were also introduced for these institutions to enhance the transparency of their activities, alongside expectations to put in place adequate policies and procedures to manage ML/TF risks. A total of 49 DCE declarations were received, of which 29 declared exchangers reported no activity in 2018 while the remaining reported a decreasing trend in the number and value of transactions.

Although digital assets can be used as a representation of value, they generally lack the characteristics of money, unlike banknotes and coins that are backed by the Government (otherwise known as fiat currency). The use of digital assets as a means of payment has therefore remained limited in Malaysia. The Bank has publicly stated that digital assets are not legal tender and are not subject to the Bank's consumer protection framework. Members of the public are thus advised to carefully evaluate the risks when dealing with digital assets.

The Bank has also strengthened its cooperation with other domestic regulatory authorities to manage risks associated with digital assets to the financial and payment systems in Malaysia. Building on the October 2012 MoU between the Bank and the Securities Commission Malaysia (SC), the coordination arrangements were expanded in December 2018 to include the regulation of digital assets in Malaysia. These arrangements clarify the Bank's oversight of compliance to laws and regulations relating to payments and currency matters and the SC's responsibility for the regulation of the issuance of digital assets in connection with ICOs and the trading

of digital assets at digital asset exchanges in Malaysia. Accordingly, the SC will also supervise compliance with AML/CFT requirements that are applicable to digital asset exchanges.

Money Services Business (MSB)

In 2018, the Bank continued to focus on reducing vulnerabilities in the MSB industry to ML/TF risks. Outcomes from the Bank's data analytics function resulted in 46 targeted surveillance operations launched by the Bank on unauthorised remittance businesses during the year. Of these, 14 unauthorised retail operators were identified and ordered to cease operations.

During the year, the Bank also undertook a review of the Money Services Business Act 2011 (MSBA). The review aims to strengthen the effectiveness of enforcement actions against illegal MSB activities by unauthorised operators, and non-compliances by licensees with regulatory requirements that protect consumers and prevent abuse of the industry for illegal purposes. The Bank has issued a consultation paper in March 2019 to solicit public feedback on the proposed amendments to the MSBA. The proposed amendments are expected to deliver swifter, more punitive and visible enforcement actions to deter and combat unauthorised remittance and currency exchange services. At the same time, the Bank seeks to expand the scope for administrative enforcement actions to promote greater discipline in the industry, while reflecting a more proportionate approach to enforcement that is commensurate with the severity of offences committed.

Efforts to preserve the integrity of the MSB industry were further supported by continuous capacity building programmes to raise the standards of professionalism and compliance in the industry. The certification and

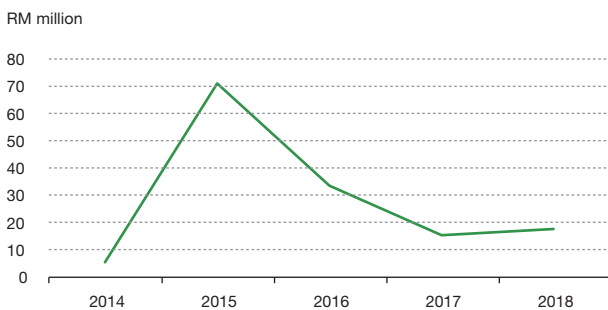
Use of data analytics by the Bank in surveillance, supervision, and enforcement activities

The use of data analytics since 2017 has significantly improved the Bank's capacity to effectively regulate and supervise MSB through enhancements in the following areas:

- (i) supported more effective assessments of ML/TF risks associated with MSB activities through the development of ML/TF-related typologies using modelling tools and big data analytics, to provide deeper insights into customer behaviour, transaction patterns and the modus operandi of criminals and unauthorised providers of MSB. This in turn translated into more targeted supervisory and enforcement actions;
- (ii) targeted deployment of supervisory resources on more critical and high risk areas, thus facilitating more timely interventions and enforcement actions to safeguard the integrity of the MSB industry; and
- (iii) enabled greater efficiency gains in the turnaround time for the processing of regulatory applications from industry players, with more robust and frequent risk profiling of licensees.

Chart 3.3: Total Monetary Penalties Imposed

Slight increase in the amount of penalties imposed in 2018



Source: Bank Negara Malaysia

accreditation of MSB Compliance Officers (COs) as required by the Bank in 2017 continues to make good progress. To date, one-third of all COs (covering almost all of the larger MSB companies) have obtained their accreditation, while the remaining two-thirds are expected to be fully accredited by end-2019. Effective 22 January 2019, all directors and CEOs of medium and large MSB licensees are also required to attend the MSB Directors Education Programme (MSB-DEP) which provides targeted exposure to MSB directors and CEOs on regulatory requirements and sound practices in the management of risks inherent in the conduct of MSB.

The enhanced Money Services Business Act is expected to result in swifter, more punitive and visible enforcement actions to deter and combat unauthorised remittance and currency exchange services

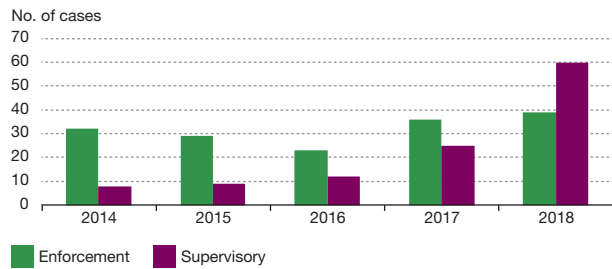
Moving forward, the Bank is also considering the prospect of extending the issuance of licences beyond the current maximum tenure of three years to qualified MSB licensees. This considers the enhancements in the Bank's regulatory and supervisory capabilities and strengthened industry compliance in recent years. Such a move will also enable the Bank to direct its resources more efficiently to the ongoing supervision of ML/TF risks.

ENFORCEMENT ACTIONS

Effective and timely enforcement actions by the Bank serve as a credible deterrent against non-compliances with applicable laws and

Chart 3.4: Number of Supervisory and Enforcement Actions Taken

Increasing use of supervisory actions to address non-compliances



Source: Bank Negara Malaysia

regulatory requirements. This in turn promotes conduct in the financial industry that is consistent with sound and responsible business practices. A summary of the enforcement actions taken in 2018 is provided in Table 3.5. Beginning 2019, details of individual enforcement actions will be published on the Bank's website.

The Bank has increased its use of targeted supervisory actions in recent years to encourage sustained positive changes in financial institutions' compliance behaviour and culture

While punitive enforcement actions (such as imposition of monetary penalties, civil or criminal actions) will continue to be pursued for serious non-compliances and unlawful or illegal activities, the Bank has increased its use of targeted supervisory actions in recent years to encourage sustained positive changes in financial institutions' compliance behaviour and culture (Chart 3.3 and Chart 3.4). In particular, directions of compliance, supervisory orders and enforceable undertakings have been an effective way to secure a financial institution's commitment and resources to implement remediation plans that address specific concerns or weaknesses in risk management systems, compliance frameworks and internal governance arrangements. The Bank will continue to ensure that any enforcement and supervisory actions are appropriate, taking into account the impact of the non-compliance and whether the actions are likely to deter or prevent further non-compliances.

Table 3.5

Enforcement Actions Taken in 2018

Area	Enforcement Actions
Illegal deposit taking	<ul style="list-style-type: none"> One entity was convicted under section 25(1) of the Banking and Financial Institutions Act 1989
Issuance of designated payment instrument without approval	<ul style="list-style-type: none"> One entity was convicted under section 25(1) of the Payment Systems Act 2003
Non-compliance with money services business (MSB) requirements	<ul style="list-style-type: none"> Ten entities and one individual were convicted for unauthorised provision of money services business under section 4(1) of the MSB Act 2011 (MSBA) Administrative monetary penalties (AMPs) amounting to RM6,000 were imposed on four MSB providers for failure to comply with capital requirements under section 22(1) of the MSBA AMPs amounting to RM10,000 were imposed on six MSB providers and RM42,000 on four MSB providers for breaching sections 31(9) and 34(1) of the MSBA respectively, in relation to requirements for the submission of audit reports to the Bank Two entities were convicted for the unauthorised use of words indicating the provision of money services business under section 23(1) of the MSBA Compounds amounting to RM135,000 were imposed on two MSB providers for failure to comply with regulatory requirements relating to the appointment of directors under section 30(1) of the MSBA
Non-compliance with regulatory requirements	<ul style="list-style-type: none"> AMPs amounting to RM11.7 million were imposed on 31 banking institutions for failure to comply with statistical reporting requirements under section 143 of the Financial Services Act 2013 (FSA) and section 155 of the Islamic Financial Services Act 2013 (IFSA) AMPs amounting to RM4.8 million were imposed on three banking institutions for failure to comply with policies relating to the protection of customer data under section 48 of the FSA and section 58 of the IFSA AMP of RM725,000 was imposed on one banking institution for failure to comply with corporate governance requirements under section 63 of the IFSA Compound of RM100,000 was imposed on one banking institution for failure to comply with the United Nations Security Council Resolutions under section 82(1) of the Central Bank of Malaysia Act 2009 Compound of RM650,000 was imposed on one banking institution for failure to comply with foreign exchange administration requirements under section 214(2) of the FSA
Non-compliance with AML/CFT requirements	<ul style="list-style-type: none"> Compounds amounting to RM120,000 were imposed on two banking institutions for failure to comply with reporting obligations under section 14 of the Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA) Compounds amounting to RM312,500 were imposed on three banking institutions for failure to comply with customer due diligence requirements under section 16 of the AMLA Six entities and one individual were convicted for money laundering offences under section 4(1) of the AMLA

Source: Bank Negara Malaysia

Strengthening Shariah Compliance Risk Culture

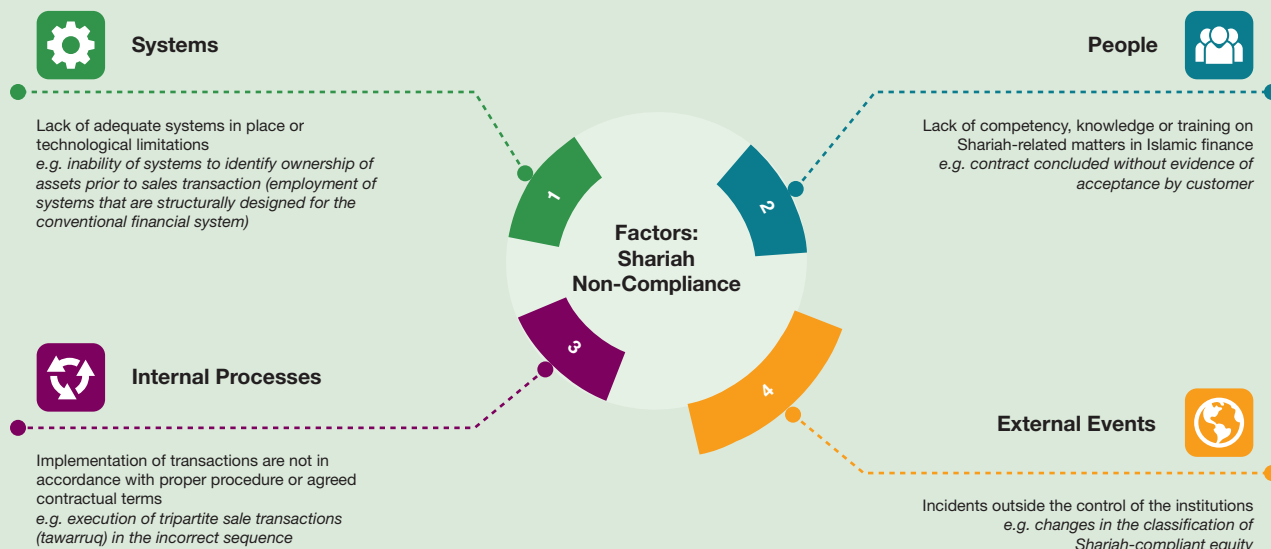
By Faizal Jaafar, Mohd Hairi Mohd Tahir and Nurlida Jasmin Ismail

Introduction

Shariah is the central tenet of Islamic finance. Its principles, which promote fairness and transparency, underpin the conduct of Islamic finance transactions. Failures in fully observing Shariah principles can thus affect the validity and enforceability of Islamic finance transactions, and increase financial and non-financial risks for Islamic financial institutions. For example, it is prohibited for Islamic financial institutions to recognise income derived from transactions that have not fully observed Shariah requirements. This could lead to safety and soundness concerns for an Islamic financial institution. Incidents of non-compliance on a broader scale can, in turn, undermine confidence in the Islamic financial sector and its stability. The effective management of Shariah non-compliance risk is therefore paramount, especially with the growing significance of Islamic finance as a key component of the financial system, domestically and globally. This article highlights the approach by the Bank and the practices of Islamic financial institutions in inculcating an effective Shariah compliance risk culture.

Diagram 1

Factors Contributing to Shariah Non-Compliance



Source: Bank Negara Malaysia

Shariah Compliance in Malaysia

Section 28 of the Islamic Financial Services Act 2013 (IFSA 2013) requires Islamic financial institutions to ensure that their aims and operations, business, affairs and activities are aligned to and in compliance with Shariah principles at all times. In practice, Shariah compliance is supported in Malaysia under a two-tier governance structure that operates at the industry and institutional levels. This is further reinforced through the regulatory framework, supervision and the control functions of Islamic financial institutions.

a) Centralised Shariah Advisory Council

At the industry level, the Shariah Advisory Council of Bank Negara Malaysia (the SAC) is the highest authority in the ascertainment of Islamic law for Islamic financial business conducted by institutions regulated by the Bank. While Islam recognises diversity of *fiqh* interpretations and approaches to implementation, the existence of a central authority is critical in providing certainty and uniformity in Shariah interpretations. The role of the SAC in providing national level Shariah certainty for Islamic finance has enabled the orderly development of the

Islamic financial system, mitigating variations and conflicting Shariah interpretations that may undermine public confidence and create gaps in market practices.

b) Shariah committees of individual Islamic financial institutions

At the institutional level, each Islamic financial institution has a Shariah committee responsible for advising the management and board on matters relating to Shariah in all aspects of the institution's business, affairs, practices and activities. While the SAC typically deliberates on industry-wide implications of applying a particular Shariah principle, the institutional level Shariah committee focuses on Shariah issues that are specific to the institution. These include those relating to the development of bespoke products and services, as well as business operations. Currently, there are more than 150 qualified Shariah scholars – local and international – who are appointed as Shariah committee members at 55 Islamic financial institutions.

c) Shariah risk management, Shariah review and Shariah audit functions

The role of the Shariah committee is supported by designated control functions within Islamic financial institutions, namely the Shariah risk management, Shariah review and Shariah audit functions. These functions are independent of the business lines and responsible to provide an objective assessment and assurance of the effectiveness of an Islamic financial institution's compliance with Shariah and management of Shariah non-compliance risks. The establishment of these control functions and the strengthening of their capacity over time have been instrumental in promoting a strong Shariah compliance risk culture within Islamic financial institutions.

d) Regulatory framework

Since 2012, the Bank has issued 14 Shariah Standards and Operational Requirements which give effect to rulings by the SAC and serve to promote the effective management of risks in Islamic financial business. This has led to enhanced internal policies and processes of Islamic financial institutions to effectively manage Shariah non-compliance risks in their business undertakings. In particular, the regulatory standards have had an important role in reducing legal and operational risks associated with people and system in the operationalisation and innovation of Islamic financial products and services.

The upcoming revision to the Shariah Governance Framework will further strengthen Shariah governance implementation within institutions. The framework outlines specific expectations for Shariah considerations to be more closely integrated with the business and risk strategies of Islamic financial institutions. It further clarifies the roles, responsibilities and accountabilities of the board, Shariah committee and key organs involved in instituting a robust Shariah compliance risk culture. An increased emphasis is also placed on elevating the professional competence of individuals who helm these roles in respect of their Shariah knowledge and its applications to Islamic finance. Expectations on the independence and quality of control functions to ensure effective management of Shariah non-compliance risks will also be strengthened under the framework.

Observations on Shariah Compliance

Shariah applications have wide implications for how an institution operates – encompassing its business practices and processes to the behaviours of senior management and employees. In this section, an overview of Shariah organisational practices observed in Islamic financial institutions is provided.

- At the apex, the board and senior management set the tone for the organisational culture and desired behavioural norms that promote Shariah compliance. Increasingly, more Islamic financial institutions are formally adopting a set of common values and purpose which reflect Shariah principles and underpin the institutions' business strategy and risk appetite.
- Responsibilities for Shariah compliance and risk management are increasingly devolved to business units and employees, reflecting an increasing emphasis on the first line of defence in mitigating Shariah non-compliance risks.

This has been accompanied by greater empowerment and accountability accorded to business units, with greater involvement in the design of business processes and controls to manage Shariah non-compliance risks.

- Considerations of conduct that impact an Islamic financial institution's Shariah compliance have become a more prominent feature of incentive frameworks. Most Islamic financial institutions adopt penalty and reward systems that relate performance measures to Shariah expectations. These strategies serve to reinforce a collective focus of the organisation on ensuring Shariah-compliant practices in all aspects of an Islamic financial institution's business, and building a strong risk culture among employees.
- Greater emphasis has been directed by Islamic financial institutions at building strong foundations in Shariah knowledge and applications within the workforce. Strengthened recruitment practices and higher investment in training and development have been observed. This has been motivated both by an increased focus of Islamic financial institutions on the sound management of Shariah non-compliance risks, as well as the desire to drive greater innovation in the offering of Shariah-compliant financial solutions. Increased accountability of the Shariah committees has also encouraged the upskilling of scholars that are appointed to the committees, especially in areas relating to business operations and industry practices.

Collectively, these developments have led to better alignment between business operations, processes and practices with Shariah expectations, thereby mitigating incidents of non-compliance. Further details of practices observed across Islamic financial institutions are elaborated in Diagram 2.

Conclusion

Moving forward, the Bank expects continued progress in evolving a strong Shariah compliance risk culture that is well-integrated and self-reinforcing within Islamic financial institutions. This in turn will provide the critical foundations for further growth and innovation in the Islamic finance industry, while also contributing to domestic financial stability.

Consistent with Shariah principles, the adoption of value-based intermediation (VBI) will further sharpen the focus of Islamic financial institutions in ensuring their products, services and practices deliver a positive and sustainable impact on the economy, community and environment. An increased focus on impact-driven strategies, supported by strong governance, is expected to be embedded within and well-integrated into the risk management practices and product innovation strategies of Islamic financial institutions (the progress of VBI implementation is detailed further in the section on Islamic Finance in Chapter 2). The development of VBI scorecard and disclosure practices will enable stakeholders to better assess the institutions' fulfilment of the basic tenets of Shariah. As such, this ensures that Islamic financial institutions meet the overarching objectives of Shariah (*maqasid* Shariah) – which are to preserve and advance the common interest of society at large, by preventing harm and maximising benefits. This will further strengthen the accountability, transparency and integrity of Islamic financial institutions.

Diagram 2

Increasing Efforts by Islamic Financial Institutions to Strengthen Shariah Compliance Risk Culture

Observed Practices

Tone from the Top



- Internal policies are reflective of Shariah principles, catering to different risks in the implementation of various Shariah contracts
- Shariah consideration integrated within business operationalisation and risk management practices
 - > Integrated IT system ensures execution process of Shariah contracts is systematically observed
 - > Robust risk assessment process to identify and incorporate Shariah non-compliance risk under the ICAAP*, including quantification
- Strengthened high-level deliberation on Shariah and its application in business and risk strategies
 - > Semi-annual dialogue between Board of Directors and Shariah committee enables effective resolutions of strategic issues
 - > Appointment of Shariah scholars as board members in 11 institutions fosters greater understanding among board members on Shariah matters

Accountability and Communication



- Clear roles and responsibilities of all organisational units and employees
 - > Appointment of senior officers responsible for the day-to-day management of Shariah matters
- Regular engagement among employees to enhance awareness on the importance of Shariah compliance
 - > Weekly/monthly dialogue among staff/branch managers to instil awareness on Shariah non-compliance risk
 - > Sharing of good practices or audit findings provides learning opportunities and process improvement

Performance Management



- Driving performance improvement to ensure Shariah compliance
 - > Introduced reward mechanism for achieving zero Shariah non-compliance
 - > Introduced 'Mystery Shopper' as a tool to assess frontliners' competency in handling Shariah matters

Talent Development



- Enhancing the understanding on Shariah and ensuring attainment of technical proficiency
 - > Recruitment practices of prospective board members, senior management or employees, take into consideration a candidate's knowledge and experience in Islamic finance and Shariah
 - > Enhancement of knowledge via structured training programmes

Structured Learning Programmes

109 board members completed the Islamic Finance for Board of Directors (IF4Board) programme – To upscale directors' appreciation on the dynamics of Shariah principles in shaping Islamic finance business

38% Shariah committee members enrolled into Certified Shariah Advisors (CSA) programme in 2018 – To upskill the competency of the Shariah committee in applied knowledge of Shariah and business

More than 2,000 employees across 39 financial institutions pursued specialised qualifications in Islamic finance (AQIF, IQIF and CQIF)** – Three-tier qualification to advance knowledge and competency of Islamic finance practitioners in the areas of Islamic banking, takaful, capital market and wealth management

* ICAAP - Internal Capital Adequacy Assessment Process

** AQIF - Associate Qualification in Islamic Finance; IQIF - Intermediate Qualification in Islamic Finance; and CQIF - Certified Qualification in Islamic Finance

Source: Bank Negara Malaysia

Market Conduct and Consumer Empowerment

- 93** Managing Risks to Financial Consumers
- 97** Ensuring Effective Redress Mechanisms for Consumers
- 100** Well-Informed and Empowered Financial Consumers

Market Conduct and Consumer Empowerment

Financial services affect the lives of many segments of society. The Bank in keeping with its regulatory objective to foster fair, responsible and professional business conduct of financial service providers (FSPs), continued to undertake measures to strengthen the fair treatment of financial consumers in Malaysia. In 2018, greater focus was given to ensuring that banking institutions take reasonable measures to help retail borrowers in persistent debt, and protecting financial consumers from unfair contract terms for credit-related products. In the insurance and takaful industry, further steps were taken to elevate the professional conduct of intermediaries. Alongside these measures, the Bank strengthened redress mechanisms and will be introducing principles on fair treatment of financial consumers to foster high standards of professional conduct among FSPs. The financial education agenda continued to make progress as a key strategy to empower financial consumers and promote their financial well-being, in particular by improving financial literacy levels among the youth and workforce, and raising awareness on financial scams and fraudulent investment schemes.

MANAGING RISKS TO FINANCIAL CONSUMERS

The focus of market conduct regulation and supervision by the Bank is guided by an assessment of key trends and developments in the financial sector that could heighten risks to financial consumers. In 2018, risks to financial consumers from the elevated level of household debt remained a key focus of the Bank to promote greater household resilience. The Bank also continued to focus on ensuring that incentives and governance arrangements within FSPs are compatible with fair and responsible conduct towards financial consumers. With the increasing pace of financial innovation, the Bank has further raised its expectations for FSPs to meet standards of

disclosure and competence that are commensurate with the need of financial consumers to understand and manage the associated risks.

Repricing practices associated with retail loans/financing in arrears

Amid rising costs of living, especially when coupled with unfortunate life events such as loss of employment or the onset of illness, financial consumers may be more likely to encounter difficulties in servicing their debt and other financial obligations. When a borrower fails to make repayments on time, banking institutions generally reprice the loan/financing to reflect changes in the credit risk profile or creditworthiness of the borrower. The Bank has noted that industry repricing practices vary considerably and in some cases, do not reflect sufficient evidence of a weaker repayment capacity of borrowers. The variability in repricing practices was also observed to be more pronounced following requirements for banking institutions to make earlier provisions for impairment (in particular for loans under Stage 1 and 2), based on an expected credit loss approach with the implementation of the Malaysian Financial Reporting Standards 9 (MFRS 9) on Financial Instruments in early 2018.

Given its impact on household debt which remains elevated, the Bank consulted on proposed requirements to ensure that borrowers are treated in a fair and transparent manner when repricing provisions are triggered by banking institutions following missed repayments on loan/financing facilities. In particular, the requirements addressed principles relating to: (i) the triggers for repricing due to missed repayments; (ii) the determination of the quantum for repricing; and (iii) the timing for reversion to the contracted financing rate. The requirements take into consideration the higher loan loss provisioning, recovery efforts and opportunity loss by banking institutions when borrowers default on their repayments. Nevertheless, they must ensure that

borrowers are treated in a fair and transparent manner. Banking institutions are expected to provide borrowers with clear information about the revision in their financing rate along with its impact on their monthly instalments and steps that they should take to restore their repayments to the original contracted financing rate. There is also the expectation that the increase in financing rate should not be higher than necessary to cover the additional cost incurred by the banking institutions because of missed or late repayments. The Bank aims to finalise the repricing requirements in the first half of 2019.

Unfair terms and conditions in housing loan contracts

The Bank continued to place emphasis on expectations for FSPs to ensure the fairness and clarity of terms and conditions in the contracts entered by them with retail customers and small and medium enterprises. During the year, the Bank conducted a thematic review on housing loan and financing contracts to identify terms and conditions that were inconsistent with reasonable expectations of fair conduct towards financial consumers. The Bank found that some of the terms and conditions were disproportionately skewed in favour of the banking institutions and to the detriment of consumers. These included terms and conditions that provide absolute exclusions or limitations of a banking institution's liability and obligations, and place undue reliance on signed declarations to assert that financial consumers have read and understood a contract. In addition, some terms and conditions were found to be unnecessarily complex with the use of excessive legal and technical jargon that did not aid clear understanding by consumers.

Following the Bank's review, banking institutions were required to revise the unfair terms and conditions and improve clarity through the use of plain language for both new and existing housing loan and financing contracts by end 2019. In addition, the Association of Banks in Malaysia (ABM) and the Association of Islamic Banking and Financial Institutions Malaysia (AIBIM) are working with banking institutions to review the standardised key terms and conditions for housing loan agreements involving a principal sum of RM500,000 and below to address concerns that have been raised by the Bank.

Banking institutions required to revise the unfair terms and conditions as well as use plain language for new and existing housing loan agreements

Credit card debt

Credit cards are widely used by financial consumers to make payments and manage short-term financial needs. There are, however, risks of financial consumers building up excessive debt on their credit cards, particularly among more vulnerable financial consumers who repeatedly make only minimum payments and carry forward large balances on their credit cards for extended periods. Such persistent credit card debt, which attract higher interest rates compared to other short-term credit facilities, have also contributed to the elevated household debt levels. In order to address this growing concern, the Bank will further enhance the conduct requirements for credit cards to encourage greater financial discipline while helping individuals to pay off their credit card debt faster. FSPs are required to identify vulnerable financial consumers

Federal Court ruling on liability clauses in contract loans

These initiatives are consistent with a recent landmark ruling by the Federal Court (FC) in December 2018,¹ which held that a commercial bank could not rely on absolute exclusion of liability clauses, typically found in most banking agreements, to shield itself from being sued for negligence by financial consumers. The FC opined that, in reality, the bargaining powers of the parties in banking agreements are unequal, whereby if a financial consumer wished to obtain financial services from banking institutions, the financial consumer has to accept the terms and conditions of a standard contract prepared by the banking institutions. In this regard, the FC was of the view that there would be patent unfairness and injustice to allow the banking institutions' absolute exclusion clause to deny the plaintiff's rights in this case and applied the principle of public policy in arriving at its decision. Further, the FC emphasised that section 24(c) of the Contracts Act 1950 provides that the consideration or object of an agreement is not lawful if it is opposed to public policy.

¹ In the case *Anthony Lawrence Bourke & Anor v CIMB Bank Bhd* [2018].

who habitually make payments at or near the minimum amount for an extended period, and offer to convert their outstanding credit card balances into term loans at lower interest rates to help them repay their credit card debt within a reasonable period, thus avoiding higher financing charges and persistent debt traps.

Fair treatment of financial consumers

The Bank consulted on a set of overarching standards in upholding fair treatment of financial consumers and ensuring responsible conduct throughout the product life cycle. The standards set out expectations for the board and management of FSPs to promote a culture where the interests of financial consumers are an integral part of business operations. FSPs are also required to establish reward and remuneration systems that drive the right attitudes and behaviours of staff at all levels to support the outcome of fair treatment of financial consumers. In addition, FSPs must act in good faith by ensuring the fairness of contract terms, providing clear and concise product information, offering advice or recommendation that is appropriate to an individual's needs and financial circumstances. They must also exercise due care, skill and diligence when dealing with financial consumers. While these standards have long underpinned the Bank's requirements on market conduct, bringing these standards together aims to promote and reinforce a 'whole-of-institution' approach to ensuring that FSPs do not behave in a way that could harm financial consumers. This in turn will provide greater confidence to financial consumers that they will be treated fairly at all stages of their relationship with FSPs. The Bank expects to issue the final standards in the first half of 2019.

Overarching standards to uphold fair treatment of financial consumers and ensure responsible conduct of FSPs throughout the product life cycle

Disclosures and service standards in motor insurance/takaful

The implementation of Phase II of the motor tariff liberalisation has paved the way for greater differentiation in the pricing of motor insurance/takaful products as well as the introduction of new motor products and extensions of cover by insurers and takaful operators. In facilitating informed decisions by consumers when purchasing and renewing their motor cover, insurers and takaful operators are

required to provide adequate disclosures of premiums/contributions and product features that can be easily compared both across products and insurers and takaful operators. A thematic review conducted by the Bank on practices by motor insurers and takaful operators in the first half of 2018 identified several gaps in meeting these requirements: (i) some insurers and takaful operators were taking more than 24 hours to respond to customers' requests for quotation and enquiries; (ii) the premium/contribution amount was not disclosed in the renewal/expiry notice issued to customers; (iii) there was insufficient notice provided in the renewal/expiry notice that add-on covers included in the notice are optional for customers to purchase; and (iv) sales staff and agents were unfamiliar with benefits and exclusions associated with new products introduced. The Bank will continue to closely monitor corrective actions required to be taken by insurers and takaful operators to address these gaps.

Notwithstanding the above, overall customer experience following the implementation of Phase II of the motor tariff liberalisation appears to be favourable as reflected by the higher take-up rate for new motor products (19%) that are mostly tailored to suit specific individual needs such as Guaranteed Asset Protection (GAP), usage-based insurance and e-hailing.² Based on the product filings by insurers and takaful operators, an estimated 34% of policy owners/takaful participants also enjoyed lower premium rates of up to 15% from previously applicable tariff rates.

Insurers and takaful operators also published and implemented the Customer Service Charter (CSC) to affirm their commitment to deliver consistent higher standards of customer service quality, a move that is expected to encourage healthy competition and further elevate service standards.

Professional conduct of intermediaries

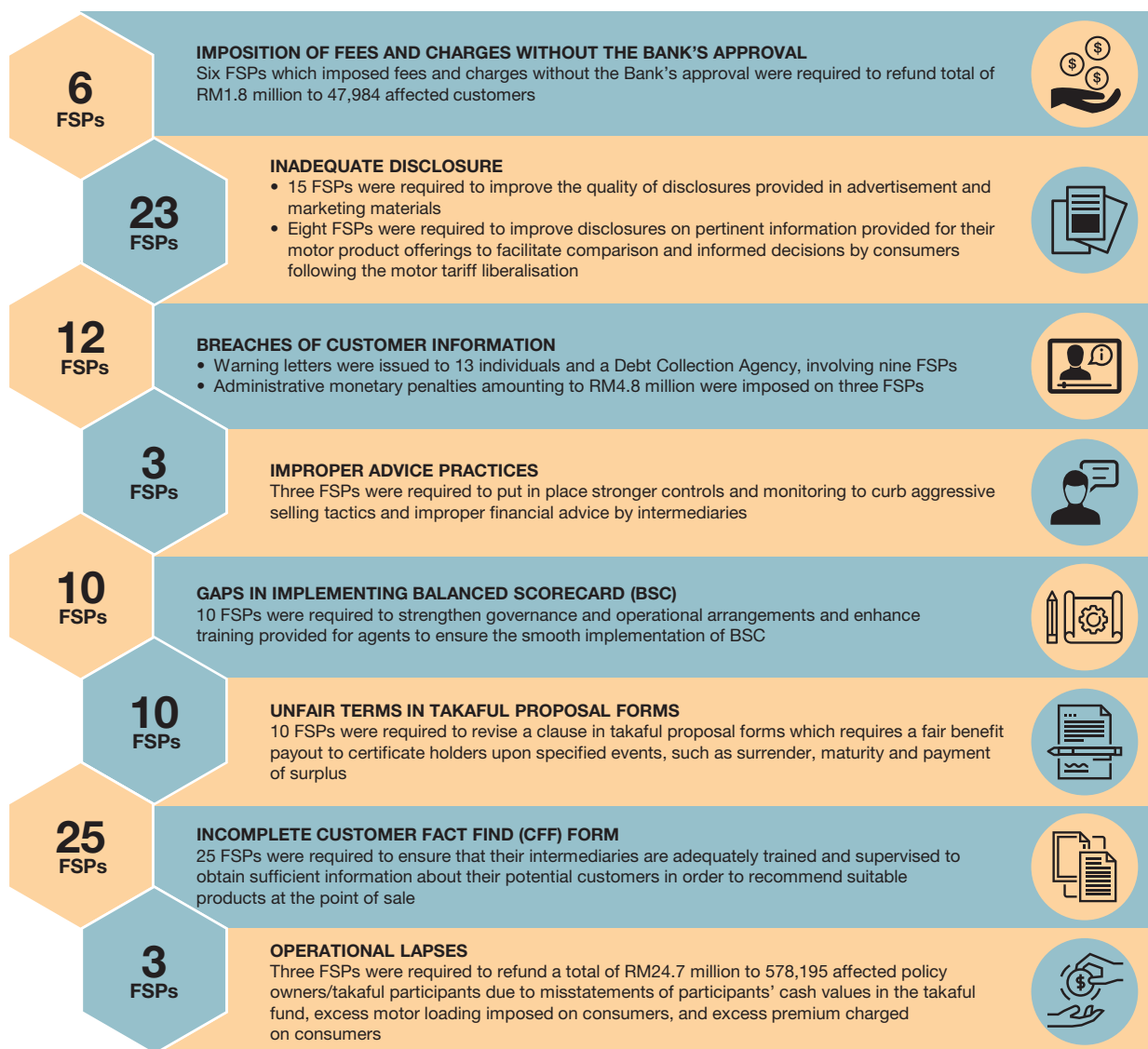
Intermediaries continue to play a major role in providing financial advice and helping customers improve their financial well-being. As part of efforts to raise the qualities of services by agents, insurance/takaful brokers and financial advisers, the Balanced Scorecard (BSC)

² GAP insurance covers the differences between the actual market value of a vehicle and balance owed on the financing in the event of total loss. Usage-based insurance is a type of motor insurance that determines the premium based on the actual usage of the vehicle, while e-hailing motor insurance provides coverage when vehicle is used for transporting e-hailing passengers.

framework came into effect as planned in 2018. The framework introduces changes to the remuneration structure of insurance and takaful intermediaries with the aim to align sales incentives with better quality sales and policy servicing by intermediaries. The Bank also elaborated its expectations for intermediaries to be led by persons of integrity, credibility and competency through the publication of standards on Fit and Proper Criteria for Approved Persons in December 2018. These standards require intermediaries to assess and determine the fitness and propriety of individuals in oversight and management positions as well as Financial Adviser's Representatives (FAR), guided by a set of criteria.

Further enhancements were also made to the Basic Certificate Course in Insurance Loss Adjusting (BCCILA) offered by the Malaysian Insurance Institute (MII). Revisions were made to existing topics covering business ethics, code of conduct and customer service excellence, in addition to new topics introduced on technical standards for the investigation, verification and estimation of motor claims. The enhanced content aims to promote ethical conduct and raise the competency levels of new and existing loss adjusters in support of broader ongoing initiatives to improve claims handling processes for motor insurance/takaful.

Diagram 4.1: Supervisory and Enforcement Actions Taken in 2018



Source: Bank Negara Malaysia

Supervisory and Enforcement Actions

In protecting the rights and interests of financial consumers, the Bank undertakes surveillance, supervisory and enforcement activities to identify and prevent conduct by FSPs that can cause harm to financial consumers. In 2018, supervisory and enforcement actions were taken against 51 FSPs (2017: 59 FSPs) for various non-compliances with financial conduct rules and regulations (Diagram 4.1).

ENSURING EFFECTIVE REDRESS MECHANISMS FOR CONSUMERS

The availability of an effective dispute resolution mechanism is essential in promoting the fair treatment of financial consumers and instilling public confidence in the financial sector. This is provided through the Ombudsman for Financial Services and BNMLINK, which serve as alternative avenues to the court for financial consumers to seek redress or resolve their disputes with FSPs.

Ombudsman for Financial Services

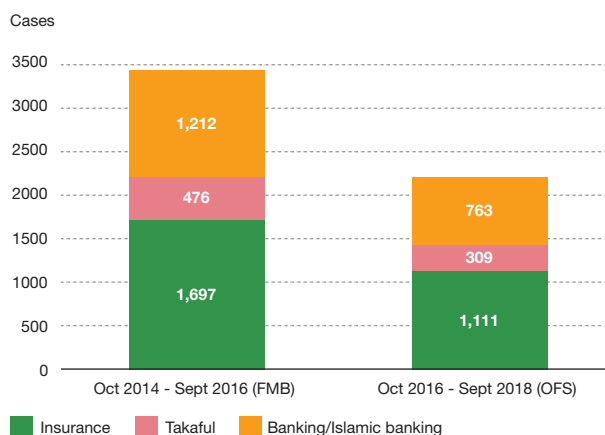
The Ombudsman for Financial Services (OFS) commenced operations on 1 October 2016, taking over the functions of the Financial Mediation Bureau (FMB). The Bank provides supervisory oversight over the OFS. During the first two years of its operations, the OFS received 2,183 cases, with insurance and takaful disputes accounting for almost two-thirds of the disputes received (Chart 4.1). Fewer cases were received for all sectors compared to the period prior to the implementation of the financial ombudsman scheme, reflecting more proactive complaints management by FSPs following the imposition of case fees on FSPs beginning from 1 October 2017 for cases referred to the OFS. The migration from the signature-based verification to the personal identification number (PIN) verification for payment cards effective 1 July 2017 also contributed to the decline in cases of unauthorised transactions arising from lost and stolen credit and debit cards.

The OFS resolved/closed 2,404³ cases in its first two years of operations of the financial ombudsman scheme. Two-third of these cases were resolved at an early stage (typically within six months) through mutual agreement reached between the disputing parties during case management. This

³ Including cases transferred from the predecessor scheme.

Chart 4.1: Banking and Insurance Sector: Breakdown of Cases Received

Insurance and takaful cases account for almost two-thirds of the disputes received

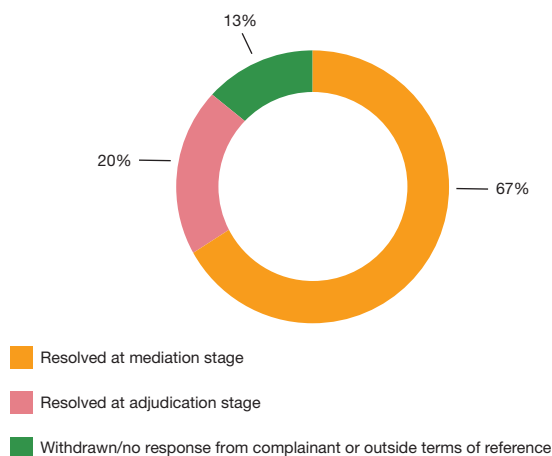


Source: OFS Statistical Reports

represented a significant improvement over 42% of early resolutions achieved under the predecessor scheme (Chart 4.2 and Chart 4.3) and can be attributed to improvements made to the dispute resolution arrangements, including more proactive case management and earlier opportunities for the disputing parties to review relevant facts of the case. A majority of the disputes reflected a generally low level of understanding among complainants of the terms and conditions under the financial contracts. For cases that proceeded to adjudication, the OFS upheld the FSPs' decision in 84.3% of the cases. The OFS' decision is binding on the FSP if accepted

Chart 4.2: Cases Resolved/Closed

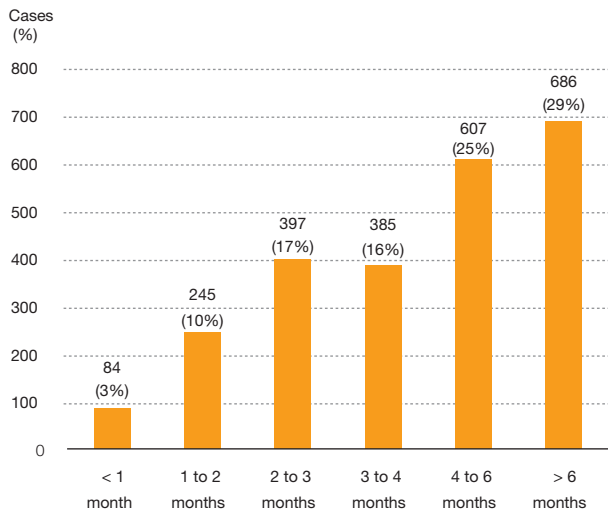
Most cases resolved at mediation stage



Source: OFS Statistical Reports

Chart 4.3: Turnaround Time for Resolving Disputes

Most cases were resolved within six months*



* With the remaining 29% of the cases took longer to resolve mainly due to delays in the submission of complete documentation

Source: OFS Statistical Reports

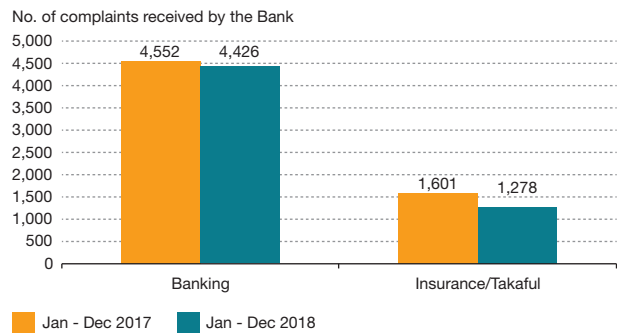
by the complainant. The complainant, on the other hand, can pursue further actions through the courts if he/she is dissatisfied with the OFS' decision. Historically, less than 0.2% of cases decided in favour of FSPs have proceeded further to the courts.

Complaint Management and Advisory Services by BNMLINK

Apart from the OFS, BNMLINK continued to provide an alternative avenue for financial consumers to seek redress or resolve disputes with FSPs. In 2018, BNMLINK and OFS handled 88% and 12% out of 6,465 cases of second level complaints,⁴

Chart 4.4: Complaints Received by the Bank in Terms of Type of FSPs

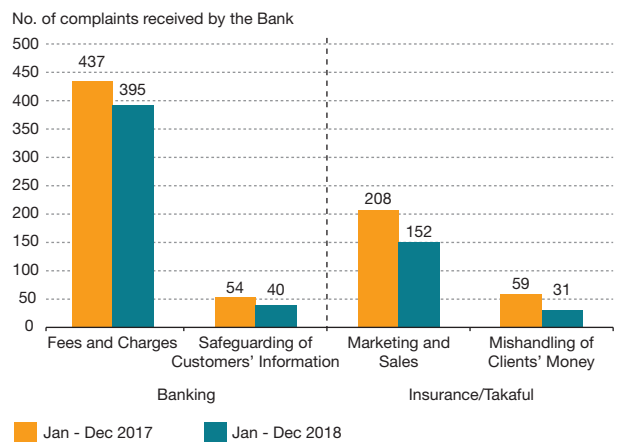
Reduction of complaints cases received by BNMLINK



Source: Bank Negara Malaysia

Chart 4.5: Complaints Received by the Bank in Terms of Key Issues

Reduction of complaint cases by key issues



Source: Bank Negara Malaysia

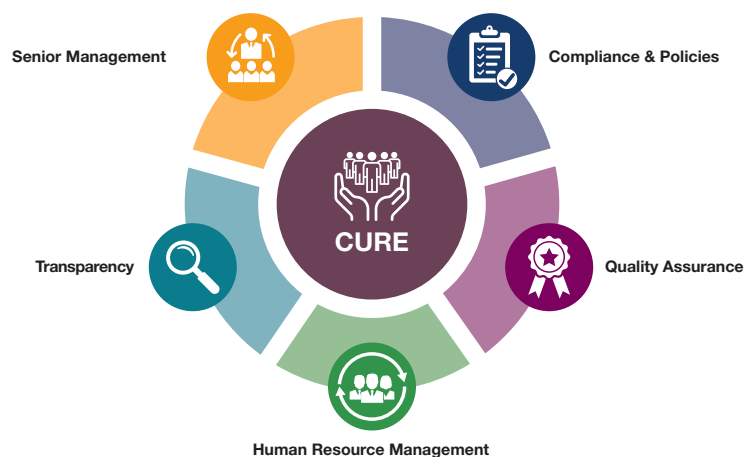
Consumer Complaints Redress (CURE) Profiling

The Consumer Complaints Redress (CURE) Profiling framework is surveillance and profiling tool used by the Bank to promote fair and effective management of complaints by FSPs. FSPs are assessed against five key components of fair treatment in complaints management based on regulatory requirements as well as industry and international best practices (Diagram 4.2). As CURE profiling is conducted biennially, assessments also cover an FSP's performance against specific action plans and Key Performance Indicators (KPIs) identified in the previous assessment. The outcomes of CURE 2018 showed that improvements in FSPs' complaints management is strongly and positively driven by the 'tone from the top' that emphasised a customer-centric culture that prioritises and rewards the fair treatment of financial consumers (Table 4.1).

⁴ Second level complaints are complaints that fall within the jurisdiction of BNMLINK and OFS respectively, after consumers have complained to FSPs.

Diagram 4.2

The Five Components of CURE Profiling



Source: Bank Negara Malaysia

respectively. Similar to OFS, the number of complaints referred to BNMLINK declined for both the banking and insurance/takaful industry (Chart 4.4 and Chart 4.5) as FSPs were more effective in managing complaints with 98% of complaints received successfully resolved by FSPs. The Bank continued to provide constructive feedback to FSPs based on its monitoring of FSPs' complaints handling processes and outcomes using the Consumer Complaints Redress (CURE) Profiling framework.

Most FSPs within the banking industry continued to make progress in strengthening their oversight functions and operational management to ensure compliance with regulatory requirements and fair outcomes for financial consumers. Despite some improvements observed, the management of complaints by insurers and takaful operators, however, remained below the Bank's expectations. FSPs falling short of expectations have been required to observe industry good practices (Diagram 4.3) and reflect a stronger culture of professional conduct and empathy in addressing consumer issues and concerns.

Table 4.1

Summary Outcome of Selected FSPs in CURE Profiling* 2016 & 2018

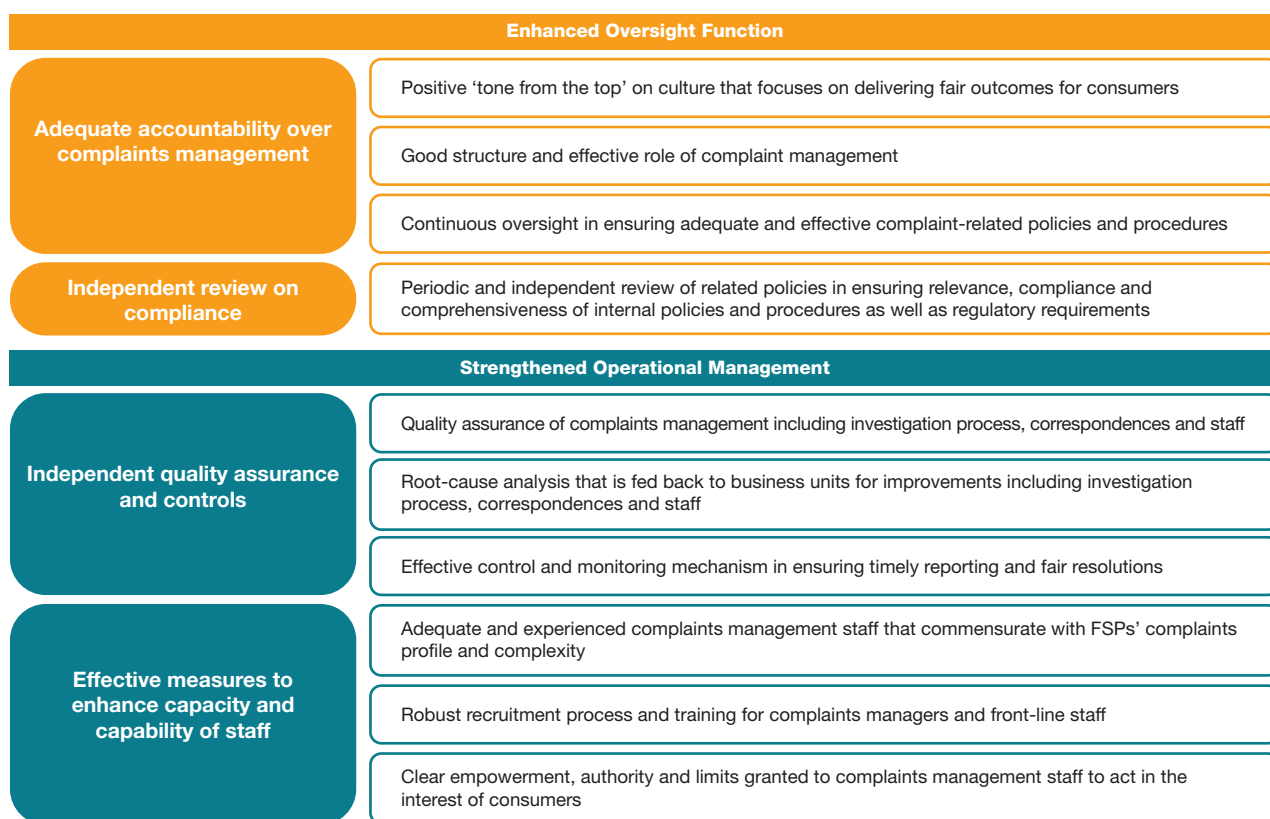
CURE 2018 Outcomes		Banking Institutions		Insurers/Takaful Operators	
		2016	2018	2016	2018
Meet Expectation	The oversight function and operational management of the FSPs have been effective in meeting the Bank's prescribed standards in relation to fair treatment and outcomes in complaints management	8	11	0	3**
Below Expectation	FSPs require immediate improvement due to gaps in the oversight function and lapses in operational management including non-compliance with prescribed standards as set out in the Complaints Handling Policy Document issued by the Bank	4	2	6	5
Newly assessed FSPs in CURE 2018		1		2	
Improved FSPs from CURE 2016 to CURE 2018		3		2	

* FSPs were selected based on representation of more than 70% of total industry complaints
 ** Two FSPs improved from CURE 2016 to CURE 2018, while one FSP is newly assessed in 2018

Source: Bank Negara Malaysia

Diagram 4.3

Industry Good Practices Identified in CURE Profiling 2018



Source: Bank Negara Malaysia

WELL-INFORMED AND EMPOWERED FINANCIAL CONSUMERS

With greater financial innovation and the growing complexity of financial products and services, it has become more important to equip financial consumers with the knowledge to make informed financial decisions with confidence. The Bank continued to collaborate with various agencies to build financial capability, elevate the level of literacy and promote prudent financial management among Malaysians.

In 2018, the Bank continued to work closely with its partners⁵ in the Financial Education Network (FEN) to expand the reach and coverage of financial education initiatives. The FEN co-ordinates the initiatives

⁵ FEN members comprise Bank Negara Malaysia, Securities Commission Malaysia (SC), Ministry of Education (MOE), Employees Provident Funds (EPF), Perbadanan Insurans Deposit Malaysia (PIDM), Agensi Kaunseling dan Pengurusan Kredit (AKPK) and Permodalan Nasional Berhad (PNB).

undertaken by all its members to ensure that resources are optimised to maximise the collective impact of financial education programmes in order to achieve the goals and objectives of the national strategy for financial education.

The Bank works closely with Financial Education Network (FEN) to expand the reach and coverage of financial education initiatives

The joint effort with the Ministry of Education (MOE) to nurture good financial values from young has seen the progressive integration of financial education into the school curriculum up to the Secondary Two level, remaining on-track to complete the integration for all primary and secondary levels by 2021. The MOE's commitment to ensure financial education is implemented effectively in schools has shown encouraging results with teachers demonstrating greater confidence

and knowledge on the subject. This has been supported by the inclusion of a financial literacy elective module for trainee teachers along with more tailored programmes that are being rolled out by the MOE for teachers in service.

Through the School Adoption Programme, FSPs continue to play an important role in reinforcing the key concepts of financial management taught in the school curriculum. A number of FSPs have launched successful financial literacy programmes in their adoptive schools, for example ‘AEIOU Financial Comic Strip Challenge’ by Alliance Bank Malaysia Berhad, ‘*Program Celik Wang*’ by Agrobank, ‘BSN Educate Programme’ by Bank Simpanan Nasional, ‘*Cha-Ching*’ and ‘*Duit Right*’ by Prudential Assurance Malaysia Berhad, and ‘My Finance Coach’ by Allianz Malaysia Berhad. Over 26,000 students and young children who visited the Bank’s Money Museum and Art Gallery (MAG) during the year were also exposed to a wide range of topics on money management through interactive games.

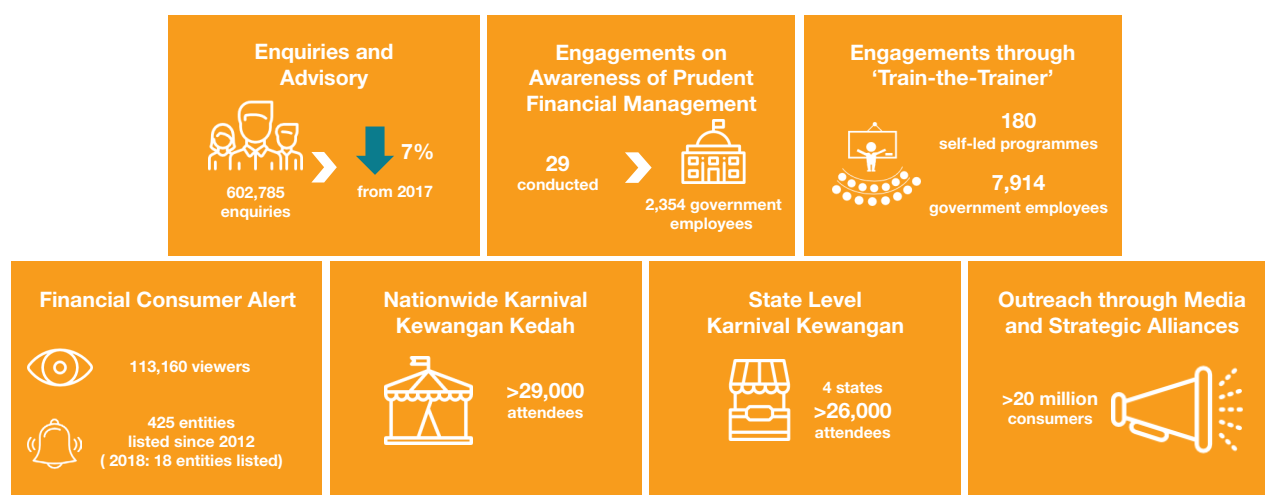
Aside from financial education in schools, the Bank uses various channels and platforms to promote financial awareness and education (Diagram 4.4). These initiatives reached more than 20 million individuals who learnt something about financial management and financial services through various programmes and outreach channels by the Bank.

Through Agensi Kaunseling dan Pengurusan Kredit (AKPK), a wholly-owned subsidiary of the Bank, a further 1,700 learning sessions on personal financial management reaching out to well over 1,650,000 people were conducted during the year. Encouragingly, government agencies and the private sector are taking on a more active role in supporting financial education programs for their employees. This has proven to be a particularly effective way of providing structured financial education on a sustained basis to more Malaysians.

The Bank together with the general insurance industry will publish a series of consumer guides on motor claims to educate financial consumers on steps that should be taken in the event of a road accident and how to make a motor claim. This is part of efforts to better protect accident victims against unscrupulous parties who would take advantage of their circumstances. Efforts were also intensified to educate the public on financial scams, specifically telephone scams, in collaboration with key agencies including The Royal Malaysian Police, Ministry of Communications and Multimedia and the Malaysian Communications and Multimedia Commission. These efforts continued to be accompanied by closer cooperation in surveillance and enforcement activities across agencies to identify and stop the perpetrators of such crimes (also see ‘Strengthening and Safeguarding Financial System Integrity’ in Chapter 3).

Diagram 4.4

Outreach to Malaysian Consumers: Key Statistics



Source: Bank Negara Malaysia

New Initiatives by AKPK in 2018

Programmes conducted by AKPK on personal finances are anchored upon four main life stages, namely at tertiary education level, entering the workforce, starting and raising a family, and retirement phase. Among the programmes developed by AKPK is the 'Social Enterprise Literacy for Youth' (SELFY) programme, a three-month project conducted with an objective to provide tertiary students with hands-on experience in social entrepreneurship through earning, managing, saving and eventually giving money for a social cause. About 300 students from nine higher learning institutions participated in SELFY during the year. Apart from being a practical learning platform for tertiary students to master financial management, SELFY has drawn several innovative ideas from participants on improving local social conditions sustainably. Another public programme - 'Be Your Own Boss', was introduced in 2018, focused on providing financial tips for workers to develop their own financial portfolio whilst being employed. 120 participants from various organisations and the public attended the one-day programme.

Assessments are conducted periodically to gauge the effectiveness of its financial education programmes. Past assessments have shown that practical financial knowledge and strategies, combined with sharing of real case studies are most useful in helping participants to better manage their finances. As part of efforts to further enhance the effectiveness of its financial education interventions, AKPK published the 'Financial Behaviour and State of Financial Well-being of Malaysian Working Adults' report in November 2018. The report provides key insights into the financial behaviour of Malaysian working adults, in terms of spending, saving and debt management. The report highlights the importance of financial education for working adults and serves to support evidence-based financial education programmes by AKPK and its collaborators moving forward to increase their impact.

In addition to financial education, AKPK also provides financial counselling and debt management services to financial consumers via its 11 branches and 15 counselling offices nationwide. As at end-2018, 854,246 individuals have been assisted by AKPK in managing their debts, of which 29% were enrolled into the Debt Management Programme (DMP). These individuals/borrowers have total debts of RM30.4 billion. 68% of individuals enrolled in the DMP have either fully settled their debts or are continuing to service their debts in accordance with the terms of the DMP. The remaining borrowers had either withdrawn from the DMP due to improved financial circumstances (3%) or had their participation terminated upon the individual's death or inability to repay the debt consistently (29%).

Financial Capability and Inclusion Demand Side Survey 2018

Market surveys and financial consumer feedback provide the Bank with timely and important data on emerging risks to financial consumers. They also enable the Bank to assess the effectiveness of its policies and interventions to address identified risks. During the year, the Bank conducted a nationwide Financial Capability and Inclusion Demand Side Survey (FCI 2018) to assess the financial capability and literacy level of Malaysians. The FCI 2018 is

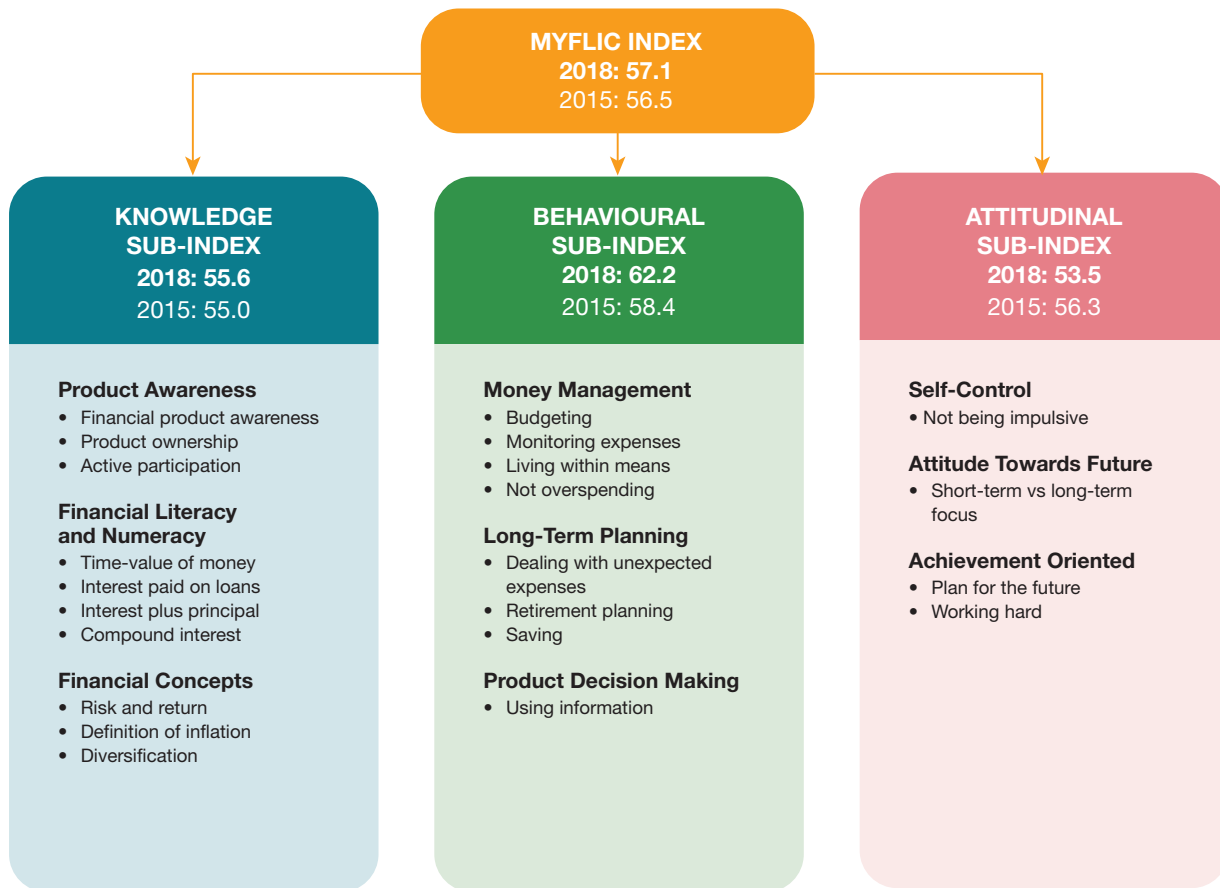
a follow-up assessment of the previous survey undertaken in 2015, to track progress in the level of awareness, knowledge, skill, behaviour and attitude of financial consumers in making sound financial decisions. Based on the data collected, a Malaysia Financial Literacy and Capability (MYFLIC) Index was constructed (Diagram 4.5). The MYFLIC Index for Malaysia in 2018 of 57.1 showed a slight improvement as compared to the index in 2015.

The level of knowledge, especially around basic financial literacy and numeracy, remains low among Malaysians. Almost 75% of Malaysians understand that inflation means that cost of living is rising, but only 38% can relate this to the impact on their purchasing power. In addition, less than half (43%) of respondents surveyed understand that money grows on a compounded basis over time, with one in five believing that money grows on a linear basis.⁶ The lack of financial knowledge in turn has an important influence on the financial attitudes of Malaysians. Respondents that were less knowledgeable were more likely to demonstrate

⁶ Linear basis growth refers to simple interest calculation where the yearly investment return is based on same percentage from the principal amount. While compound interest refers to return on investment calculation which is based on the interest percentage earned for the year plus reinvestment returns from prior investment period.

Diagram 4.5

Malaysia Financial Literacy and Capability (MYFLIC) Index 2018



Main sample

- 3,394 Malaysians
- Aged 15 years and above
- Face-to-face and door-to-door, Computer Aided Personal Interviewing

attitudes that placed greater value on ‘living for today’ over medium and long-term financial planning. For instance, while 84% responded that they save money regularly, these savings are typically withdrawn by the end of the month. The absence of longer term goals leaves many ill-prepared to deal with both unexpected expenses (e.g. loss of income, onset of illness or accidents) and expected life events, including retirement. Indeed, 41% of respondents admitted that their current retirement savings is insufficient to

cover their household expenses in full during their old age. Key observations from the FCI 2018 are summarised in Table 4.2.

The findings of the FCI 2018 will be used to inform priorities and targeted interventions under the National Strategy that is being finalised by the FEN, with the aim to elevate the financial literacy of Malaysians and to promote prudent financial behaviours and attitudes.

Table 4.2

Key observations on financial literacy and capability in Malaysia

Financial Knowledge	Most financial consumers lack understanding of financial concepts and how financial products work beyond today. However, two in three consumers do not recognise this and rated themselves as having good financial knowledge. Poor literacy and numeracy skills were particularly notable
	The use of financial services is predominantly concentrated on deposit products
	Financial consumers are enthusiastic about using mobile banking and internet banking, mainly for money transfers, bill payments and online shopping
Financial Behaviour	Most financial consumers claim to save for rainy days but do not consider investment as part of financial planning to meet expected future needs, such as financing their children's education
	A majority of financial consumers are not prepared to cope with unexpected expenses
	52% of respondents would face difficulty raising RM1,000 immediately in the event of an emergency (FCI 2015: 76%)
	24% of respondents would be able to sustain living expenses for at least three months or more after losing their income (FCI 2015: 18%), while only 10% of respondents would be able to do so for more than six months (FCI 2015: 6%)
	16% of respondents are very worried about not being able to cover their living expenses in old age, especially among those aged 50 and above (FCI 2015: 33%)
Financial Attitude	A majority of financial consumers display short-sighted tendencies and a 'living for today' attitude to financial management. For instance, 51% claimed that money is there to be spent and not set aside for meeting future needs or emergency expenses. In addition, about four in 10 financial consumers feel that they lack discipline when it comes to managing their finances
	Savings tend to be only for the short-term and meant to cover daily expenditures including health necessities, food and groceries

Source: Bank Negara Malaysia

Payment and Settlement Systems



- 107** Promoting the Stability of Payment and Settlement Systems
- 110** Key Trends and Development in Retail Payment Systems

Payment and Settlement Systems

PROMOTING THE STABILITY OF PAYMENT AND SETTLEMENT SYSTEMS

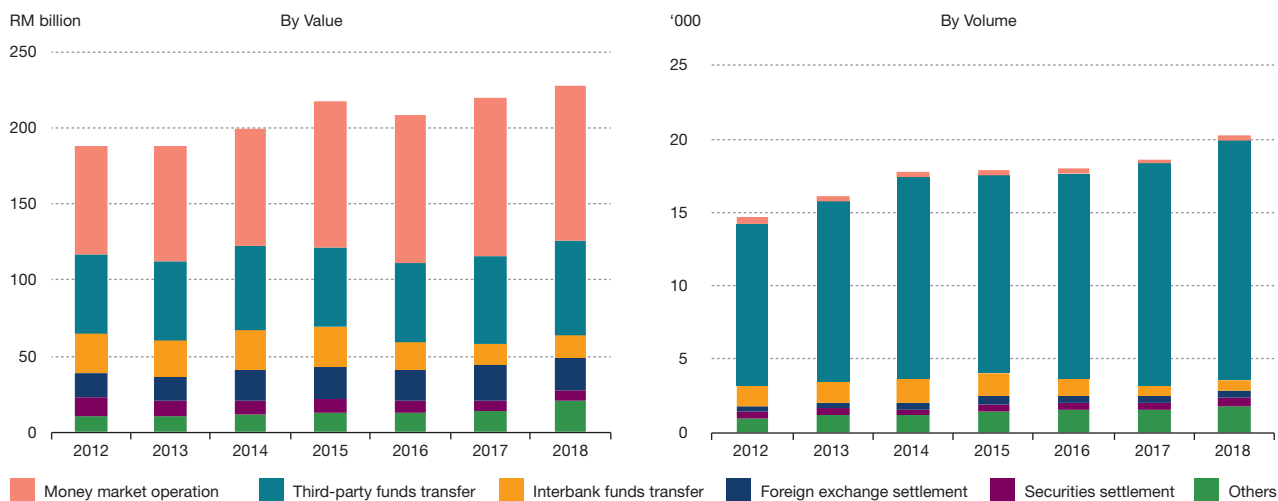
Continued resilience and reliability in RENTAS operations

The Real-time Electronic Transfer of Funds and Securities System (RENTAS) facilitates the real-time gross settlement of large value funds transfers and securities transactions. A total of 4.9 million transactions amounting to RM55.2 trillion were settled in RENTAS in 2018, representing an annual growth of 8.1% in total volume, 2.7% in total value and 39 times of Malaysia's gross domestic product (GDP). The daily average transaction volume increased by 8.5% to 20,240 (2017: 18,651) while the daily average transaction value increased by 3.1% to RM227.1 billion (2017: RM220.3 billion) (Chart 5.1). These increases were largely due to third-party funds transfers such as government and

corporate payments which grew by 8.5% in value and 7.2% in volume; and securities transactions which grew by 8.4% in value and 42.9% in volume. The introduction of segregated securities accounts in May 2018 enabled a more granular capture of securities transactions and ownership of securities within RENTAS, which largely contributed towards the higher number of securities transactions captured in RENTAS. RENTAS also facilitates interbank foreign exchange transactions on a Payment-versus-Payment (PvP) settlement basis, primarily for US dollar against ringgit, which eliminates settlement risk. Since the introduction of the RENTAS-USD CHATS PvP link in 2006, the daily average value transacted via the PvP link had increased by an average of 14.2% annually from RM5.2 billion in 2007 to RM15.5 billion. In 2018, the total US dollar-ringgit interbank transactions settled via the PvP link was RM3.8 trillion which accounted for 69.4% of the total interbank foreign exchange transactions conducted against ringgit.

Chart 5.1: RENTAS: Daily Average by Value and Volume

Marginal increase recorded in RENTAS daily average value and volume



Source: Bank Negara Malaysia

In terms of operational reliability, the RENTAS host system and its main access channels achieved an uptime of 100% in 2018, above the target level of 99.9%. The Bank continued to maintain a strong focus on ensuring the resilience of the large value payment system infrastructure against cyber threats, within its own environment and that of the operator and participants of RENTAS. The Bank achieved full compliance with all mandatory and advisory Society for Worldwide Interbank Financial Telecommunication (SWIFT) security controls, which was confirmed through an independent review undertaken by an external audit firm. To strengthen cyber resilience amongst industry players, the Bank has similarly required financial institutions to ensure continuous compliance with the SWIFT mandatory security controls and strongly encouraged compliance with the advisory controls. As at end-2018, Payments Network Malaysia Sdn. Bhd. (PayNet), the operator of RENTAS, and all but two¹ financial institutions have complied with all of the relevant SWIFT mandatory security controls while 81.5% of the financial institutions including PayNet, have implemented the relevant advisory security controls. Given the increasing sophistication and complexity of cyberattacks, financial institutions are progressively deploying control measures that would be effective in an 'assumed breached' environment to complement existing defences to counter cyberattacks. This includes the means to detect out-of-policy or suspicious payment messages and to stop fraudulent in-flight transactions. Financial institutions were also required to regularly review and rationalise dormant SWIFT Relationship Management Applications (RMAs)² in order to minimise vulnerabilities.

Enhanced risk management amidst growth in retail payments

Retail electronic payments³ continued to record double-digit growth in 2018 at 13.3% and 21.5% in volume and value respectively (2017: 15.7% in volume, 25.3% in value). Credit transfers such as Interbank GIRO (IBG) and Instant Transfer remained the bulk of retail electronic payments, representing 64.1% and 17.0% of total retail electronic payments value respectively in 2018.

¹ The two financial institutions are expected to fully comply with SWIFT mandatory security controls by June 2019.

² RMA defines the counterparties that an institution can send SWIFT messages to or receive messages from.

³ Consist of Interbank GIRO (IBG), Instant Transfer, Financial Process Exchange (FPX), Direct Debit (DD), the National Electronic Bill Payment Scheme (JomPAY), payment cards and e-money.

Given the growth in end-users' demand for immediate payments and the increasing net debit exposures in real-time retail payment systems, financial institutions have been required to improve the monitoring and management of their intraday liquidity positions and exposures, and minimise the risk of gridlock. Financial institutions may use intraday liquidity indicators in line with those prescribed by the Basel Committee on Banking Supervision (BCBS) and the Liquidity Optimisation Settlement Facility (LOSF) which can deliver liquidity savings and greater efficiency in liquidity management.

Financial institutions have been required to improve the monitoring and management of their intraday liquidity positions and exposures

The Bank approved 10 new non-bank e-money issuers in 2018, bringing the total to 47 issuers (2017: 37). In assessing the admission of new entrants, the Bank considers the applicant's capability to operate the proposed e-money scheme in a safe and sound manner, based on several criteria such as experience, sufficiency of financial resources and risk management capabilities including adequacy of security measures. While desirous of encouraging competition and innovation in payment services which will benefit users and promote greater financial inclusion, the Bank is mindful of the costs associated with a highly fragmented retail payment market arising from the proliferation of e-money issuers. This would ultimately reduce the benefits to users. To address this, the Bank has implemented the Interoperable Credit Transfer Framework (ICTF) in 2018 which would facilitate interoperability between banks and non-bank e-money issuers via a shared payment infrastructure. E-money transactions which account for 0.7% of the total value of retail electronic payments in 2018, recorded a growth of 3.2% in volume and 20.6% in value to 1.92 billion transactions valued at RM11.0 billion (2017: 1.86 billion, RM9.1 billion). In order to ensure that appropriate risk management and consumer protection measures are implemented, the Bank conducted on-site reviews on four e-money issuers which represent a sizeable market presence. Generally, the control measures implemented by these issuers were found to be satisfactory. Improvement measures were identified for some issuers to further strengthen their oversight function and operational arrangements such as refund management and fraud reporting. With effect from 2019, all e-money issuers have also been

required to provide an annual independent assessment by their external auditors on the adequacy of controls over the management of customers' funds.

Payment card transactions which account for 11.5% of total retail electronic payments value in 2018, had increased by 21.7% in volume and 13.0% in value to 698.0 million transactions valued at RM188.0 billion in 2018 (2017: 573.4 million, RM166.3 billion). To assure continuity in reliable payment card services, the Bank has required payment card network operators to undertake an annual assessment of their resilience against operational disruptions, which must take into account changes in the cyber threat landscape, as well as identify and address potential vulnerabilities against evolving threats. The result of the assessment will be used to identify potential measures or action plans to further strengthen the reliability of payment card services.

Payments fraud remained low

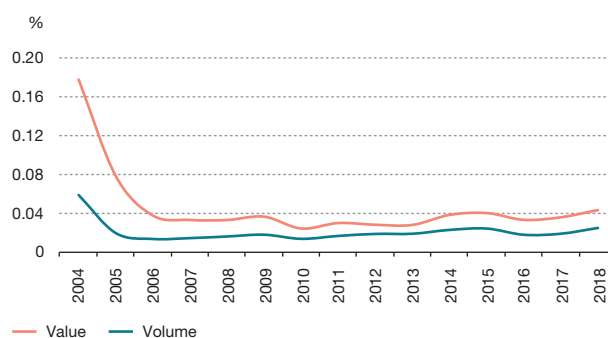
The overall payment card⁴ fraud losses increased marginally to 0.026% of total transaction volume (2017: 0.020%) and 0.044% of total transaction value (2017: 0.037%) (Chart 5.2). The majority of payment card fraud cases involved credit cards, which accounted for 92.1% of total fraud losses, followed by debit cards and charge cards at 7.3% and 0.6%, respectively. Payment card fraud was predominantly contributed by card-not-present (CNP) fraud such as unauthorised online transactions which accounted for 95.5% of the total fraud cases and 91.8% of the total fraud losses. Notwithstanding this, losses to cardholders continued to be minimal at 0.3% of total fraud losses (2017: 0.4%). The bulk of fraud losses (89.3%) continued to be borne by foreign entities under the international payment card networks' liability shift rules due to stronger authentication methods⁵ adopted in Malaysia. Since the implementation of Personal Identification Number (PIN) verification for card-present transactions in July 2017, lost and stolen fraud losses continued to decline in 2018 to 0.001% of transaction value (1H 2017: 0.003%; 2H 2017: 0.002%). Lost and stolen fraud losses involving contactless transactions were contained at negligible levels (0.0003% and 0.0001% of transaction volume and value, respectively).

⁴ Payment cards consist of credit cards, debit cards and charge cards.

⁵ One-time password (OTP) required for online transactions made using payment cards.

Chart 5.2: Payment Card Fraud as a Percentage of Total Transactions

Payment card fraud remained low



Source: Bank Negara Malaysia

Online banking fraud losses increased marginally to 0.0006% of total transaction volume (2017: 0.0004%) but was stable as a percentage of total transaction value at 0.0003% (2017: 0.0003%) (Chart 5.3). Retail online banking fraud, which accounted for 97% of total online banking fraud losses, increased marginally to 0.0008% and 0.0034% of total retail transaction volume and value, respectively (2017: 0.0006%, 0.0032%). Most of the online banking fraud losses (90.2%) were attributed to social engineering fraud.⁶

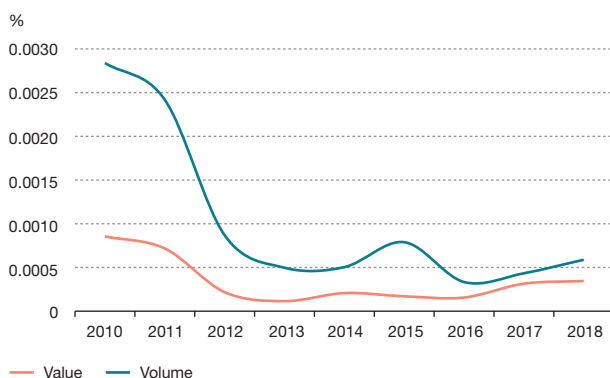
Financial scam losses increased in 2018, but remained low at 0.0006% of total transaction value (2017: 0.0003% of transaction value). In financial scam cases, customers were deceived into transferring funds to accounts under the control of the fraudsters via electronic channels, namely Internet banking, mobile banking and Automated Teller Machine (ATM).

As part of continuing measures to further strengthen safeguards against fraud attempts, the Bank required financial institutions to enhance procedures for the registration of mobile phone numbers used to receive the transaction authorisation code (TAC). The registration of mobile phone numbers for this purpose should only be made in person at branches of financial institutions. Financial institutions are also required to validate a customer's request to change the registered mobile phone number via ATM or call centres, and upon detection of any suspicious fraud activity. This aims to further protect customers from falling victim to social engineering fraud. Customer education initiatives also

⁶ Customers were deceived into divulging their banking credentials to fraudsters which are then used to make unauthorised transactions.

Chart 5.3: Online Banking Fraud as a Percentage of Total Transactions

Online banking remained resilient against fraud



Source: Bank Negara Malaysia

continued to be emphasised, including security tips in using Internet banking and the timely dissemination of common online banking fraud methods and financial scams through various media platforms.

Customer education initiatives also continued to be emphasised, including security tips in using Internet banking and the timely dissemination of common online banking fraud methods and financial scams through various media platforms

KEY TRENDS AND DEVELOPMENT IN RETAIL PAYMENT SYSTEMS

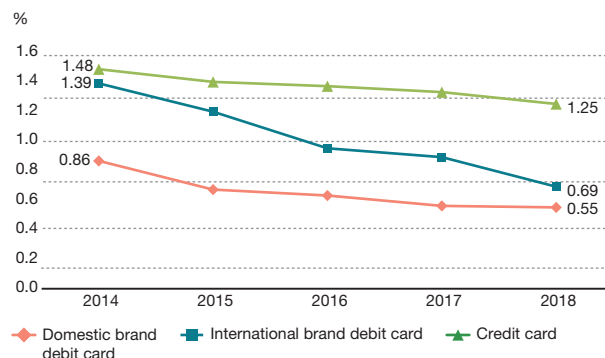
Continued progress in fostering migration to e-payments

One of the key priorities for the Bank is to accelerate the migration to e-payments, as encapsulated in the Financial Sector Blueprint 2011 - 2020 (FSBP). Since 2013, the Bank has implemented a series of reform measures⁷ to foster greater adoption of e-payments. These measures are focused primarily on removing market distortions and strengthening market incentives and competition to promote the adoption of cost-effective e-payment services as an alternative to cheques and cash.

⁷ Pricing Reform Framework (2013), e-Payment Incentive Fund Framework (2015), Payment Card Reform Framework (2015) and Interoperable Credit Transfer Framework (2018).

Chart 5.4: Average MDR by Type of Payment Card Transactions

Average MDR continued to decline across all payment card types



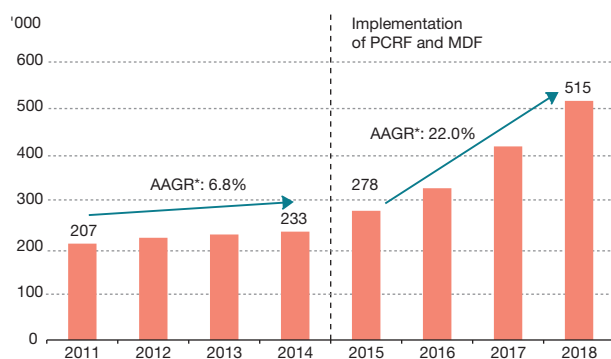
Source: Bank Negara Malaysia

Significant progress has been observed in reducing the use of cheques in Malaysia with more transactions facilitated through credit transfer services (e.g. IBG and Instant Transfer). A key catalyst in this development was the Pricing Reform Framework implemented in 2013, which served to correct the price distortion between cheques and credit transfer services. This was complemented by the e-Payment Incentive Fund (ePIF) Framework introduced in 2015 which channelled cheque fees collected by banks back to their customers mainly through the introduction of fee waivers and incentives to encourage the adoption of e-payments. Consequently, the volume of cheques had reduced by more than half from 204.9 million (seven cheques per capita) in 2011 to 101.4 million (three cheques per capita) in 2018.

Meanwhile, cash usage remains prevalent in Malaysia for retail transactions. Nevertheless, promising progress has been made since 2015 to expand the network of e-payment acceptance points among retail merchants. The implementation of the Payment Card Reform Framework (PCRF) in 2015 removed distortions in the payment card market and contributed to a continued downward trend in the Merchant Discount Rate (MDR) (Chart 5.4). With the resulting lower cost of accepting card payments coupled with the establishment of the Market Development Fund (MDF) to fund the deployment of point-of-sale (POS) terminals, the number of POS terminals had more than doubled from 233,248 terminals (eight terminals per 1,000 inhabitants) in 2014 to 514,818 terminals in 2018 (16 terminals per 1,000 inhabitants) (Chart 5.5). The number of merchants that accept mobile payments also saw an increase over this period with over 65,000 registrations recorded as at end-2018.

Chart 5.5: Number of POS Terminals

Sustained double-digit growth in POS terminals



*Average Annual Growth Rate
Source: Bank Negara Malaysia

In addition, the wider network of POS terminals supported by the industry-wide implementation of PIN and contactless functionalities for payment cards (completed in 2017) further contributed to higher usage of payment cards. Debit card transactions continued to grow at a strong pace, increasing by 51.5% to 245.7 million transactions in 2018 (2017: 50.8%, 162.2 million). Notably, mobile payments adoption for purchase transactions also gained further traction in 2018 with the transaction volume increasing to 23.7 million (2017: 1.2 million).

The growing adoption of e-payments has contributed to a moderation in the use of cash

The growing adoption of e-payments in Malaysia has contributed to a moderation in the use of cash, with the ratio of cash-in-circulation to GDP (CIC/GDP) declining by 0.3 percentage points between 2016 and 2018 (2013 to 2015: +0.4 percentage points).

Sustained momentum of credit transfers displacing cheques

Cheque usage continued to register a double-digit decline in 2018 by 14.8% to 101.4 million cheques (2017: -10.6%, 119.0 million cheques), with the reduction recorded across all main user categories (Table 5.1).

Alongside this trend, the adoption of credit transfer services (IBG and Instant Transfer) continued to gain traction, increasing by 35.5% to 445.4 million transactions in 2018 (2017: 27.9%, 328.6 million), surpassing the

Table 5.1

Cheque Usage by Main User Categories

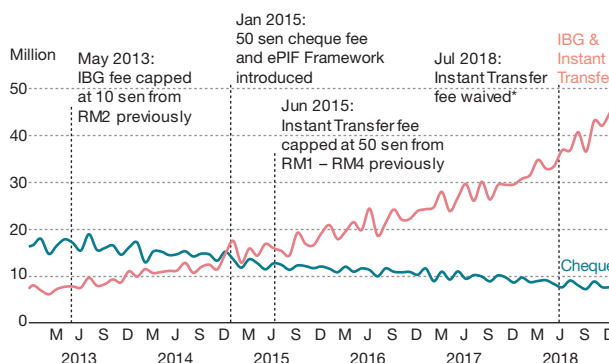
Main user categories (Share of total volume in 2018)	Transaction Volume (Million)		Average Annual Growth Rate (2013-2018)
	2013	2018	
Corporate (48%)	81.8	48.2	-10%
Sole proprietorship and partnership (25%)	49.9	25.7	-12%
Individual (16%)	41.3	15.6	-18%
Government agencies (2%)	4.8	2.3	-14%
Others (9%)	19.3	9.6	-13%
Total	197.1	101.4	-12%

Source: Bank Negara Malaysia

cheque volume by 4.4 times (2017: 2.8 times) (Chart 5.6). Notably, the volume of Instant Transfer transactions exceeded the volume of IBG transactions for the first time. In 2018, Instant Transfer grew by 80.8% to 238.6 million transactions while IBG grew by 5.1% to 206.8 million transactions. The average monthly Instant Transfer transaction volume saw a significant acceleration in the second half of 2018, increasing by 100.8% compared to 55.9% in the first half of the year. This was largely attributed to the waiver of the 50 sen transaction fee for Instant Transfer by banks since 1 July 2018, for transactions of RM5,000 and below made by individuals and Small and Medium Enterprises. 14 banks have gone further to waive the Instant Transfer transaction fee for all customer groups irrespective of transaction size.

Chart 5.6: Transaction Volume for Cheques, IBG and Instant Transfer

The volume of IBG and Instant Transfer transactions surpassed cheques by 4.4 times in 2018



* Instant Transfer fee waived for transactions of RM5,000 and below made by individuals and Small and Medium Enterprises (SMEs)

Source: Bank Negara Malaysia

Transactions made via the Financial Process Exchange (FPX) also contributed significantly to the growing adoption of credit transfers. FPX is a payment system that allows customers to initiate online payments from their bank accounts at the web portal or mobile applications of merchants, which include online retailers, e-commerce marketplaces and government agencies. In tandem with the increasing adoption of e-commerce and online transactions in Malaysia, FPX transaction volume had more than doubled to 89.9 million transactions in 2018 (2017: 33.2 million).

An important enhancement to the credit transfer landscape is PayNet's Real-time Retail Payments Platform (RPP), which went live in December 2018. As at end-January 2019, 20 major banks have participated in the RPP, accounting for over 70% of total current and savings accounts in Malaysia. Notably, 6.8 million users have been successfully registered on the RPP's DuitNow service, which enables users to make and accept payments conveniently by referencing the recipient's National Registration Identity Card (NRIC), mobile phone or business registration number.

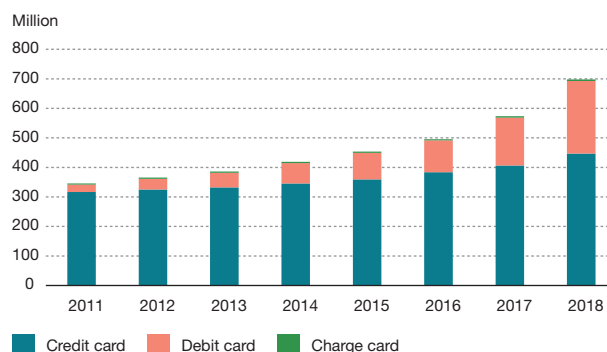
Higher usage of debit cards to displace cash

Although credit cards remained the most widely used payment card, the share of debit card transactions as a proportion of total payment card transaction volume had continued to increase from 28.3% in 2017 to 35.2% in 2018 (Chart 5.7). The share of active debit cards with at least one transaction per month out of total debit cards in circulation had also increased to 48.8% in 2018 (2017: 43.8%).

The upward trend in the use of debit cards was further supported by the greater adoption of contactless payments. As part of the Malaysian Chip Card Specification (MCCS) initiative, all debit cards in Malaysia have been upgraded to support the contactless functionality by 1 January 2018. In tandem with this development, the number of contactless POS terminals correspondingly increased by 90.3% to 207,562 terminals, accounting for 40.3% of the total number of POS terminals. This had spurred the usage of contactless debit cards which grew by 287.4% in volume to 49.7 million transactions in 2018 (2017: 12.8 million). Consequently, the share of contactless transactions out of total debit card transactions had more than doubled to 26.0% in 2018 (2017: 9.9%).

Chart 5.7: Payment Card Transaction Volume by Card Type

Share of debit card transactions had increased by almost five times from 7.3% in 2011 to 35.2% in 2018



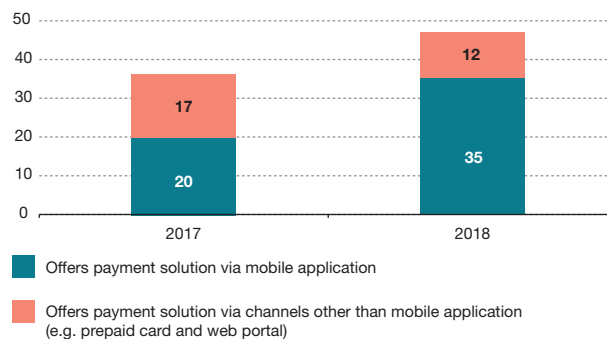
Source: Bank Negara Malaysia

Mobile payments as an alternative to cash

Financial transactions made via the mobile channel continued to gain traction during the year, leveraging on the high mobile phone penetration among the Malaysian population. In 2018, financial transactions conducted via the mobile banking channel had more than doubled to 257.4 million transactions valued at RM100.1 billion (2017: 107.7 million, RM50.7 billion). This was supported by a continued increase in subscribers to mobile banking services to 6.6 million subscribers in 2018 (2017: 4.4 million). Non-banks are also making headway in this segment. Of the 47 non-bank e-money issuers in Malaysia, three in four offer mobile payment solutions (Chart 5.8). The number of subscriptions to non-bank mobile payment services increased significantly from 0.8 million in 2017

Chart 5.8: Number of Approved Non-bank E-money Issuers in Malaysia

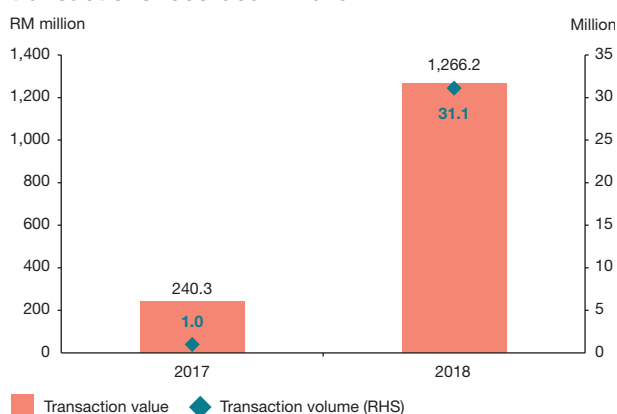
The number of non-bank e-money issuers offering mobile payment solutions had almost doubled



Source: Bank Negara Malaysia

Chart 5.9: Non-bank Mobile Payment Transaction Volume and Value

Significant increase in non-bank mobile payment transactions recorded in 2018



Source: Bank Negara Malaysia

to 10.4 million in 2018. Non-banks processed a total of 31.1 million mobile payment transactions during the year valued at RM1.3 billion (2017: 1.0 million, RM240.3 million) (Chart 5.9).

Although at a nascent stage, mobile payments are increasingly being used in day-to-day purchase transactions that are traditionally transacted in cash

Although still at a nascent stage, mobile payments are increasingly displacing cash in day-to-day purchase transactions. Of significance, total mobile payments made for purchase transactions increased by 20 times to 23.7 million transactions (2017: 1.2 million) with an average transaction value of RM23.80. Non-banks have played a key role in driving this trend, accounting for 88.4% of these transactions. Key contributing factors include intensified merchant acquisition and

more aggressive marketing initiatives to attract new users. As at end-2018, more than 65,000 registrations were recorded among merchants for the acceptance of mobile payments, of which more than half were facilitated by non-bank e-money issuers. Although 18 banks offer mobile banking services to date which account for 89.2% of the total current and savings accounts, only two banks have introduced Quick Response (QR) code payment services so far. At this stage, the banks' focus are mostly centred on completing the development efforts to introduce an interoperable QR code payment solution under PayNet's interoperable QR scheme, which is expected to be rolled out in 2019. Complementing these developments, the Bank continues to be focused on enabling interoperability between banks and non-bank e-money issuers via a shared payment infrastructure, as envisioned under the ICTF.

Under the ICTF, the Bank continues to be focused on enabling interoperability between banks and non-bank e-money issuers via a shared payment infrastructure

Going forward, the mobile payments landscape is expected to be more vibrant as competition heightens among banks and non-banks. This necessitates the players to undertake efforts to strengthen their value proposition for users by providing a seamless on-boarding experience to consumers and merchants, while enhancing the value-added features on their mobile applications. There will also be a need for more targeted offerings to cater to the demands of the unserved or underserved segments, such as micro-financing, micro-insurance and remittance services. At the same time, strategic partnerships between banks and non-banks are expected to capture a broader customer base and realise potential synergies.

Annex



Annex

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Table A.1

Key Financial Soundness Indicators

	As at end				
	2014	2015	2016	2017	2018 ^p
	% (or otherwise stated)				
Banking System					
Total Capital Ratio	15.9	16.6	16.5	17.8	17.4
Tier 1 Capital Ratio	14.0	14.2	14.0	14.9	13.9
Common Equity Tier 1 Capital Ratio	13.3	13.3	13.1	14.0	13.1
Return on Assets	1.5	1.3	1.3	1.5	1.4
Return on Equity	15.2	12.3	12.5	13.1	12.6
Liquid Assets to Total Assets	13.3	-	-	-	-
Liquid Assets to Short-term Liabilities	42.6	-	-	-	-
Liquidity Coverage Ratio ¹	-	127.4	124.3	134.9	143.2
Net Impaired Loans Ratio	1.2	1.2	1.2	1.1	0.9
Capital Charge on Interest Rate Risk in the Trading Book to Capital Base	1.4	1.2	1.1	1.0	1.1
Net Open Position in FC to Capital Base	4.7	6.1	6.3	6.1	5.8
Equity Holdings to Capital Base	1.3	0.7	1.5	1.9	0.5
Insurance and Takaful Sector					
Capital Adequacy Ratio	243.5	245.2	243.1	233.0	244.9
Life Insurance and Family Takaful					
Excess Income over Outgo (RM billion)	13.8	12.0	13.3	19.0	9.5
New Business Premium / Contribution (RM billion)	12.9	13.2	14.2	15.1	15.9
Capital Adequacy Ratio ²	235.8	242.5	238.4	226.2	237.1
General Insurance and General Takaful					
Underwriting Profit (RM billion)	1.8	1.3	1.8	1.3	1.8
Operating Profit (RM billion)	3.2	2.7	3.4	2.7	3.0
Gross Direct Premium / Contribution (RM billion)	19.1	19.5	19.7	19.9	20.4
Claims Ratio	57.5	60.2	55.9	58.6	56.5
Capital Adequacy Ratio ²	272.2	258.2	266.2	268.8	275.7
Household (HH) Sector					
HH Debt (RM billion)	952.7	1,023.2	1,080.5	1,133.8	1,187.3
HH Financial Asset (RM billion)	2,015.0	2,119.3	2,232.4	2,420.5	2,540.5
HH Debt-to-GDP Ratio	86.1	88.4	87.8	83.8	83.0
HH Financial Asset to Total HH Debt Ratio	211.5	207.1	206.6	213.5	214.0
HH Liquid Financial Asset to Total HH Debt Ratio	148.7	143.4	141.4	145.7	143.1
Impaired Loans Ratio of HH Sector	1.7	1.5	1.5	1.4	1.2
Business Sector					
Return on Assets	6.0	4.9	4.6	4.4	3.6
Return on Equity	10.2	8.8	7.9	7.7	6.7
Debt-to-Equity Ratio	39.2	43.2	43.0	47.0	49.3
Interest Coverage Ratio (times)	12.0	10.6	11.5	9.1	7.2
Operating Margin	15.9	14.8	14.5	14.5	12.8
Impaired Loans Ratio of Business Sector	2.6	2.5	2.5	2.6	2.3
Development Financial Institutions³					
Lending to Targeted Sectors (% change)	7.0	5.5	5.7	0.1	-0.3
Deposits Mobilised (% change)	5.3	2.0	6.4	4.8	1.9
Impaired Loans Ratio	5.0	4.8	5.9	5.1	5.8
Return on Assets	1.6	1.4	1.0	1.4	1.5

¹ The Liquidity Coverage Ratio (LCR) Framework takes effect on 1 June 2015 and supersedes the guidelines on Liquidity Framework and Liquidity Framework-i issued on 1 July 1998

² Figures from 2014 to 2017 include composite insurers and takaful operators. Figures in 2018 reflect the capital position after the splitting of composite licenses, hence, they are not comparable with those in 2014-2017

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

^p Preliminary

Note : Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia, Securities Commission Malaysia, Bursa Malaysia, Bloomberg, Department of Statistics, Malaysia

Table A.2

Household Sector: Gross Impaired and Delinquent Loans in the Banking System and Non-Bank Financial Institutions

	Gross Impaired Loans						Gross Delinquent Loans					
	Ratio (%)			Annual Change (%)			Ratio (%)			Annual Change (%)		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Overall	1.5	1.4	1.2	5.7	2.9	-10.1	1.5	1.4	1.2	3.1	-0.5	-12.9
Residential properties	1.5	1.4	1.3	4.9	3.4	0.7	1.4	1.3	1.1	4.5	-1.3	-4.9
Non-residential properties	0.8	0.9	1.0	10.9	14.4	9.4	0.9	1.1	1.0	26.8	20.0	-9.2
Motor vehicles	1.4	1.4	1.2	-0.6	-0.7	-18.5	2.8	2.7	2.1	-3.0	-2.1	-25.2
Personal financing	2.0	2.2	1.5	15.3	7.8	-26.6	0.8	0.9	0.8	12.2	13.3	-9.4
Credit cards	1.9	1.6	1.3	5.7	-11.9	-14.4	1.2	1.1	1.0	0.6	-10.3	-3.2

Source: Bank Negara Malaysia

Table A.3

Business Sector: Gross Impaired and Delinquent Loans in the Banking System

	% of Total Domestic Debt Exposure ¹	% of Total Business Loans	Gross Impaired Loans Ratio (%)			Gross Delinquent Loans Ratio (%)		
			2016	2017	2018	2016	2017	2018
Overall		100.0	2.5	2.6	2.3	0.4	0.3	0.4
<i>of which: SMEs</i>		50.4	2.4	2.7	2.4	0.5	0.5	0.5
Primary agriculture	4.9	5.6	0.8	0.7	0.5	0.1	0.2	0.3
<i>of which: Palm oil</i>	3.4	3.9	1.0	0.8	0.5	0.1	0.2	0.1
Mining & quarrying	2.1	1.6	4.0	5.2	5.6	0.2	0.6	0.3
<i>of which: Oil & gas²</i>	1.9	1.3	4.2	5.5	6.3	0.1	0.5	0.5
Manufacturing	15.6	18.6	3.7	3.5	2.2	0.2	0.3	0.3
Construction	15.8	13.8	2.4	2.3	2.7	0.6	0.5	0.4
Services	61.6	60.4	2.2	2.4	2.4	0.4	0.3	0.4
<i>of which: Wholesale and retail trade</i>	14.7	17.8	1.7	1.8	1.6	0.4	0.4	0.5
<i>of which: Transport and storage</i>	5.6	4.3	7.8	9.3	8.4	1.5	0.1	0.3
<i>of which: Post and telecommunication</i>	2.4	1.8	2.0	1.1	0.9	0.5	0.1	0.0
<i>of which: Real estate activities</i>	18.3	19.2	1.5	1.7	1.9	0.2	0.3	0.3

¹ Includes loans from the banking system and holdings of corporate bonds/sukuk by banks² Includes upstream and downstream activities

Source: Bank Negara Malaysia

Table A.4

Key Financial Indicators: Islamic Banking and Takaful Sectors

	As at end				
	2014	2015	2016	2017	2018 ^p
Islamic Banking System	RM million (or otherwise stated)				
Total assets ^{1,2}	615,190.0	684,906.2	743,562.8	829,494.3	916,711.3
% of total assets of entire banking system ^{1,2}	25.5	26.8	28.0	30.0	31.4
Total financing ^{1,2}	427,887.8	495,005.9	553,324.5	605,433.4	668,747.8
% of total loans / financing of entire banking system ^{1,2}	29.2	31.3	33.2	34.9	36.6
Total deposits and investment accounts ^{1,3}	-	550,275.1	602,897.5	673,666.9	742,250.6
Total deposits	494,738.3	503,127.8	529,220.4	594,654.5	659,605.2
Total investment accounts	-	47,147.3	73,677.1	79,012.3	82,645.3
% of total deposits and investment accounts of entire banking system ^{1,3}	28.2	30.0	31.5	33.8	34.9
	%				
Total Capital Ratio	16.2	16.1	17.2	18.1	17.9
Tier 1 Capital Ratio	12.9	12.3	13.6	14.3	14.0
Common Equity Tier 1 Capital Ratio	12.8	12.3	13.5	13.8	13.5
Return on Assets	1.1	1.0	1.0	1.1	1.1
Net Impaired Financing Ratio	0.9	0.9	1.0	0.9	0.8
Takaful Sector	RM million (or otherwise stated)				
Takaful Fund Assets	22,746.3	24,711.0	26,781.7	29,283.3	31,373.8
Family	19,619.3	21,389.1	23,189.1	25,638.7	27,616.9
General	3,127.0	3,321.9	3,592.5	3,644.6	3,756.9
% of insurance and takaful industry	9.4	9.7	10.0	10.1	10.5
Net Contribution Income	6,330.6	6,815.6	7,534.6	8,250.9	9,558.8
Family	4,787.2	5,104.3	5,743.9	6,351.0	7,317.7
General	1,543.4	1,711.3	1,790.7	1,899.8	2,241.0
% of insurance and takaful industry	13.4	13.8	14.6	15.2	16.7
Family Takaful					
New Business Contributions	3,500.3	3,638.4	3,951.1	4,344.5	4,913.3
General Takaful					
Gross Direct Contributions	2,163.7	2,295.9	2,401.7	2,556.4	2,784.5
Claims Ratio (%)	47.8	51.9	49.0	51.2	56.1

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

² Beginning 1 July 2015, includes assets / financing funded by investment accounts which are recognised on and off-balance sheet

³ Beginning 1 July 2015, Islamic deposits and investment accounts are required to be designated separately. Investment account figures include those which are recognised on and off-balance sheet

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.5

Banking System¹: Income and Expenditure

	For the calendar year				
	2014	2015	2016	2017	2018 ^p
	RM million (or otherwise stated)				
Interest income	89,416.7	96,784.6	100,160.0	104,281.2	114,323.2
Less: Interest expense	47,911.5	54,612.9	57,191.2	57,959.3	65,485.9
Net interest income	41,505.1	42,171.8	42,968.8	46,321.9	48,837.3
Add: Fee-based income	10,103.0	9,682.7	9,380.2	10,616.1	10,075.1
Less: Staff cost	13,628.7	15,206.3	14,294.4	15,350.5	16,165.8
Overheads	14,171.8	15,229.4	15,160.6	15,749.1	15,787.7
Gross operating profit	23,807.6	21,418.8	22,893.9	25,838.4	26,958.8
Less: Impairment ² and other provisions	1,472.0	2,883.7	2,700.9	2,066.3	2,393.2
Gross operating profit after provision	22,335.6	18,535.1	20,193.1	23,772.0	24,565.6
Add: Other income	9,593.3	10,460.8	12,053.3	12,461.2	12,709.4
Pre-tax profit	31,928.9	28,995.9	32,246.3	36,233.2	37,275.1
Pre-tax profit / Average assets (%)	1.5	1.3	1.3	1.5	1.4
Pre-tax profit / Average shareholders' funds (%)	15.2	12.3	12.5	13.1	12.6
Pre-tax profit / Average employee (RM'000)	255.0	237.1	271.3	304.7	312.2
Cost incurred per ringgit of revenue earned (sen)	45.4	48.8	45.7	44.8	44.6
Cost incurred per ringgit of net interest income (sen)	67.0	72.2	68.5	67.1	65.4
Overheads to staff cost (%)	104.0	100.2	106.1	102.6	97.7
Staff cost per employee (RM'000)	108.8	127.5	120.7	129.2	134.8

¹ Includes Islamic banks

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

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.6

Commercial Banks¹: Income and Expenditure

	For the calendar year				
	2014	2015	2016	2017	2018 ^p
	RM million (or otherwise stated)				
Interest income	87,707.9	95,028.2	98,543.5	102,490.8	112,474.1
Less: Interest expense	46,598.7	53,348.2	56,106.7	56,706.9	64,172.8
Net interest income	41,109.2	41,680.0	42,436.7	45,783.9	48,301.4
Add: Fee-based income	8,179.1	8,076.6	8,068.0	8,976.7	8,927.5
Less: Staff cost	12,488.5	14,071.0	13,253.9	14,210.8	15,104.4
Overheads	13,232.2	14,394.9	14,486.0	15,103.8	15,248.9
Gross operating profit	23,567.5	21,290.7	22,764.8	25,446.0	26,875.6
Less: Impairment ² and other provisions	1,487.0	2,925.7	2,687.3	2,018.8	1,997.9
Gross operating profit after provision	22,080.5	18,365.0	20,077.5	23,427.3	24,877.6
Add: Other income	8,675.3	9,898.3	11,398.8	11,896.8	11,939.1
Pre-tax profit	30,755.8	28,263.3	31,476.4	35,324.0	36,816.7
Pre-tax profit / Average assets (%)	1.5	1.3	1.3	1.4	1.4
Pre-tax profit / Average shareholders' funds (%)	15.4	12.6	12.8	13.2	12.9
Pre-tax profit / Average employee (RM'000)	264.6	249.2	284.7	315.3	324.0
Cost incurred per ringgit of revenue earned (sen)	44.4	47.7	44.8	44.0	43.9
Cost incurred per ringgit of net interest income (sen)	62.6	68.3	65.4	64.0	62.8
Overheads to staff cost (%)	106.0	102.3	109.3	106.3	101.0
Staff cost per employee (RM'000)	107.5	127.2	120.0	125.7	132.3

¹ Includes Islamic banks

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

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.7

Investment Banks: Income and Expenditure

	For the calendar year				
	2014	2015	2016	2017	2018 ^p
	RM million (or otherwise stated)				
Interest income	1,708.8	1,756.4	1,616.6	1,790.3	1,849.0
Less: Interest expense	1,312.8	1,264.6	1,084.5	1,252.4	1,313.1
Net interest income	396.0	491.8	532.1	537.9	535.9
Add: Fee-based income	1,923.9	1,606.1	1,312.2	1,639.4	1,147.5
Less: Staff cost	1,140.1	1,135.3	1,040.5	1,139.7	1,061.4
Overheads	939.6	834.5	674.5	645.2	538.8
Gross operating profit	240.1	128.1	129.1	392.3	83.3
Less: Impairment ¹ and other provisions	-15.0	-42.0	13.6	47.6	395.3
Gross operating profit after provision	255.1	170.1	115.5	344.8	-312.0
Add: Other income	918.0	562.5	654.4	564.4	770.3
Pre-tax profit	1,173.1	732.6	770.0	909.2	458.3
Pre-tax profit / Average assets (%)	2.1	1.4	1.5	1.8	0.9
Pre-tax profit / Average shareholders' funds (%)	11.4	6.9	7.2	8.6	4.5
Pre-tax profit / Average employee (RM'000)	130.8	82.7	92.9	132.3	79.8
Cost incurred per ringgit of revenue earned (sen)	64.2	74.0	68.6	65.1	65.2
Cost incurred per ringgit of net interest income (sen)	525.2	400.6	322.4	331.8	298.6
Overheads to staff cost (%)	82.4	73.5	64.8	56.6	50.8
Staff cost per employee (RM'000)	125.0	131.9	130.6	197.1	185.8

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

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.8

Islamic Banking System: Income and Expenditure

	For the calendar year				
	2014	2015	2016	2017	2018 ^p
	RM million (or otherwise stated)				
Income ¹	20,416.1	23,520.3	25,762.8	28,192.1	32,610.4
<i>of which: derived from assets funded by investment accounts</i>	-	1,041.9	2,951.0	4,227.5	5,663.5
Less: Expense ¹	10,888.9	13,738.6	15,238.0	16,432.8	19,219.4
<i>of which: profit distributed to investment account holders</i>	-	601.7	2,219.6	2,532.5	2,742.2
Net income	9,527.2	9,781.7	10,524.8	11,759.3	13,391.0
Add: Fee-based income ²	1,056.9	1,121.3	1,309.9	1,571.2	1,439.5
Less: Staff cost	1,741.9	1,754.7	1,789.6	2,001.7	2,172.0
Overheads	3,225.5	3,495.6	3,685.4	3,989.2	4,022.7
Gross operating profit	5,616.8	5,652.8	6,359.7	7,339.5	8,635.7
Less: Impairment ³ and other provisions	758.2	1,067.8	1,175.1	756.9	1,052.9
Gross operating profit after provision	4,858.6	4,585.0	5,184.6	6,582.6	7,582.8
Add: Other income	253.1	449.4	392.0	96.3	84.7
Pre-tax profit	5,111.7	5,034.4	5,576.6	6,678.9	7,667.5
Pre-tax profit / Average assets (%)	1.1	1.0	1.0	1.1	1.1
Pre-tax profit / Average shareholders' funds (%)	15.7	14.0	13.9	15.1	15.7
Pre-tax profit / Average employee (RM'000) ⁴	173.1	161.8	187.6	211.9	223.3
Cost incurred per ringgit of revenue earned (sen)	22.9	20.9	19.9	20.1	18.1
Cost incurred per ringgit of net income (sen)	52.1	53.7	52.0	50.9	46.3
Overheads to staff cost (%)	185.2	199.2	205.9	199.3	185.2
Staff cost per employee (RM'000) ⁴	59.0	56.4	60.2	63.5	63.2

¹ Beginning 1 July 2015, income and expenses include those arising from assets funded by investment accounts and profit distributed to investment account holders

² Including income derived from assets funded by investment accounts which are recognised off-balance sheet

³ Refers to individual and collective impairment provisions in accordance with the Policy Document on the Classification and Impairment Provisions for Loans / Financing

⁴ Number of employees is estimated based on the percentage of the institutions' Islamic assets

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.9

Banking System: Network and Workforce

	As at end				
	2014	2015	2016	2017	2018 ^p
Number of institutions	54	54	54	54	53
<i>Commercial banks</i>	27	27	27	27	26
<i>Investment banks</i>	11	11	11	11	11
<i>Islamic banks</i>	16	16	16	16	16
Office network	2,494	2,500	2,498	2,494	2,541
<i>Commercial banks</i>	2,045	2,048	2,019	2,019	2,041
<i>Investment banks</i>	135	119	130	130	129
<i>Islamic banks¹</i>	2,192	2,206	2,197	2,196	2,246
Number of employees	125,307	119,246	118,465	118,851	119,906
<i>Commercial banks</i>	106,783	101,718	101,378	103,806	103,131
<i>Investment banks</i>	9,122	8,606	7,970	5,783	5,711
<i>Islamic banks</i>	9,402	8,922	9,117	9,262	11,064

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

^p Preliminary

Source: Bank Negara Malaysia

Table A.10

Commercial Banks¹: Commitments and Contingencies

	As at end				
	2014	2015	2016	2017	2018 ^p
	RM million				
Assets sold with recourse and commitments with drawdown	6,762.4	8,852.4	12,066.7	17,399.9	19,684.7
Credit extension commitments	472,472.5	490,961.9	503,193.1	523,609.8	550,936.4
Direct credit substitutes	29,897.3	32,830.2	30,867.5	28,027.3	27,566.7
Foreign exchange-related contracts	760,062.7	891,122.5	924,253.8	930,555.9	1,119,907.5
Interest rate-related contracts	791,736.1	858,058.7	941,300.7	958,693.0	941,806.8
Trade-related contingencies	13,724.3	13,505.9	11,834.1	11,173.2	9,888.5
Transaction-related contingencies	57,964.8	60,492.9	66,338.3	66,115.5	65,476.3
Underwriting obligations	466.0	76.0	76.0	415.0	55.0
Others	63,046.9	58,523.2	58,783.8	40,588.9	64,587.2
Total	2,196,133.0	2,414,423.9	2,548,714.0	2,576,578.4	2,799,909.1

¹ Includes Islamic banks

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.11

Investment Banks: Commitments and Contingencies

	As at end				
	2014	2015	2016	2017	2018 ^p
	RM million				
Assets sold with recourse and commitments with drawdown	77.0	4.5	11.0	4.0	1.1
Credit extension commitments	5,609.1	5,802.7	6,160.1	6,764.4	7,027.5
Direct credit substitutes	418.0	543.0	305.4	109.2	249.7
Foreign exchange-related contracts	7,941.7	8,736.5	6,064.5	7,973.8	6,387.6
Interest rate-related contracts	8,957.2	7,370.6	7,574.8	7,759.8	9,803.7
Trade-related contingencies	0.0	0.0	0.0	0.0	0.0
Transaction-related contingencies	10.5	10.5	10.5	10.5	12.1
Underwriting obligations	90.2	218.4	85.6	120.0	566.8
Others	3,296.3	2,967.2	2,892.6	3,058.0	3,066.9
Total	26,399.9	25,653.4	23,104.7	25,799.6	27,115.3

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.12

Life Insurance¹: Income and Outgo

	For the calendar year				
	2014	2015	2016	2017	2018 _p
	RM million				
Net premiums	28,824.8	30,041.2	31,585.9	33,236.2	35,044.5
Less: Net policy benefits	17,997.2	20,541.3	21,372.9	22,610.5	23,672.9
Agency remuneration	3,837.0	3,899.6	4,100.8	4,304.2	4,475.0
Total management expenses	2,626.5	2,994.6	3,228.1	3,471.8	3,455.0
Balance of transaction	4,364.1	2,605.6	2,884.2	2,849.7	3,441.6
Add: Net investment income	7,623.2	8,057.0	8,446.2	9,070.4	9,749.2
Net capital gain (loss)	-856.2	-209.7	260.4	4,063.8	-5,542.1
Net other income (outgo)	512.9	-104.2	-341.1	460.5	-346.9
Excess income over outgo	11,643.9	10,348.7	11,249.7	16,444.4	7,301.8

¹ Figures are based on global business of life insurance

p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.13

General Insurance¹: Underwriting and Operating Results

	For the calendar year				
	2014	2015	2016	2017	2018 _p
	RM million				
Earned premium income	14,885.6	15,633.8	15,995.0	16,360.1	16,603.6
Less: Net claims incurred	8,699.6	9,553.3	9,062.6	9,717.5	9,396.4
Net commission	1,963.4	2,015.6	2,172.5	2,129.8	2,131.2
Total management expenses	2,656.4	2,929.3	3,211.1	3,357.2	3,324.6
Underwriting profit	1,566.3	1,135.6	1,548.9	1,155.6	1,751.4
Add: Net investment income	1,063.9	1,152.8	1,247.6	1,257.4	1,323.0
Net capital gains (loss)	-29.2	1.0	-6.4	40.3	-54.4
Net other income (outgo)	197.3	88.3	194.9	-60.7	-218.1
Operating profit	2,798.3	2,377.7	2,984.9	2,392.7	2,801.9

¹ Figures are based on global business of general insurance

p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.14

Family Takaful¹: Income and Outgo

	For the calendar year				
	2014	2015	2016	2017	2018 ^p
	RM million				
Net contributions	4,787.2	5,104.3	5,743.9	6,351.0	7,317.7
Less: Net certificate benefits	2,027.6	2,449.9	2,666.3	2,911.1	3,241.4
Net commissions	731.5	850.6	953.7	1,060.7	1,211.6
Total management expenses	731.4	845.7	968.9	1,118.4	1,234.5
Balance of transaction	1,296.7	958.2	1,155.0	1,260.9	1,630.3
Add: Net investment income	736.9	837.4	922.6	1,031.6	1,121.0
Net capital gain (loss)	-56.1	16.4	-8.8	200.2	-250.7
Net other income (outgo)	138.5	-140.5	-59.1	33.8	-328.9
Excess income over outgo	2,116.0	1,671.5	2,009.6	2,526.5	2,171.6

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

^p Preliminary

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.15

General Takaful¹: Underwriting and Operating Results

	For the calendar year				
	2014	2015	2016	2017	2018 ^p
	RM million				
Earned contribution income	1,466.8	1,671.4	1,778.0	1,863.2	2,123.7
Less: Net claims incurred	700.6	867.9	870.5	953.3	1,190.9
Net commission	91.9	105.0	101.3	99.3	164.7
Total management expenses	416.7	502.9	553.2	650.4	691.1
Underwriting profit	257.6	195.6	253.0	160.3	77.0
Add: Net investment income	110.6	119.1	128.6	134.0	133.2
Net capital gains (loss)	0.5	0.7	-0.4	0.0	-2.1
Net other income (outgo)	9.6	3.3	39.3	6.9	-6.2
Operating profit	378.3	318.8	420.5	301.2	201.8

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

Source: Bank Negara Malaysia

Table A.16

Development Financial Institutions: Sources and Uses of Funds

	DFIs ¹ under DFIA ²		Non-DFIA ² DFIs ³		Total DFIs	
	As at end					
	2017	2018	2017	2018	2017	2018
	RM million					
Sources:						
Shareholders' equity	33,924.4	34,520.3	2,249.7	7,918.1	36,174.1	42,438.4
<i>of which:</i>						
Paid-up capital	11,623.4	11,873.4	2,871.5	3,121.5	14,494.9	14,994.9
Reserves	9,228.1	9,842.2	-2,816.3	2,663.5	6,411.8	12,505.7
Retained earnings/losses	10,712.8	10,568.8	1,986.0	1,881.6	12,698.8	12,450.4
Liabilities	177,799.1	178,737.8	85,813.0	87,281.9	263,612.1	266,019.7
<i>of which:</i>						
Deposits accepted	129,511.7	130,066.3	71,751.6	76,503.5	201,263.3	206,569.8
Borrowings	9,144.6	8,740.5	7,471.8	7,157.2	16,616.4	15,897.7
Government	7,314.5	7,201.4	1,592.9	1,460.7	8,907.4	8,662.1
Multilateral/International agencies	1,830.1	1,539.1	-	-	1,830.1	1,539.1
Others	-	-	5,878.9	5,696.5	5,878.9	5,696.5
Debt securities issued	21,110.4	20,029.5	-	-	21,110.4	20,029.5
Total	211,723.5	213,258.1	88,062.7	95,200.0	299,786.2	308,458.1
Uses:						
Assets	211,723.5	213,258.1	88,062.7	95,200.0	299,786.2	308,458.1
<i>of which:</i>						
Deposits placed	5,565.1	5,876.5	12,203.8	9,120.6	17,768.9	14,997.1
Investments	49,837.0	51,676.0	52,880.4	44,098.6	102,717.4	95,774.6
<i>of which:</i>						
Government securities	23,580.6	24,613.2	-	-	23,580.6	24,613.2
Shares	848.8	550.2	18,459.8	7,497.8	19,308.6	8,048.0
Quoted	802.9	504.6	17,433.5	6,486.8	18,236.4	6,991.4
Unquoted	45.9	45.6	1,026.3	1,011.0	1,072.2	1,056.6
Corporate debt securities	14,002.2	13,815.2	17,737.3	22,363.7	31,739.5	36,178.9
Loans and advances	143,546.2	143,064.3	9,749.0	9,688.9	153,295.2	152,753.2
Fixed assets	4,432.6	5,070.4	7,513.8	6,326.9	11,946.4	11,397.3
Total	211,723.5	213,258.1	88,062.7	95,200.0	299,786.2	308,458.1
Contingencies:						
Guarantee	613.0	438.9	6,497.2	7,283.7	7,110.2	7,722.6
Export credit insurance	1,795.8	1,881.4	-	-	1,795.8	1,881.4
Total	2,408.8	2,320.3	6,497.2	7,283.7	8,906.0	9,604.0

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)

Note: Numbers reported are gross figures

Table A.17

Development Financial Institutions¹ under DFIA²: Sources and Uses of Funds

	As at end-2018						
	Bank Rakyat	BSN	Bank Pembangunan	Agrobank	EXIM Bank	SME Bank	Total
	RM million						
Sources:							
Shareholders' equity	17,530.3	2,732.7	7,288.1	2,916.8	2,304.4	1,748.0	34,520.3
<i>of which:</i>							
Paid-up capital	2,986.0	-	3,078.7	1,000.0	2,958.7	1,850.0	11,873.4
Reserves	6,101.8	1,310.2	1,966.8	484.9	-21.6	0.1	9,842.2
Retained earnings/losses	6,678.1	1,202.7	2,011.7	1,283.9	-617.1	9.5	10,568.8
Liabilities	90,639.9	30,564.3	20,855.8	14,098.4	13,046.3	9,533.1	178,737.8
<i>of which:</i>							
Deposits accepted	82,865.6	26,769.1	6,448.3	10,610.5	-	3,372.8	130,066.3
Borrowings	219.8	33.9	2,650.0	2,278.9	1,575.0	1,982.9	8,740.5
Government	219.8	33.9	2,650.0	2,278.9	35.9	1,982.9	7,201.4
Multilateral/International agencies	-	-	-	-	1,539.1	-	1,539.1
Others	-	-	-	-	-	-	-
Debt securities issued	3,143.4	-	7,250.0	-	7,814.7	1,821.4	20,029.5
Total	108,170.2	33,297.0	28,143.9	17,015.2	15,350.7	11,281.1	213,258.1
Uses:							
Assets	108,170.2	33,297.0	28,143.9	17,015.2	15,350.7	11,281.1	213,258.1
<i>of which:</i>							
Deposits placed	629.3	25.7	1,982.8	752.3	1,876.5	609.9	5,876.5
Investments	33,225.8	6,323.2	4,121.7	4,381.6	934.9	2,688.8	51,676.0
<i>of which:</i>							
Government securities	17,756.8	2,831.3	1,370.0	1,685.1	-	970.0	24,613.2
Shares	344.2	55.4	141.0	0.4	-	9.2	550.2
Quoted	335.2	55.4	113.6	0.4	-	-	504.6
Unquoted	9.0	-	27.4	-	-	9.2	45.6
Corporate debt securities	5,494.0	419.9	2,560.7	2,696.1	934.9	1,709.6	13,815.2
Loans and advances	70,400.9	23,877.8	20,623.3	10,765.3	10,912.4	6,484.6	143,064.3
Fixed assets	1,859.7	1,578.0	186.5	591.6	141.9	712.7	5,070.4
Total	108,170.2	33,297.0	28,143.9	17,015.2	15,350.7	11,281.1	213,258.1

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

Note: Numbers reported are gross figures

Table A.18

Development Financial Institutions: Financing by Economic Sector

	DFIs ¹ under DFIA ²		Non-DFIA ² DFIs ³		Total DFIs	
	As at end					
	2017	2018	2017	2018	2017	2018
	RM million					
Agriculture, forestry and fishery	9,984.6	11,050.5	763.8	794.3	10,748.4	11,844.8
Mining and quarrying	238.9	237.6	1,038.7	1,085.7	1,277.6	1,323.3
Manufacturing	4,975.6	3,567.0	427.1	346.2	5,402.7	3,913.2
Electricity, gas and water supply	4,047.8	3,980.1	490.7	521.5	4,538.5	4,501.6
Import and export, wholesale and retail trade, restaurants and hotels	5,012.8	4,685.8	178.3	182.5	5,191.1	4,868.3
Broad property sector	23,928.6	25,660.4	3,430.3	3,273.3	27,358.9	28,933.7
<i>Construction</i>	11,972.8	12,650.0	2,692.4	2,616.5	14,665.2	15,266.5
<i>Purchase of residential property</i>	11,052.1	11,899.8	63.2	54.4	11,115.3	11,954.2
<i>Purchase of non-residential property</i>	220.0	216.0	24.4	24.4	244.4	240.4
<i>Real estate</i>	683.7	894.6	650.3	578.0	1,334.0	1,472.6
Maritime	1,437.6	1,235.8	-	-	1,437.6	1,235.8
Transport, storage and communication	7,955.6	6,421.6	79.7	80.6	8,035.3	6,502.2
Finance, insurance and business services	4,704.7	4,617.1	352.0	178.2	5,056.7	4,795.3
Consumption credit	76,720.5	77,123.1	2,642.8	2,838.0	79,363.3	79,961.1
<i>of which:</i>						
<i>Purchase of motor vehicles</i>	2,159.5	2,316.0	0.7	0.6	2,160.2	2,316.6
<i>Credit card</i>	958.6	943.3	-	-	958.6	943.3
Community, social and other service activities	3,996.1	3,851.4	32.9	35.1	4,029.0	3,886.5
Purchase of securities	242.9	268.6	-	-	242.9	268.6
Other sectors	300.5	365.3	312.7	353.5	613.2	718.8
Total	143,546.2	143,064.3	9,749.0	9,688.9	153,295.2	152,753.2

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)

Note: Numbers reported are gross figures

Table A.19

Development Financial Institutions¹ under DFIA²: Financing by Economic Sector

	As at end-2018						
	Bank Rakyat	BSN	Bank Pembangunan	Agrobank	EXIM Bank	SME Bank	Total
	RM million						
Agriculture, forestry and fishery	100.9	-	-	10,765.3	177.8	6.5	11,050.5
Mining and quarrying	-	-	-		192.9	44.7	237.6
Manufacturing	53.9	50.6	523.9		1,866.6	1,072.0	3,567.0
Electricity, gas and water supply	0.2	-	2,027.3		1,951.3	1.3	3,980.1
Import and export, wholesale and retail trade, restaurants and hotels	168.0	330.5	1,407.9		1,202.7	1,576.7	4,685.8
Broad property sector	2,784.2	10,501.0	8,706.9		1,956.3	1,712.0	25,660.4
<i>Construction</i>	906.6	-	8,706.9		1,692.5	1,344.0	12,650.0
<i>Purchase of residential property</i>	1,427.9	10,471.9	-		-	-	11,899.8
<i>Purchase of non-residential property</i>	186.9	29.1	-		-	-	216.0
<i>Real estate</i>	262.8	-	-		263.8	368.0	894.6
Maritime	-	-	1,235.8		-	-	1,235.8
Transport, storage and communication	80.8	18.0	3,685.6		1,774.5	862.7	6,421.6
Finance, insurance and business services	2,297.8	214.4	-		1,449.5	655.4	4,617.1
Consumption credit	64,590.3	12,532.8	-		-	-	77,123.1
<i>of which:</i>							
<i>Purchase of motor vehicles</i>	829.1	1,486.9	-		-	-	2,316.0
<i>Credit card</i>	444.0	499.3	-		-	-	943.3
Community, social and other service activities	279.6	6.0	3,029.4		-	536.4	3,851.4
Purchase of securities	45.2	223.4	-		-	-	268.6
Other sectors	-	1.1	6.5		340.8	16.9	365.3
Total	70,400.9	23,877.8	20,623.3	10,765.3	10,912.4	6,484.6	143,064.3

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

Note: Numbers reported are gross figures

Table A.20

Development Financial Institutions : Selected Data

	As at end					
	2017			2018		
	Branch	ATM	Staff	Branch	ATM	Staff
DFIs under DFIA¹:						
Bank Kerjasama Rakyat Malaysia Berhad	148	714	5,008	148	710	5,178
Bank Simpanan Nasional	403	744	7,116	392	730	7,052
Bank Pembangunan Malaysia Berhad	-	-	368	-	-	387
Bank Pertanian Malaysia Berhad	187	251	3,454	187	256	3,430
Export-Import Bank of Malaysia Berhad	-	-	340	-	-	333
Small Medium Enterprise Development Bank Malaysia Berhad	29	-	987	29	-	1,027
Sub-total	767	1,709	17,273	756	1,696	17,407
Non-DFIA¹ DFIs:						
Lembaga Tabung Haji	124	-	2,078	125	-	2,089
Credit Guarantee Corporation Malaysia Berhad	16	-	537	16	-	559
Sabah Development Bank Berhad	-	-	78	-	-	79
Malaysian Industrial Development Finance Berhad	5	-	284	5	-	282
Sabah Credit Corporation	13	-	178	13	-	172
Borneo Development Corporation (Sarawak) Sendirian Berhad	-	-	35	-	-	33
Borneo Development Corporation (Sabah) Sendirian Berhad	-	-	20	-	-	20
Sub-total	158	-	3,210	159	-	3,234
Total	925	1,709	20,483	915	1,696	20,641

¹ Development Financial Institutions Act 2002

Table A.21

Total Outward and Inward Remittances

	2014	2015	2016	2017	2018
	RM million				
Total outward¹	28,457.0	34,898.7	34,252.6	32,951.9	40,632.0
<i>Remitted via:</i>					
Money services business licensees	17,468.0	20,632.8	21,574.6	20,562.8	23,050.7
Banks	10,989.0	14,265.9	12,678.0	12,389.1	17,581.3
Total inward²	7,115.1	8,588.6	9,106.3	11,133.0	11,814.3
<i>Remitted via:</i>					
Money services business licensees	980.7	1,321.4	1,879.8	2,502.5	2,727.3
Banks	6,134.4	7,267.2	7,226.5	8,630.5	9,087.0
<i>As at end of period</i>					
No. of remittance service providers	77	76	76	79	78
Licensed non-bank remittance service providers	31	30	30	33	33
Development financial institutions	3	3	3	3	3
Commercial banks and Islamic banks	43	43	43	43	42

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

² Refers to total funds remitted from other countries to Malaysia for workers' remittances and remuneration for employees

Source: International Transactions Information System (ITIS) and Money Services Business Statistical Report on Remittance Business

Table A.22

Basic Payments Indicators

	2014	2015	2016	2017	2018
Population (million)	30.7	31.2	31.6	32.1	32.4
GDP (RM million)	1,106,442	1,158,513	1,231,021	1,353,381	1,429,842
Cash in circulation (CIC) (RM million)	68,029.4	76,687.4	85,479.6	92,387.6	94,307.2
Transaction Volume Per Capita (unit):					
Cheque ¹	5.8	4.7	4.2	3.7	3.1
E-payments:	70.9	82.6	97.5	110.6	124.6
Credit card	11.3	11.5	12.1	12.7	13.8
Charge card	0.1	0.1	0.1	0.1	0.2
Debit card	2.2	2.9	3.4	5.1	7.6
E-money	38.3	44.4	52.6	58.1	59.3
Other cashless instruments ²	1.0	1.1	1.6	0.9	0.2
Interbank GIRO	3.7	4.8	5.5	6.1	6.4
Instant Transfer	0.9	1.5	2.6	4.1	7.4
Direct Debit ³	...	0.1	0.1	0.1	0.1
ATM ⁴	1.1	1.5	1.4	1.3	1.1
Internet banking ⁵	8.6	10.7	13.2	15.9	19.0
Mobile banking ⁶	0.7	0.9	1.5	2.7	5.9
Mobile payment ⁶	n.a.	n.a.	n.a.
RENTAS - Third party transactions ⁷	0.1	0.1	0.1	0.1	0.1
Intrabank direct debit and standing instructions ⁸	2.9	3.1	3.2	3.4	3.6
Transaction Value Per Capita (RM):					
CIC	2,215.3	2,459.0	2,702.1	2,882.6	2,912.1
Cheque ¹	63,115.6	57,555.8	52,645.9	50,324.9	44,215.1
E-payments:	563,894.6	549,657.8	550,702.9	613,675.8	668,785.3
Credit card	3,435.4	3,612.6	3,746.8	3,918.5	4,175.5
Charge card	278.8	286.3	308.2	342.5	385.2
Debit card	481.5	635.9	713.5	929.1	1,243.8
E-money	172.1	192.2	243.1	283.8	338.7
Other cashless instruments ²	3.2	3.3	4.8	3.1	1.9
Interbank GIRO	14,085.0	20,411.9	24,266.0	29,055.0	32,461.3
Instant Transfer	827.0	1,664.4	3,398.3	5,390.9	8,594.7
Direct Debit ³	481.8	619.2	798.4	997.1	1,186.6
ATM ⁴	1,232.9	1,308.2	1,296.0	1,228.6	1,307.0
Internet banking ⁵	87,188.1	102,888.5	100,424.6	126,745.6	142,659.9
Mobile banking ⁶	395.0	533.3	774.5	1,033.0	1,828.6
Mobile payment ⁶	n.a.	n.a.	n.a.	0.5	2.2
RENTAS - Third party transactions ⁷	443,175.6	407,481.8	404,468.0	433,095.2	465,053.8
Intrabank direct debit and standing instructions ⁸	12,138.2	10,020.2	10,260.8	10,652.6	9,546.1
Turnover to GDP:					
CIC (%)	6.1	6.6	6.9	6.8	6.6
Cheque ¹ (times)	1.8	1.5	1.4	1.2	1.0
E-payments (times):	15.7	14.8	14.2	14.5	15.1
% of GDP:					
Credit card	9.5	9.7	9.6	9.3	9.5
Charge card	0.8	0.8	0.8	0.8	0.9
Debit card	1.3	1.7	1.8	2.2	2.8
E-money	0.5	0.5	0.6	0.7	0.8
Other cashless instruments ²
Interbank GIRO	39.1	54.9	62.4	68.8	73.5
Instant Transfer	2.3	4.5	8.7	12.8	19.5
Direct Debit ³	1.3	1.7	2.1	2.4	2.7
ATM ⁴	3.4	3.5	3.3	2.9	3.0
Internet banking ⁵	242.0	277.0	258.1	300.2	323.1
Mobile banking ⁶	1.1	1.4	2.0	2.4	4.1
Mobile payment ⁶	n.a.	n.a.	n.a.
RENTAS - Third party transactions ⁷ (times)	12.3	11.0	10.4	10.3	10.5
Intrabank direct debit and standing instructions ⁸	33.7	27.0	26.4	25.2	21.6

¹ Cheques cleared via eSPICK

² Refer to single purpose payment cards

³ Refer to interbank direct debit transactions

⁴ Refer to payment transactions via ATM, including own and third party funds transfer. Exclude cash withdrawals

⁵ Exclude non-financial transactions, payment card transactions and interbank funds transfer (IBG, Instant Transfer and RENTAS third party transactions) performed online

⁶ Refer to payment service offered by banking institutions that facilitates payments or funds transfer using a mobile device (e.g. mobile phone etc.). Exclude transactions using payment card and mobile banking transactions. Transactions made using mobile payment service offered by non-bank e-money issuers are captured under 'E-money'

⁷ 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

⁸ Refer to payments that are directly debited by the banks from the current and savings account

... Negligible

n.a. Not available

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia and Department of Statistics, Malaysia

Table A.23

Cashless Payment Instruments: Transaction Volume							
	2014	2015	2016	2017	2018	2017	2018
	Million					% Annual change	
Cheque¹	177.1	148.0	133.1	119.0	101.4	-10.6	-14.8
Credit card	345.7	359.6	383.8	406.5	447.1	5.9	10.0
Charge card	4.4	4.2	4.1	4.7	5.2	13.4	11.4
Debit card	68.7	89.7	107.6	162.2	245.7	50.8	51.5
<i>International debit</i>	60.4	79.6	91.1	118.0	173.0	29.6	46.6
<i>Domestic debit</i>	8.4	10.1	16.5	44.1	72.7	167.5	64.7
E-money	1,175.0	1,384.7	1,663.2	1,861.7	1,920.3	11.9	3.2
<i>Card-based</i>	1,153.0	1,361.0	1,637.8	1,837.8	1,867.5	12.2	1.6
<i>Network-based</i>	22.0	23.7	25.4	23.9	52.8	-5.7	120.6
Credit Transfer²	140.0	195.8	256.9	328.6	445.4	27.9	35.5
<i>Interbank Giro</i>	113.6	149.1	174.1	196.7	206.8	13.0	5.1
<i>Instant Transfer</i>	26.4	46.7	82.8	131.9	238.6	59.4	80.8
Direct Debit	1.3	1.7	2.0	3.0	4.0	50.3	33.6

¹ Cheques cleared via eSPICK

² Refer to interbank transactions

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.24

Cashless Payment Instruments: Transaction Value							
	2014	2015	2016	2017	2018	2017	2018
	RM million					% Annual change	
Cheque¹	1,938,218	1,794,937	1,665,401	1,612,912	1,431,906	-3.2	-11.2
Credit card	105,498	112,664	118,526	125,589	135,225	6.0	7.7
Charge card	8,560	8,929	9,749	10,978	12,473	12.6	13.6
Debit card	14,785	19,830	22,569	29,779	40,279	31.9	35.3
<i>International debit</i>	10,042	14,220	15,840	17,722	23,135	11.9	30.5
<i>Domestic debit</i>	4,743	5,610	6,728	12,057	17,144	79.2	42.2
E-money	5,284	5,995	7,689	9,096	10,969	18.3	20.6
<i>Card-based</i>	3,837	4,537	5,960	7,085	7,886	18.9	11.3
<i>Network-based</i>	1,447	1,458	1,729	2,011	3,083	16.3	53.3
Credit Transfer²	457,932	688,472	875,131	1,103,994	1,329,596	26.2	20.4
<i>Interbank Giro</i>	432,537	636,565	767,630	931,214	1,051,258	21.3	12.9
<i>Instant Transfer</i>	25,395	51,907	107,501	172,779	278,338	60.7	61.1
Direct Debit	14,796	19,311	25,256	31,958	38,429	26.5	20.2

¹ Cheques cleared via eSPICK

² Refer to interbank transactions

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.25

Payment Systems: Transaction Volume and Value

	2014	2015	2016	2017	2018	2017	2018
	Million/RM billion					% Annual change	
RENTAS¹							
Transaction volume	4.4	4.4	4.4	4.6	4.9	2.3	8.1
Transaction value	49,127.4	53,572.4	51,538.8	53,749.9	55,186.4	4.3	2.7
Interbank GIRO							
Transaction volume	113.6	149.1	174.1	196.7	206.8	13.0	5.1
Transaction value	432.5	636.6	767.6	931.2	1,051.3	21.3	12.9
Instant Transfer							
Transaction volume	26.4	46.7	82.8	131.9	238.6	59.4	80.8
Transaction value	25.4	51.9	107.5	172.8	278.3	60.7	61.1
Direct Debit							
Transaction volume	1.3	1.7	2.0	3.0	4.0	50.3	33.6
Transaction value	14.8	19.3	25.3	32.0	38.4	26.5	20.2
FPX²							
Transaction volume	3.1	4.6	8.7	33.2	89.9	283.3	171.0
Transaction value	4.2	8.6	14.8	28.9	54.8	95.5	89.5
Cheque³							
Transaction volume	177.1	148.0	133.1	119.0	101.4	-10.6	-14.8
Transaction value	1,938.2	1,794.9	1,665.4	1,612.9	1,431.9	-3.2	-11.2

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

² Financial Process Exchange

³ Cheques cleared via eSPICK

Source: Bank Negara Malaysia

Table A.26

Payment and Securities Transactions Handled by RENTAS

Transaction Volume	2014	2015	2016	2017	2018	2017	2018
	'000					% Annual change	
Total	4,367.2	4,403.4	4,449.3	4,550.8	4,918.4	2.3	8.1
IFTS¹	4,257.3	4,284.1	4,320.5	4,440.8	4,761.2	2.8	7.2
Money market operations	88.1	86.8	84.5	80.6	77.8	-4.6	-3.5
Foreign exchange settlement	107.6	126.8	126.3	110.2	111.2	-12.7	0.9
<i>of which: USD CHATS²</i>	<i>53.7</i>	<i>63.0</i>	<i>55.8</i>	<i>36.8</i>	<i>36.9</i>	<i>-34.1</i>	<i>0.4</i>
Third party transactions	3,383.8	3,317.5	3,445.6	3,696.8	3,964.2	7.3	7.2
Others	677.8	753.0	664.2	553.2	608.0	-16.7	9.9
SSDS³	110.0	119.3	128.8	110.0	157.1	-14.6	42.9
Transaction Value	RM billion						
Total	49,127.4	53,572.4	51,538.8	53,749.9	55,186.4	4.3	2.7
IFTS¹	46,743.1	51,332.7	49,585.5	52,206.0	53,512.1	5.3	2.5
Money market operations	18,935.5	23,741.9	24,118.9	25,593.3	24,627.2	6.1	-3.8
Foreign exchange settlement	4,966.6	5,190.4	4,941.8	5,849.9	5,420.3	18.4	-7.3
<i>of which: USD CHATS²</i>	<i>3,595.2</i>	<i>3,700.9</i>	<i>3,877.8</i>	<i>4,145.5</i>	<i>3,761.6</i>	<i>6.9</i>	<i>-9.3</i>
Third party transactions	13,609.5	12,707.7	12,794.9	13,880.7	15,060.8	8.5	8.5
Others	9,231.5	9,692.7	7,729.8	6,882.0	8,403.8	-11.0	22.1
SSDS³	2,384.3	2,239.7	1,953.3	1,544.0	1,674.4	-21.0	8.4
Turnover to GDP (times)	44.4	46.2	41.9	39.7	38.6		
Daily Average:							
Transaction volume ('000)	17.8	17.9	18.0	18.7	20.2	3.5	8.5
Transaction value (RM billion)	199.7	217.8	208.7	220.3	227.1	5.6	3.1

¹ Interbank Funds Transfer System² Payment-versus-Payment (PvP) link established in 2006, for interbank settlement of ringgit-US dollar trades through RENTAS-USD CHATS³ Scripless Securities Depository System for Malaysian Government Securities, Treasury bills, and scripless public debt securities

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia and Department of Statistics, Malaysia

Table A.27

Payment Channels: Transaction Volume and Value

Transaction Volume	2014	2015	2016	2017	2018	2017	2018
	Million					% Annual change	
Internet banking ¹	350.7	453.0	588.2	741.9	920.9	26.1	24.1
<i>Individual</i>	252.2	322.3	434.3	553.1	683.1	27.4	23.5
<i>Corporate</i>	98.5	130.6	153.9	188.8	237.8	22.7	25.9
Mobile banking ¹	23.3	32.8	56.9	107.7	257.4	89.1	139.1
Mobile payment ²	n.a.	n.a.	n.a.	1.2	23.7	n.a.	1,853.7
ATM ³	51.3	68.6	71.3	71.6	70.1	0.4	-2.1
Transaction Value	RM million						
Internet banking ¹	4,108,271	4,716,778	5,214,908	6,500,592	7,590,423	24.7	16.8
<i>Individual</i>	304,177	350,833	463,033	620,250	734,291	34.0	18.4
<i>Corporate</i>	3,804,094	4,365,946	4,751,875	5,880,343	6,856,132	23.7	16.6
Mobile banking ¹	14,677	22,123	34,985	50,692	100,127	44.9	97.5
Mobile payment ²	n.a.	n.a.	n.a.	50	564	n.a.	1,021.3
ATM ³	52,047	57,529	65,273	67,385	74,551	3.2	10.6

¹ Exclude non-financial transactions² Only include purchase transactions made via mobile payment³ Refer to payment transactions via ATM, including own and third party funds transfer. Exclude cash withdrawals

n.a. Not available

Note: Figures may not necessarily add up due to rounding

Source: Bank Negara Malaysia

Table A.28

Payment Transactions by Channels

Transaction Volume	2017			2018		
	Internet banking	Mobile banking	ATM	Internet banking	Mobile banking	ATM
	Million					
Funds transfer	436.7	68.3	57.4	537.7	186.5	56.1
Bill payment ¹	100.5	9.5	2.6	109.1	16.7	3.2
Card and loan repayment	32.7	5.5	9.7	34.4	9.7	9.2
Transaction Value	RM million					
Funds transfer	4,802,559	42,424	54,395	5,742,528	84,638	53,481
Bill payment ¹	35,323	1,568	957	42,496	3,243	1,338
Card and loan repayment	46,729	5,842	10,411	49,537	10,123	10,030

¹ Include insurance payments

Source: Bank Negara Malaysia

Table A.29

ATM Cash Withdrawals in Malaysia

Volume of cash withdrawals	2014	2015	2016	2017	2018	2017	2018
	Million					% Annual change	
	687.8	705.9	761.2	763.9	790.7	0.3	3.5
Value of cash withdrawals	RM million					1.9	3.8
	339,725.6	354,732.3	389,485.3	396,956.7	411,887.6		
Average value per transaction (RM)	493.9	502.5	511.6	519.7	520.9	1.6	0.2

Source: Bank Negara Malaysia

Table A.30

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

As at end of period	2014	2015	2016	2017	2018
	Unit				
Total terminals ¹	233,248	278,266	326,677	416,742	514,818
Terminals per 1,000 inhabitants	8	9	10	13	16

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

Source: Bank Negara Malaysia

Table A.31

Number of Cards and Users of Payment Instruments and Channels

As at end of period	2014	2015	2016	2017	2018	2017	2018
	'000					% Annual change	
Number of cards/accounts:							
Credit card	8,048	8,612	9,178	9,861	10,325	7.4	4.7
Charge card	142	143	130	129	128	-0.6	-0.9
Debit card	40,109	42,192	43,669	42,030	42,493	-3.8	1.1
<i>Standalone international debit¹</i>	6,256	6,170	1,016	219	105	-78.5	-51.9
<i>Standalone domestic debit²</i>	15,455	14,544	11,844	4,649	3,703	-60.7	-20.3
<i>Co-badged³</i>	18,398	21,477	30,809	37,162	38,685	20.6	4.1
E-money	45,557	55,825	42,540	46,639	60,986	9.6	30.8
Number of subscribers:							
Internet banking	17,600	19,751	22,770	25,526	29,505	12.1	15.6
<i>Individual</i>	17,254	19,176	22,016	24,579	28,349	11.6	15.3
<i>Corporate</i>	346	575	753	947	1,156	25.6	22.1
<i>Penetration rate to population (%)</i>	57.3	63.3	72.0	79.6	91.1		
Mobile banking	5,639	7,182	8,795	11,348	14,444	29.0	27.3
<i>Penetration rate to population (%)</i>	18.4	23.0	27.8	35.4	44.6		

¹ A debit card with an international brand debit network application (e.g. Visa and MasterCard)² A debit card with the domestic brand debit network application, i.e. MyDebit³ A debit card with two payment card network applications or brands

Source: Bank Negara Malaysia

Table A.32

Number of Participants and Instrument Issuers¹

As at end of period	2014	2015	2016	2017	2018
	Unit				
RENTAS	67	67	68	68	68
<i>Bank Negara Malaysia</i>	1	1	1	1	1
<i>Banks</i>	54	54	55	54	53
<i>DFIs</i>	6	6	6	6	6
<i>Non-banks</i>	6	6	6	7	8
eSPICK	46	46	47	46	45
Credit card	26	27	27	27	27
<i>Banks</i>	23	24	25	25	26
<i>Non-banks</i>	3	3	2	2	2
Debit card²	21	22	28	29	29
<i>Standalone international debit³</i>	9	9	7	7	4
<i>Standalone domestic debit⁴</i>	11	7	2	2	-
<i>Co-badged⁵</i>	14	14	24	27	27
Charge card	7	7	7	7	7
<i>Banks</i>	6	6	7	7	7
<i>Non-banks</i>	1	1	-	-	-
E-money⁶	24	23	28	31	43
<i>Banks</i>	7	5	5	5	5
<i>Non-banks</i>	17	18	23	26	38
Internet banking	30	30	30	30	30
Mobile banking	13	13	13	17	18
FPX⁷	13	16	22	22	23
<i>Banks</i>	10	13	18	18	19
<i>Non-banks</i>	3	3	4	4	4
Direct Debit	17	14	14	19	27
<i>Banks</i>	14	14	14	19	27
<i>Non-banks</i>	3	-	-	-	-
Interbank GIRO	30	30	30	29	32
Instant Transfer	20	20	20	20	20

¹ Refer to participants and issuers which have commenced their business operations

² The figures may not add up as there are banks issuing more than one type of debit card

³ A debit card with an international brand debit network application (e.g. Visa and Mastercard)

⁴ A debit card with the domestic brand debit network application, i.e. MyDebit

⁵ A debit card with two payment card network applications or brands

⁶ Include international brand prepaid card

⁷ Financial Process Exchange

Source: Bank Negara Malaysia

Glossary, Acronyms and Abbreviations



Glossary

Agent banking

The provision of banking services to customers through a third-party agent, such as retail outlets and post offices.

Capital adequacy ratio (CAR)

A measure of a financial institution's capital, expressed as the ratio of capital to risk.

Cash-to-short-term debt (CASTD) ratio

Ratio of a corporation's cash to short-term debt, which measures liquidity.

Common equity tier 1 (CET1)

A component of a bank's regulatory capital comprising ordinary shares issued by a banking institution, share premium, retained earnings and other reserves.

Debt service ratio (DSR)

Ratio of total monthly bank and non-bank debt obligations to monthly disposable income (net of statutory deductions).

Debt-at-risk – household

Proportion of debt of borrowers with negative financial margin to total household debt, adjusted for eligible collateral.

Debt-at-risk – non-financial corporation

Proportion of debt held by corporations with an interest coverage ratio of less than two times to total corporate debt.

Domestic banking group (DBG)

Domestically-owned financial group comprising a licensed bank, licensed investment bank and licensed Islamic bank.

Double hatting

Arrangements for an individual to hold more than one senior role.

e-Payment Incentive Fund (ePIF)

A framework implemented by the Bank in 2015 which requires banks to channel a part of cheque processing fees collected towards providing incentives for customers to migrate to e-payments.

Financial margin (FM)

Borrowers' monthly disposable income (after deducting debt repayments and expenditures on basic necessities) and liquid financial assets.

Gross premiums and contributions

Premiums/contributions receivable before deduction of commissions, brokerage or other expenses covering all direct general insurers/takaful operators and general reinsurers/retakaful operators.

Household financial assets

Assets that are held by households including deposits, investments in unit trust funds and equities, insurance/takaful policies and Employees Provident Fund (EPF) contributions.

Household liquid financial assets (LFA)

Household financial assets excluding EPF contributions.

Interest coverage ratio (ICR)

Ratio of a corporation's earnings before interest, taxes, depreciation and amortisation to interest expense, which measures debt servicing capacity.

Interoperability

Ability for payments to be processed across multiple payment service providers facilitated by the adoption of common standards and/or technical compatibility.

Investment-linked products

Life insurance or family takaful where the policy/certificate value at any time varies according to the value of the underlying assets at the time.

Labuan International Business and Financial Centre (LIBFC) banks

Banks operating in Labuan International Business and Financial Centre.

Leverage ratio – banking

The ratio of 'tier 1 capital' to the 'on- and off-balance sheet exposures' of a bank.

Leverage ratio – household

Ratio of total outstanding debt to borrowers' annual gross income.

Liquidity Coverage Ratio (LCR)

The ratio of 'high-quality liquid assets' to the 'expected net cash outflows' of a bank over the next 30 calendar days.

Loan-to-fund-and-equity (LTFE) ratio

Ratio of total loans to deposits, debt instruments and equity, excluding loans sold to Cagamas, interbanks placements, and loans funded by Islamic investment accounts.

Loan-to-fund (LTF) ratio

Ratio of total loans to deposits and debt instruments, excluding loans sold to Cagamas, interbank placements, and loans funded by Islamic investment accounts.

Locally-incorporated foreign bank (LIFB)

Foreign-owned licensed bank or licensed Islamic bank that is incorporated in Malaysia.

Loss given default (LGD)

Percentage of an outstanding claim on a counterparty that will likely not be recovered in the event of a default.

Merchant discount rate (MDR)

A fee payable by a merchant to an acquirer for facilitating a payment card transaction. It comprises the interchange fee (a fee payable by an acquirer to an issuer in a payment card transaction), the processing fee and other fees imposed by an operator of a payment card network, other costs incurred by the acquirer and the acquirer's margin.

Minimum Allocation Rate (MAR)

The minimum proportion of premiums payable by policy owner/takaful contributions made by takaful participant that is allocated in the unit fund(s) of choice before the deduction of any charges.

Mule account

A bank account which is allowed by the account holder to be used by criminals to hold or transfer money which is acquired illegally.

Net impaired loans/financing ratio

The ratio of impaired loans/financing net of specific provisions to total loans/financing net of specific provisions.

Net Stable Funding Ratio (NSFR)

The ratio of a bank's available stable funding (ASF) to the required stable funding (RSF), where ASF refers to funding sources weighted according to their stability, and RSF refers to assets and other off-balance sheet exposures weighted according to their liquidity.

New premiums/contributions – life insurance and family takaful

Premiums/contributions acquired from new policies/certificates for a particular year.

Non-deliverable forward (NDF)

A forward contract that is traded offshore and does not involve an exchange of two currencies upon maturity.

Non-financial corporation

A corporation whose principal activity is the production of goods and/or non-financial services.

Operating profit/loss

Sum of underwriting profit/loss, net investment and other income, covering all direct general insurers/takaful operators and general reinsurers/retakaful operators.

Overhang of property units

Completed property units with Certificate of Completion and Compliance which remain unsold for more than nine months after being in the market.

Participating products

An insurance/takaful product which shares in the distributable surplus of a life insurer/family takaful operator by acquiring bonuses or dividends.

Persistency management

Management of the insurance policies or takaful certificates remaining in force.

Penetration rate – life insurance and family takaful

The percentage of Malaysian citizens who own an individual life insurance policy or family takaful certificate, after eliminating duplicates from multiple policies.

Portfolio flows

Cross-border transactions involving the purchase/sale of debt or equity securities.

Probability of default (PD)

Likelihood of a counterparty defaulting on its contractual obligations to a financial institution over a given time horizon.

Regulatory Sandbox

A framework that allows for the experimentation of innovative fintech solutions in a live market environment within specified parameters and timeframes.

Sukuk

Debt security structured under any Shariah compliant contract.

Surplus arising

Life insurer and family takaful operator's change in surpluses over a particular period, where surplus is the excess of policyholders'/participants' risk fund over net policy/certificate liabilities.

Total capital

A bank's total regulatory capital comprising the sum of CET1, additional tier 1 and tier 2 capital.

Underwriting profit/loss

Earned premium/contribution income less net claims incurred, commissions and management expenses, covering all direct general insurers/takaful operators and general reinsurers/retakaful operators.

Vintage default rate

Rate of loan defaults tracked and grouped by origination period.

Acronyms and Abbreviations

ABM	Association of Banks in Malaysia	DFI	development financial institution
AIBIM	Association of Islamic Banking and Financial Institutions Malaysia	DII	domestic institutional investor
AKPK	Credit Counselling and Debt Management Agency (Agensi Kaunseling dan Pengurusan Kredit)	DMP	Debt Management Programme
AML/CFT	Anti-Money Laundering and Countering the Financing of Terrorism	DNFBP	Designated Non-Financial Business and Profession
AMLA	Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001	D-SIB	domestic systemically important banking institution
AMP	administrative monetary penalty	DSR	debt service ratio
API	Application Programme Interface	ECL	expected credit loss
ATM	automated teller machine	eKYC	electronic Know-Your-Customer
BCBS	Basel Committee on Banking Supervision	EME	emerging market economy
BCCILA	Basic Certificate Course in Insurance Loss Adjusting	EPF	Employees Provident Fund
BSC	Balanced Scorecard	ePIF	e-Payment Incentive Fund
CAGR	compounded annual growth rate	FAR	Financial Adviser's Representatives
CAR	capital adequacy ratio	FATF	Financial Action Task Force
CASTD	cash-to-short-term debt	FC	Federal Court
CDD	customer due diligence	FCI	Financial Capability and Inclusion Demand Side Survey
CMG	crisis management group	FCY	foreign currency
CNP	card-not-present	FEN	Financial Education Network
CO	compliance officer	FI	financial institution
CoP	Community of Practitioners	Fintech	financial technology
CSC	Customer Service Charter	FM	financial margin
CTR	cash threshold report	FMB	Financial Mediation Bureau
CURE	Consumer Complaints Redress	FMSI	Financial Market Stress Index
DBG	domestic banking group	FSA	Financial Services Act 2013
DCE	digital currency exchanger	FSC	Financial Stability Committee
		FSP	financial service provider
		FX	foreign exchange

GAP	Guaranteed Asset Protection	ML	money laundering
GDP	gross domestic product	MOE	Ministry of Education
GE14	14 th General Election	MoU	Memorandum of Understanding
G-SIB	global systemically important bank	MSB	money services business
HPE	hypothetical portfolio evaluation	MYFLIC Index	Malaysia Financial Literacy and Capability Index
HQLA	high-quality liquid assets	NBFI	non-bank financial institution
IBG	Interbank GIRO	NCC	National Coordination Committee to Counter Money Laundering
ICO	initial coin offering	NFC	non-financial corporation
ICR	interest coverage ratio	NOP	net open position
ICTF	Interoperable Credit Transfer Framework	O&G	oil and gas
IFI	Islamic financial institution	OFS	Ombudsman for Financial Services
IFSA	Islamic Financial Services Act 2013	OPR	Overnight Policy Rate
IL	investment-linked	OSSC	office space and shopping complexes
INCEIF	International Centre for Education in Islamic Finance	PayNet	Payments Network Malaysia Sdn. Bhd.
IT	information technology	PCRF	Payment Card Reform Framework
ITO	insurers and takaful operator	PF	personal financing
KLIBOR	Kuala Lumpur Interbank Offered Rate	PIDM	Perbadanan Insurans Deposit Malaysia
KPIs	key performance indicators	PIN	personal identification number
LCR	liquidity coverage ratio	PNB	Permodalan Nasional Berhad
LEA	law enforcement agency	POS	point-of-sale
LFA	liquid financial assets	PR China	People's Republic of China
LIBFC	Labuan International Business and Financial Centre	QR	quick response
LIFB	locally-incorporated foreign bank	RENTAS	Real-time Electronic Transfer of Funds and Securities System
LIFE Framework	Life Insurance and Family Takaful Framework	SC	Securities Commission Malaysia
LTF	loan-to-fund	SELFY	Social Enterprise Literacy for Youth
LTFE	loan-to-fund-and-equity	SME	small and medium enterprise
MAG	Money Museum and Art Gallery	SST	Sales and Services Tax
MAR	minimum allocation rate	STR	suspicious transaction report
MDF	Market Development Fund	SWIFT	Society for Worldwide Interbank Financial Telecommunication
MFRS	Malaysian Financial Reporting Standards	TF	terrorism financing
MGS	Malaysian Government Security	US	United States of America
MHPI	Malaysian House Price Index	VBI	value-based intermediation
MII	Malaysian Insurance Institute		

