

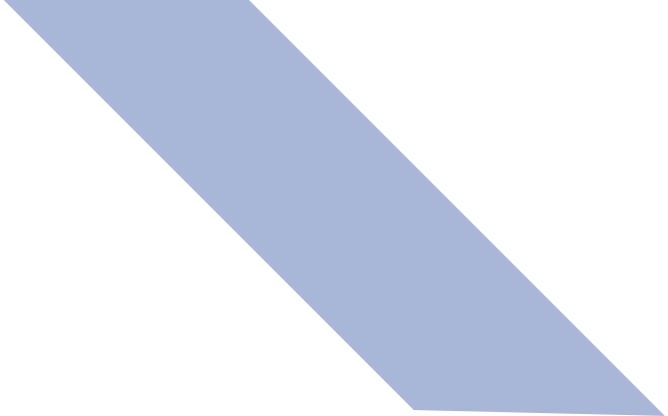
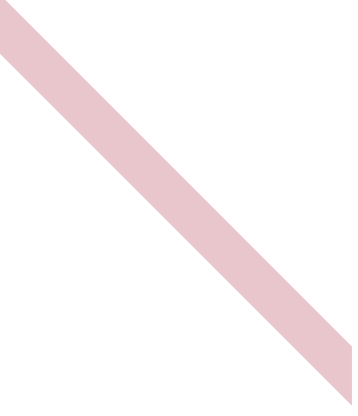
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Our Role





Our Role

Bank Negara Malaysia is Malaysia's central bank. Our principal objective is to promote monetary stability and financial stability conducive to the sustainable growth of the Malaysian economy. The Bank derives its mandate and powers from the Central Bank of Malaysia Act 2009 and other laws that it administers¹.



In our role to promote monetary stability, the Bank formulates and conducts monetary policy to keep inflation low and stable, while ensuring that it is supportive of sustainable economic growth. We are also mandated to promote an exchange rate regime consistent with the fundamentals of the economy.

To promote financial stability, the Bank regulates and supervises financial institutions to promote their safety and soundness. We oversee money and foreign exchange markets to promote their integrity and orderly functioning. We also exercise oversight over payment systems to foster safe, efficient and reliable payment systems and payment instruments. In addition, we regulate the conduct of financial institutions and intermediaries in order to provide appropriate protection to financial consumers.

The Bank plays a key role in promoting a progressive and inclusive financial system. This takes into account the changing needs of the Malaysian economy and its people, and the central role of finance in the nation's economic and social progress. Our pursuit to develop and deepen both the conventional and Islamic financial system also recognises that a well-developed financial system is one that can help absorb shocks, and therefore contributes to the country's resilience.

The Bank carries out a number of other important functions. These include issuing currency, and holding and managing the country's foreign reserves. The Bank is also the financial adviser, banker and financial agent of the Government. Together with other government and law enforcement agencies, we play a role in helping to prevent the criminal abuse of financial services.

In all the Bank does, it does in the best interest of the nation.

¹ Other key legislation includes the Financial Services Act 2013; Islamic Financial Services Act 2013; Development Financial Institutions Act 2002; Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001; Money Services Business Act 2011; and the Currency Act 2020.

Promoting Monetary Stability

A key role of the Bank is to implement a monetary policy that maintains a low and predictable pace of increase in the prices of goods and services, taking into consideration existing economic developments. Decisions on monetary policy are made autonomously by the Monetary Policy Committee (MPC), which meets six times a year.¹ The Bank undertakes monetary operations to implement the decisions of the MPC.

Monetary policy in 2019

2019 was a challenging year. Globally, there were unresolved trade tensions, a slowdown in investments and trade activity, heightened financial market volatility, country-specific risks and geopolitical uncertainties. As a highly open economy, the Malaysian economy was affected by these global developments. In addition, weakness in investment activity and supply disruptions in the commodities sector also affected domestic economic activity. Economic growth thus expanded by 4.3% in 2019 (2018: 4.7%), driven by private sector spending. In particular, household spending was supported by continued income and employment growth, as well as Government measures. Meanwhile, price pressures were subdued throughout the year. Headline inflation averaged at 0.7% in 2019 (2018: 1.0%). The low inflation was due mainly to policies on retail fuel

prices and festive price controls, as well as the changes in consumption tax policy in 2018, which resulted in lower price pressures.

At each meeting, the MPC decides on whether the current level of the Overnight Policy Rate (OPR) – the indicator of the monetary policy stance – is at an appropriate level to safeguard price stability while supporting economic activity. As the effect of monetary policy takes at least two or three quarters to be felt in the economy, the MPC, in making its decisions, assesses and deliberates on the outlook for both domestic economic growth and inflation. Our staff facilitate this process by presenting their surveillance analysis, simulation results, research findings and forecasts to the members. The MPC also takes into consideration the risk that financial imbalances may pose to the broader economy. In 2019, the MPC decided to lower the OPR by 25 basis points at the May MPC meeting. This brought the OPR to 3.00%, where it remained for the rest of the year. The decision to lower the OPR was made in view of providing a conducive monetary environment for a steady growth path amid price stability.²

Monetary operations are undertaken by ensuring an appropriate level of liquidity is in the banking system to influence the average overnight interbank rate to remain around the OPR. This in turn sets guidance for other interest rates in the economy, so that monetary policy decisions have the ultimate intended impact on economic activity. We also use various instruments in our monetary operations such as unsecured borrowings and repos of various short-term tenures to ensure there is sufficient liquidity in the domestic financial markets to support financial intermediation in the economy. One of the monetary instruments is the Statutory Reserve

¹ More information on Malaysia's monetary policy and the MPC can be found in the 'Governance' section of this report.

² Greater detail on the analysis underpinning the MPC's decisions can be found on the BNM website in the Monetary Policy Statements, and the BNM Quarterly Bulletins, and also Chapter One of the Economic and Monetary Review 2019.

Requirement (SRR), which is an instrument to manage liquidity typically when the excess liquidity in the banking system is large and long-term in nature. In November 2019, the SRR ratio was reduced from 3.50% to 3.00% to continue supporting the efficient functioning of the domestic financial markets.

The ringgit exchange rate

The ringgit exchange rate plays an important role in the economy, as it affects the price of our exports, imports and level of foreign currency debt. One of our roles is to maintain the efficient and effective functioning of the foreign exchange market. Malaysia maintains a flexible exchange rate policy for ringgit. This flexibility in the ringgit exchange rate has played an important role in ensuring that the economy is able to withstand external shocks. Nevertheless, as an open economy that faces large cross-border capital flows, this flexibility can at times lead to volatility in ringgit movements, particularly when investor sentiments are strongly affected by global developments. In this regard, we continue to ensure that volatility in the exchange rate is not excessive so as not to disrupt domestic economic activity such as trade and investments. This is achieved by providing sufficient liquidity at all times in the domestic foreign exchange market, including through our two-way foreign exchange interventions.

Analysis and research

Throughout the year, the Bank continued to strengthen analytical surveillance and research including from our regional offices to support the MPC in its monetary policy decisions. In an environment of ongoing trade tensions, we continually updated our initial assessment of the impact of trade tensions on the global and Malaysian economy.³ To improve understanding on inflation dynamics, we studied the relationship between imported food inflation and the exchange rate,⁴ and how households form their inflation expectations,⁵ as well as enhanced indicators

³ Refer to the Second Quarter 2019 BNM Quarterly Bulletin box article entitled 'Unresolved Trade Disputes One Year On' on the BNM website for the analysis.

⁴ Refer to the Third Quarter 2019 BNM Quarterly Bulletin box article entitled 'Food Imports and the Exchange Rate: More Than Meets the Eye' on the BNM website for the analysis.

⁵ Refer to Bank Negara Malaysia's Annual Report 2018 box article entitled 'When the Future Starts Today: Inflation Expectations of Malaysian Households' on the BNM website for the analysis.

for the measurement of underlying inflation in the economy. Important insights were made in understanding the trends and behaviour in bank lending.⁶ We also constructed internal capital flows-at-risk and global growth-at-risk surveillance tools, similar to that of the International Monetary Fund (IMF). These tools aim to assess and quantify the downside risks to future capital flows and global growth, respectively.

We also conducted research on longer-term and structural issues confronting the economy. Research emphasis during the year was on ways to reinvigorate private investments in the country. This led to collaborative work with the World Bank to improve the overall investment ecosystem in Malaysia. Work focused on three key areas of reform including establishing national investment objectives, streamlining investment promotion and investor services as well as improving the efficiency of tax incentive administration. We also provided advisory support to the Government on reviewing national investment policy through participation in key working groups such as for the New Industrial Masterplan and for the Twelfth Malaysia Plan (*Rancangan Malaysia Kedua Belas*, RMKe-12). As a financial advisor to the Government, we are a member of the Fiscal Policy Committee (FPC) and Debt Management Committee (DMC), providing input on strategies to strengthen the country's fiscal framework.

Communication and outreach

In 2019, the Bank intensified efforts to widen our outreach on monetary and financial economics. We hosted our sixth Monetary Policy Conference, centred on the theme of current challenges facing monetary policy. The conference, which brought together representatives from central banks, academia, and international policy institutions, discussed the narrowing of monetary policy space, distributional effects of monetary policy, and whether new insights from other disciplines can offer fresh perspectives to monetary policy.⁷ The keynote address was delivered by Professor Barry Eichengreen who touched on the challenges of macroeconomic stabilisation in an environment

⁶ Refer to the Third Quarter 2019 BNM Quarterly Bulletin box article entitled 'Banking on Banks: Are They Lending Enough?' on the BNM website for the analysis.

⁷ The Conference materials can be found on the BNM website.



Assistant Governor Marzunisham Omar delivering his presentation at the Monetary Policy Conference in 2019.

of low interest rates, and the spillovers from central bank actions to fiscal and climate change abatement policies.

The Tun Ismail Ali Chair, established by the Bank at the University of Malaya in 2001 to enhance expertise in monetary and financial economics, organised public lectures and a research workshop for academics, the private sector and policymakers, and issued research grants. This year also brought about the second installment of the Tun Ismail Ali Challenge, where undergraduates showcased their solutions to address cost of living issues.

We strive to continue to communicate with the wider public on monetary policy and economic analysis. The Monetary Policy Statement provides the MPC's assessment on the economic outlook and the rationale behind the committee's decisions.⁸ The Monthly Highlights provides monthly updates on economic, monetary and financial developments. Further in-depth economic analysis is published in



The three young undergraduates who emerged as champions in the second Tun Ismail Ali Challenge in 2019.

⁸ The Monetary Policy Statements can be found on the BNM website.

the Bank's Quarterly Bulletins.⁹ For wider and easier accessibility, we incorporate infographics in the Bank's Annual Reports and Quarterly Bulletins, which are also disseminated on social media platforms.

Going forward

With the world facing the outbreak of COVID-19, the Bank will focus on managing the impact of this unprecedented global health crisis on the Malaysian economy. In this regard, the MPC will

continue to assess all relevant data as well as economic and monetary developments in arriving at the appropriate monetary policy response. Monetary operations will continue to be directed at ensuring sufficient liquidity in the foreign exchange, bond and money markets to ensure uninterrupted financial intermediation. We will also continue to provide independent and professional advice to the Government on appropriate policy measures to see Malaysia through these challenging times.

⁹ The Monthly Highlights and BNM Quarterly Bulletins can be found on the BNM website.

Promoting Financial Stability

The Bank is mandated to promote financial stability conducive to the sustainable growth of the economy. We discharge this mandate by ensuring that the financial system is resilient throughout the economic cycle and is able to withstand shocks. This involves us promoting resilient and well-managed financial institutions, fostering safe and reliable clearing and settlement systems, and ensuring orderly financial markets. This in turn enables financial activities to be conducted in a safe, efficient and effective manner, and allows consumers to have confidence when dealing with financial institutions.

Financial stability priorities in 2019

The economic environment was challenging in 2019. Hence, our priority was to ensure that the financial system continued to effectively support the functioning of the economy. For this reason, our regulatory agenda was focused on ensuring that financial institutions are proactive in managing risks, while also providing an environment that encourages healthy competition and the development of innovative products and services to meet the needs of individuals and businesses. We also continued to enhance our supervisory and surveillance systems and processes to support the early identification and management of risks to financial stability.

In 2019, the Financial Stability Committee met four times to review financial stability developments. While risks have increased in some areas, the financial system remained resilient. This continued to be firmly supported by strong capital buffers of financial institutions and sound risk management practices. Further details on the assessment of current and potential risks to financial stability are provided in the Financial Stability Review.

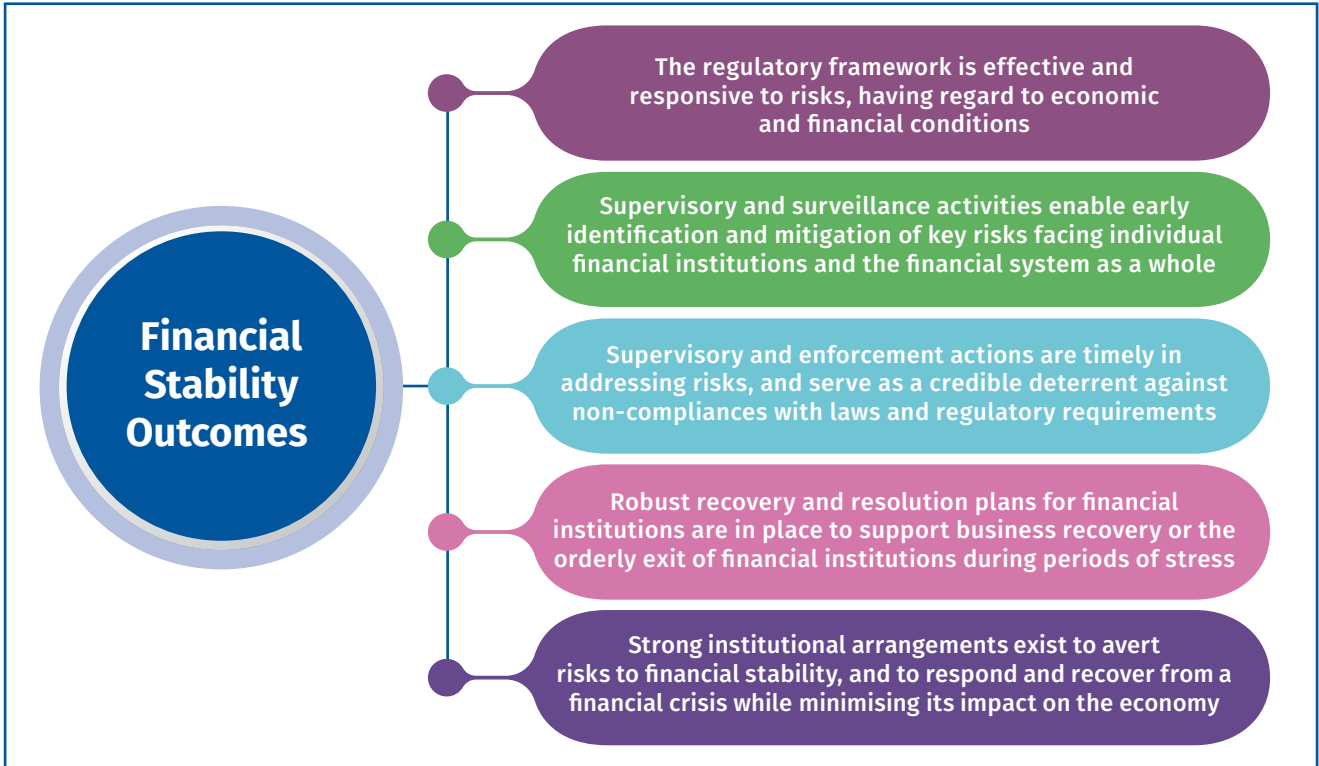
Financial Stability Committee

The Financial Stability Committee (FSC), chaired by the Governor, is a high-level internal committee of the Bank. It is responsible for monitoring and taking actions to reduce or avert risks to financial stability stemming from both system-wide and institutional developments.

The FSC reviews and decides on:

- macroprudential policies to reduce or avert identified risks to the financial system;
- significant supervisory responses to address risks in individual financial institutions regulated by the Bank;
- actions to resolve a financial institution that has ceased, or is about to cease, to be viable; and
- recommendations to the Financial Stability Executive Committee on the exercise of powers within its remit.

An important part of the FSC's role is to monitor the effectiveness of policies and actions taken, and ensure they remain appropriate, taking into account risk developments.



To communicate our financial stability assessments, we publish the Financial Stability Review twice a year. Regulatory developments are also captured in the Quarterly Bulletins published by the Bank.

Regulatory activities

The Bank issues regulations to promote prudent risk-taking by financial institutions. We also strive to ensure fair treatment of consumers through regulations that foster fair, responsible and professional business conduct practices by financial institutions. In achieving these outcomes, we emphasise the role of the boards and senior management of financial institutions in managing risks effectively.

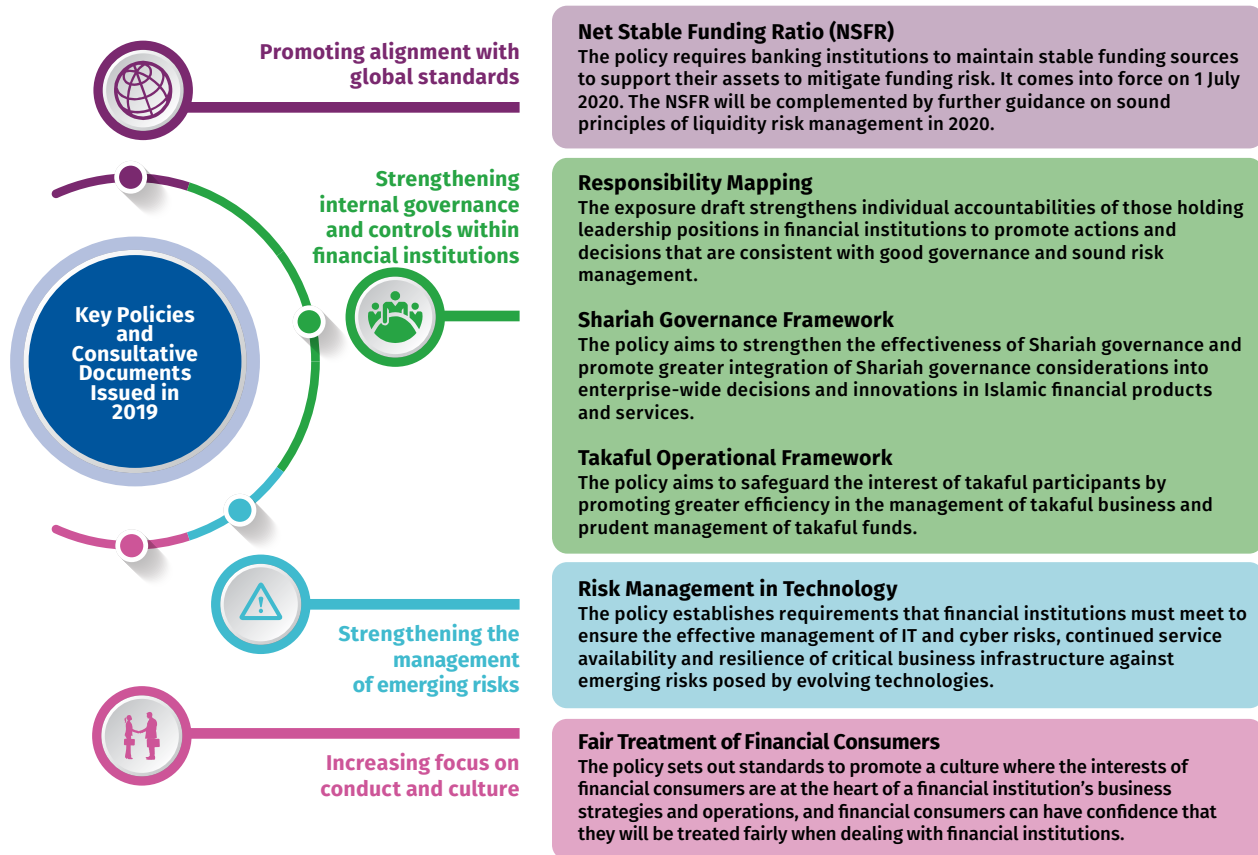
In 2019, we continued to ensure that our regulatory framework remains consistent with international standards and promotes the resilience of our financial system. We also focused on strengthening internal governance and controls within financial institutions, and set standards to ensure the effective management of technology and cyber risks. As part of our continuing efforts to promote ethical conduct and culture within the financial industry, we also published standards on fair

treatment of financial consumers. Key policies and consultative documents issued in 2019 are highlighted in Diagram 1.

The Bank is committed to being open and transparent in our policy making process. We also adopt an evidence-based approach to policy making. This involves us consulting widely through a variety of channels prior to finalising these policies. We also commit to periodically review our regulations to ensure that they remain effective in meeting the intended outcomes, and are responsive to changing market conditions and developments in international standards.

We continue to work closely with our international counterparts in support of efforts to promote global financial stability. In particular, the Bank participates in a number of international standard-setting bodies in the area of financial stability. This provides an important avenue for us to engage with the international community on regulatory standards to ensure that they are relevant and appropriate to the financial stability risks that we manage. We are active participants in the work of the Financial Stability Board, the Basel Committee on Banking Supervision, the International Association of Insurance Supervisors

Diagram 1: Summary of key policies and consultative documents issued in 2019



(IAIS), the Committee on Payments and Market Infrastructures, and the Islamic Financial Services Board. Engagements with these bodies enable us to benefit from and contribute to the collective body of knowledge which informs our regulatory responses.

Supervisory activities

Strong and effective supervision plays a critical role in complementing our regulatory activities to promote a resilient and sound financial system. We adopt a risk-based and forward-looking approach to supervision. This means directing our focus and priorities on key risks facing financial institutions and the financial system as a whole. Our supervisory assessments draw on inputs from a wide range of sources. This includes firm-specific data, peer comparison and other relevant factors that determine the risk profile of a financial institution. We also assess the strength and effectiveness of a financial institution's control

functions and its board and senior management. In addition, we engage with external auditors, and cooperate with other relevant regulators, such as the Securities Commission Malaysia, to inform our assessments.

In 2019, our supervisory activities continued to focus on assessments of significant risks to financial institutions and ensure that financial institutions are effectively managing these risks. Our supervisory activities also included assessments of conduct practices of financial institutions. This included targeted reviews of the sales practices of financial institutions and fairness of contract terms for generic retail financial products.

During the year, we completed a review of the financial condition, governance, risk management and operating model of *Lembaga Tabung Haji* (LTH). This follows the Government's decision to place LTH under the Bank's administrative supervision. As the Bank does not have formal

Enabling regulatory framework to realise the full potential of development financial institutions

Development financial institutions (DFIs) continue to play an important role in supporting strategic economic sectors and advancing Malaysia’s developmental and socio-economic objectives. In 2019, DFIs approved RM44.9 billion of financing (2018: RM32.3 billion), driven mainly by strong demand from the infrastructure and agriculture sectors, and households. Importantly, more than 14,600 SMEs, including start-ups, benefitted from RM3.8 billion of financing approved.

Building on the Bank’s review of the mandates of DFIs to ensure that their developmental objectives are aligned with the nation’s economic strategies, we have started to apply greater differentiated regulatory and supervisory approach for DFIs, reflecting the nature, size, complexity, and specific roles and mandates of each DFI. This is important to minimise market distortions and ensure that our framework remains appropriate to the specific risk profiles of individual DFIs. In 2019, our policy focus for DFIs was steered towards nurturing a culture of developmental impact, innovation as well as greater accountability and transparency. Key policies and consultative documents issued specifically for DFIs are highlighted below.



Corporate Governance

The policy aims to strengthen DFIs’ corporate governance practices through heightened expectations on the board and senior management to foster a sound risk culture. It also improves disclosures by DFIs on their mandate and performance measurement framework.



Financial Reporting

The exposure draft aims to promote greater transparency on DFIs’ performance, in particular their achievements in meeting developmental mandates and their effectiveness in mobilising government funds/schemes.



Corporate Strategic Plan

The exposure draft focuses on the development of robust and forward-looking corporate strategies that are aligned to DFIs’ developmental mandates, supported by sound risk management practices to ensure their long-term sustainability. This includes expectations to measure their success through an enhanced performance measurement framework.

supervisory powers over LTH, we have submitted our assessment and recommendations to the Government and the Board of LTH.

We continued to enhance and modernise our supervisory tools and approaches. This included automating our supervisory reporting infrastructure, leveraging enhanced analytics tools and implementing more integrated surveillance systems to strengthen our supervisory process. We also expanded our supervisory assessments to better understand how culture drives risk-taking behaviour in financial institutions.

A number of international financial institutions operate in Malaysia. Likewise, a number of our financial groups have enlarged their regional footprint in recent years. For this reason,

we cooperate closely with our international counterparts in the area of supervision. In 2019, we participated in six supervisory colleges¹ and one bilateral meeting as host supervisor, and hosted one supervisory college for a Malaysian financial institution with international operations. These engagements, which review the economic and financial conditions in the home and host countries as well as key supervisory issues, provided important input to our supervisory assessments. To date, the Bank has signed six Memoranda of Understanding (MoUs) with foreign supervisory authorities in line with our commitment to cooperate and coordinate with foreign supervisory

¹ Supervisory college is a forum for supervisory authorities of financial groups with cross-border operations to exchange information and coordinate supervisory activities.

Promoting Financial Stability

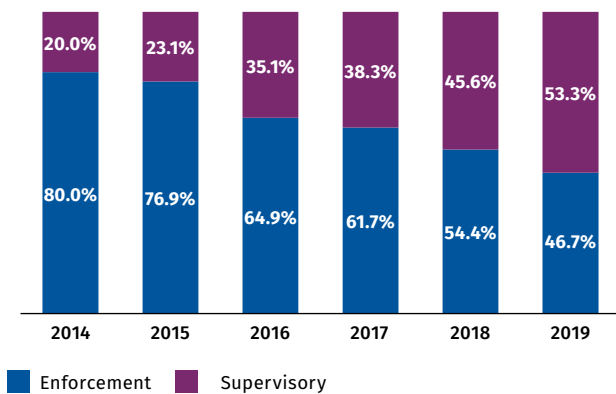
authorities to exchange information, facilitate on-site supervision and combat financial crimes. We are also a signatory to the IAIS Multilateral MoU, which facilitates our cooperation with insurance supervisors globally on information exchange and supervision of insurance companies.

During the year, we worked with *Perbadanan Insurans Deposit Malaysia* to further develop the domestic recovery and resolution planning framework for Malaysia. The framework on recovery planning sets out our expectations for financial institutions to be well prepared to execute plans to recover from financial losses under periods of stress. We have issued an exposure draft, initially addressing requirements for banking institutions, for feedback. This will subsequently be extended to insurers and takaful operators. We expect this planning process to be iterative, with close engagements with the financial institutions to draw up robust plans.

Supervisory and enforcement actions

In promoting sound and well-managed financial institutions, we take supervisory actions at an early stage to secure the commitment of financial institutions to rectify weaknesses in governance, compliance and risk management (Chart 1). These may include requiring financial institutions to implement corrective measures, strengthen the board or senior management, or significantly increase resources to undertake improvements in systems and controls. These supervisory actions continue to be an effective way to deliver positive

Chart 1: Proportion of supervisory and enforcement actions taken

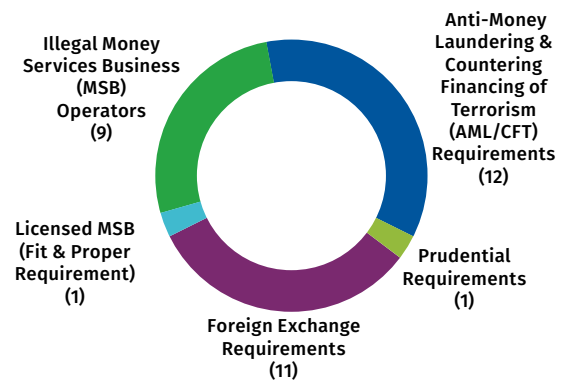


Source: Bank Negara Malaysia

and sustainable improvements in the risk and compliance culture of financial institutions.

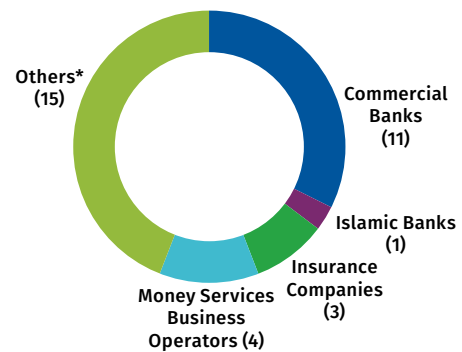
In addition to supervisory actions, we also pursue formal enforcement actions in response to serious failures by financial institutions to meet regulatory standards, or to punish unlawful activities that can create risks to the public or the integrity of the financial system. During the year, we reviewed 34 cases of breaches of our laws and regulations, including those committed by individuals and entities not regulated by the Bank (Charts 2 and 3). Criminal compounds amounting to RM3.45 million and administrative monetary penalties of RM0.9 million were imposed by the Bank. In 2019, we started publishing details of individual enforcement actions on our website.

Chart 2: Number of cases by nature of offences



Source: Bank Negara Malaysia

Chart 3: Number of cases by type of institutions



* Individuals and entities not regulated by the Bank

Source: Bank Negara Malaysia

We also initiated 33 new investigations and brought 33 charges against entities and individuals that we do not regulate. These charges were for offences relating to illegal money services businesses, illegal deposit taking and money laundering. During the year, we secured 43 convictions, including those relating to charges initiated in prior years. These convictions have resulted in criminal penalties amounting to RM1.5 billion.

Consumer empowerment

The Bank strives to ensure that financial institutions are fair, responsible and professional in dealing with consumers. In addition to our regulatory and supervisory activities over the conduct of financial institutions to ensure that consumers are treated fairly, we also seek to empower consumers by raising the standards of financial literacy. This involves equipping individuals with the necessary knowledge and skills on financial management.

In July 2019, we launched the National Strategy for Financial Literacy 2019–2023, a five-year plan jointly developed by the Bank and a few government agencies, to elevate the financial literacy and well-being of Malaysians. The strategy sets out priorities and actionable plans to equip Malaysians with the knowledge to make informed financial decisions, and promote responsible financial management (Diagram 2). The implementation of the strategy is driven and supported by the Financial Education Network².

In empowering consumers, we develop and promote effective avenues for consumers to resolve their complaints and disputes with financial institutions. As the first port of call for consumers, we require all financial institutions to have effective and accessible complaints management processes and procedures. We review these arrangements to ensure that financial institutions manage complaints with adequate oversight, independence and professional care. Over the years, we have observed significant improvements in financial institutions' responsiveness to consumer complaints. This has led to a larger share of complaints that are resolved

by financial institutions themselves, and fewer complaints handled by the Bank.

The Ombudsman for Financial Services (OFS), formerly known as the Financial Mediation Bureau, serves as an additional channel for consumers to seek alternative advice and pursue redress. An independent review was conducted on the operations of OFS in 2019 to assess its effectiveness. Overall, the review concluded that the OFS has been effective in rendering independent and impartial resolutions to disputes and claims made against financial institutions. Several recommendations were made to make the OFS's services more accessible to consumers and to further improve the turnaround time for resolving disputes. These recommendations are being considered by the OFS.

The Bank also plays a role in supporting consumers and SMEs through BNMLINK, our customer service centre. Among others, BNMLINK provides information and assistance to the general public on their rights and obligations. BNMLINK also assists the public with complaints against financial institutions.

In 2019, OFS received 1,047 cases (2018: 761) while BNMLINK handled 5,332 complaints (2018: 5,704).

Going forward

In 2020, the Bank will focus on monitoring and detecting potential stresses in the financial system to enable prompt actions to address any risks to financial stability. Regulatory and supervisory priorities will also be re-focused on ensuring the financial system is strong, and able to support the financial needs of the economy during these challenging times. This involves us calibrating our regulatory and supervisory approach to address material risks in the financial system, while reducing compliance burdens to allow financial institutions to focus their efforts and resources on proactively managing risks and supporting their customers. The Bank will also focus on reinforcing the resilience of the financial system by ensuring that financial institutions take timely actions to rebuild their buffers as the economy recovers.

² Members of the Financial Education Network include the Ministry of Education Malaysia, Bank Negara Malaysia, Securities Commission Malaysia, Employees Provident Fund, *Agensi Kaunseling dan Pengurusan Kredit*, *Perbadanan Insurans Deposit Malaysia* and *Permodalan Nasional Berhad*.

Diagram 2: National Strategy for Financial Literacy 2019–2023: Strategic Priorities and Action Plans



Strategic Priority 1: Nurture values from young

- Expand financial education fundamentals into the curriculum for pre-school, primary and secondary schools
- Reinforce financial education through co-curriculum activities
- Introduce capacity development and support for teachers
- Encourage financial education advocates among students, parental groups and the community



Strategic Priority 2: Increase access to financial management information, tools and resources

- Make basic financial education information easily understood, available and accessible to all
- Heighten awareness and intensify financial education initiatives through nationwide outreach campaigns



Strategic Priority 3: Inculcate positive behaviour among targeted groups

- Impart financial knowledge to promote positive financial behaviour among the youth
- Encourage financial education at the workplace to promote financial resilience, which will have positive impact on employees' productivity
- Foster good money management practices through community-based financial education
- Equip the self-employed with financial knowledge to encourage self and business sustainability



Strategic Priority 4: Boost long term financial and retirement planning

- Promote use of innovative guides and tools to improve long-term financial planning
- Create awareness and promote the benefits of seeking professional advice on financial planning
- Promote voluntary savings channels and platforms to encourage income diversification
- Educate Malaysians to make long-term financial plans for retirement



Strategic Priority 5: Building and safeguarding wealth

- Promote better understanding of risks and returns to build wealth
- Improve awareness on the innovation of financial products and services and its implications
- Raise awareness on financial scams and fraud
- Develop and publish materials relating to sophisticated financial products and services

Source: Malaysia National Strategy for Financial Literacy 2019–2023

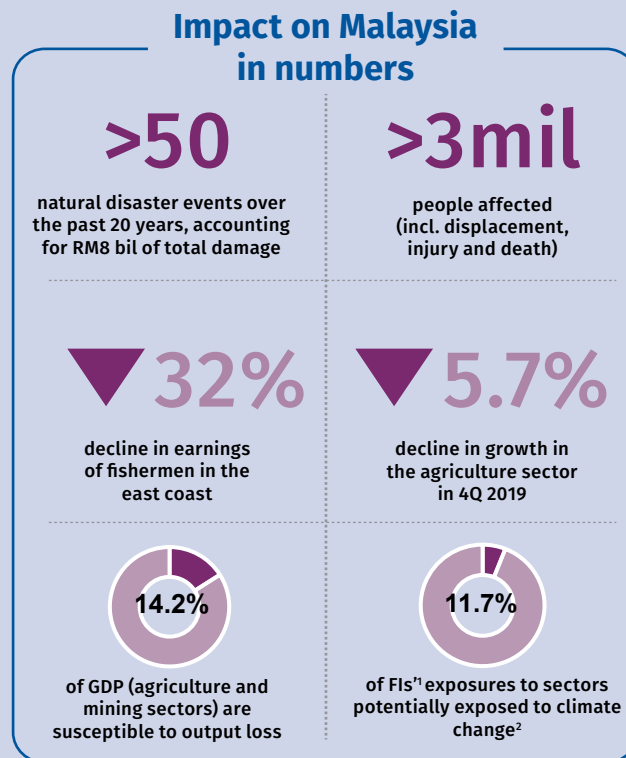
Climate Change Risks and Opportunities: Respond, Not React

Climate change poses real risks to the economy

Climate change poses significant and growing risks to our collective future. Rising sea-levels, floods and droughts have displaced people from their homes, disrupted commerce and threatened natural resources and the livelihoods of many. Malaysia too, is not spared from the physical and transition risks arising from climate change.

The growing intensity and frequency of climate-related events are increasing physical and liability risks to our economy. In the last two decades, we experienced more than 50 natural disasters, affecting more than three million people through displacements, injury and death. The increasing severity and frequency of major floods and dry spells have severely affected livelihoods – particularly those in the agriculture sector. Between 1998 and 2018, the Malaysian economy sustained a total damage of approximately RM8 billion due to these events (Chart 1).

Chart 1: Impact of climate-related events on Malaysia



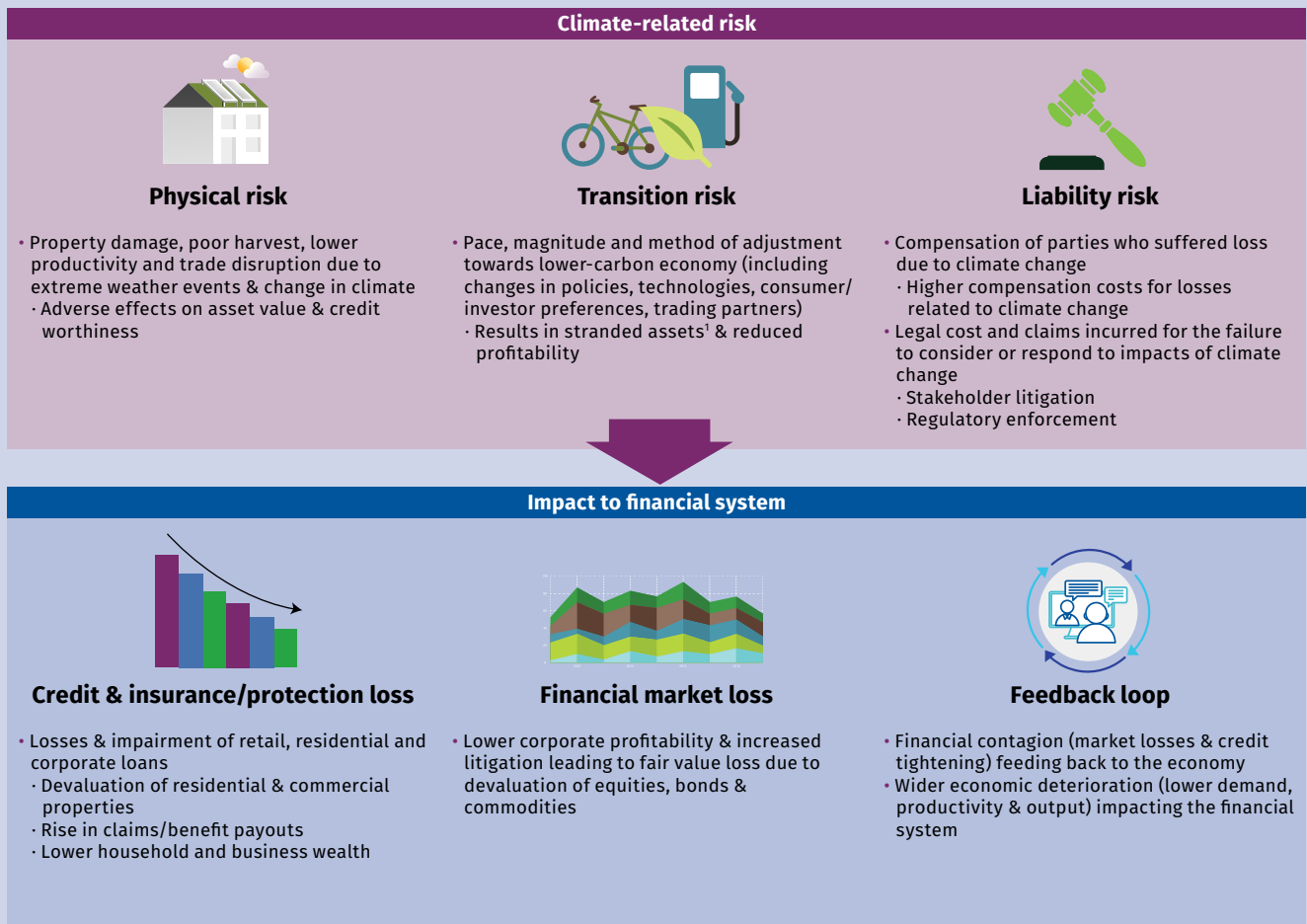
¹ Refer to banks, insurers and takaful operators

² Including construction, oil and gas, utilities, transport, automotive manufacturing, rubber and plastics manufacturing, and primary agriculture sectors

Source: Zurairi, A.R. (2018); Yaacob, O. & Chau, Q.P. (2005), Bank Negara Malaysia estimates

The journey to a greener future also poses immediate transition risks to an array of jobs and industries. If not managed well, policy, technology and market changes can affect asset valuations and significantly increase business risks in industries such as the coal, oil and gas and energy industries. This in turn could lead to sudden and material losses in the investments held or loans extended by financial institutions in these industries, thus exposing them to risks of capital and balance sheet erosion.

Diagram 1: Impact of physical, transition and liability risks on the financial system



¹ Stranded assets are assets that suffer from unanticipated or premature write-downs

Source: The Central Banks and Supervisors Network for Greening the Financial System (NGFS) 1st Comprehensive Report

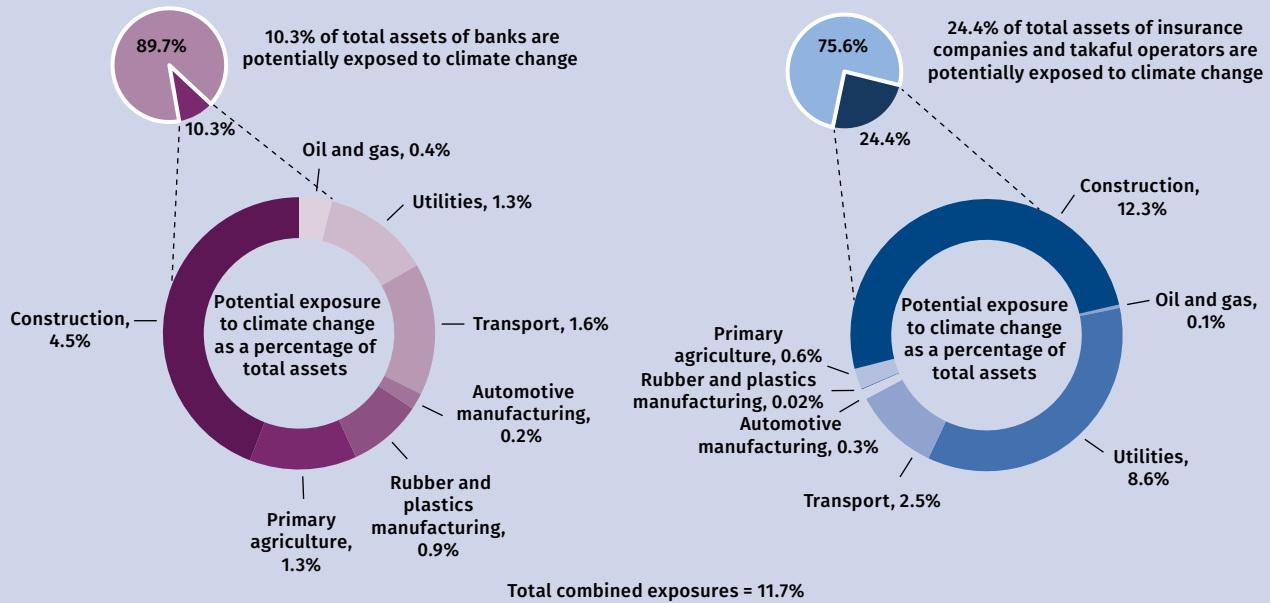
Climate risks are also felt in the economy and financial system

Climate change and its effects therefore matter to the economy and the financial system. Banks, insurance and takaful operators are exposed to liability risks, asset impairment, and rising claims (Diagram 1). With about 11.7% of their assets in sectors potentially exposed to climate change (Chart 2), it is important that Malaysian financial institutions treat climate risk like any other financial risk which has the potential to affect their profitability and balance sheets that in turn may affect the ability of financial institutions in raising funds. If not dealt with adequately, climate change can also pose a systemic risk. Collectively, these could lead to a contraction in important financial activities that support the economy.

Significant or persistent climate events can also directly affect overall growth. A recent example is the prolonged drought last year which led to supply disruptions in palm oil production and had a visible impact on the growth of the Malaysian economy particularly in the fourth quarter of 2019. A decline in the national and international supply of commodities or food products caused by weather-related events can also lead to inflationary pressures.

For these reasons, climate change has direct relevance to the Bank’s mandate to preserve monetary and financial stability in several ways (Diagram 2).

Chart 2: Exposures of Malaysian financial institutions in sectors potentially exposed to climate change



Preliminary data as at November 2019

Construction includes civil engineering, infrastructures, residential & non-residential; utilities include power & water; transport includes land, water & air transports; primary agriculture includes mainly palm oil.
 Note: Exposures based on existing reporting requirements and may be refined once green taxonomy is developed.

Source: Bank Negara Malaysia estimates

Responding to climate risks – and opportunities

As part of efforts to build climate resilience among financial institutions, we are taking steps to systematically identify and quantify climate risk exposures. In December 2019, we issued the Climate Change and Principle-based Taxonomy Discussion Paper to solicit feedback on the classification of assets associated with fund raising, lending and investment activities in a consistent manner, based on their exposure to climate risk. This aims to address the absence of agreed common definitions and data nationally to enable the quantification of climate risk impacts on individual financial institutions and the broader financial system. The implementation of the taxonomy is key to support informed decisions and analysis of exposures in the financial system.

With better data and insights into climate-related risks, the taxonomy is also expected to increase financial flows to activities that will support the transition to a low-carbon and climate resilient economy. A number of banks currently already offer preferential rates or discounts for the financing of sustainable projects in areas such as green manufacturing and clean and renewable energy. Sustainability-linked financing is also available to assist transition of corporate borrowers to become more sustainable, where those that achieve their sustainability performance targets would benefit from favourable interest or profit rates in the form of rebates. The taxonomy will enable financial institutions to identify and expand similar opportunities, and to do so more confidently on a well-informed basis.

While we expect to see a system-wide response to tackle the climate challenge, we also recognise that Islamic financial institutions are well-positioned to provide leadership in this area. This is given Shariah underpinnings which call on Islamic financial institutions to adopt practices that generate a positive and sustainable impact to the economy, community and environment. In assessing the impact of their financing and investment decisions, the Value-based Intermediation Financing and Investment Impact Assessment Framework (VBIAF) issued in 2019 provides broad guidance to Islamic financial institutions on the development of an impact-based risk management framework which extends traditional risk management approaches to capture environmental

Diagram 2: Climate change and the Bank's function



and social impacts¹. The industry, with support of the Bank is now finalising sectoral guidance documents on implementation of impact-based risk management that will focus on the efficient energy, renewable energy and palm oil sectors. To date, Islamic financial institutions are starting to offer products and solutions aligned with sustainable finance, such as preferential financing rates for hybrid vehicles and green-certified properties. Both Islamic and conventional financial institutions are also assisting oil palm smallholders to obtain the Malaysian Sustainable Palm Oil (MSPO) Certification.

In parallel, we are directing efforts towards developing research, tools and frameworks to assess climate-related risks to financial stability. Work is underway to develop an analytical framework to size the impact of climate change on the financial system and economy. We are also working closely with other regulators and institutional investors to encourage disclosure practices to improve transparency on how climate risk considerations are integrated into business decisions of financial institutions. Climate-related issues are also

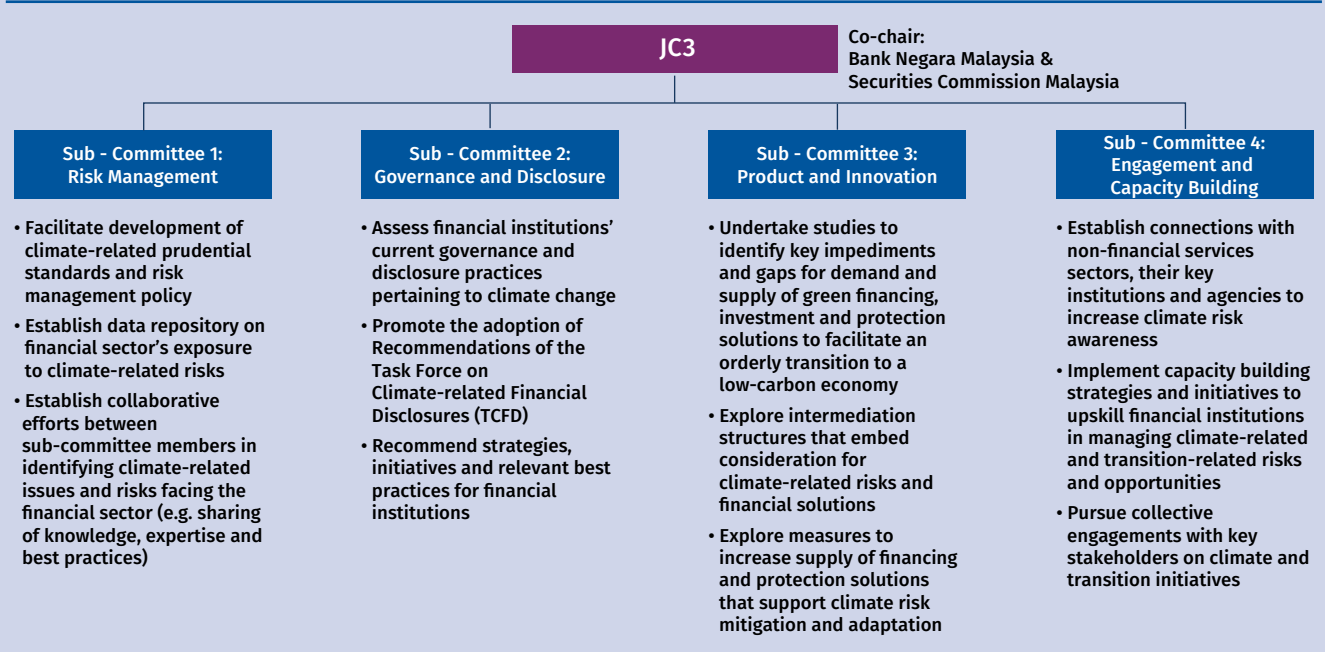
¹ For further information, refer to BNM Annual Report 2019 Chapter titled 'Promoting & Inclusive Financial System: Encouraging Diverse and Sustainable Financial Product Offerings'.

being more actively discussed in our supervisory engagements with licensed financial institutions to better understand how financial institutions are managing these risks.

Partnering with others

Climate risks are complex, with many moving parts. The Bank therefore partners with the Government, industry and other domestic regulators in responding to climate risk. In September 2019, the Bank and Securities Commission Malaysia established the Joint Committee on Climate Change (JC3) to drive and coordinate the financial industry’s collective response to climate risks. The objectives of the JC3 are to: (i) build capacity through the sharing of knowledge, expertise and best practices in assessing and managing climate-related risk; (ii) identify issues, challenges and priorities facing the financial sector in managing the transition towards a low-carbon economy; (iii) facilitate coordinated responses to challenges and issues; and (iv) support financial institutions’ integration of climate risk considerations in their business operations. Its members and observers include representatives from across the financial sector, key Government agencies and institutional investors (Diagram 3).

Diagram 3: Joint Committee on Climate Change (JC3)



The Bank is also part of the Malaysian Green Financing Taskforce, which is chaired by Securities Commission Malaysia to spur private sector financing in the renewable energy sector. We continue to engage with the relevant ministries and agencies to promote alignment between the Government and financial sector responses to climate risk.

On the international front, we became a member of the Central Banks and Supervisors Network for Greening the Financial System (NGFS) in October 2018. The NGFS membership comprises 55 other central banks and supervisors both from the advanced and emerging economies. The network enables us to tap into a deep pool of knowledge and experience on climate and environment-related risks and share best practices to support our response to climate risks and opportunities. We actively contribute to the work of the NGFS, including by lending an important developing economy perspective to its deliberations and publications.

Promoting a Progressive and Inclusive Financial System

The Bank is committed to promoting a progressive and inclusive financial system, one that will allocate financial resources effectively and efficiently to meet the needs of Malaysia's economy and its people.

In 2019, our efforts to develop the financial sector were dedicated to recalibrating regulations to cater for new innovative realities, deepening financial markets and encouraging sustainable and inclusive offerings. We continued to focus our efforts on uplifting financial inclusion among consumers.

Enabling the digitalisation of financial services

The digitalisation of finance has the potential to improve the way financial services is delivered to consumers. For individuals and businesses alike, this may mean easier, faster and cheaper ways to access services and manage their finances. To realise this potential, the Bank strives to ensure that our regulations do not prevent greater digitalisation in the financial sector and at the same time, also serve to ensure that financial institutions are effectively managing the associated risks.

In 2019, we issued an exposure draft on the use of electronic Know-Your-Customer (e-KYC) technology

Diagram 1: Development efforts in 2019

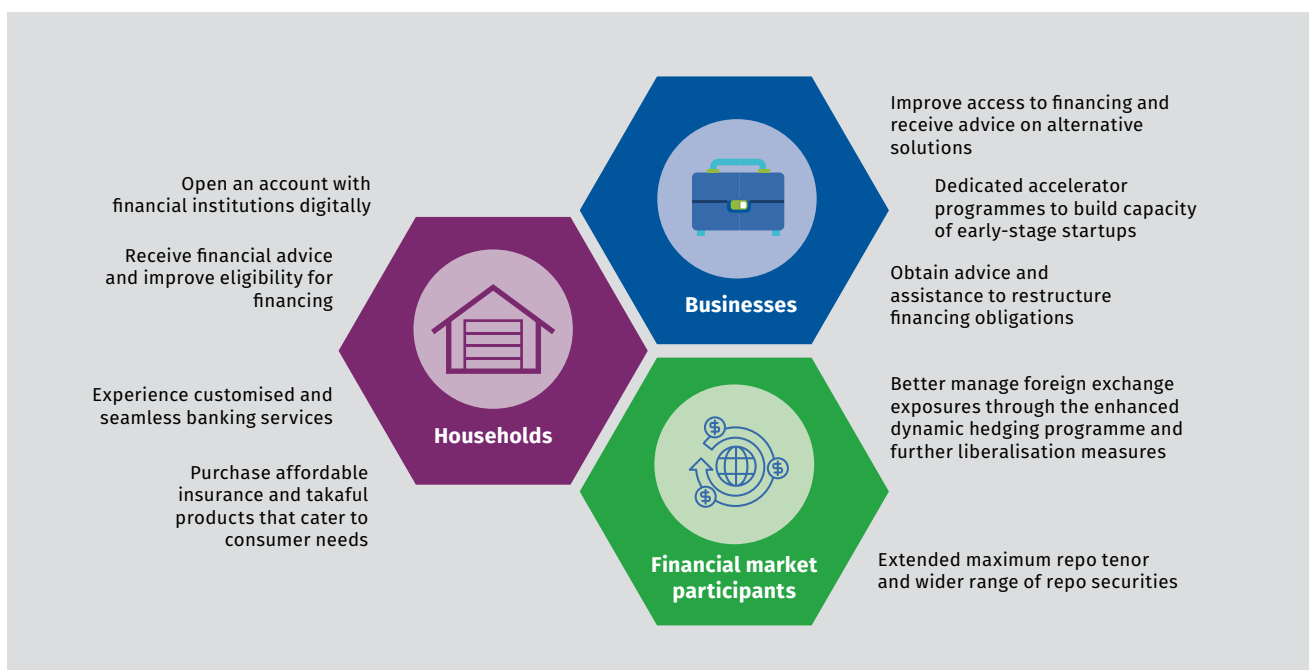
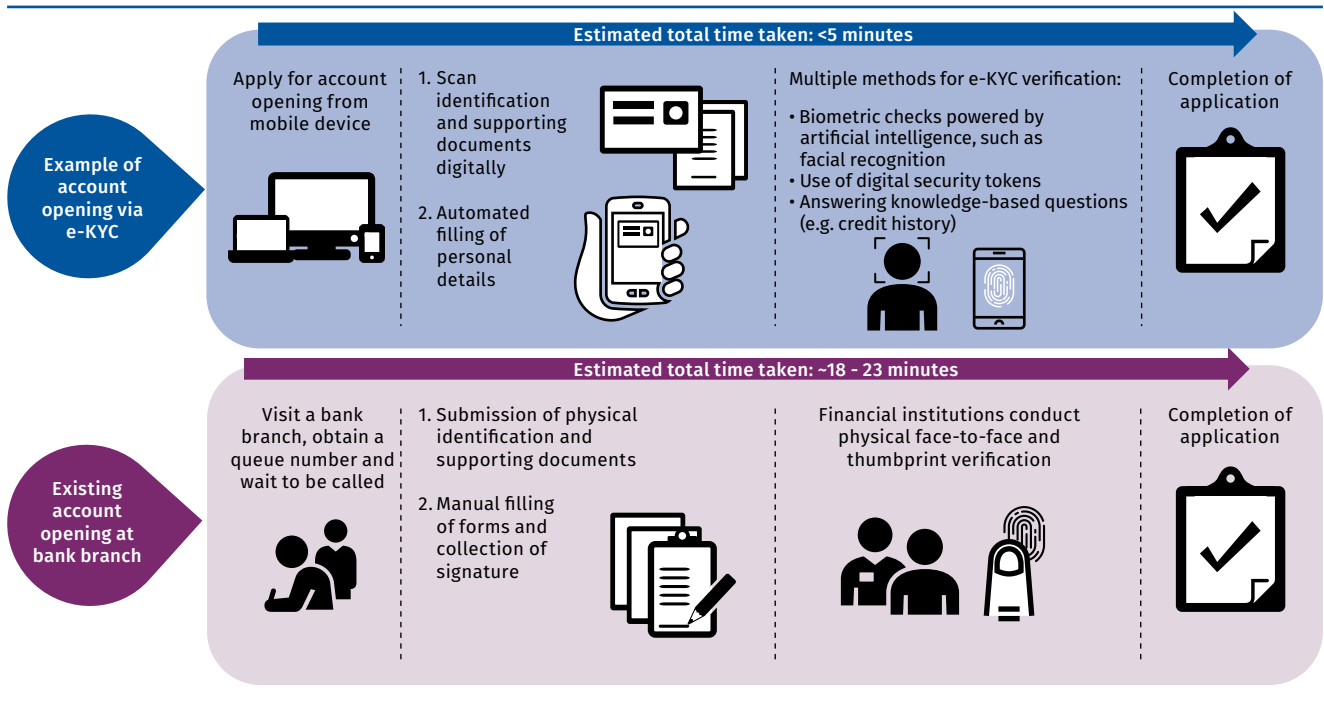


Diagram 2: Schematic flow of bank account opening through e-KYC



for individual account openings in the financial sector. Adoption of e-KYC allows customers to open accounts digitally, without the need to present themselves at physical branches. For financial institutions, e-KYC lowers the cost and time taken to on-board new customers. This reduced friction can help increase the uptake of services in addition to promising greater customer convenience. An illustration of the potential customer journey through e-KYC is provided in Diagram 2. While proposing to allow for the use of e-KYC, the exposure draft also sets out a number of requirements to ensure that e-KYC is secure and effective.

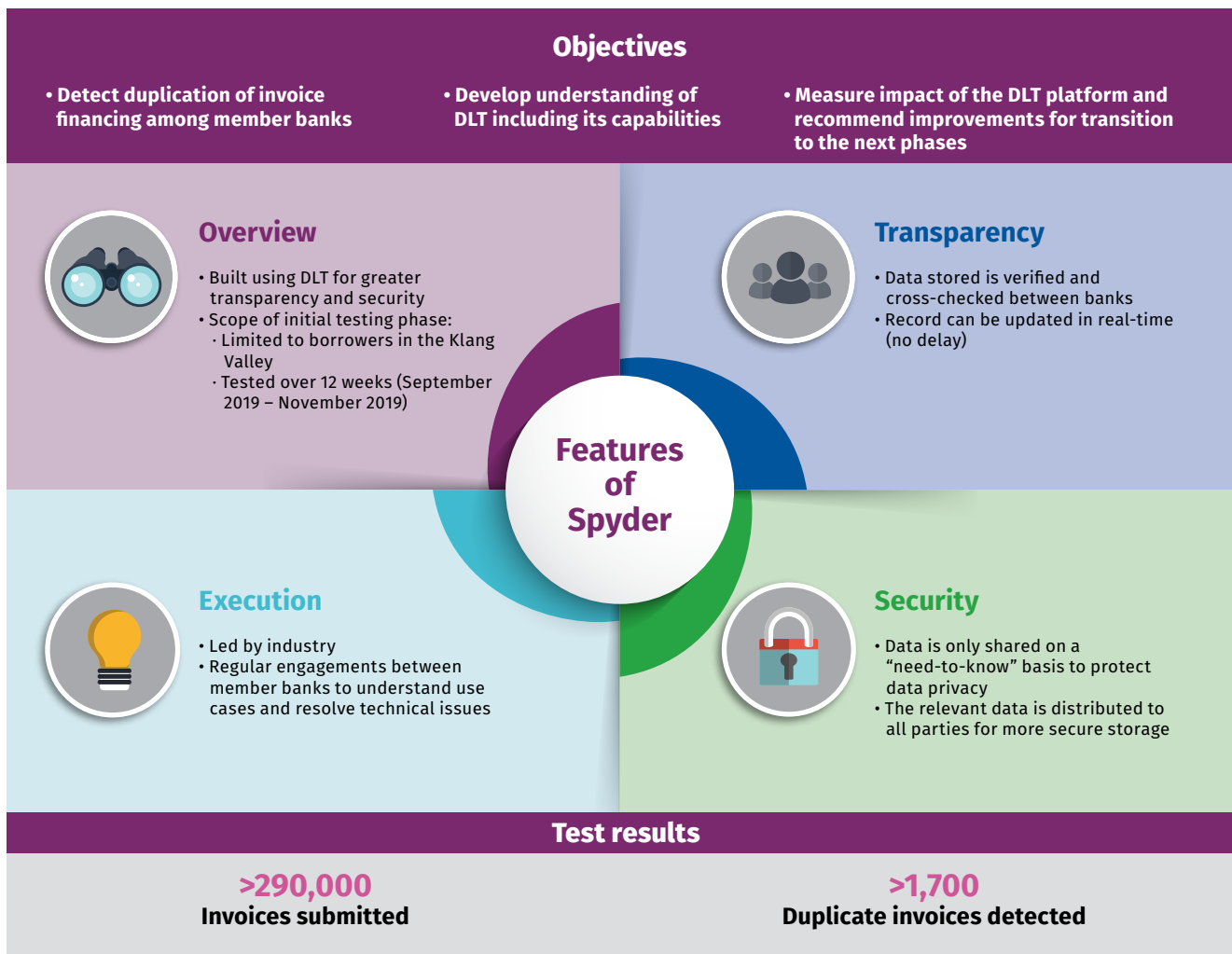
During the year, the Bank also announced plans to license digital banks. The licensing of new players with innovative business models is expected to serve the economy and contribute to the well-being of Malaysians. Digital banks can play an important role in encouraging meaningful access to financial services and the responsible usage of suitable and affordable solutions by financial consumers. For this purpose, we issued an exposure draft setting out our proposed approach to licensing digital banks. The proposed licensing approach is designed to facilitate the growth of digital banking models in a safe and sustainable manner, while addressing unmet customer needs, particularly those of underserved and unserved segments. The Bank has also published details of a simplified regulatory framework that

will apply to new entrants during their initial years of operations. This is intended to reduce barriers to entry while allowing a reasonable time frame for digital banks to achieve compliance with equivalent rules applied to existing licensed banks.

The financing of trade has traditionally involved lengthy processes and paperwork. In 2019, a joint working group with nine banks developed a solution to digitalise trade finance. In the first phase, we developed a proof-of-concept, Spyder, at the Bank's innovation lab. Spyder is a distributed ledger technology (DLT)-based solution which allows banks to securely share invoice information with each other. It helps reduce fraud and errors in the trade finance process. For businesses, this also promises a more seamless trade finance experience. In November 2019, we concluded the testing phase of Spyder. Moving forward, the joint working group will build on this solution to integrate third parties along the supply chain such as shipping companies, customs, insurers and takaful operators for a more comprehensive end-to-end trade finance process.

To promote a more comprehensive ecosystem for trade finance facilitation, we issued a policy document on Trade Credit Insurance (TCI) and Trade Credit Takaful (TCT) in May 2019. The offering of TCI and TCT complements traditional bank-intermediated trade finance solutions – such as

Diagram 3: Snapshot of Spyder



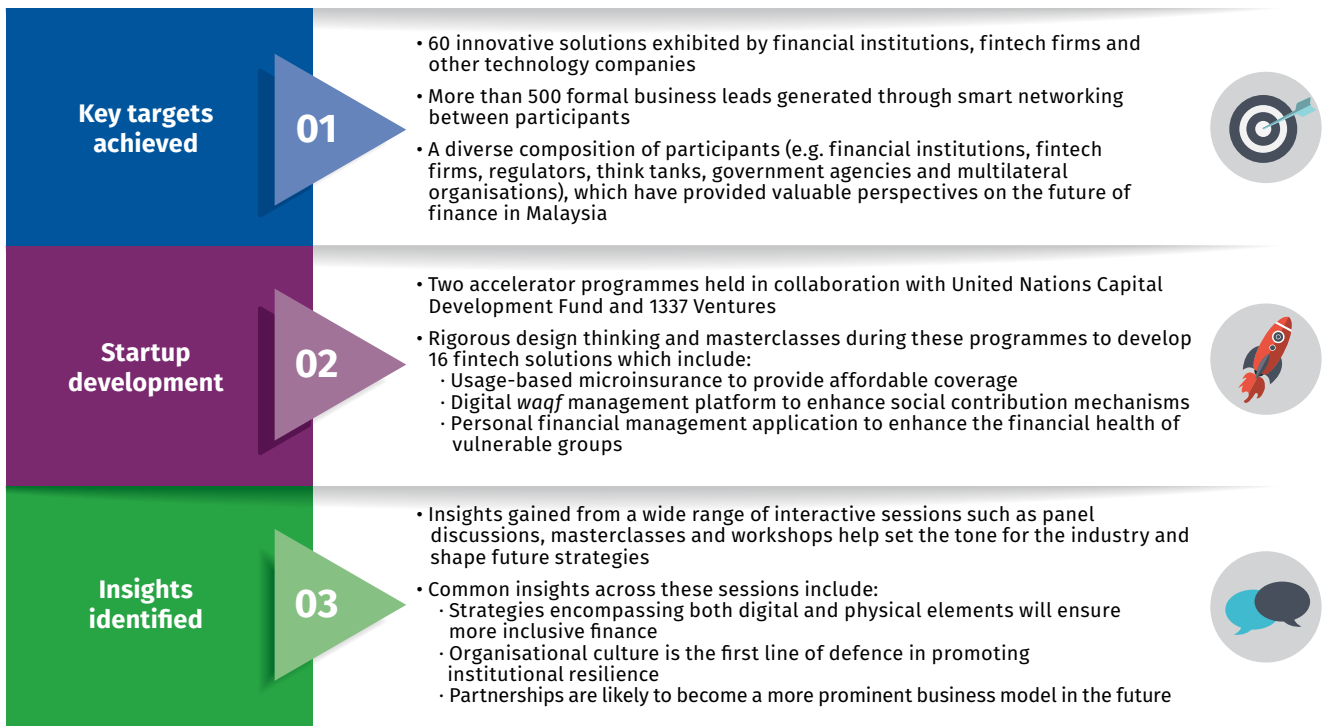
letters of credit – and opens up an additional avenue for businesses to protect themselves against the risk of non-payment of goods and services by buyers. It also empowers businesses to better manage country risk, thus opening up access to new markets.

Recent years have also seen greater use of technology in financial markets. In particular, the electrification of financial markets promises greater efficiency and transparency in the intermediation and price discovery process. In an effort to support this development in Malaysia, we published a framework for Electronic Trading Platforms (ETP) in November 2019. The framework sets out our expectations on the controls and governance for registered ETP operators in Malaysia, aimed at ensuring market integrity and orderly conditions are preserved. This includes requirements to ensure that ETP operators, among others, protect the confidentiality of customer and

trading data, and that they manage the technology risks of the platforms.

We continue to intensify our engagements with industry and other stakeholders in driving the digitalisation agenda forward. In June 2019, we hosted MyFintech Week and the Financial Industry Conference, which saw over 2,000 speakers and participants in attendance engaged in conversations on what is shaping the future of finance in Malaysia. While MyFintech Week and the Financial Industry Conference featured sessions that cut across a range of areas and issues, the digitalisation of finance was a prominent theme. The event also showcased various innovative financial solutions, including those developed by the 16 Malaysian startups that participated in the accelerator programmes held in conjunction with the event. Key highlights from the event, including the solutions showcased are further detailed in Diagram 4.

Diagram 4: MyFintech Week and Financial Industry Conference 2019



Encouraging diverse and sustainable financial product offerings

A progressive financial system must be responsive to the changing needs of individuals and businesses. This means a financial system that provides a broad range of suitable financial offerings to meet these needs. New offerings should not only create economic value, but also contribute to a positive environmental and social impact.

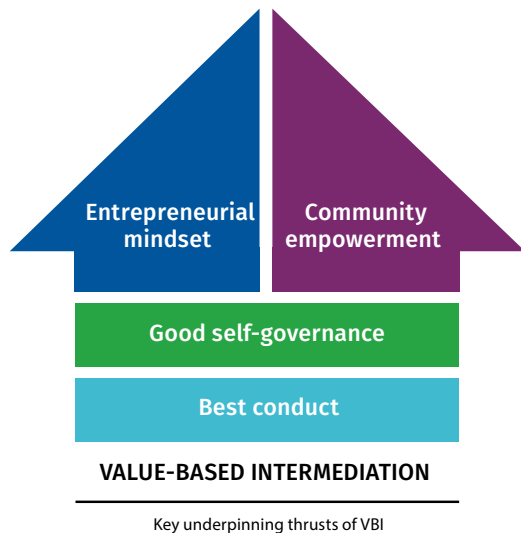
An important area of focus during the year was working with the insurance and takaful sector to develop proposals for the next phase of Motor and Fire Tariff reforms. The proposals will seek to build on earlier measures to encourage greater innovation and efficiency in the insurance/takaful market, while providing incentives for individuals and businesses to manage risks better. In 2019, the industry introduced more than 200 new motor and fire products to meet different protection needs. Among others, these included the waiver of compulsory excess for unnamed drivers, limited special perils and daily coverage for e-hailing. Greater pricing flexibility is necessary for the

industry to develop more innovative and customised products, but we will also ensure that appropriate safeguards are in place to preserve access to and affordability of insurance/takaful products. We also continue to work with relevant stakeholders to address important structural issues to reduce the time taken and risks of fraud in the processing of claims. For further information, refer to BNM Annual Report 2019 Feature Article titled 'Improving the Motor Claims Process'.

During the year, the industry, through the Medical Cost Containment Task Force, commenced work to study the causes of medical claims inflation and possible remedial measures. The study will inform future strategies to ensure healthcare services – including medical and health insurance/takaful – remain sustainable, accessible and affordable. If left unaddressed, this issue will likely lead to increases in premiums for all policyholders in the long run, making medical insurance/takaful less affordable and out of reach for many Malaysians. The BNM Annual Report 2019 Feature Article titled 'Managing Medical Claims Inflation' attempts to assess the underlying factors for claims inflation and explore ideas to promote the sustainability of the medical and health insurance/takaful segment.

Value-based Intermediation (VBI)

VBI embraces the proposition of intermediation activities that have a clear and distinct focus on generating a positive and sustainable impact to the economy, community and environment.



Features of VBI are universally applicable across the financial sector (both conventional and Islamic financial players) -

- *Higher overarching objective that emphasises maximising positive value/impact and prevention of negative impact on the economy, society and environment*
- *Strong link to real economic activities and embedded risk management feature (avoidance of speculative and harmful activities)*
- *Holistic perspective in the pursuit of socio-economic development*

VBI accords equal emphasis to economic value creation and the upholding of ethical values. Business strategies and performance are therefore evaluated and measured against broader considerations that extend beyond commercial profits alone. Approaches to risk assessments also seek to better align lending and investment decisions with sustainable business practices.

For example, a VBI-oriented bank may provide post-financing advisory services to complement its financing to a corporate client in the agriculture sector. The post-financing advisory services could be on sustainable business operations such as proper resource management for land irrigation and environmental restoration.

While the commitment to support sustainable development is one that should be observed by all financial institutions, Islamic financial institutions, guided by their Shariah underpinnings, are well-positioned to pioneer efforts to generate a positive impact on the environment and community. For this reason, the Value-based Intermediation (VBI) agenda was launched in 2017 in an effort to reinforce the intent of Shariah to promote good and prevent harm.

In November 2019, the Bank jointly issued with the industry a VBI assessment framework setting out guidance on impact-based factors that Islamic financial institutions should consider when providing financing and investment. These include environmental, social and governance (ESG) factors. With this framework, Islamic financial institutions are encouraged to nurture their customers, investors and other stakeholders to adopt more sustainable practices. For example, when assessing any financing

for construction projects, a customer would be encouraged to satisfy sustainable infrastructure ratings such as the Sustainable INFRASTAR issued by the Construction Industry Development Board Malaysia (CIDB). Such sustainable ratings serve as a guiding tool for customers to demonstrate that their infrastructure projects incorporate balanced ESG considerations. While written with Islamic financial institutions in mind, the guidance can also be adopted by conventional players.

In the takaful sector, the Bank is working with the industry to develop guidance for value-based takaful applications. The Malaysian Takaful Association has also taken the lead to align current takaful business with the objectives of VBI. Several takaful operators have begun identifying strategies that focus on value and impact creation to address social inclusion and the financial needs of certain segments. For example, traditionally-excluded segments such as people with disabilities (including mental illness)

can now obtain affordable protection which covers accidental death, natural death, medical treatment and hospitalisation allowance due to accident.

Deepening financial markets

The Bank also rolled out measures to further deepen the Malaysian financial market and improve market access.

The dynamic hedging programme was first introduced in 2016 to provide an avenue for investors to actively manage their foreign exchange risk exposures onshore. The programme was further enhanced in 2019 to cater to the different growing needs of investors. To this end, we opened up participation in the programme to trust banks and global custodians. We also provided the option for investors to enter into forward contracts to buy ringgit beyond the current 25% threshold upon approval by the Bank. These revisions are set to improve investor experience and contribute towards enhancing liquidity in the domestic market. As at end-2019, there are 105 market participants registered in the programme, managing a total of USD38 billion in assets.

In 2019, we also announced several measures to liberalise foreign exchange administration policies. The liberalisation aims to provide greater flexibility for corporates, market participants and investors to better manage their foreign exchange risk exposures. These measures have benefitted market participants and corporates, particularly small and medium enterprises (SMEs) involved in global supply chains. Since the liberalisation, an estimated 1,200 SMEs have utilised the flexibility to settle domestic trade activities in foreign currency, with total transactions amounting to an equivalent of RM327.6 million. As part of ongoing efforts, the Bank will continue to review the applicability and efficacy of our policies.

Similarly, we accorded greater flexibility to market participants in the repurchase agreement (repo) market. Having considered industry feedback, we revised the repo framework to provide for an extended maximum repo tenor of five years and a wider range of repo securities, among other revisions. The flexibilities will enhance liquidity in the repo market and support market-making activity in the bond market.

Enabling access to finance and financial inclusion

Financial inclusion is essential for a more equitable society. In line with the nation's approach to encourage shared prosperity across all groups, the Bank continued to take active steps to advance financial inclusion.

The financial sector continues to play an important role in supporting home ownership, particularly for first-time home buyers. In 2019, over 365,000 home financing accounts were approved, amounting to RM158 billion. Of this, more than 53% were to first-time home buyers and over 100,000 accounts were for the purchase of affordable homes priced less than RM300,000. To complement financing by the industry, we established the RM1 billion Fund for Affordable Homes in 2018. As at January 2020, the fund was fully utilised, enabling more than 4,700 households to purchase their first homes in conjunction with the Government's Home Ownership Campaign. Following the full utilisation of the fund, first-time home buyers continue to have access to financing from the banking system, with seven out of every ten housing loan applications approved by banks.

Purchasing a home is a big commitment for any household and often the single largest investment for many. For these reasons, financial access initiatives are also complemented by efforts to promote responsible borrowing. During the year, we worked with *Agensi Kaunseling dan Pengurusan Kredit* (AKPK) to roll out an online financial education module called *Rumahku*. The module has helped 40,000 individuals improve understanding on financial commitments related to home ownership and borrow within their means. The module has received positive feedback, with 90% of participants satisfied with the content.

In October 2019, we expanded the eligibility criteria for businesses seeking assistance under the Small Debt Resolution Scheme (SDRS). The expansion enables the scheme to also assist dormant or terminated businesses with alternative sources of income to restructure their financing obligations. The goal is to avoid bankruptcy among SMEs and to assist them in settling debt obligations prior to legal action. Since its inception, the SDRS has facilitated the restructuring of over 1,190 business accounts, amounting to more than RM1.6 billion in financing.

Improving access to financing through *Khidmat Nasihat Pembiayaan (MyKNP)* and *imSME*

Over the years, various initiatives have been pursued to increase access to financing within the country. Despite these efforts, pockets of individuals and businesses continue to face challenges in obtaining credit.

In August 2019, the Bank – together with Credit Guarantee Corporation Malaysia (CGC), AKPK and the financial industry – launched MyKNP, an advisory service to assist businesses and home buyers who are unsuccessful in their financing applications.

As a one-stop-centre, MyKNP helps prospective borrowers to better understand the factors which could explain their unsuccessful applications and receive advice on how to improve their chances of securing financing in the future. This could include helping a prospective borrower learn about the types of supporting documentation that financial institutions use to evaluate the credit standing of an individual or business. A prospective borrower could also be offered suggestions to improve his or her financial position, such as ways to generate more income or rationalise existing debt and other commitments before reapplying. For SMEs, MyKNP may also refer unsuccessful applicants to alternative avenues to meet their financing needs. As at December 2019, a total of 249 SMEs and home buyers have been assisted via MyKNP.

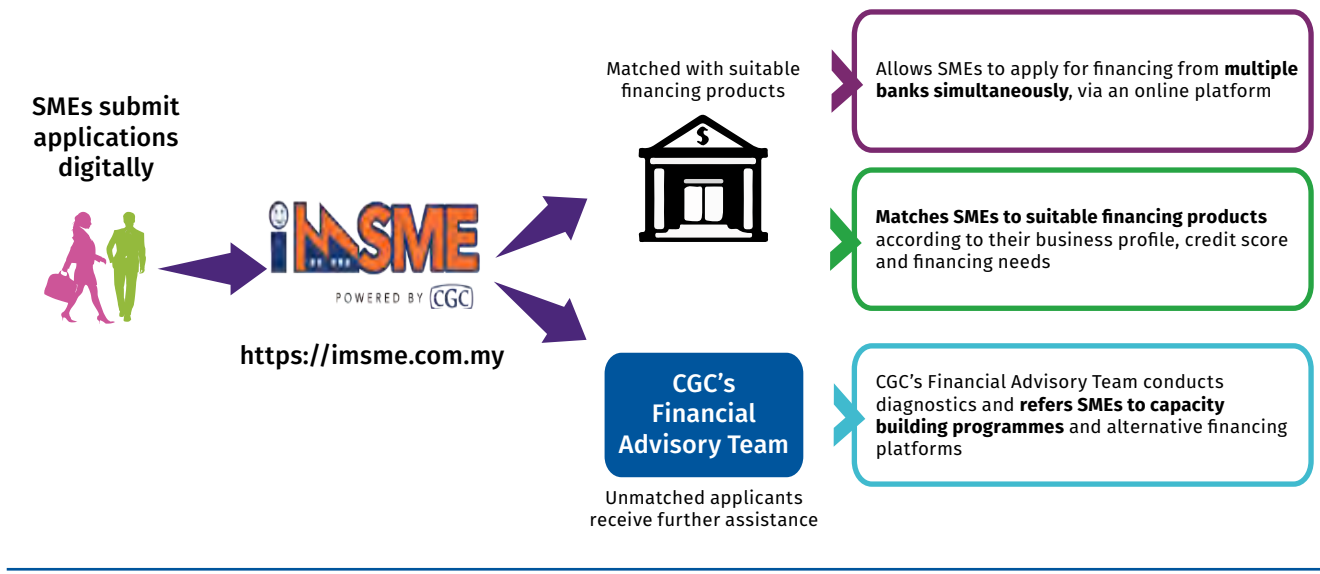
SMEs can also access imSME, an online financing referral platform developed by CGC which matches SMEs to suitable financing products according to their business profile, credit score and financing needs. Through the platform, SMEs can submit financing applications online to various financial institutions simultaneously and receive responses from lenders within two days of application. This reduces the time and expense that SMEs would otherwise have to incur to obtain quotes from several banks. Twenty-five conventional and Islamic financial institutions currently provide financing solutions through this platform.

An SME which fails to be matched with a financial institution on imSME will be offered advice to improve its financing viability through targeted capacity building programmes. For example, a food distributor that was rejected due to poor financial record was subsequently referred to a capacity building programme. The programme equipped the food distributor with better knowledge on financial management and common evaluation criteria to obtain financing as a way to improve its eligibility for future applications. The SME may also be referred to an alternative finance provider. Under imSME, over 1,800 SMEs have successfully obtained financing amounting to RM179 million.



Governor Nor Shamsiah Yunus at the launch of the MyKNP initiative which assists unsuccessful borrowers to improve financial eligibility.

imSME: Online financing referral platform for SMEs



Building awareness among SMEs on financing options through imSME.

For halal businesses, Islamic finance has a critical role in supporting the growth of micro-enterprises and firms operating in this segment. Engagements with the industry revealed a low awareness of Islamic business financing facilities among halal-certified companies. Efforts therefore have been focused on promoting the use of Islamic finance solutions among the halal business community. These include business engagement programmes held during the year providing insights to halal businesses on the variety of

Islamic financial solutions as well as experience sharing by current business users of Islamic finance. Through industry business matching sessions during these programmes, requests for over RM320 million in financing and RM27 million in protection coverage for takaful were obtained. The BNM Annual Report 2019 Feature Article titled 'Transforming the Economy and Society through Islamic Finance' further explains the importance of end-to-end Shariah compliance to support the halal ecosystem.



Business matching session between entrepreneurs and Islamic financial institutions during the Islamic Finance Rendezvous Series in Penang.

Development financial institutions (DFIs) play an important role in supporting access to finance for strategic sectors in the economy. To increase the developmental impact and value offering of DFIs, a plan was announced by the Government in the 2020 Budget Speech for the merger of several DFIs to create an enlarged entity that is better positioned to address the expanding financing needs of the economy going forward. With greater size and capacity, this will also enable DFIs to be better able to manage risks and withstand shocks.

Going forward

For 2020, the Bank will continue our ongoing efforts to develop a progressive and inclusive financial sector to serve Malaysian households and businesses.

Beyond ensuring the effective implementation of existing developmental initiatives, we will also sharpen focus in a number of areas. These include:

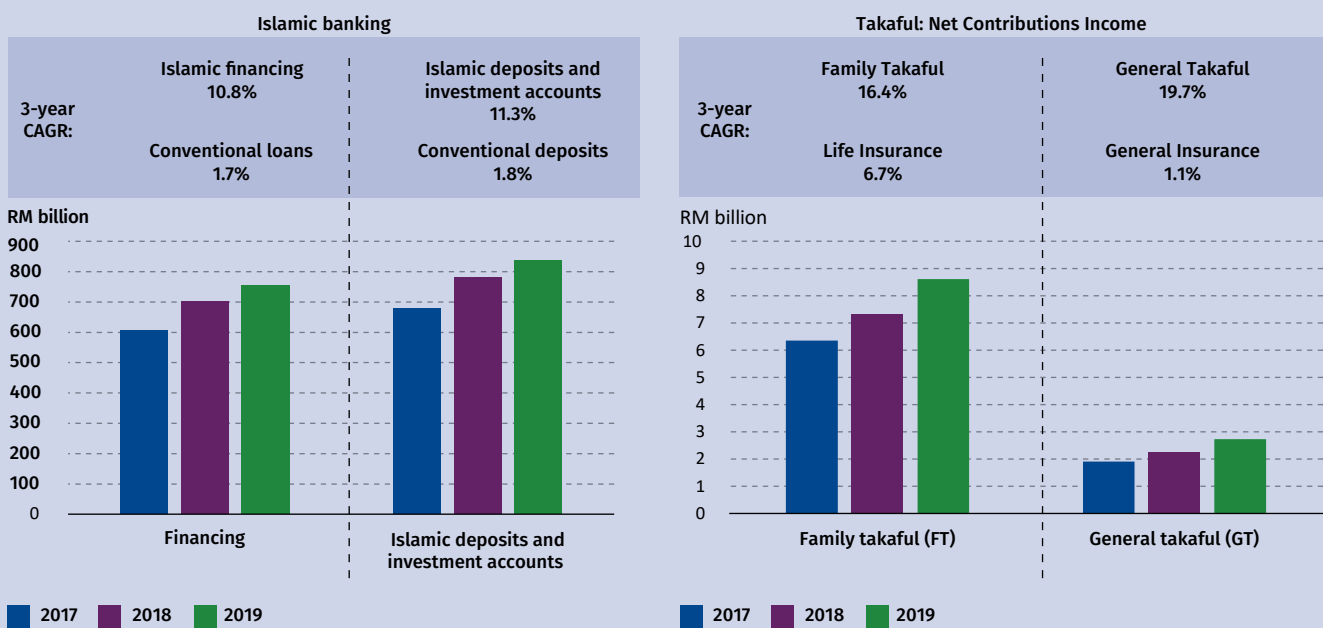
- Anchoring the direction of future priorities in the face of rapid change, under a new blueprint for the financial sector;
- Facilitating sustainable and inclusive growth through structural reforms in the insurance, takaful and DFI sectors;
- Evolving well-designed regulations for digitalisation and innovation in financial services;
- Sharpening financial inclusion strategies to promote financial resilience and contribute towards the Sustainable Development Goals (SDGs);
- Advancing initiatives that increase the impact and inclusivity of Islamic finance; and
- Promoting outreach, education and awareness programmes for targeted segments such as lower income households and SMEs.

Transforming the Economy and Society through Islamic Finance

Islamic finance in Malaysia has become well-entrenched in the country’s dual financial system. Both conventional and Islamic financial systems remain important enablers of sustainable growth in the economy. The Islamic financial system has undergone significant transformation from its modest beginning. In the early years, the system was focused on providing basic banking services to promote financial inclusion among Muslims. It now has evolved into a comprehensive system that provides diverse financial solutions for households, businesses and governments.

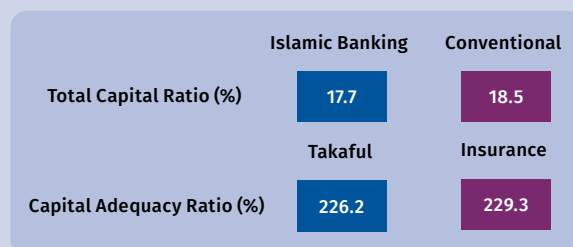
The growth of Islamic finance reflects a growing awareness and wider public acceptance of Islamic financial solutions as a competitive alternative to conventional finance with distinct value propositions. We also see a few financial institutions responding to the increased acceptance of Islamic finance by adopting “Islamic first” strategy at the group level. As a result, the Islamic financial system expanded at a faster pace than the conventional players (Chart 1). As at end 2019, financing by Islamic financial institutions accounted for 39.2% of total banking sector financing (2018: 37.7%). Total funds placed with Islamic banks now represent 38.0% of total banking sector deposits (2018: 36.6%). The share of takaful net contributions as a proportion of the total insurance and takaful business increased further to 18.3% (2018: 16.6%).

Chart 1: Growth of Islamic banking and takaful



The Islamic financial system has remained resilient under challenging economic and financial conditions. Financial soundness indicators are comparable to the conventional system (Diagram 1).

Diagram 1: Selected financial soundness indicators as at 2019

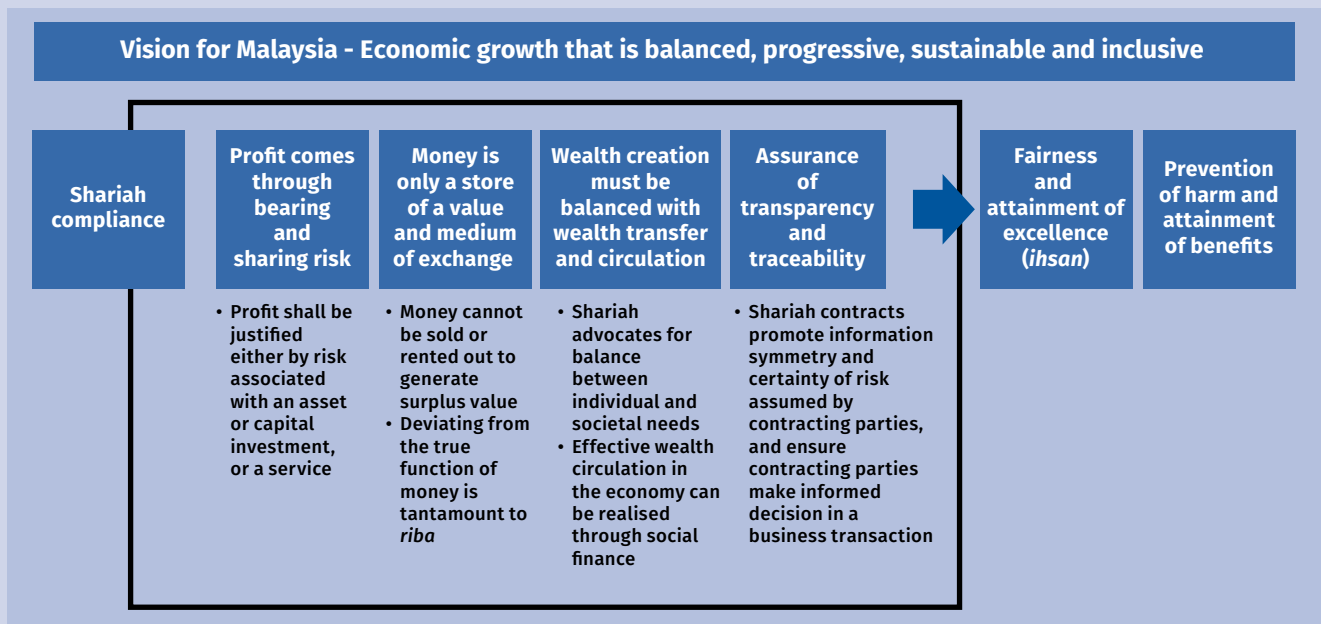


Strengthening the fundamentals of Islamic finance

As the Malaysian Islamic finance industry matures, we continue to focus efforts on further strengthening its fundamental values. This is intended to fully realise the beneficial impact of Shariah principles that underpin the provision of Shariah-compliant financial services. The Shariah Advisory Council (SAC) on Islamic Finance, as an advisor to the Bank on Shariah matters, plays an instrumental role in clarifying key fundamental Shariah principles that should be embedded in Islamic financial services (Diagram 2). While intrinsic to Islamic finance, these principles are universally applicable in finance towards realising a vision of economic growth that is balanced, sustainable and inclusive.

Diagram 2: Intrinsic values in Islamic finance

Intrinsic values in Islamic finance aligned with economic and social aspirations



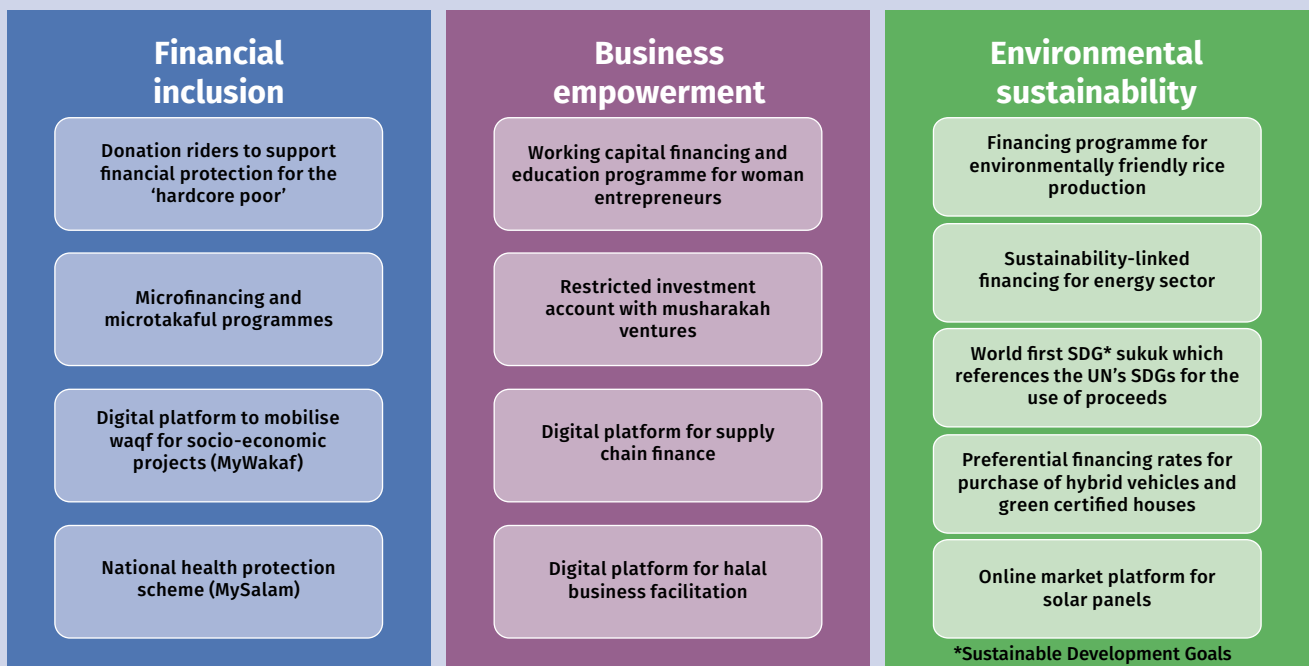
Advancing sustainable and inclusive finance

In recent years, Islamic banks and takaful operators have been offering new innovative solutions to promote financial inclusion, empower the community and entrepreneurs, and support Malaysia’s economic transition to a more environmentally sustainable economy (Diagram 3). These objectives are consistent with Shariah objectives (*Maqasid Shariah*) of promoting wealth sharing, stimulating economic productivity and safeguarding the environment.

As part of a strengthened focus on VBI, the Islamic banking and takaful industry has also been exploring the use of social finance instruments such as endowment (*waqf*), donation (*sadaqah*) and alms-giving (*zakat*) in the provision of financial services for those in greater need. The infusion of social finance contributions unlocks the potential to more effectively mobilise resources towards the provision of financing and financial protection to lower income segments in the form of seed-capital, working capital and takaful benefits. Beneficiaries of such programmes include *asnaf*¹ entrepreneurs and the ‘hardcore poor’ households. These financial programmes can have an important impact on promoting financial resilience and social well-being within society. Several pilot programmes are being piloted in collaboration with state governments and religious authorities. Their successful implementation, with strong support from all stakeholders and implementation partners, will serve as a model and catalyst for the further development of social finance in Malaysia.

¹ A group of people worthy of receiving *Zakat* contribution such as the destitute and poor.

Diagram 3: Value-based solutions delivering positive impact



Fostering linkages between Islamic finance and halal trade

There is a growing awareness and demand for goods and services produced based on the *halalan-toyyiban* (end-to-end Shariah compliance) principle, which calls for Shariah compliance to be observed throughout the entire production supply chain including distribution, marketing, and financing. The Islamic finance industry in Malaysia is well positioned to support halal industry development. Collectively, Islamic banks have pledged RM20 billion in funding for SMEs including businesses in the halal industry. A variety of financial solutions are available to address various business needs such as cash and liquidity management, working capital and investment, risk management and protection solutions, leasing of equipment and machineries as well as supply chain financing.

More customised solutions are now available to cater to the distinct needs of halal businesses including those in the food and beverage, pharmaceutical, cosmetics and modest fashion industries. The Bank has allowed Islamic financial institutions to pilot new financial solutions that can further expand Shariah-compliant trade finance facilities, for example, inventory management facility. This is facilitated by a more responsive regulatory framework that caters to the specific features and risks associated with Shariah contracts applied.

Upholding strong governance to promote stability

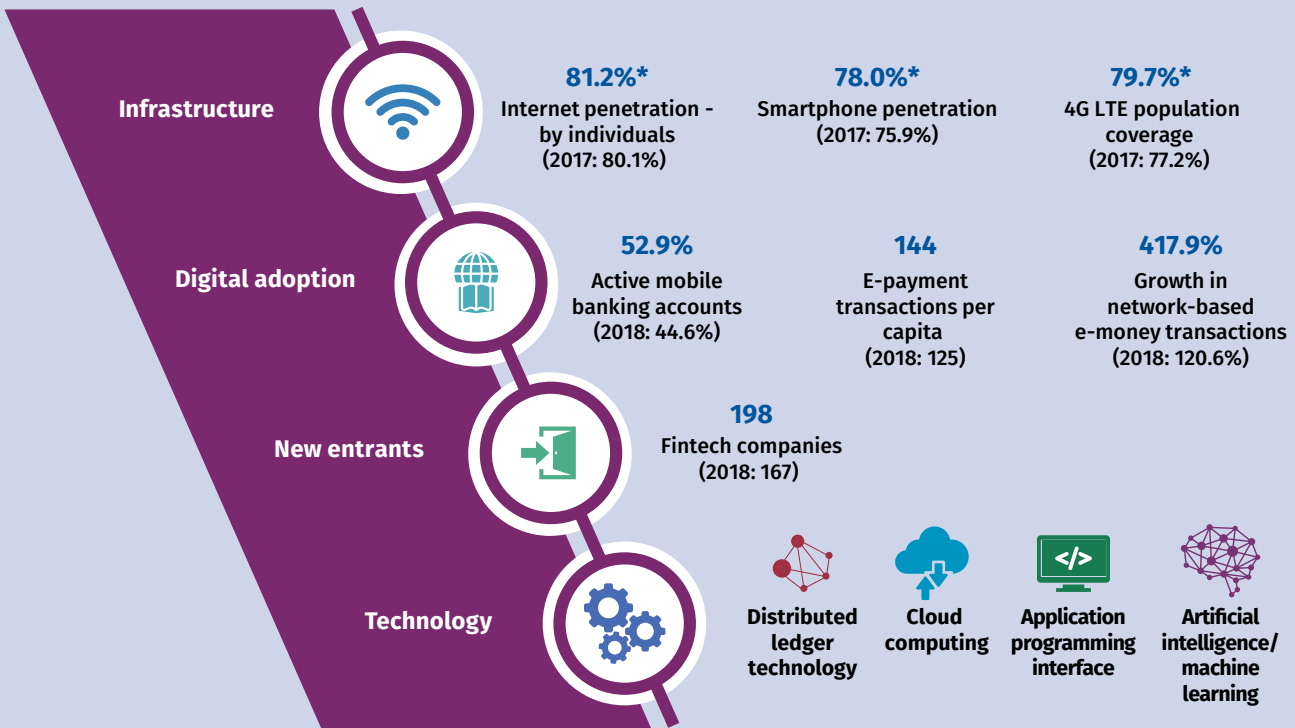
As the Islamic finance industry continues to push new frontiers, regulatory developments and governance arrangements must keep pace to promote the resilience of the Islamic financial system. In 2019, the Bank issued the strengthened Shariah Governance standards to reflect the growing complexity and scale of Islamic financial business. The standards raised expectations on the quality and effectiveness of governance arrangements within Islamic financial institutions to ensure Shariah compliance. This includes requiring Islamic financial institutions to demonstrate how they integrate Shariah governance considerations within their business and risk strategies, and promote sound Shariah compliance culture and environment. The standards also outline higher competency requirements for Shariah committee that commensurate with business needs. The new Shariah Governance standards will come into effect on 1 April 2020.

The Bank's SAC has also enhanced its decision-making framework to support its role as the leading authority for the ascertainment of Islamic law in Islamic financial business. In its decision-making process, the SAC will obtain broader practical perspectives to inform its deliberations. The basis underpinning each Shariah ruling is disclosed in greater detail to provide additional guidance for its implementation by Islamic financial institutions.

Unlocking the Potential of Innovation: Preparing for a Digital Future

Digital innovation is bringing sweeping changes to the way financial services is consumed and delivered in Malaysia. Diagram 1 provides a highlight of the driving factors towards digitalisation in the nation. At the industry level, financial service providers are increasingly looking to reinvent business models and capture the potential of digital innovation. At the customer level, end users have acclimatised to a more connected and convenient lifestyle.

Diagram 1: Factors driving digitalisation in Malaysia



* 2018 data

Source: Department of Statistics Malaysia, Malaysian Communications and Multimedia Commission, Bank Negara Malaysia, Fintech News Malaysia

Our approach to digital innovation

As the central bank, we are mandated to promote a sound, progressive and inclusive financial system. For this reason, we strive to ensure that the financial sector continues to innovate responsibly for the benefit of the economy and the good of Malaysians. While the Bank works towards enabling innovation, we are also mindful of emerging risks associated with advances in financial technology and new business models. This calls for a balanced approach that carefully considers the potential benefits and risks that these developments bring.

Our thinking is guided by three principles:

1. **Parity.** We will strive to create a level playing field for both incumbents and new entrants in the market. While prudential and market conduct rules will need to be tailored to address new technologies and business models, we will ensure that similar activities are treated similarly across different types of players.
2. **Proportionality.** We recognise that the rigour and intensity of our regulations must be proportionate to the risks involved. For this reason, the Bank considers the size of a provider, its nature of business and the complexity of its activities in our regulatory and supervisory approach. We also consider risks in terms of impact to the entire financial system. Accordingly, we generally subject large and complex financial institutions to higher standards. Institutions with smaller footprints usually pose less systemic risk and thus, may be accorded more simplified requirements.

3. **Neutrality.** We recognise the need for our regulations to be neutral and provide sufficient flexibility to enable novel ways of achieving an outcome. We are technology agnostic and so are open to the use of different technological tools, systems and approaches.

Fostering digital innovation in practice

The use of new technologies not only promises efficiency gains for financial institutions, they also open up new opportunities for financial institutions to grow their business and serve their customers better. Our regulatory framework is designed to enable financial institutions to adopt new technology platforms and transform legacy systems, while ensuring that the associated risks are well-managed.

In particular, the Bank's regulatory framework¹ provides a foundation for financial institutions to better manage their technology risks. For example, cloud services promise scalability and efficiency for organisations. However, the use of cloud also raises a number of risks and concerns. Given clients of cloud infrastructure share resources on multiple levels, the extent of vulnerabilities and risk of contagion are additional issues to be considered. For this reason, the Risk Management in Technology (RMiT) policy document which we issued in 2019 sets out a number of safeguards and parameters for the adoption of cloud by financial institutions. Thus far, more than 15 financial institutions have begun to use cloud technology for non-critical systems such as productivity, collaborative and research management tools. Additionally, several financial institutions have also consulted us on leveraging cloud technology for critical systems. We also recently revised our Outsourcing policy document to, among others, allow financial institutions to enter into technological partnerships with third parties. Such partnerships enable financial institutions to quickly acquire technological capabilities, while allowing continued focus on their core business.

The Bank also seeks to provide a facilitative environment for financial institutions to reach and interact with customers through the use of technology. For example, our efforts to enable electronic Know-Your-Customer (e-KYC) and to promote interoperability across electronic wallet (e-wallet) operators help transform mobile devices into powerful financial access points. Further details on e-KYC and interoperable payments are provided in this chapter and the chapter on 'Promoting Safe and Efficient Payment and Remittance Systems', respectively. During the year, we also issued an exposure draft on the insurance and takaful aggregation business. Aggregators make it easy for customers to shop around and compare insurance and takaful products across different providers.

At the same time, the Financial Technology Regulatory Sandbox (Sandbox) which we introduced in 2016 serves as a platform to enable innovative solutions to be deployed and tested in a live environment, but within specified parameters and time frames. So far, the Sandbox has enabled the Bank to calibrate our policies through an evidence-based approach while helping Sandbox participants validate and refine the value propositions of their solutions. Customers have also benefitted through more affordable, accessible and efficient solutions, which have served to encourage wider adoption of digital financial services. Going forward, we expect that the Sandbox will continue to be a reliable channel to test new solutions that face regulatory challenges, especially those with high potential to fill in market gaps.

We also recognise the importance of promoting digital innovation, especially where it can enhance the quality and affordability of financial services. On this, the Bank is putting in place a licensing and regulatory environment that welcomes new entrants. In 2019, we announced plans to issue digital bank licences and subsequently consulted on the applicable licensing framework. Through innovative application of technology, digital banks can enhance access to affordable and quality financial solutions, particularly for the underserved and hard-to-reach market segments. With their new and innovative business models which promise positive customer outcomes, digital banks are also expected to complement incumbents in addressing market gaps. Further details on digital banking are provided in this chapter.

¹ Such as the RMiT and Outsourcing policy documents.

Going forward

Looking ahead, we will continue to focus on evolving a financial services industry that best serves the needs of Malaysians. This also means simultaneously keeping a close eye on risks that may emerge or be amplified as digital innovation becomes a more prominent feature in our financial system. Data security, consumer protection and financial integrity, in particular, are among the important issues that will continue to warrant attention going forward.

Improving the Motor Claims Process

Motorists involved in accidents often cite the time taken for insurance and takaful claims to be paid – and the opacity of the claims process – as major pain points. On average, own damage claims take two months to be paid from the point of notification. Third-party property damage claims often take even longer to be paid. For motorists whose incomes and livelihoods depend on access to a properly functioning vehicle, delays in processing a claim can mean significant hardship, and a delay in getting much needed relief.

Why does it take so long to process a claim?

The claims process is made up of several stages, involving various parties (see Table 1). This entails a number of checks and controls to ensure that only claims with merit are paid. For example, a police report is required to serve as an official record of the accident. Meanwhile, loss adjusters provide a professional assessment of the damage sustained and related repair cost estimates submitted by workshop operators to ensure overall reasonableness. Adding to delays are missteps which motorists themselves might make along the claims process. For example, a motorist might not be aware of what needs to be done after experiencing an accident. He may unwittingly engage a tow truck provider or workshop not recognised by his insurer or takaful operator.

Each stage of the claims process involves some amount of paperwork, and any error or discrepancy in documentation contributes to delays. While these steps serve to establish fault and curb abuse that would lead to escalating motor insurance premiums, they have also contributed to the issue of slow payouts.

Table 1: The motor claims process

	Stage 1: Accident	Stage 2: Police Report	Stage 3: Loss Adjusters Assessment	Stage 4: Claims Submission	Stage 5: Repairs	Stage 6: Settlement of Claims
Stage of Claims Process	<ul style="list-style-type: none"> Accident victim notifies insurer/ takaful operator Tow-truck dispatched 	<ul style="list-style-type: none"> Police report to be made within 24 hours 	<ul style="list-style-type: none"> Assess damage and review repair costs submission 	<ul style="list-style-type: none"> Workshop operators submit claims to insurer/takaful operator 	<ul style="list-style-type: none"> Workshop operators procure parts and commence repairs 	<ul style="list-style-type: none"> Claims are settled and reimbursed to parties respectively
Issues Encountered	<ul style="list-style-type: none"> Lack of consumer awareness on next steps 'Call men' misdirect accident victims 	<ul style="list-style-type: none"> Police burdened by high volume of reports required for all accidents, including those without bodily injury 	<ul style="list-style-type: none"> Subjectivity and variations in claims estimates among workshops, insurers, takaful operators and loss adjusters 		<ul style="list-style-type: none"> Subjective quality and cost (labour and parts) of repairs Instances of alleged collusion, and inflated and fraudulent claims 	<ul style="list-style-type: none"> Delay in receipt of claims if issues in Stages 1-5 materialise

Making the claims process more efficient

Given the need to ensure that only claims of merit are paid, it is unavoidable that the claims process involves checks and controls. Without appropriate controls, motor insurance premiums could increase significantly and become unaffordable for segments of the population. As motor insurance is compulsory, this in turn could have broader implications for society and public safety.

There are a number of strategies that can be pursued to make the process more efficient. First, motorists should be better equipped to navigate the claims process. The Bank requires insurers and takaful operators to provide motorists with a standardised guide on the appropriate steps to take when involved in an accident together with

their motor policies. These guides are also available on the websites of insurers and takaful operators. In 2013, the industry came together to establish Accident Assist (1300-22-11-88), a helpline that provides around-the-clock roadside assistance. Callers are also able to pose questions on coverage and claims procedures.

Second, the industry must continue to simplify and rationalise internal processes for managing claims. The Bank is reviewing its existing standards on timelines to be met by insurers and takaful operators in processing claims. The aim is to reduce the time taken by leveraging on better information and disclosures. In this regard, the Bank backed efforts by the industry to establish a central database on the costs of motor parts and repair times, and to promote consistency in the quality of repairs. The Bank also continues to provide a regulatory environment that encourages the industry to adopt digital solutions to further shorten claims turnaround times. For example, the use of video-calls and drone technology allows loss adjusters to inspect damaged vehicles remotely and estimate damages in real-time without needing to be physically present at workshops.

Third, public sector agencies involved in overseeing the transportation and motor sectors in Malaysia also have a critical role to play. Effective regulation and enforcement to promote professional conduct and prohibit fraud and abuse are key to protecting the integrity of motor repairs, treatment of injury and the claims process. For instance, setting and enforcing clear minimum standards for repairs will elevate the overall level of professionalism of workshops, increase consumer confidence and minimise the scope for disputes during claims settlements.

There is also scope for a more fundamental rethinking of the accident and motor claims process. To illustrate, some countries have removed requirements for certain classes of accidents to be reported to the police. Instead, cases are reported to designated centres that function not only as workshops, but also as accident reporting centres linked up with insurers. These arrangements are supported by industry agreements and legislative changes, which define responsibilities of relevant parties to conduct pre-inspection of the damaged vehicle(s) prior to repairs, and govern the apportionment of liability to the parties involved in an accident. An effective dispute resolution mechanism involving independent arbiters to resolve any grievances is also critical. For claimants, this means quicker claims processing, trustworthy repairs, and swift financial relief in the event of injury.

Managing Medical Claims Inflation

The growing availability of private healthcare treatment as an alternative to public hospitals has been accompanied by a rise in demand for medical and health insurance and takaful (MHI) in Malaysia. This is a significant and growing product segment, accounting for 15.5% of total gross premiums in the life insurance and family takaful sector in 2019. Alongside growing demand, Malaysia's cost of medical care has been reported to be rising above the global average and is among the highest in Southeast Asia¹.

Between 2016 and 2019, MHI claims grew by 11.6% a year. This trend has increased pressure on the underwriting performance of MHI providers, given that rising claims have continued to outstrip the increase in premiums. Over the same four-year period, MHI premiums grew on average by 9.5% a year. In that period, 96 MHI products were repriced, affecting 4.5 million policies. This is a concern as more expensive premiums make coverage increasingly unaffordable to many.

What is driving MHI claims inflation?

Today, Malaysians are living longer and have access to better and more advanced medical care. While this is a positive development and a sign of progress in the country's health outcomes, this development naturally contributes to higher medical costs.

At the same time, there are a number of other factors driving unwarranted increases in medical costs. There are anecdotal accounts of healthcare providers who engage in price differentiation, charging higher if a patient is insured. This is exacerbated by the "buffet syndrome" where policyholders seek to maximise the value of premiums paid. Hence, they tend to utilise medical services with little incentive to consider the associated costs. These behaviours contribute to escalating costs that are ultimately translated back into higher premiums. Insurance claims data analysed over 2013 to 2018 show that hospital supplies and services² form the largest component of claims costs and is one of the main factors driving the increase in hospital charges. In the long run, this makes MHI policies for all policyholders less affordable, and increases the prospects of some higher risk groups being excluded from access to medical insurance.

Considerations moving forward

The ecosystem for medical services in Malaysia involves many stakeholders including payors, healthcare providers, regulators, managed care organisations and end consumers. Accordingly, containing medical claims inflation requires coordinated actions that address the different incentives at play. The Bank has issued the Guidelines on Medical and Health Insurance Business which set out minimum standards for insurers and takaful operators to promote sound underwriting and pricing practices. While recognising the need for insurance premiums to adjust in line with claims experience, the Bank has required insurers and takaful operators to provide policyholders who have been impacted by repricing actions with options to maintain or to vary their medical coverage. However, longer-term solutions to promote the sustainability of MHI protection call for deep reforms in a number of areas.

As a start, there is a need to provide greater public transparency of the various costs of medical procedures. This can be achieved through the publication of reference benchmark costs for common medical procedures. This will enable patients – particularly those who are self-paying – to make well-informed decisions on

¹ Willis Towers Watson's "2019 Global Medical Trends Survey Report":

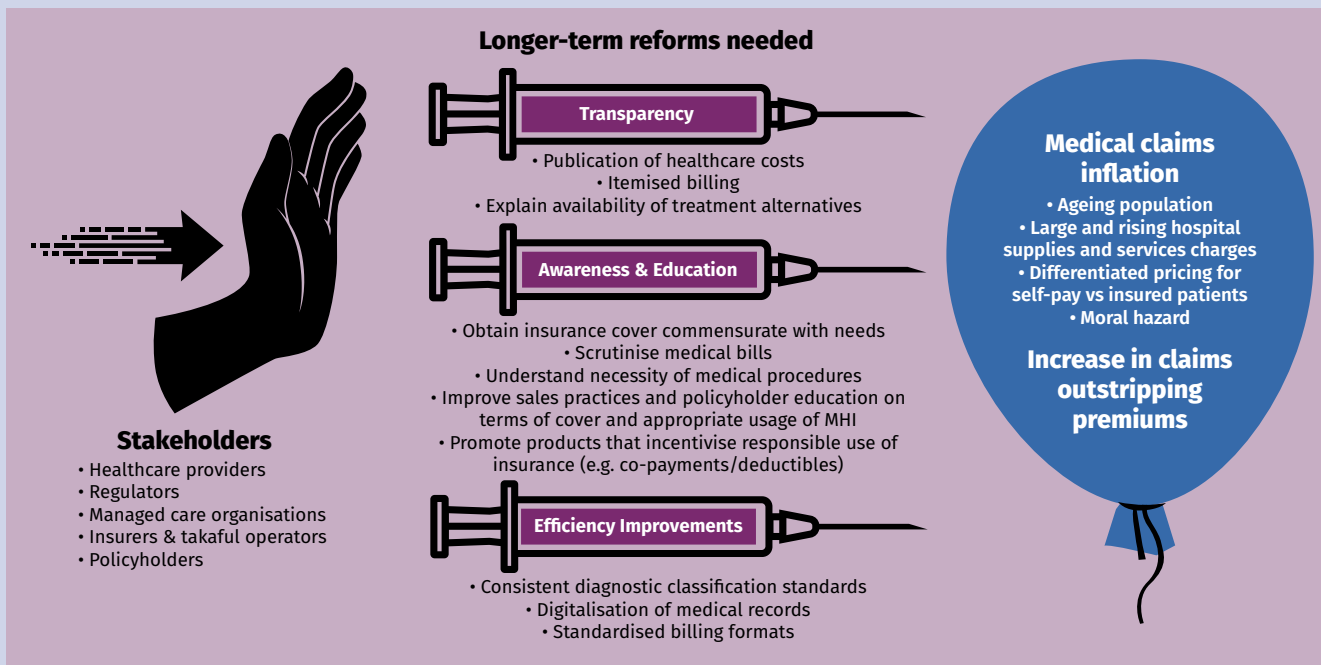
- Malaysia - 13.1%;
- Global average - 7.6%; and
- Other South East Asian countries: Indonesia - 10.9%; Philippines - 11.5%; Singapore - 9.1%; Thailand - 8.5% and Vietnam - 16.3%.

² Comprises items such as laboratory and imaging, medicine, nursing and medical equipment (e.g. medical ventilator, dialysis machine and eye microscope), and on average constitute more than 50% of a medical bill.

their desired level of healthcare service and its associated costs. For insured patients who do not have to pay out-of-pocket, costs are less likely to factor into their healthcare decisions. In order to encourage a collective responsibility to ensure affordable access to MHI protection for all, the adoption of co-payments or deductibles in MHI plans which can give policyholders more control over the costs of their healthcare decisions is also important. These changes, which have also been observed in other countries such as Singapore and Australia, can have an important effect in capping the persistent increase in healthcare costs through better market discipline.

There is also a need to facilitate the standardisation and collection of data that can be used by both the medical and insurance and takaful industries to increase efficiency, reduce waste, prevent fraud and improve product design. This calls for, among others, the application of a consistent diagnostic classification standard and standardised formats for billings to increase cost transparency. The digitalisation of medical records and integration of health information systems also have the potential to generate significant operational efficiencies and contribute towards moderating medical claims inflation.

Reforms to address medical claims inflation



Promoting Safe and Efficient Payment and Remittance Systems

Payment and remittance systems are vital to the modern economy. They help people and businesses make transactions conveniently, such as to buy groceries, shop online, pay suppliers and send money overseas. Given their importance, we regulate these systems and supervise industry players to promote safe and efficient payment and remittance systems.

Given the needs of the modern economy and the advancement in technology, we also seek to foster an enabling environment to promote greater adoption of electronic payment and remittance services. Besides enhancing productivity, increased adoption of such services would promote financial inclusion, financial integrity and catalyse growth in the digital economy. Additionally, we seek to future-proof our payment infrastructure to meet the emerging and future needs of the economy.

Key payment and remittance trends

In 2019, RENTAS¹ – Malaysia’s large-value payment system – and retail payment systems operated smoothly without any major disruptions.

Significant progress was made in efforts to promote greater adoption of e-payment and e-remittance services (Diagram 1). On average, Malaysians made 144 e-payment transactions each in 2019,

up from 125 in 2018. This is supported by widening acceptance of e-payments among merchants with 668,744 point-of-sale (POS) terminals deployed and over 288,000 Quick Response (QR) code payment registrations recorded as at end-2019, up from 514,818 POS terminals and over 65,000 QR registrations in 2018.

In tandem with the increased e-payment adoption, cheque usage continued to decline with 84.4 million cheques cleared in 2019, down from 101.4 million in 2018. Meanwhile, e-remittance services continued to gain traction with RM3.2 billion outward remittances conducted, up from RM2.5 billion in 2018. This is supported, among others, by the lower cost of e-remittance, which was reduced further to 1.9% of transaction value in 2019 compared to 2.4% through physical channels.

Ensuring safety and fostering confidence in payment and remittance systems

We conduct continuous oversight on RENTAS and retail payment systems to ensure their safety, reliability and resilience. In 2019, the focus of our oversight activities on RENTAS were directed at assessing the adequacy of controls to mitigate settlement failures, ensure business continuity and strengthen resilience against cyber threats.

We also conduct ongoing supervision on approved e-money issuers (EMIs) and licensed remittance service providers (RSPs) to assess risk management practices and compliance with regulatory requirements. During the year, we intensified our offsite surveillance of EMIs and also conducted onsite examinations on several key EMIs with sizeable market presence. Our supervisory reviews of these EMIs covered a number of issues and areas, including their financial strength,

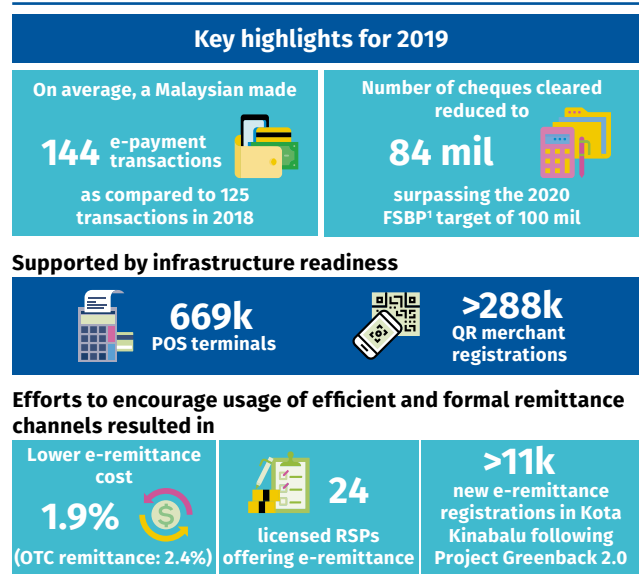
¹ Real-time Electronic Transfer of Funds and Securities System.

Promoting Safe and Efficient Payment and Remittance Systems

management of customers' fund and fraud management practices. In supervising licensed RSPs, we also continue to use data analytics and modelling tools, including risk profiling, for more robust and targeted supervision.

To promote public confidence in payment and remittance systems, the Bank and the industry also continue to strengthen safeguards against payment fraud. From time to time, we issue security alerts to the industry on emerging methods used by fraudsters and require financial institutions to continually enhance their risk-mitigating controls. We also collaborate with industry groups and Government agencies to identify mitigating measures and enhance consumer education.

Diagram 1: Highlights for 2019



¹ Financial Sector Blueprint 2011 – 2020

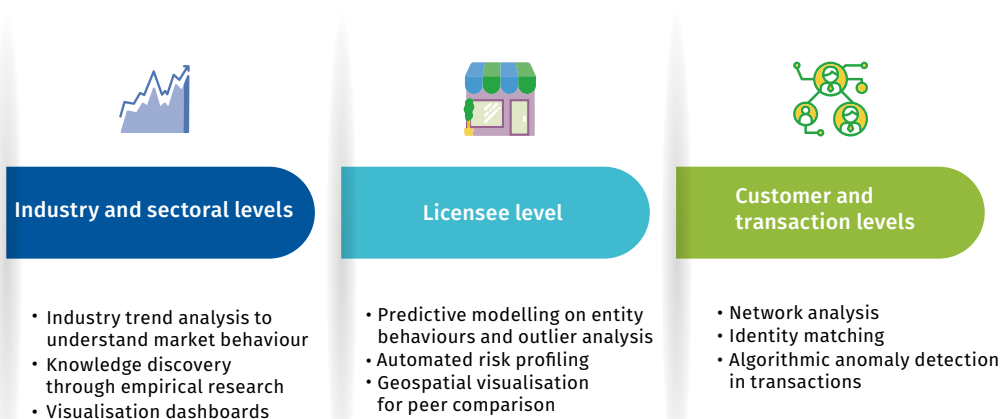
Smarter supervision and surveillance in the remittance industry

Advances in technology and the availability of better data have opened up new ways for us to radically improve the way we regulate and supervise financial institutions. In the area of remittances, the Bank has widened the use of supervisory technology (SupTech) to digitalise and analyse large volumes of reports, resulting in more efficient and proactive monitoring of risk compliance.

1. Data analytics as a supervision and surveillance tool

The remittance industry is susceptible to money laundering and terrorism financing (ML/TF) risks due to its cash-intensive and cross-border nature. Given this, we use predictive analytics on transactional data to monitor ML/TF risks at three levels, namely at the industry and sectoral levels, licensee level and at the customer and transaction levels.

Three levels of ML/TF risk monitoring



- **The use of data analytics has enabled smarter, faster and broader detection of potential exposure to illicit activities.** We have uncovered a number of transactions related to potential fraud, smuggling and other illicit activities.
- **Supervisory and surveillance functions have become more focused and data-driven.** This has contributed to thematic onsite supervisions such as investigating anomalies in transaction pattern and customer behaviour, and surveillance activities, followed by proportionate enforcement actions. Empirical research using SupTech tools has also contributed to evidence-based policymaking in the remittance industry.
- **Data analytics outcomes are documented into knowledge products which are shared with parties of interest.** These include engagement with industry players to strengthen vigilance against misuse of formal remittance channels, and sharing of intelligence information with other law enforcement agencies to aid investigations.

2. Artificial intelligence: Today and beyond

In 2019, we started to explore the potential uses of machine learning and cloud computing to enhance our analytics work:

- **Developed an application programming interface (API)-based reporting system** to enable real-time report submission with automated data validation.
- **Leveraged on supervised and unsupervised machine learning techniques** for behaviour anomaly detection and surfacing of outlier transaction patterns.
- **Utilised optical character recognition (OCR) application** to convert regulatory submissions into machine-readable reports for further analysis.

Moving forward, the Bank will continue to explore the use of other innovative technologies to support our supervisory functions. Informed human judgment will remain important in understanding and validating the results of data analytics.

Promoting greater adoption of e-payment and e-remittance services

The Bank has been focusing our efforts to accelerate the country's migration to e-payments². These measures have enhanced the affordability, accessibility and quality of e-payment services in Malaysia.

In 2019, our efforts were directed at enabling the interoperability of electronic wallet (e-wallet) services offered by banks and non-bank EMIs. In a market where multiple e-wallet operators exist, seamless payments are key to improving customer experience. As envisaged under the Interoperable Credit Transfer Framework (ICTF), PayNet³ has implemented a shared payment infrastructure – Real-time Retail Payments Platform, or RPP in short – with fair and open access to banks and eligible

non-bank EMIs. With RPP, consumers and businesses can make and receive payments instantly drawing funds from bank accounts or e-money accounts.

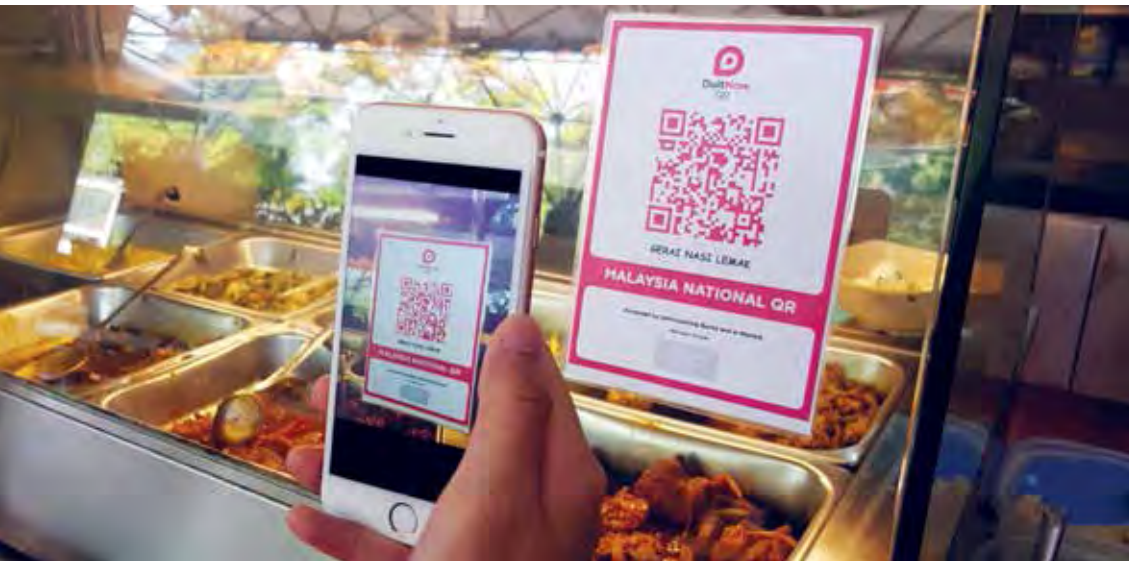
Two key services have since been offered on the RPP. The first service, DuitNow, enables a sender to transfer funds by referencing the mobile phone number, National Registration Identity Card number, or the business registration number of the recipient. The second service, DuitNow QR is a national QR payment solution that enables a customer of an e-wallet operator to seamlessly collect funds from customers of other participating e-wallet operators. We have been working closely with the key stakeholders to ensure an inclusive access arrangement for all interested participants. Besides banks, four non-bank EMIs have been on-boarded to the RPP to date.

In the remittance space, the year saw a number of efforts to digitalise business and operations to facilitate migration to formal remittance channels. In 2019, four licensed RSPs were approved to implement e-KYC⁴. We also worked with the Malaysian Association of Money Services Business (MAMSB) to

² Reforms in recent years include the Pricing Reform Framework (2013), e-Payment Incentive Fund (ePIF) Framework (2015), Payment Card Reform Framework (2015) and Interoperable Credit Transfer Framework (2018).

³ Payments Network Malaysia Sdn. Bhd. (PayNet) is the operator of the country's shared payment systems and financial market infrastructures, which is jointly owned by the Bank and 11 domestic banks.

⁴ For more information, refer to BNM Annual Report 2019 Chapter titled 'Promoting a Progressive and Inclusive Financial System'.



DuitNow QR is progressively being rolled out throughout 2020.

DuitNow QR: National QR payment solution

With the emergence of competing e-wallet operators in Malaysia, it is both time-consuming and inefficient for merchants to sign up with each operator and manually reconcile different sales revenue reports across different systems.

DuitNow QR addresses this pain point. Merchants only need to sign up with one e-wallet operator and display one unified QR code that can be used to accept payments from customers of other participating e-wallet operators.

Likewise, with a single account with an e-wallet operator, a customer will be able to make payment to merchants signed up with a participating DuitNow QR e-wallet operator.



1 Sign up with one e-wallet operator

2 Display your DuitNow QR

3 Start accepting payments from customers of all participating e-wallet operators²

¹ Including their Islamic banking subsidiary

² As at the date of publication, four participants (AmBank, Bank Muamalat, HSBC Bank and Public Bank) have implemented DuitNow QR on their mobile banking app. The remaining participants are expected to go live throughout 2020

enhance the Money Services Business Advisor mobile app. The app is an online aggregator that allows users to compare prices, locate the nearest licensed RSPs, review and lodge complaints on RSP services, and report on illegal RSP activities to the Bank.

Our efforts to promote the adoption of e-payment services also involve us working closely with target groups and stakeholders. In 2019, we continued to participate in a variety of platforms involving various groups, such as consumer associations, SMEs and Government agencies. The Bank also continued to encourage and support efforts to address challenges hindering the adoption of e-payments in the public sector. Encouraging progress has been made to date, with 52.2% of payments collected by Federal Government agencies through electronic channels in 2019, up from 36.0% in 2015⁵.

We also conducted a number of outreach and awareness programmes in select geographies. For example, our “Bayo Dok Guna Pitih” (*pay without physical cash*) programme to encourage the adoption of e-payments in Pulau Redang saw almost 75% of SMEs on the island starting to accept e-payments. In Kota Kinabalu, we collaborated with the World Bank, MAMSB and remittance providers on Project Greenback 2.0, an initiative to promote the use of formal remittance channels among migrant communities. This has resulted in a lower cost of remittance in Sabah, which declined from 4.5% in 2018 to 2.2% in 2019, well below the United Nations’ Sustainable Development Goals (SDG) target of 3.0%. Smaller scale e-remittance carnivals were also organised at several locations in the Klang Valley with higher concentration of migrant workers.

A BNM representative demonstrating how to use e-remittance services.

⁵ Source: Malaysian Administrative Modernisation and Management Planning Unit (MAMPU).

Future-proofing key payment infrastructures

In 2019, we embarked on a number of initiatives to future-proof RENTAS to meet evolving user demands.

Since 2008, we have outsourced the operations of RENTAS to PayNet to ensure segregation between the operator and oversight functions. The IT infrastructure and responsibility for IT support continue to reside with the Bank. This is supported by two service level agreements that outline the responsibilities of the Bank and PayNet in ensuring the safety, efficiency, and reliability of RENTAS. As the overseer of RENTAS, we also issue supervisory expectations on PayNet.

To strengthen end-to-end risk management in an era of heightened cybersecurity risk, the Bank will transition to an operating model where we will operate RENTAS directly, in addition to providing IT support for the system. In line with international best practices, this will be framed by clear and transparent governance arrangements. These include segregating the oversight and operator functions within the Bank, and establishing a dedicated committee to oversee the operations, risk management and governance of RENTAS. The Bank expects to assume operations of RENTAS by end-2021.



Regulating digital assets¹ in Malaysia

Privately-issued digital assets have attracted significant attention in recent times. However, they are not generally used to make payments as they lack the characteristics of money and suffer from various limitations, including price volatility and vulnerability to cyber threats. As such, we continue to remind members of the public that digital assets are not legal tender and to be cautious when dealing in digital assets.

The use of digital assets for making payments is subject to the Bank's laws and regulations. This is necessary to promote stability in our financial and monetary system. Securities Commission Malaysia regulates the issuance of digital assets for fundraising purposes and the trading of digital assets. It seeks to ensure that investors are protected and to promote fair and orderly trading. Digital assets activities are also subject to anti-money laundering and counter terrorism financing (AML/CFT) regulations administered by the respective authorities.

There is also growing awareness that the underlying technology for digital assets – distributed ledger technology – may have the potential to enhance existing payment methods. Consequently, the central bank community is exploring the merits and feasibility of issuing central bank digital currencies (CBDC). The Bank is no exception, and we continue to engage closely in discussions surrounding CBDC with other central banks.

¹ Digital asset broadly refers to a digital representation of value that can be transferred, stored or traded electronically which generally uses cryptography and distributed ledger technology.

To strengthen the operational resilience of RENTAS, we established a third-level backup facility in November 2019 to host a Mini RENTAS. As a smaller scale application of RENTAS, Mini RENTAS serves as a contingency to ensure resilience against operational disruptions from an unlikely scenario where both the primary production site and recovery centre for RENTAS are down simultaneously.

Beyond domestic payments, enhancing the efficiency of cross-border payments is also critical given the increasing cross-border trade, e-commerce and tourism activities. At the ASEAN level, efforts have been made to foster greater regional integration through linkages of the real-time retail payment infrastructures (RT-RPS). Through our participation in the ASEAN Working Committee for Payment and Settlement Systems, we contributed towards the establishment of the ASEAN Payments Policy Framework which comprises a set of principles to facilitate the linkages of RT-RPS. We also entered into a Memorandum of Understanding with Bank Indonesia to foster closer collaboration in financial innovation, including by exploring the establishment of a retail payment linkage between Malaysia and

Indonesia. Similar initiatives are also being explored with other ASEAN countries, including Singapore and Thailand.

Going forward

The Bank will continue to direct its regulatory and supervisory resources towards safeguarding the safety and soundness of payment and remittance systems. We will also step up efforts to increase public confidence and acceptance of e-payment and e-remittance services, particularly among underserved segments.

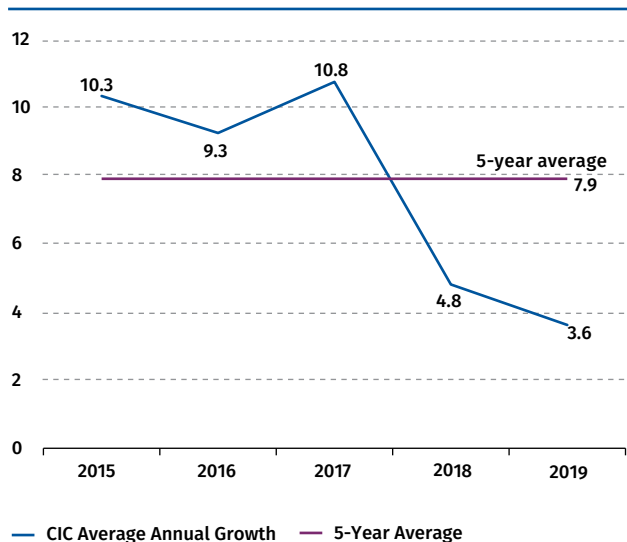
The Bank will also work to future-proof the country's payment infrastructure to meet evolving market needs, including by outlining the future payment systems development agenda and formulating a holistic strategy for migration of payment systems to ISO 20022. As a global messaging standard with richer data content, ISO 20022 has the potential to drive greater efficiency and facilitate industry players to deliver innovative financial services to their customers.

Issuing Currency

The Bank is the sole issuer of ringgit banknotes and coins, which are the only legal tender in Malaysia.

Our mandate is to ensure that there is sufficient supply of ringgit banknotes and coins at all times to meet public demand, and to maintain the quality and integrity of the currency in circulation (CIC). In doing so, we also seek to conduct our currency operations in a cost-effective manner.

Chart 1: CIC average annual growth (%)



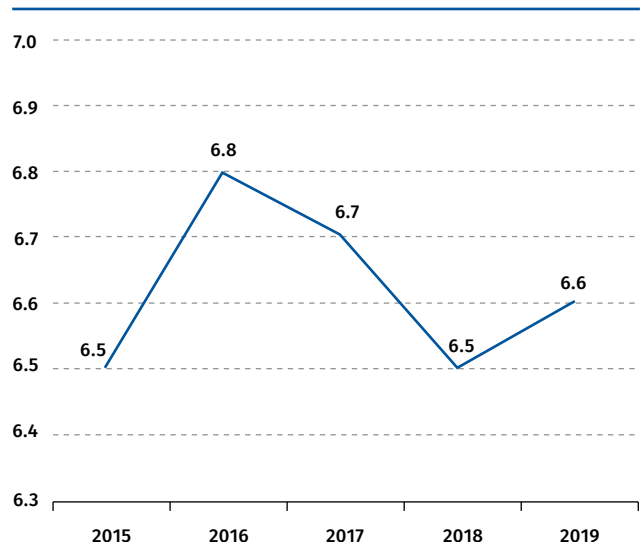
Source: Bank Negara Malaysia

Currency operations

Physical currency is used as a medium of exchange to facilitate payment transactions and as a store of value. It continues to be widely used in the Malaysian economy, with approximately RM114.1 billion in banknotes and coins in circulation at end-2019. In 2019, CIC grew by 3.6%, markedly lower than the five-year average of 7.9%. However, the country's CIC as a share of Gross Domestic Product (GDP) has been hovering between 6.5% and 7% in the last five years. While the country's CIC continues to grow in tandem with the economy, there are clear signs of slower growth with greater adoption of electronic payments for economic transactions.

In managing the Bank's currency operations to meet the needs of the economy, we procure banknotes from international printers through competitive tender and mint coins at our *Kilang Wang* located in Shah Alam. In 2019, we minted nearly one billion coins. We also conduct on-site assessment on the capability and controls of qualified printers.

Chart 2: CIC over GDP (%)



Source: Department of Statistics, Malaysia and Bank Negara Malaysia



Quality testing is part of the coin minting process in Kilang Wang.



An engraver is applying the finishing touch on the master die as part of the process to mint commemorative coins.

Our currency operations are also directed at ensuring the high quality of CIC, so that the public has confidence in our currency. This involves the Bank removing worn and defective banknotes from circulation, and replacing them with either new or “fit” banknotes. Fit banknotes are used banknotes which meet the acceptable quality standards for recirculation. The Bank processes about three billion banknotes annually, with about half of this carried out at our Automated Cash Centre (ACC) located in Shah Alam. The other half is processed by our five regional offices located in Johor Bahru, Penang, Kuala Terengganu, Kuching and Kota Kinabalu. The ACC which started operations in 2016 has reduced the time taken to process banknotes¹ from three months to one month, enabling the Bank to more efficiently meet the demand with fit banknotes throughout the year and thus, reduce the cost of printing new banknotes.

In ensuring a continuous supply of our currency throughout the country, the Bank works closely

¹ Banknotes deposited at the Bank are checked using high speed processing machines for their quality level and those that are worn out, defective or fake are then removed. Only high quality and genuine banknotes are recirculated.

with the Royal Malaysia Police (RMP) to ensure safe delivery to the ACC and regional offices based on the needs of the local community. The banknotes and coins are then transported to the branches and cash service machines² of financial institutions by cash-in-transit companies (CITs) and coin agents. These companies play an integral role in the currency management supply chain as they are responsible for ensuring the safe and efficient distribution of the ringgit.

The Bank also acts to safeguard the integrity of the ringgit against counterfeit or fake banknotes and coins. Counterfeiting currency is a serious crime that undermines public confidence in the ringgit and the Bank’s role as the sole issuer of currency. To combat counterfeiting in Malaysia, we work closely with law enforcement agencies, such as the RMP and Attorney General’s Chambers of Malaysia, to investigate and charge acts of counterfeiting. We also conduct currency awareness and education programmes. The general public may find information on the

² Refers to automated teller machines, cash recycler machines and cash deposit machines.



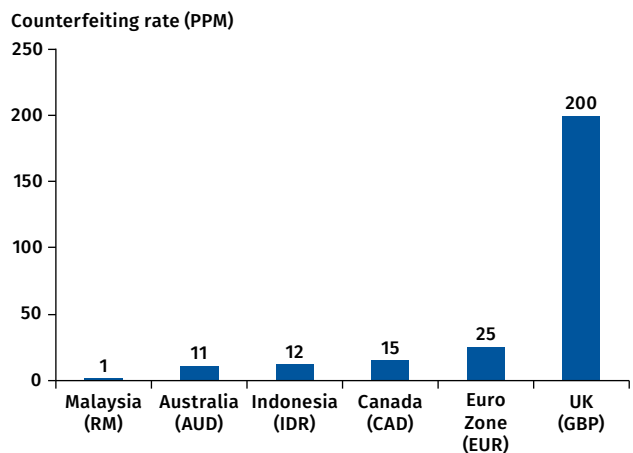
Currency processing is undertaken efficiently at the ACC.

banknotes and coins, including their security features, on our website and MyRinggit mobile application. In 2019, we certified more than 160 trainers from various partner institutions – including government agencies, business and consumer associations, and retailers – to conduct currency awareness and education programmes which complement our own outreach efforts. These ongoing efforts contribute to Malaysia’s consistently low counterfeiting rate. At end-2019, Malaysia’s counterfeiting rate was at one piece per million (PPM), well below that of other global benchmarked countries.

In managing our currency operations, we strive to keep our cost of operations low. We do this by prioritising the distribution of fit banknotes as it substantially costs less to process used banknotes than to produce new ones. Importantly, the issuance of fit banknotes in lieu of new banknotes also minimises the resource and environmental impact of the Bank’s currency operations. The issuance of polymer banknotes for the lower denominations of RM1 and RM5 has also reduced the need for new banknotes, especially during festive seasons. This is due to the higher durability of polymer banknotes which last four times longer than paper banknotes. They are also more resistant to dirt and moisture. In 2019, about 20% of processed polymer and paper banknotes were found to be unfit for circulation and shredded.

From time to time, we produce commemorative banknotes and coins to mark special occasions of

Chart 3 : Currency counterfeiting rate of Malaysia and other countries



Note: • Data for 2018, except for Malaysia and Australia (2019)
 • Exclude coins
 • PPM: piece per million

Source: Bank Negara Malaysia, website and annual report of respective central banks

national significance. During the year, we issued a series of commemorative coins in conjunction with the installation of His Majesty Seri Paduka Baginda Yang di-Pertuan Agong XVI. The distribution of this series was also marked by the Bank’s launch of a new online ordering and payment facility to facilitate more convenient purchasing of commemorative coins by the public. A computerised balloting process was also introduced to allocate the limited supply of the commemorative coins to orders received.

As part of our continuous public awareness campaign, we educate the public and night market traders on how to authenticate genuine banknotes.



Currency legislation

The year also saw the passage of the Currency Bill by the *Dewan Rakyat* and *Dewan Negara* in December. The new currency law – Currency Act 2020 – will complement the Central Bank of Malaysia Act 2009 in setting out a comprehensive regulatory and operational framework for the management of currency operations. A key enhancement of the law are provisions for the Bank to oversee and regulate CITs that are involved in currency processing activities. As they process about 70% of circulated banknotes, stronger oversight arrangements for currency processors will serve to ensure high standards for

currency processing to maintain the high quality and integrity of CIC.

The new law also sets out a number of provisions that apply to the general public on the proper treatment of currency.

Going forward

Going forward, the Bank will implement the requirements of the Currency Act 2020. This will include establishing a registration regime to regulate currency processors.



The obverse and reverse of the commemorative coin issued in conjunction with the installation of His Majesty Seri Paduka Baginda Yang di-Pertuan Agong XVI.

Notable provisions under the Currency Act 2020

There are several notable provisions in the Currency Act 2020:

- a. No entity other than the Bank can issue currency or any other instrument as legal tender. This includes any instrument that is likely to pass as legal tender based on characteristics defined in the law.
- b. An economy-wide cash transaction limit can be set to prohibit large value cash transactions.
- c. A legal tender limit for coins is set at 25 pieces. Recipients may refuse to accept payment if it is made using more than 25 pieces of coins of any denomination.
- d. A registration regime will be introduced to regulate currency processors. Standards on currency processing will be imposed on them to ensure high quality and integrity of CIC.
- e. The Bank, financial institutions and registered currency processors are empowered to seize currency that is suspected to be fake. The bearer of the seized currency must provide his personal information to facilitate investigations. Failure to do so is an offence.
- f. No one is allowed to melt coins with the intention to gain profit.

Maintaining Financial Integrity

Malaysia is committed to preventing the abuse of financial services to facilitate crimes and terrorism. For this purpose, a robust anti-money laundering and countering financing of terrorism (AML/CFT) regime is in place to respond to the constantly evolving risks and vulnerabilities.

The Bank, as the competent authority under the Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA 2001), serves as the country's Financial Intelligence Unit (FIU), that is responsible for analysing reports submitted by reporting institutions consisting of financial institutions, designated non-financial businesses and professions (DNFBPs)¹ and non-bank financial institutions (NBFIs)². The financial intelligence collected is then disseminated to relevant law enforcement agencies (LEAs) to support investigations and enforcement action. We also conduct AML/CFT supervisory and enforcement activities on reporting institutions that we supervise.

The Bank also acts as secretariat to the National Coordination Committee to Counter Money Laundering (NCC), the body responsible for coordinating, implementing and monitoring the development of the national AML/CFT initiatives. The NCC comprises representatives from 16 ministries and government agencies.

¹ Includes casino, lawyers, accountants, dealers in precious metals or precious stones, gaming business, pawnbrokers, trust companies and registered estate agents, company secretaries and moneylenders.

² Includes credit corporations, leasing and factoring businesses and postal financial services.

Strengthening the AML/CFT framework

In 2019, the Bank undertook several steps to further enhance Malaysia's AML/CFT framework.

In January 2019, the threshold for cash transaction reporting for certain reporting institutions³ was revised from RM50,000 to RM25,000. The lowering of this cash threshold reporting (CTR) obligation improves the collection of data to support better identification of money laundering and terrorism financing (ML/TF) risks associated with the use of cash. This in turn allows for the generation of more insightful and actionable financial intelligence to support relevant LEAs in their investigations of crimes such as fraud, tax evasion and corruption.

Reporting institutions play an important role as the first line of defence to prevent the financial system from being used to facilitate crimes and terrorist activities. For this purpose, a regulatory framework is in place to clarify the responsibilities of financial institutions, DNFBPs and NBFIs in managing ML/TF risks, including their obligations to comply with targeted financial sanctions⁴ requirements. During the year, we conducted a comprehensive review of the AML/CFT regulatory framework. This review was intended to bring Malaysia's regulatory framework for AML/CFT in line with new international standards and best practices, while also streamlining requirements across different sectors of reporting institutions. An exposure draft was published to seek industry and public feedback in September 2019, which culminated in the finalisation of the policy in December 2019⁵ and the requirements taking

³ Banks, investment banks, Islamic banks, Bank Kerjasama Rakyat Malaysia Berhad, Bank Simpanan Nasional, Lembaga Tabung Haji and companies licensed to carry on gaming businesses under the Common Gaming Houses Act 1953.

⁴ Targeted financial sanctions are obligations imposed on reporting institutions to comply with terrorism financing, proliferation financing and other United Nations Security Council sanctions regimes.

⁵ Anti-Money Laundering, Countering Financing of Terrorism and Targeted Financial Sanctions (AML/CFT and TFS) for the financial institutions, DNFBPs and NBFIs.

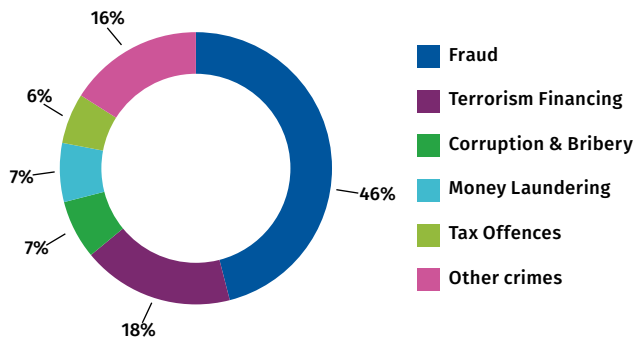
effect in January 2020. In addition to strengthening requirements in relation to targeted financial sanctions on terrorism financing and proliferation financing and other sanctions regimes by the United Nations, the revised policy framework provides for a more risk and principles-based approach to managing ML/TF risks. For example, reporting institutions may adopt a more risk-sensitive approach in conducting customer due diligence (CDD), including to adopt new technologies to verify the identity of customers.

Sharing of financial intelligence and supporting law enforcement

A key responsibility of the Bank as Malaysia’s FIU is to collect, analyse and disseminate information on suspected ML/TF offences and other serious crimes.

Reporting institutions are obliged to file a suspicious transaction report (STR) to the Bank when they have reasonable grounds to suspect a transaction to be unusual or related to criminal activities. In 2019, we received 113,353 STRs, a 30 percent increase from 87,034 received in 2018. This points towards greater awareness among reporting institutions of their roles as the first line of defence in helping to combat financial crimes. This information, along with other reports submitted by reporting institutions (e.g. CTR) were assessed, with the resulting intelligence disclosed to domestic LEAs and foreign FIUs to support their investigations and prosecutions. In 2019, 75 percent of disclosures were made on high risk crimes⁶ and the breakdown is as follows;

Chart 1: Percentage of disclosures by high risk crimes



⁶ As identified in the 2017 National Risk Assessment. The National Risk Assessment (NRA) is an assessment conducted every three years on Malaysia’s exposure to prevailing crimes (domestic and foreign) and vulnerabilities of various sectors to money laundering and terrorism financing risks.

Of these disclosures, 46 percent were on fraud, 18 percent on terrorism financing, 7 percent on corruption and bribery, 7 percent on money laundering, 6 percent on tax offences and the remaining 16 percent were related to other crimes. We also used the intelligence obtained to develop case studies ‘typologies’ illustrating common methods and current trends used in criminal activities, money laundering and terrorism financing. These studies are shared with reporting institutions to help them improve their risk detection capabilities.

Beyond the submission of STRs and CTRs, other arrangements have emerged in recent years to deepen collaboration and the sharing of information between the financial sectors and the LEA community in the fight against financial crimes and terrorism financing. Since 2017, close collaboration between the public and private sectors has led to the arrest, prosecution and deportation of 22 individuals involved in terrorism financing and proliferation financing activities in the country. The Malaysia Financial Intelligence Network (MyFINet) was officially launched in November 2019 to take information sharing arrangement to the next level. MyFINet comprises members from the Royal Malaysia Police, Malaysian Anti-Corruption Commission, Royal Malaysian Customs Department and the Securities Commission Malaysia, as well as several participating financial institutions. The main purpose of MyFINet is to facilitate a more systematic intelligence sharing on specific crimes and current topical issues between LEAs and financial institutions in managing significant threats to the nation.

Criminals, terrorists and those who abet them are quick to exploit weak links in the international financial system. For this reason, we also work closely with counterparts in other countries. We share intelligence with our counterparts in 41 nations including Australia, Hong Kong SAR, Indonesia, Singapore, United Kingdom and the United States. In addition, we also accepted requests from the Attorney General’s Chambers (AGC) on requests for mutual legal assistance made by 21 foreign jurisdictions to assist and support ongoing investigations or criminal proceedings at foreign courts.

The Bank continues to strengthen and deepen relationships with our international counterparts and other stakeholders in the global fight against financial crimes. We actively participated in international organisations such as the Financial Action Task Force



Governor Nor Shamsiah Yunus mentions the significant increase in CTR received, due to the threshold revision, has served as an additional insight for better quality disclosures to relevant LEAs. Her remarks were made during the launch of MyFINet at the 11th International Conference on Financial Crime and Terrorism Financing (IFCTF) 2019 on 5 November 2019.

(FATF), the Asia/Pacific Group on Money Laundering (APG) and the Egmont Group of FIUs. Malaysia will also serve as the next APG Co-Chair 2020-2022 together with Australia. Malaysia is a member of the Financial Intelligence Consultative Group (FICG), a forum intended to improve the understanding of key regional terrorism financing risks and strengthen collaboration on mutually agreed transnational crime priorities. In 2019, we actively participated in several FICG projects, such as the Terrorism Financing Disruption Toolkit Project which provides a menu of policy options for FIUs to consider implementing in relation to terrorism financing disrupting strategies. We also co-led the Regional Threat Assessment on Transnational Laundering of Corruption Proceeds with Indonesia's FIU, Pusat Pelaporan dan Analisis Transaksi Keuangan to facilitate better understanding of cross-border laundering of corruption proceeds involving FICG countries, together with strategies to jointly combat them.

Going forward

The Bank will continue with initiatives and measures to strengthen the integrity of the financial system. To prevent abuse of cash to support illicit activities, the NCC will be consulting the public on imposing a limit of RM50,000 on the usage of physical cash for transactions. Any amount in excess of the prescribed limit will have to be settled through traceable methods (e.g. cheques or electronic payments). As combating financial crime is a shared responsibility amongst many stakeholders, it is crucial that together we play our part in ensuring the integrity of the financial sector remains intact. We will also continue to keep abreast of international developments and trends to safeguard Malaysia's AML/CFT regime. This includes formulating strategies in response to emerging trends and threats while keeping pace with advancement in technologies.

