

Risk Developments and Assessment of Financial Stability

CREDIT RISK

Household Debt Continued to Expand, but Credit Risks Remain Largely Contained

Household debt¹ expanded at a faster² pace in the second half of 2019, primarily driven by loans for the purchase of residential properties (Chart 1.1). Demand for residential property loans during the period was bolstered by the Home Ownership Campaign launched by the Government. Personal financing and credit card loans also recorded higher growth. This was largely attributed to lending by development financial institutions to civil servants.

The ratio of overall household debt-to-gross domestic product (GDP) correspondingly edged higher to 82.7% as at end-2019 amid slower GDP growth, and remained elevated relative to regional peers (Chart 1.2). Overall debt-servicing capacity of households, however, continues to be supported by income growth and adequate financial buffers. At the aggregate level, both outstanding household financial assets and liquid financial assets remained broadly stable at 2.2 times and 1.4 times of debt, respectively. Household financial assets also continued to outpace the growth in debt for the third consecutive year (Chart 1.3).

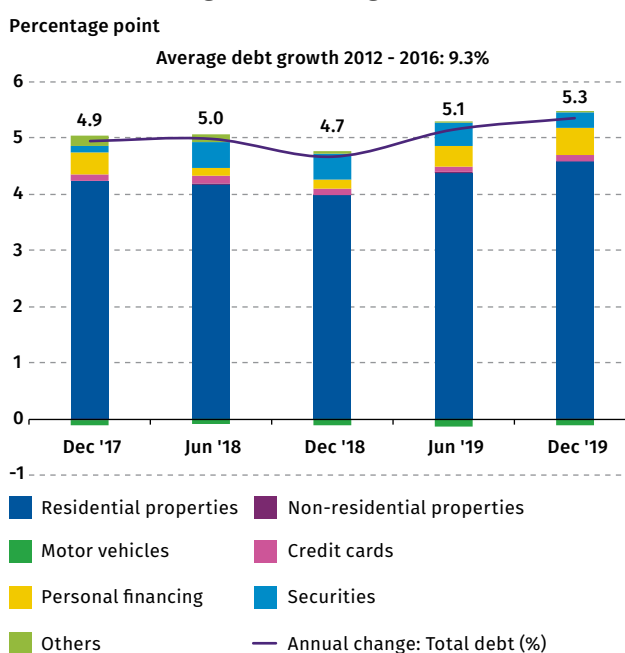
In more recent years, investments by households in unit trust funds (UTFs), including variable price funds have picked up strongly, in contrast to the slower growth in household deposits. This

¹ Extended by banks, development financial institutions and major non-bank financial institutions.

² The increase was partly due to higher housing loans reported by Lembaga Pembiayaan Perumahan Sektor Awam (LPPSA). Beginning January 2019, LPPSA moved from cash accounting to accrual accounting in line with the change in the Government's accounting practice for fiscal accounts. This led to a one-off upward revision in the value of LPPSA housing loans reported in 2019.

Chart 1.1: Household Sector – Annual Growth of Debt

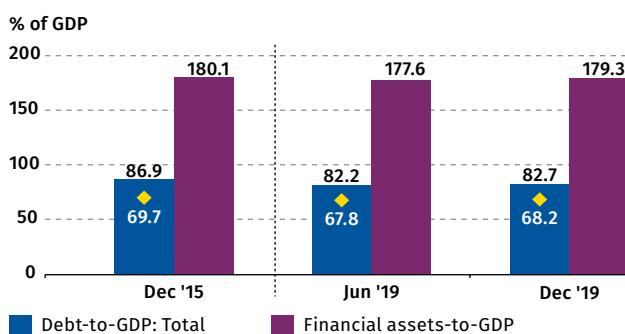
Household debt growth was higher



Source: Bank Negara Malaysia

Chart 1.2: Household Sector – Key Ratios

Higher debt- and financial assets-to-GDP ratios

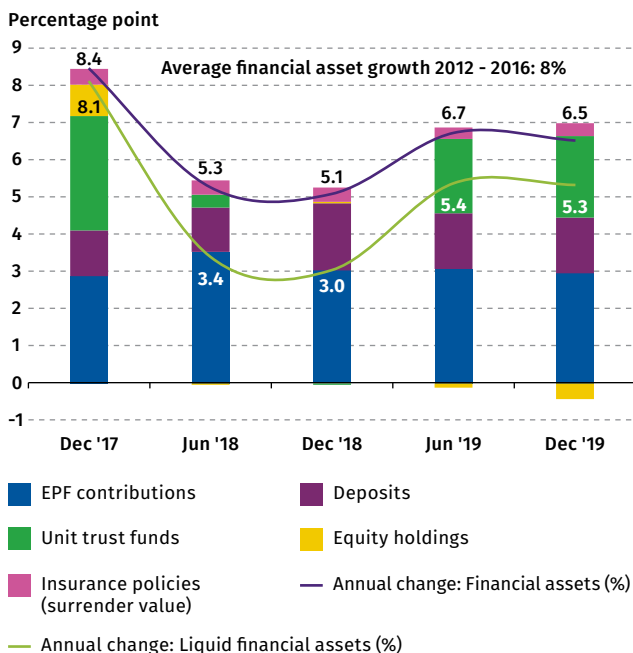


Household debt-to-GDP ratio (latest position): Thailand: 78.7%; Singapore: 65%

Source: Bank Negara Malaysia, Department of Statistics, Malaysia and National Authorities

Chart 1.3: Household Sector – Annual Growth of Financial Assets

Growth of financial assets continued to outpace that of debt

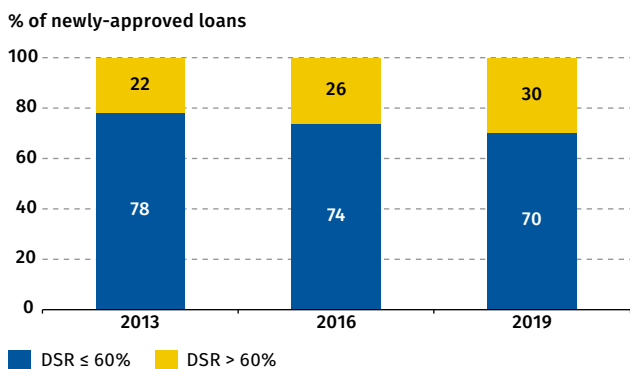


Source: Bank Negara Malaysia, Bursa Malaysia, Employees Provident Fund and Securities Commission Malaysia

reflects a search for higher yields. Weaker-than-expected returns on such investments could affect debt-servicing ability, particularly for leveraged investments. This risk is presently contained as over three-quarters of investments in UTFs and equities are owned by households earning more than RM5,000 per month who are likely to have larger financial buffers and are thus less vulnerable

Chart 1.4: Household Sector – Share of Newly-Approved Loans by DSR

Rising share of newly-approved loans to borrowers with DSR exceeding 60%



Source: Bank Negara Malaysia

to financial stress (for a more detailed analysis, refer to the Information Box on 'Impact of Equity Market Performance on Households' Resilience').

Risks from easing underwriting standards and rising impairments remain limited but warrant close vigilance

The median debt service ratio³ (DSR) for outstanding and newly-approved loans remained within prudent levels at 37% and 43%, respectively. As noted in the last Financial Stability Review, some signs of easing in underwriting standards have emerged, as evidenced by the higher share of newly-approved loans to borrowers with DSR exceeding 60% (Chart 1.4) in the past few years. Close to two-thirds of these loans were extended to borrowers earning more than RM5,000 per month and about half were credit card and personal financing facilities. As such borrowers have larger residual income and greater flexibility to adjust discretionary expenditures under adverse circumstances, the risk of defaulting on their loan repayments is likely to remain low. This is borne out by the consistent increase in recent years in the share of borrowers who settle their credit card balances in full every month. The Bank remains vigilant over signs of a broader easing of lending standards by financial institutions, particularly for facilities extended to more vulnerable households. Such signs remain limited at present and have been more prevalent among selected development financial institutions with specific mandates. Their share of household lending remains small.

Overall household impairments continued to be driven by residential property loans, which have increased markedly in recent quarters albeit from a low base (Chart 1.5). Borrowers with variable income account for the bulk of the recent increase in housing loan impairments,⁴ reflecting the lower certainty of income experienced by these borrowers. Risks to financial stability, however, remain contained as exposures-at-risk⁵ associated with these borrowers account for only 2% of total banking system loans.

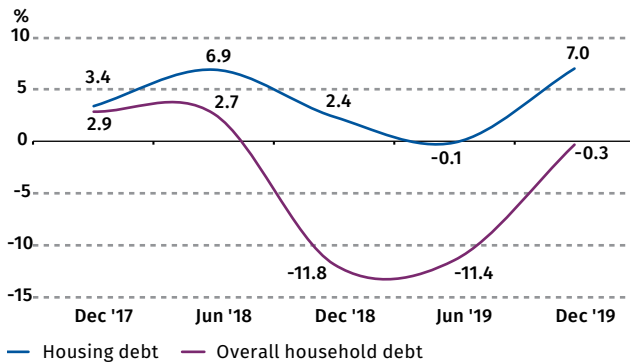
³ The ratio of total monthly bank and non-bank debt obligations to monthly disposable income (net of statutory deductions).

⁴ Bulk of these loans are for the purchase of properties priced above RM500,000 in Klang Valley and Johor.

⁵ Taking into account the potential loss given default (LGD) for these borrowers.

Chart 1.5: Household Sector – Annual Growth of Impaired Loans

Higher impaired loan growth for residential properties



Source: Bank Negara Malaysia

Aggregate impairment and delinquency ratios also remained low and stable at 1.2% and 1.1% of total outstanding household debt, respectively (June 2019: both ratios stood at 1.2%). Household asset quality is further supported by the lower average loan-to-value ratio (LTV) of outstanding housing loans from the banking system, which declined to 57% in 2019 (2018: 59%). The share of higher (>80%) LTV loans from the banking system has however increased since 2017 to 32% of total housing loans, suggesting that newer loans are being extended at higher LTVs. While the share remains well below the peak levels (above 50%) observed in earlier periods, continued vigilance over lending standards will be important to avert a build-up of risks.

With at least two-thirds of household financial assets and liquid financial assets held by individuals earning more than RM5,000 per month, concerns remain that lower-income households may face difficulty servicing their loans. The adoption of responsible lending standards by banks and non-banks has reduced risks of these households falling into financial hardship, as evident from the share of borrowings by the vulnerable segment (borrowers with monthly earnings of less than RM3,000) which continued to decline in 2019 (Chart 1.6). Risks among these borrowers nevertheless remain elevated. Their leverage⁶ levels remain high at about 9 times in the second half of 2019, mainly due to borrowings for the purchase of homes. Their low financial buffers also mean that they would have greater difficulty maintaining debt repayments in times of stress (Chart 1.7). Borrowers in this group continued

⁶ Measured as a ratio of outstanding debt to annual income.

to account for almost half of the enrolments into the Credit Counselling and Debt Management Agency’s (Agensi Kaunseling dan Pengurusan Kredit, AKPK) Debt Management Programme. Low income, coupled with poor financial planning, continued to be the main causes of financial difficulty faced by these borrowers, as they tend to overestimate their ability to cope with higher costs of living and debt obligations. The Bank expects risk levels in this borrower segment to recede with greater support made available for individuals to obtain financial advice and education, including through AKPK’s *Rumahku Portal*⁷ and *Khidmat Nasihat Pembiayaan (MyKNP)*.⁸

Debt-at-risk from the household sector remains low at 5.2% and well within banks’ excess capital buffers

Debt-at-risk⁹ (DAR) from the household sector remains low at around 5.2% of total household debt. Based on a sensitivity analysis that simulates the impact of severe stress scenarios¹⁰ on borrowers’ debt repayment capacity, potential losses to the banking system are estimated to be between 42.6% to 67.5% of banks’ excess capital buffers¹¹ (also refer to the Information Box ‘Can Malaysian Households Survive a House Price Shock?’).

The elevated level of household indebtedness, however remains a source of potential risk to macroeconomic and subsequently, financial stability. The income and balance sheets of households are also likely to be affected by the COVID-19 pandemic. Measures introduced by the Government and the Bank in response to the pandemic are expected to support households and provide them with temporary financial relief. Going forward, ensuring that further debt accumulation is undertaken prudently, particularly by those in the vulnerable segment, will remain important to secure the financial resilience of households over the longer term.

⁷ The *Rumahku Portal* is an online education tool designed to help potential home-buyers make prudent and informed financial decisions.

⁸ MyKNP is a collaborative effort by the Bank, Credit Guarantee Corporation and AKPK to provide advice to financing applicants on their eligibility for financing and how they can improve their eligibility.

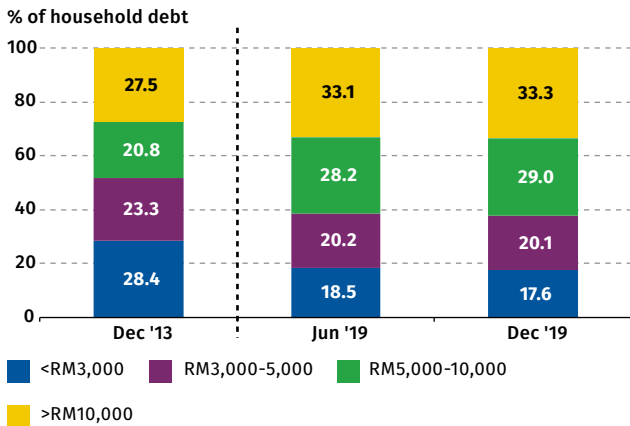
⁹ The proportion of debt of borrowers with negative financial margin to total household debt, after taking into account the potential losses given default.

¹⁰ Income, cost of living and borrowing cost shocks.

¹¹ Above the regulatory minimum of 8%.

Chart 1.6: Household Sector – Debt by Monthly Income Group

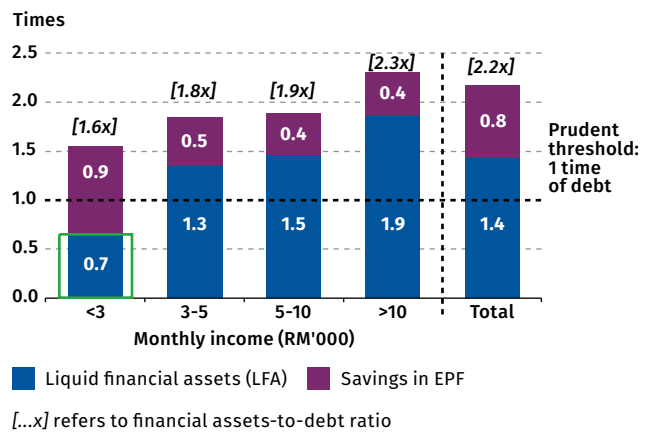
Exposures to vulnerable borrowers continued to decline



Source: Bank Negara Malaysia

Chart 1.7: Household Sector – Financial Assets-to-Debt Ratio by Type and Income Group

Vulnerable borrowers have insufficient LFA cover



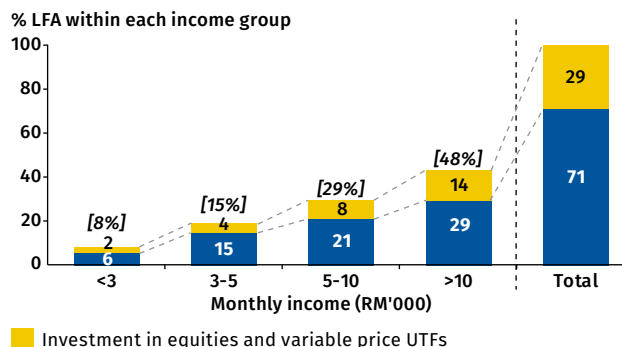
Source: Bank Negara Malaysia, Bursa Malaysia, Employees Provident Fund and Securities Commission Malaysia

Impact of Equity Market Performance on Households' Resilience

Since reaching an all-time high in 2018, the domestic equity market has continued to face downward pressure amid challenging global and domestic conditions. With investments in equities and variable price unit trust funds (UTFs) accounting for about 29% of households' liquid financial assets (LFA) (Chart 1.8), this Information Box provides some insights on the impact of a sharp downturn in the equity market on the financial buffers of households. By income group, households earning more than RM10,000 per month hold close to half of household investments in equities and variable price UTFs. These assets also contribute to a higher proportion of their LFA as compared to other income groups, potentially making them more susceptible to vagaries in the performance of the equity market.

Chart 1.8: Composition of Liquid Financial Assets by Components and Income Group

Larger holdings of equities and variable price unit trust funds among higher-income group



[...%] refers to the composition of total investment in equities and variable price UTFs

Note: Numbers may not necessarily add up due to rounding
Source: Bank Negara Malaysia, Bursa Malaysia and Securities Commission Malaysia

Scenario Simulation

Two stress scenarios were simulated to assess households' resilience¹² to an equity market shock (Table 1.1).

Table 1.1

Equity Market Shock – Stress Scenarios and Rationale

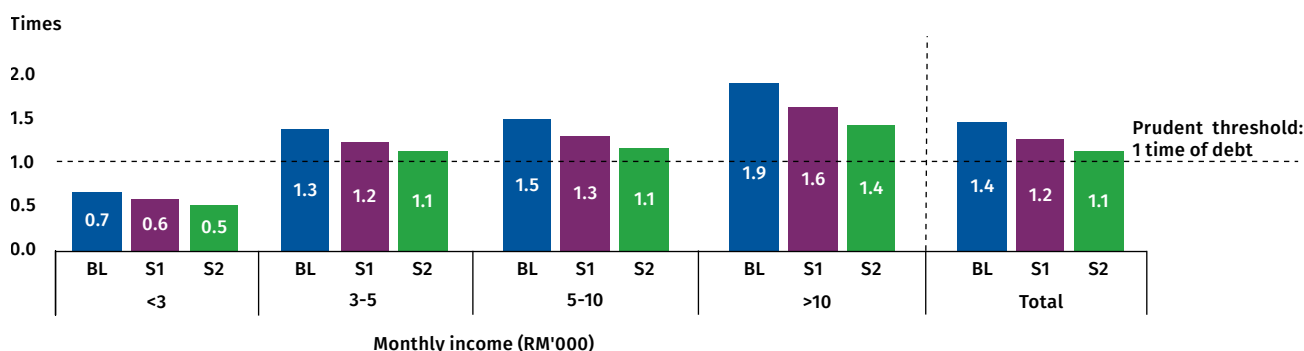
Shock Scenario	Parameters	Rationale
S1	45% decline in value of equity and variable price UTF holdings	Based on the 45% drop in FTSE Bursa Malaysia KLCI (FBM KLCI) in 2008
S2	77% decline in value of equity and variable price UTF holdings	Based on the 77% drop in FBM KLCI in 1997

Source: Bank Negara Malaysia and Bursa Malaysia

Consistent with their higher exposures, households earning more than RM5,000 per month are more sensitive to an equity market correction as reflected in the larger decline in their LFA cover¹³ relative to other income groups (Chart 1.9). Nonetheless, these borrowers who account for 62.3% of household debt are expected to be able to continue servicing their debt with sufficient LFA over debt above the prudent threshold (more than 1 time) under both scenarios. Under S2, the LFA cover of borrowers earning between RM3,000 to RM5,000 per month fell to just above the prudent threshold. For the vulnerable group (i.e. those earning less than RM3,000 per month), the LFA cover declined marginally from a level already below the prudent threshold.

Chart 1.9: Pre- and Post-shock Scenarios – LFA Cover by Income Group

While higher-income groups are more sensitive to equity market volatility, their asset cover remained above the prudent threshold



BL: Baseline

Source: Bank Negara Malaysia, Bursa Malaysia and Securities Commission Malaysia

Although weakness in the equity market will reduce the LFA cover of households, the overall impact on household resilience is manageable. Results of this simulation show that most households would still maintain an LFA cover above the prudent threshold even after a severe correction in the equity market. This reflects the composition of households' LFA, more than 60% of which are held in bank deposits and investments in *Amanah Saham Nasional Berhad's* fixed-priced UTFs, which are not affected by movements in the equity market.

¹² This simulation, however, does not consider second round effects, in particular the impact of volatility in the equity market to financial institutions where households save at or invest in.

¹³ Ratio of liquid financial assets to total debt (times).

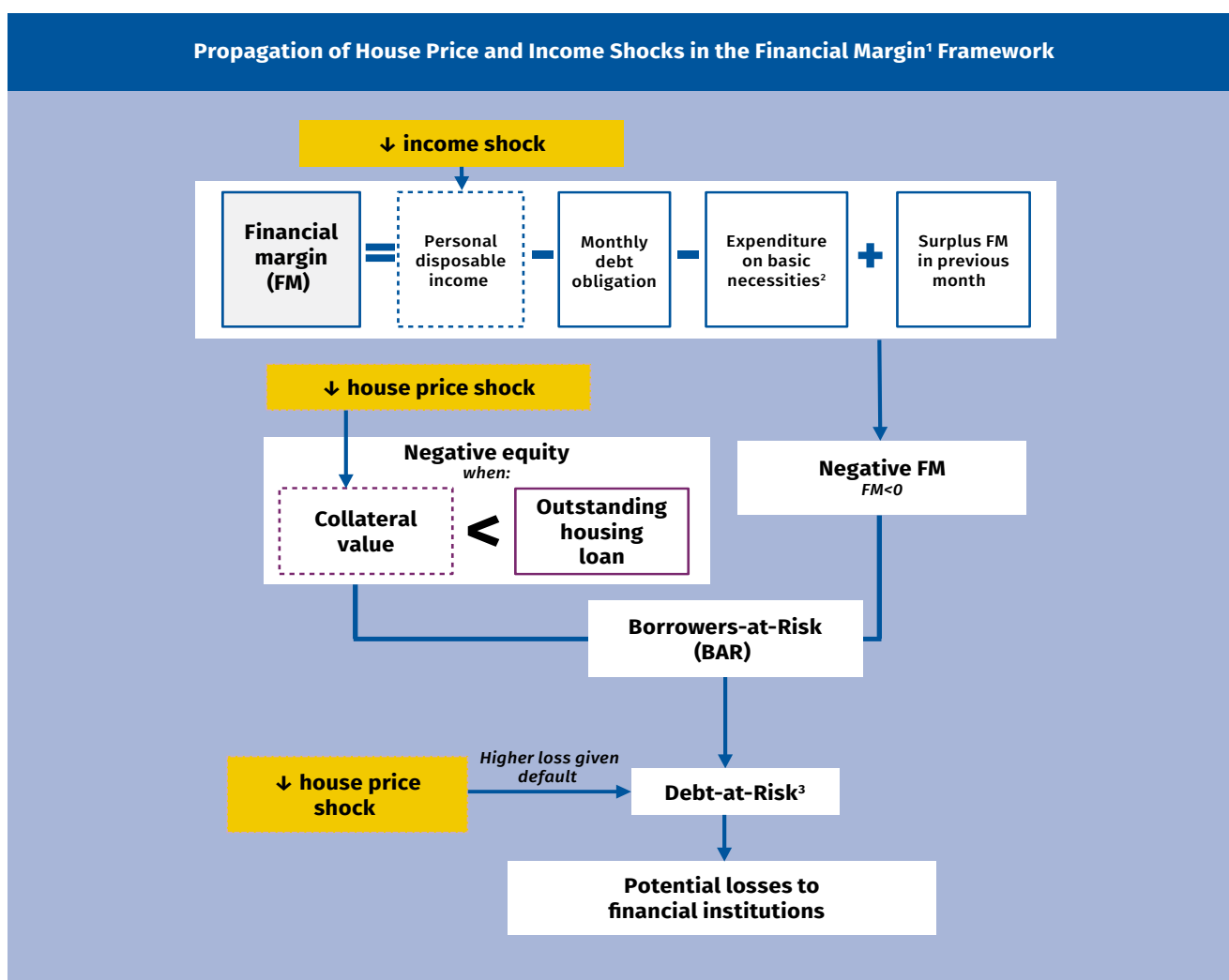
Can Malaysian Households Survive a House Price Shock?

A steep house price decline can potentially weaken household resilience, in turn leading to stress in the banking system.¹⁴ Building upon the financial margin framework¹⁵ featured in previous sensitivity analyses, the Bank has extended the analyses to test the resilience of households and banks in the face of a hypothetical housing market correction (Diagram 1.1). This study simulates an extreme decline in house prices, coupled with a simultaneous decline in household income that tends to accompany a severe correction in the housing market.

Who Defaults?

In establishing which borrowers default, this study focuses on two key factors that influence debt repayment behaviour following a house price decline: (i) ability to repay; and (ii) willingness to repay.

Diagram 1.1: Sensitivity Analysis Framework



¹ Residual monthly disposable income and surplus FM in previous month, after deducting debt repayments and expenditure on basic necessities

² For this study, basic necessities are defined as: (i) food and non-alcoholic beverages; (ii) housing rental and maintenance; (iii) water, electricity, gas and other fuels; (iv) transportation; (v) education; (vi) healthcare; and (vii) communication services

³ The proportion of debt of borrowers-at-risk to total household debt after taking into account the potential loss given default

Source: Bank Negara Malaysia

¹⁴ The experience in the United States during the 2008 Global Financial Crisis offers one example.

¹⁵ Refer to the Financial Stability Review 1H 2019 Information Box 'An Enhanced Financial Margin Framework for the Household Sector', page 14-15.

(i) Ability to repay

Households' debt repayment capacity is assessed using the financial margin framework - whether a household has additional financial buffers after paying off monthly debt obligations and spending on basic needs. Income shocks are propagated via this channel by directly reducing the household's financial margin and hence pushing more households into a position of negative financial margin.

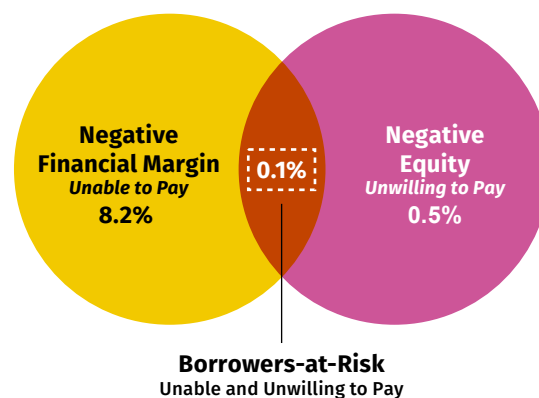
(ii) Willingness to repay

The potential for a household to default on a housing loan is also likely to be higher if the household is in a negative equity¹⁶ position where it is no longer worthwhile to service the monthly instalments of a loan for a property that is worth less than the total outstanding loan amount. House price shocks propagate via this channel by pushing households into negative equity, making them less willing to repay their loans.

On its own, each factor may not be able to sufficiently predict whether a household will default. The 'Double Trigger Hypothesis'¹⁷ (Diagram 1.2) states that households are more likely to default when both conditions – inability to repay and negative equity – are met. Otherwise, loan defaults may not occur as (a) households with negative financial margin may compensate by drawing down other assets (e.g. EPF Account 2 holdings) or seeking support from family and friends to continue making loan repayments; while (b) households with a negative equity position would still have a strong incentive to continue payments, as defaulting may tarnish their credit history making it difficult to access future credit. Defaulting is also unfavourable for owner-occupiers, who account for the majority (82%) of Malaysian housing loan borrowers, as this would result in the borrowers losing their homes. However, households with negative financial margin and negative equity are in a particularly perilous position as they lack both the incentive and means to repay their loan.

Diagram 1.2: Double Trigger Hypothesis

Baseline Scenario



Note: Figures are as a share of total number of household borrowers

Source: Bank Negara Malaysia

Scenarios and Stress Parameters

This simulation covered all housing loan borrowers with three stress scenarios applied (Table 1.2). A baseline estimation is first performed based on the steps laid out in Diagram 1.1:

1. Identify which borrowers are in both negative equity and negative financial margin (i.e. borrowers-at-risk).
2. Borrowers-at-risk are assumed to cross-default on all loans held.
3. Translate the defaults from borrowers-at-risk into potential losses to banks.

Then, shocks are applied to all housing loan borrowers based on the three scenarios and the above steps are repeated. Besides pushing borrowers into a position of negative equity, house price shocks have the additional effect of reducing the collateral that banks can salvage from the housing loans (i.e. increasing loss given default), thereby increasing banks' potential losses.

¹⁶ Outstanding housing loan held by a borrower is greater than the market value of the corresponding house.

¹⁷ Bhutta et al (2010). 'The Depth of Negative Equity and Mortgage Default Decisions'.

Table 1.2

House Price Shock – Stress Scenarios and Rationale

Shocks		Scenario	Parameters	Historical Comparison
House price shock		S1	↓20%	Double the greatest historical decline in house prices of 9.4% during the Asian Financial Crisis (AFC) in 1998
		S2	↓50%	Reversal of more than 9-years cumulative house price growth
Combination	House price shock	S3	↓20%	Similar to above
	Income shock		↓10%	Larger than the decline in aggregate household disposable income of 8.7% during the AFC

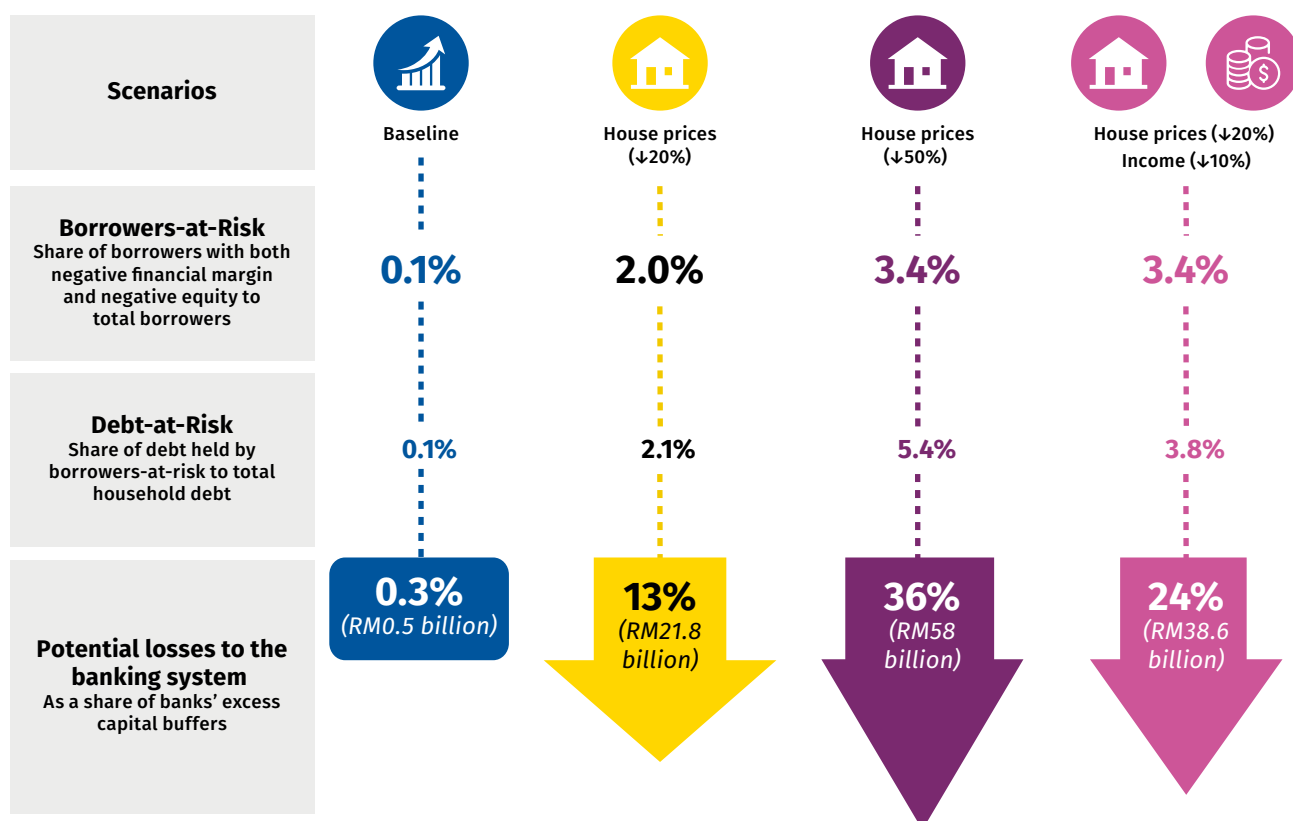
Source: Bank Negara Malaysia

Results

Overall, the impact of house price shocks is contained (Diagram 1.3). Borrowers-at-risk would increase to 2.0% and 3.4% of the total number of borrowers under S1 and S2, respectively (baseline: 0.1%). Correspondingly, losses to the banking system including potential cross-defaults on other loans would amount to 13% and 36% of banks' excess capital buffers, respectively (baseline: 0.3%).

In S3,¹⁸ the simultaneous 10% decline in income coupled with a 20% house price decline would result in the share of borrowers-at-risk increasing to 3.4% of total borrowers, with losses equivalent to 24% of banks' excess capital

Diagram 1.3: Results of Sensitivity Analysis on Potential Losses to the Banking System



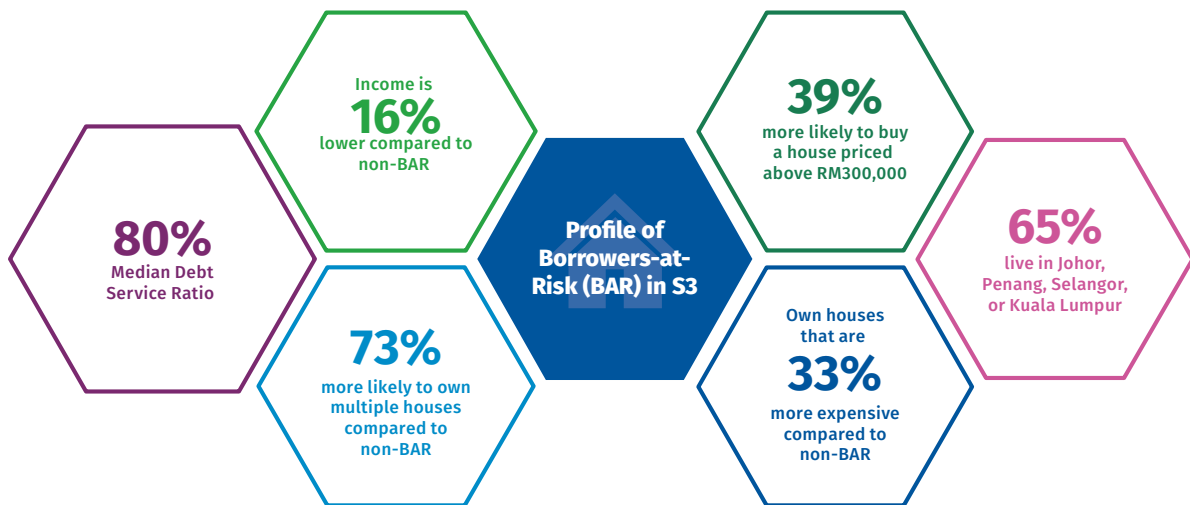
Source: Bank Negara Malaysia and Department of Statistics, Malaysia

¹⁸ S3 mimics the Asian Financial Crisis, albeit with greater severity.

buffers. These borrowers tend to be highly indebted with a debt service ratio of close to 80% and are mainly from the middle-income group living in Kuala Lumpur, Selangor, Johor or Penang. In addition, they tend to borrow for the purchase of houses that on average, are priced at about 33% higher than houses purchased by borrowers who are not at risk. Borrowers with more than one housing loan are also seen to be at higher risk (Diagram 1.4).

The results affirm the ability of banks and most households to withstand even severe house price and income shocks. These results can be attributed to generally prudent loan affordability standards applied by banks when extending loans to households, and the strong levels of capitalisation maintained by Malaysian banks. Borrowers also have ample buffers before falling into negative equity given that the average outstanding LTV ratio is 57%. Together with the series of macroprudential measures implemented over the recent decade to rein in excessive credit risk, these conditions remain important to avert a potential build-up of financial risks.

Diagram 1.4: Profile of Borrowers-at-Risk for Scenario 3



Source: Bank Negara Malaysia

Housing Market Activity Improved while Vulnerabilities Remain in Certain Segments of the Commercial Property Market

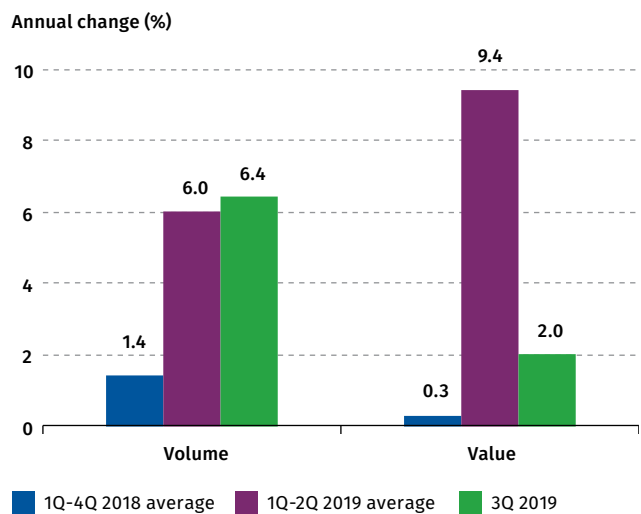
Malaysian house prices¹⁹ continued to grow moderately in 3Q 2019, on the back of steady demand for affordable²⁰ high-rise properties. Housing market activity remained strong after a better outturn in the first half of 2019 (Chart 1.10) as a result of various initiatives introduced during the year by both the Government and private sector to support home ownership, including stamp duty exemptions as well as developers' discounts and rebates. For the year as a whole, housing market transactions are expected to register a stronger positive growth in volume terms.

¹⁹ As measured by the Malaysian House Price Index (MHPI).

²⁰ Houses priced below RM300,000.

Chart 1.10: Property Market – Housing Transactions

Sustained property market activity, with continued demand for affordable properties



Source: National Property Information Centre (NAPIC)

The pick-up in primary market transactions (quarterly average: +10.8%) in 2019 has helped to improve the clearance of unsold²¹ properties from an all-time high recorded in the first quarter of 2019 (3Q 2019: 162,252 units; 1Q 2019: 177,200 (peak)). At the same time, average transacted house prices has trended lower, consistent with higher activity in the affordable housing segment. This in turn should continue to improve housing affordability.

Relative to income, however, Malaysian house prices remain seriously unaffordable,²² due to a pronounced and prolonged mismatch between demand and supply of residential property. Nevertheless, risks of a sharp correction in house prices will continue to be mitigated by firm demand for housing, particularly for properties priced below RM500,000. For the first nine months of 2019, these properties accounted for 83% of total transactions. Additionally, income growth, the formation of new households, as well as the various initiatives to reduce the cost of home ownership, have lent support to housing demand in 2019. Financing conditions for the purchase of residential properties remained supportive, with financing growth sustained above 7% throughout 2019. Of this, the growth in bank lending to households for housing (+7.8%) was double the overall loan growth rate for the year.

Demand for affordable housing units continued to outstrip supply by a wide margin, indicating room for further adjustments in prices, particularly for new housing stock. Supply rebalancing, on the other hand, has been underwhelming. The average volume of newly-launched residential properties priced below RM300,000 has declined in recent quarters (quarterly average for 1Q-3Q 2019: 6,518 units; 1Q-3Q 2018: 9,777 units), despite strong demand from households. Latest data also indicates a declining share of new launches in this property segment (1Q-3Q 2019: 35%; 1Q-3Q 2018: 37%), reversing earlier trends. If this trend persists, future risks of price adjustments could increase again due to affordability constraints.

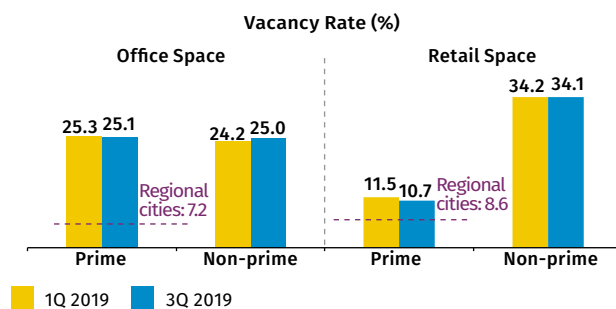
In the office space and shopping complex (OSSC) segment, oversupply conditions have not improved.

As at 3Q 2019, the incoming supply of office space in Klang Valley remained sizeable at 36.2 million square feet, equivalent to about 30% of existing supply. It is estimated that 5.5 million square feet of office space will be completed each year until 2021, far exceeding the average annual demand of 2.3 million square feet per annum over the past three years. The number of completed and planned shopping complexes in key states²³ also increased further to 373 units as at 3Q 2019 (from 372 units as at 1Q 2019). This is having a more noticeable effect on vacancy and rental rates for office and retail spaces in the Klang Valley with conditions weakening further for non-prime properties²⁴ (Charts 1.11 and 1.12). Competition for tenants has led to the offering of generous incentives such as longer rent holidays and additional parking bays, which has lowered effective rental rates. The growth of e-commerce and changing customer preferences have also seen more retailers reducing their physical footprint.

Developments in the property market are important from a financial stability perspective given that banks' total exposures to the property sector account for 33% and 51% of total banking system assets and loans, respectively, above the

Chart 1.11: Property Market – Vacancy Rates for Office and Retail Space in the Klang Valley

Vacancy rates of OSSC in the Klang Valley remain elevated



Notes:

- Retail space refers to shopping complexes
- Regional cities for prime office space refer to Bangkok, Beijing, Hong Kong SAR, Manila, Seoul, Shanghai and Singapore
- Regional cities for prime retail space refer to Bangkok, Hanoi, Ho Chi Minh City, Jakarta, New Delhi, Shanghai and Singapore

Source: Colliers, Cushman and Wakefield, Jones Lang LaSalle, Jones Lang Wootton, Knight Frank, Savills and Bank Negara Malaysia estimates

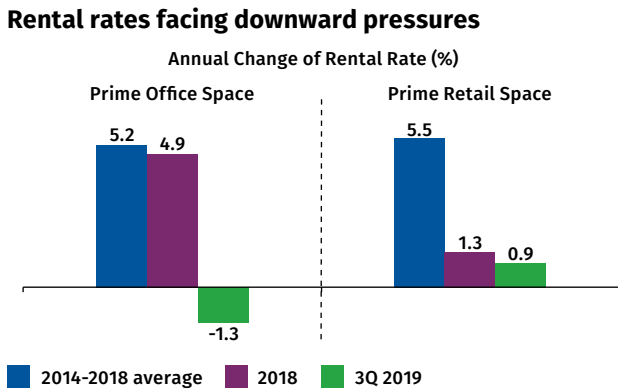
²¹ Refers to unsold properties that have been completed (overhang) and unsold properties currently under construction. These properties encompass all residential properties as well as serviced apartments and small office home office (SOHO).

²² Based on the Median Multiple approach. Refer to BNM Annual Report 2016, Box Article on 'Demystifying the Affordable Housing Issue in Malaysia'.

²³ Kuala Lumpur, Selangor, Johor and Penang.

²⁴ Office and retail centres are classified as 'prime' or 'non-prime' based on multiple criteria, including location, accessibility, design and features of the building (Source: Jones Lang Wootton).

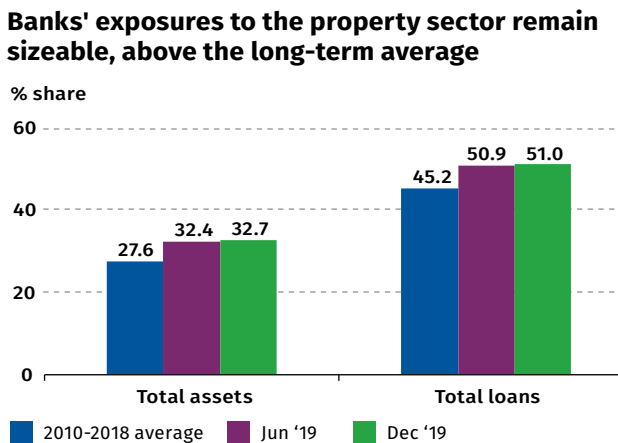
Chart 1.12: Property Market – Rental Rates for Prime Office and Retail Space in the Klang Valley



Note: Rental rates for retail space are estimated based on major shopping complexes in Kuala Lumpur

Source: Knight Frank and Savills Malaysia

Chart 1.13: Property Market – Share of Property Exposures to Total Loans and Assets of the Banking System

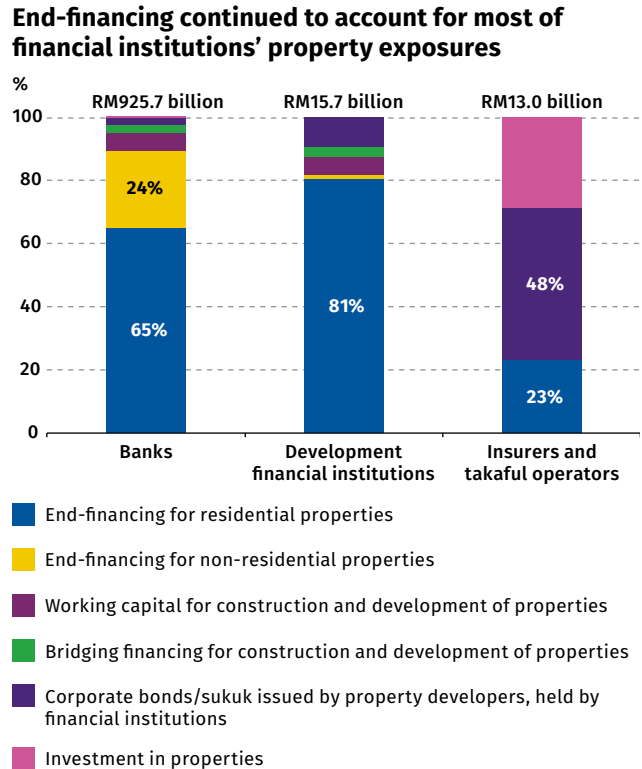


Source: Bank Negara Malaysia

long-term average of 28% and 45%, respectively (Chart 1.13). Loans for the purchase of residential properties, account for about two-thirds of banks' total exposures (Chart 1.14), and remained the prime driver of growth in property exposures. As discussed in the assessment on households, while risks from bank exposures to housing loans have increased slightly, they remain low.

In the non-residential property segment, banks' exposures to OSSC account for less than 4% of banking system loans. New loans in the non-residential property segment have also continued to shift away from the higher risk OSSC segment to loans for the purchase of shoplots, industrial buildings and factories.

Chart 1.14: Property Market – Financial Institutions' Exposures to the Property Market



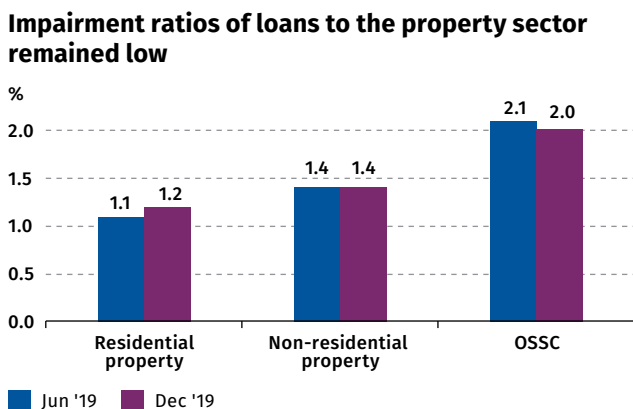
Source: Bank Negara Malaysia

Financial stability risks from the property sector remain largely mitigated

This in turn has sustained the quality of bank lending to the property sector, with low and stable impairment ratios recorded across all segments (Chart 1.15). Debt-at-risk²⁵ for the property sector remained at a manageable level of 5.5%, with banks' excess capital buffers sufficient to cover three times the estimated potential losses. More than half (56%) of these potential losses stem from loans extended to small and medium enterprises (SMEs) and small corporates for the construction and purchase of non-residential properties. Given their lower financial buffers, these borrowers are more likely to be affected by the soft property market conditions and slower retail and trade activity in recent periods.

²⁵ The proportion of debt held by risky borrowers to total property exposures, after taking into account the collateral value.

Chart 1.15: Property Market – Loan Impairment Ratios for End-Financing by Segment



Source: Bank Negara Malaysia

Several Business Sectors Exhibit Higher Credit Risk amid Challenging Conditions, but Risks to the Financial System are Contained

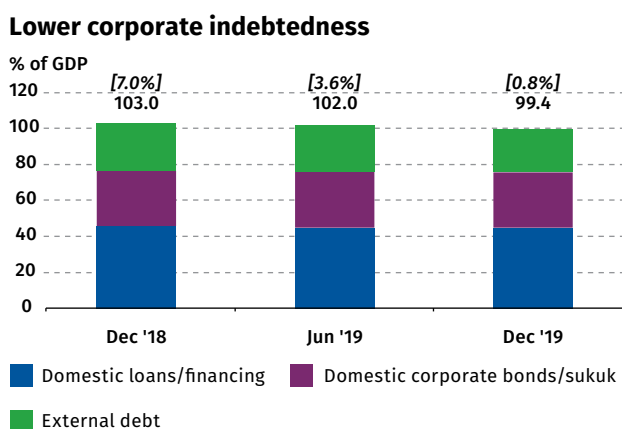
The operating environment for businesses turned more challenging. For the first time since 2015, non-financial corporate (NFC) debt receded below 100% of GDP, as the level of outstanding NFC debt remained almost flat (+0.8%; 1H 2019: +3.6%) compared to the corresponding period in 2018 (Chart 1.16).

The external debt of NFCs declined by 4.4% (1H 2019: +2.9%) after five quarters of positive growth. This was primarily driven by the redemption of maturing bonds and the settlement of intercompany loans by several oil and gas firms. Despite external headwinds, foreign exchange and repayment risks from NFC external debt are expected to be largely contained. Almost half of the debt is in the form of intercompany loans with flexible or concessionary terms, and trade credit facilities which are backed by export receivables. Additionally, 81.5% of the remaining external exposures²⁶ are medium- to long-term borrowings and hedged against currency exposures, further mitigating repayment, rollover and currency risks.

NFCs' domestic borrowings were also lower in the second half of 2019 in line with cautious business sentiments. Business loans grew at a more moderate

²⁶ These instruments include offshore loans, offshore bonds and notes, and non-resident holdings of domestic debt securities.

Chart 1.16: Business Sector – Non-financial Corporate Debt-to-GDP Ratio and Aggregate Debt Annual Growth Rate



[...] refers to aggregate non-financial corporate debt annual growth rate

Note: Reflects a higher nominal GDP, following the rebasing of GDP from 2010=100 to 2015=100. NFC debt-to-GDP ratio for December 2018 was 103.7% as reported in the FSPSR 2018

Source: Bank Negara Malaysia

pace of 2.4% (1H 2019: +2.7%). While the overall business loan approval rate has remained broadly stable, trending close to its 5-year average, loan repayments continued to exceed loan disbursements, reflecting uncertainties in the business outlook. Net corporate bond issuances in the second half of 2019 was also much smaller (RM1.2 billion; 1H 2019: RM11.1 billion; 2018: RM36.4 billion) despite lower borrowing costs.

A sharp deceleration in business loan growth due to excessive risk aversion by banks could amplify economic risks and affect financial stability. Based on engagements with banks and observations of banks' lending standards and practices, there has been little sign of this up until early-2020 outside of specific sectors and firms that are facing more challenging conditions. Of note, SMEs continued to have access to financing. Due to an ongoing reclassification exercise by financial institutions,²⁷ underlying trends in financing to SMEs have been a little more difficult to ascertain given the lack of comparable past year data. Notwithstanding this, more favourable terms offered by banks on collateral requirements and financing rates were observed as banks continued to enhance their assessments of income and cash flow to support credit decisions.²⁸ In the second half

²⁷ The reclassification exercise is intended to reflect a revised definition of SMEs as released by the National Entrepreneur and SME Development Council (NESDC).

²⁸ Refer to the 3Q 2019 BNM Quarterly Bulletin Box Article 'Banking on Banks: Are They Lending Enough?' for details of lending trends, banks' risk appetite, and the profile of loan rejections.

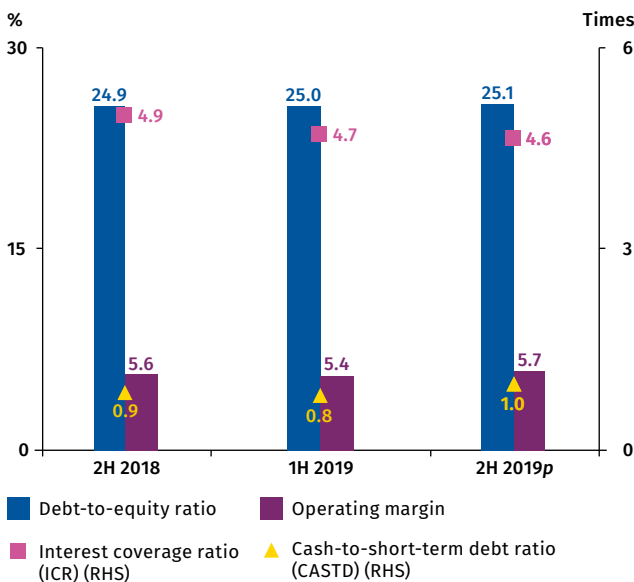
of 2019, banks received 131,152 applications from SMEs (1H 2019: 124,541; 5-year average: 118,085), and about three out of every four loan applications processed have been approved. This was in line with past trends.

Despite domestic and external headwinds, including larger-than-expected commodity supply disruptions in the fourth quarter of 2019, the overall financial standing of firms was sustained in the second half of 2019. Aggregate measures of profitability²⁹ remained broadly stable, while firms' leverage³⁰ and debt-servicing capacity³¹ continued to be within prudent levels (Charts 1.17 and 1.18).

The operating environment for businesses will however, remain highly challenging in the immediate period ahead. Recent developments surrounding the COVID-19 pandemic have adversely affected businesses, especially in the tourism and manufacturing sectors as a direct result of travel and production disruptions. These segments³² represent about 44% of banks' business loan exposures and

Chart 1.17: Business Sector – Leverage, Profitability, Debt-servicing Capacity and Liquidity Indicators

Financial performance indicators sustained

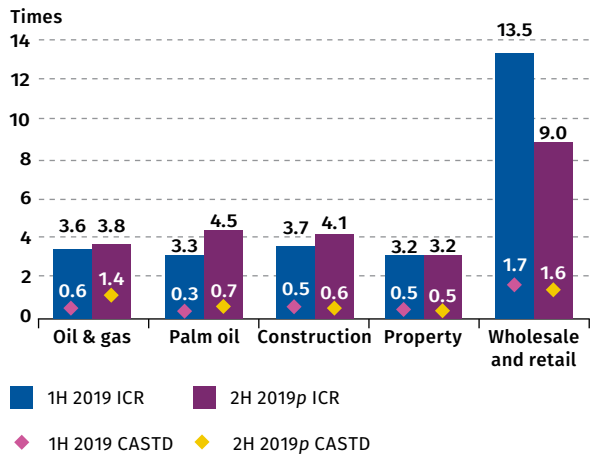


p Preliminary
 Note: Prudent thresholds for ICR and CASTD are two times and one time, respectively
 Source: S&P Capital IQ and Bank Negara Malaysia estimates

²⁹ As measured by the median operating margin.
³⁰ As measured by the median debt-to-equity ratio.
³¹ As measured by the median interest coverage ratio (ICR).
³² Specifically, transport and storage, wholesale and retail trade, hotels and restaurants, and manufacturing sectors.

Chart 1.18: Business Sector – Liquidity and Debt-servicing Capacity Indicators for Selected Sectors

Debt-servicing capacity improved for most sectors



p Preliminary
 Note: Prudent thresholds for ICR and CASTD are two times and one time, respectively
 Source: S&P Capital IQ and Bank Negara Malaysia estimates

about 16% of total loans from the banking system. Affected firms are likely to face tighter cash flows which in turn could increase future credit risk for banks. Banks have responded with pre-emptive measures by providing temporary deferments to and facilitating the restructuring of loan repayments in order to avert further financial difficulties for viable firms. Countercyclical measures, including the temporary suspension of regulatory loan classifications for rescheduled and restructured (R&R) loans, further provide flexibilities for banks to assist borrowers that are facing temporary cash flow constraints. Banks are required to separately monitor the performance of these exposures and continue to comply with applicable financial reporting standards. Depending on the duration and severity of the pandemic, the pre-emptive measures taken should enable firms to recover more quickly once business conditions normalise. The ability of banks to draw down on capital and liquidity buffers built up over the years will also continue to support lending activity and contain broader risks to financial stability.

In other sectors which continue to face challenging business conditions, business performance has been mixed. In the construction sector, overall improvements in profitability and debt-servicing capacity were attributed to a pick-up in civil engineering works and the turnaround in the

residential property segment. While impairments continued to rise, they have stabilised somewhat (+9.4% compared to the 5-year average growth of 11.1% between 2014 and 2018). Roughly the same number of firms in the sector reported improved and weaker debt-servicing capacity.

Going forward, the resumption of major infrastructure projects that were earlier suspended should continue to provide some support to earnings. However, earnings are expected to remain under pressure due to lower contract values and uncertainty in the timing of future contract awards which could affect cash flows, especially among SMEs. High inventories of unsold properties that are still held by some developers coupled with the oversupply in the OSSC segment will also continue to pose a drag on earnings for some firms. The economic impact of COVID-19 will further weigh on earnings.

Banks' overall loan exposure to the construction sector has remained fairly stable at about 14% of total business loans. As elaborated in the assessment on the property market, debt-at-risk from property-related exposures remains well within banks' excess capital buffers (31.3%).

The financial positions of firms in the oil and gas sector continued to recover on the back of gradual improvements in upstream activities and offshore support vessel charter rates. Despite the recurrence of supply disruptions related to major maintenance works, debt restructuring efforts by some firms have strengthened their debt-servicing ability. Leverage reduced further to 37.5% (1H 2019: 42.8%) while debt-servicing capacity has also improved to 3.8 times (1H 2019: 3.6 times; 5-year average: 3.8 times). The sector's impairment ratio correspondingly declined but remains elevated. Further improvements would be dependent on a recovery in global oil prices which have trended lower following the collapse of production cut agreements in early March 2020. Banks' exposures to firms in this sector, however, remain low at less than 2% of total business loans.

Signs of improving business conditions have also emerged in the palm oil sector. The debt-servicing capacity of firms in this sector improved to 4.5 times (1H 2019: 3.3 times) in line with the rising crude palm oil prices towards the end of 2019. Going forward, prices are expected to remain sustained as the impact of weaker external demand is offset by the

decline in crude palm oil production given the supply disruptions. Risks to financial stability remain limited with bank exposures to the palm oil sector remaining low and broadly stable at 4% of total business loans.

Large borrower groups are resilient against extreme shock scenarios

Financial institutions' exposures to large borrower groups³³ decreased to 38.4% (1H 2019: 42.1%) of total business exposures as at end-2019. The debt-servicing capacity of large corporate borrowers remained reasonably healthy with an ICR of 3.8 times as at end-2019. Based on supervisory engagements, banks expect any deterioration in credit risk associated with large borrowers to be manageable amid the weaker economic outlook. This is also consistent with the Bank's sensitivity analysis which indicates that large borrowers are expected to continue to be able to service their debt under a range of adverse shocks (Table 1.3). Banks' excess capital buffers remain sufficient to cover between 2.5 times and 3.6 times of the potential credit losses arising from large borrower groups that are more likely to default under the assumed stressed conditions, with the earnings shock affecting corporates and banks the most.

Higher impairments attributed to firm-specific vulnerabilities

Overall business loan impairments grew at its fastest pace (+7.9%) since 2010. However, impaired loans as a share of total business loans remained within a narrow range observed over the last five years (Chart 1.19). While the number of firms with ICR less than two times has increased in the past two years, firms in certain segments such as mining, construction and manufacturing have continued to pare down debt levels. This is expected to support overall debt-servicing capacity although lower oil prices are likely to renew earnings pressure for firms in the oil and gas sector. A total of seven corporate bonds³⁴ were downgraded in 2019, around the same number reported on average in the last five years.

³³ Large NFC borrower groups represent corporations with aggregate credit exposures (include direct financing and holdings of corporate bonds and sukuk) exceeding RM1 billion with Malaysian financial institutions.

³⁴ Domestically-rated corporate bonds.

Table 1.3

Business Sector – Shock Assumptions and Results of Sensitivity Analysis on Large Borrowers

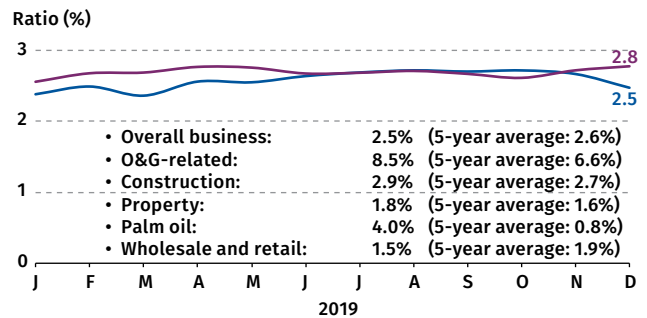
Scenarios (Magnitude)	Interest Coverage Ratio (Times)	Excess Capital Buffers to Potential Credit Losses Ratio (Times)
Baseline	3.8	3.6
Foreign currency shock (15% depreciation in ringgit)	3.7	3.6
Cost of borrowings shock (100 basis points increase in borrowing cost for new ringgit borrowings)	3.8	3.6
Earnings shock (50% decline in operating profit)	1.9	2.5

Source: Bank Negara Malaysia

These exposures accounted for only 1% of total outstanding domestic bonds, posing minimal risks to the financial system.

Looking ahead, the quality of business borrowings is expected to weaken due to the effects of the COVID-19 pandemic, with the impact on firms largely dependent on the severity and duration of the pandemic. Nonetheless, measures announced by the Government and the Bank to mitigate the impact of the pandemic on the economy should provide some respite on the debt servicing obligations of firms in this challenging environment. On aggregate, total exposures to the more vulnerable business sectors accounted for around 30% of total banking system loans. However, based on engagements with banks, risks to banks from its exposures to the larger borrowers are mitigated by repayment sources that are secured by long-term contracts, adequate collateral coverage, government guarantees and measures taken by borrowers to conserve cashflows. Banks' exposures to firms in these sectors which have been classified under Stage 2 and Stage 3³⁵ accounted for less than 4% of total banking system

loans. Banks also continue to hold strong financial buffers against potential losses with a loan loss coverage of 126.4%. This is supported by sound provisioning practices of banks based on forward-looking assessments.

Chart 1.19: Business Sector – Gross Impaired Loans
Quality of borrowings remained intact despite the more challenging business environment


— Overall business: Gross impaired loans

— SME: Gross impaired loans

Source: Bank Negara Malaysia

³⁵ Refer to underperforming loans (Stage 2) and impaired loans (Stage 3).

MARKET, LIQUIDITY AND FUNDING RISK

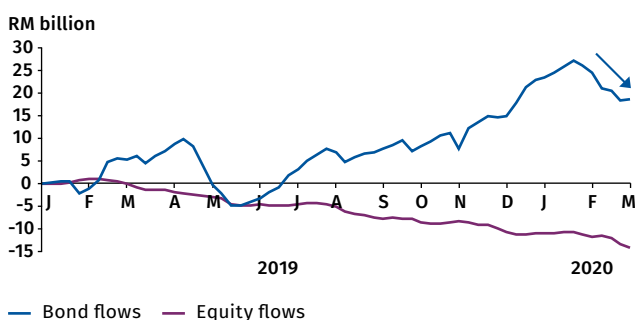
Domestic Financial Markets were Affected by External and Domestic Headwinds, but Adjustments have been Orderly

In the second half of 2019, the escalation of trade tensions in the third quarter led to episodes of risk-off sentiment which affected the performance of the domestic bond and equity markets. Global investor sentiment, however, improved towards the end of the year in anticipation of the signing of the Phase 1 trade deal between the US and PR China. In the domestic government bond market, accommodative global financial conditions from monetary policy easing in a number of advanced economies and Malaysia's continued inclusion in the FTSE Russell World Government Bond Index (WGBI) sustained non-resident inflows in the second half of 2019 (Chart 1.20). In contrast, the Malaysian equity market continued to experience non-resident outflows, reflecting lacklustre corporate earnings and the flight towards safer assets such as government bonds.

Investor sentiment turned more cautious in late-January 2020 as the COVID-19 outbreak dampened prospects of stronger global growth. The global spread of COVID-19 and measures taken to contain the spread have further weighed on sentiment, leading to non-resident outflows from

Chart 1.20: Financial Market – Cumulative Non-resident Portfolio Flows

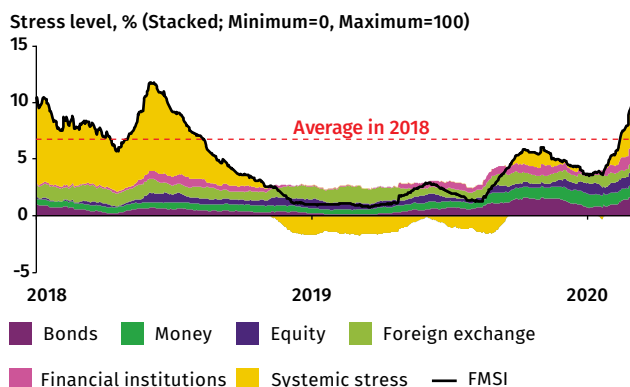
Net non-resident portfolio outflows observed since the beginning of 2020



Source: Bank Negara Malaysia and Bloomberg

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

Market stress rose to levels observed in 2018



Source: Bloomberg, Reuters and Bank Negara Malaysia estimates

the bond and equity markets. These developments contributed to the higher broad-based stress levels in domestic financial markets (Chart 1.21). In recent weeks, market volatility has surpassed stress levels observed over the past decade and is expected to remain heightened at least in the near term. However, the continued presence of domestic institutional investors as well as the deep and liquid financial markets is expected to continue to support the intermediation of portfolio flows, thus preserving orderly market conditions.

Banking System Funding and Liquidity Conditions Remain Supportive of Intermediation Activity

Despite continued volatility in domestic financial markets, liquidity and funding conditions in the banking system remain supportive of credit intermediation activities. Stable deposits and long-term funding, collectively, grew at a slower pace by 2.7% in the second half of 2019. While the growth in deposit placements by households and non-bank financial institutions was sustained, public sector deposits declined amid withdrawals by the Government for repayment of maturing bonds and payment of remaining expenses for the year (Chart 1.22). Notwithstanding this, overall funding conditions remained stable. Banks' loan-to-fund (LTF) and loan-to-fund-and-equity (LTFE) ratios were little changed (Chart 1.23), while

banks' median cost of funds declined to 2.8% (1H 2019: 3.0%) as deposits were gradually repriced following the Overnight Policy Rate (OPR) cut in May and the reduction in the Statutory Reserve Requirement (SRR) Ratio in November.

The Liquidity Coverage Ratio (LCR) of the banking system, which indicates banks' ability to meet liquidity needs over a 30-day stress period, stood at 149.1% as at end-2019 (Chart 1.24), with all banks recording LCR levels above the regulatory minimum of 100%. These liquid assets are available for banks to draw upon during periods of stress. As part of measures recently introduced by the Bank to preserve stability in funding markets and support bank lending activity, the implementation of the Net Stable Funding Ratio (NSFR) requirement will be phased-in with a minimum compliance ratio of 80% in July 2020 and 100% in September 2021. Banks remain well-positioned to meet the revised requirements.

Risks posed by banks' external debt³⁶ exposures remained manageable

Banks' reliance on external debt continued to be limited, accounting for less than 10% of total banking system funding liabilities (Chart 1.25). In the second half of 2019, banks' external debt expanded by RM14.2 billion to RM362.6 billion, largely attributable to higher FCY deposits and FCY interbank borrowings as some domestic banking groups (DBGs) took pre-emptive measures to accumulate additional US dollar liquidity buffers in anticipation of a potential tightening in US dollar liquidity conditions towards the year end.³⁷ Correspondingly, banks' external assets also increased as a result of higher intragroup placements as part of DBGs' centralised

liquidity management. Some DBGs increased carry trade activities to take advantage of interest rate differentials. Risks from external debt exposures associated with such activities remain low as investments funded by offshore borrowings are typically in government bonds or central bank securities and are closely matched in terms of duration. Higher placements from the parent banks of locally-incorporated foreign banks (LIFBs) to fund domestic FCY loans and short-term investment activities were also observed.

Risks posed by currency and maturity mismatches arising from banks' external debt exposures remain low based on several factors. A high proportion (58%) of external debt exposures comprises intragroup placements and long-term debt securities which are generally more stable, thereby reducing withdrawal or rollover risks faced by banks. 17% of the external debt was ringgit-denominated, mainly in the form of non-resident deposits. These exposures are not subject to valuation changes from fluctuations in the exchange rate. As at end-2019, banks' liquid FCY assets were more than adequate to cover two times the FCY external debt-at-risk³⁸ (Chart 1.26). Risks associated with cross-currency mismatches are further mitigated by the low foreign exchange net open position (FX NOP) of banks in line with active hedging activities by banks (Chart 1.27), and DBGs' continued compliance with the local LCR requirements in the major jurisdictions in which they operate.

The discontinuation of London Interbank Offer Rate (LIBOR) by end-2021 and the transition to alternative risk-free rates (RFRs) however poses some challenges for banks globally including those in Malaysia (for further analyses on the challenges and transition strategy, refer to the Information Box on 'Benchmark Rate Reform: LIBOR Transition').

³⁶ Refers to all liabilities that require payment of principal and/or interest at some point in the future, and are owed to non-residents by residents of an economy. This is in accordance with the External Debt Statistics guide provided by the International Monetary Fund.

³⁷ This was largely driven by concerns over the removal of Malaysian Government Securities (MGS) from the FTSE Russell WGBI in September and stress in the US money market.

³⁸ Refers to the proportion of banks' external debt that is more susceptible to sudden withdrawal shocks. This comprises financial institutions' deposits, interbank borrowings and short-term loans from unrelated non-resident counterparties.

Chart 1.22: Banking System – Contribution to Growth in Deposits Accepted

Growth in deposits largely driven by households and non-bank financial institutions

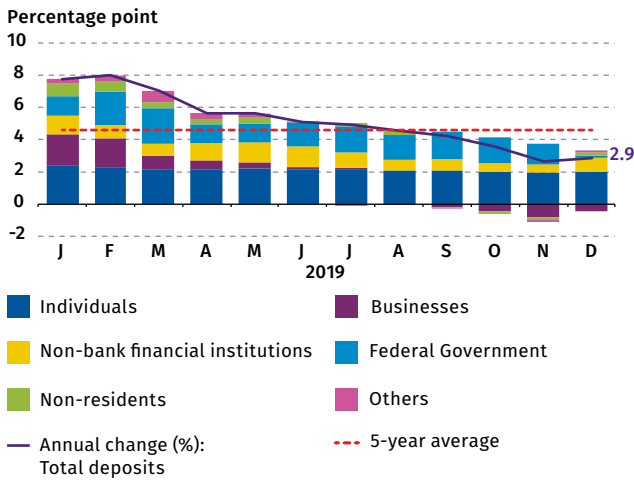


Chart 1.23: Banking System – Loan-to-Fund Ratio and Loan-to-Fund-and-Equity Ratio

Banks' funding remained stable to support intermediation activities

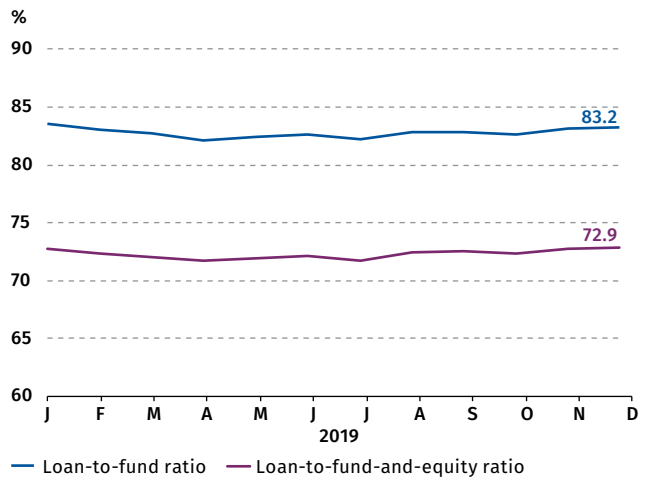


Chart 1.24: Banking System – Liquidity Coverage Ratio, High Quality Liquid Assets and Net Cash Outflows

Decline in LCR reflective of banks' disposal of government bonds to capitalise on declining yields

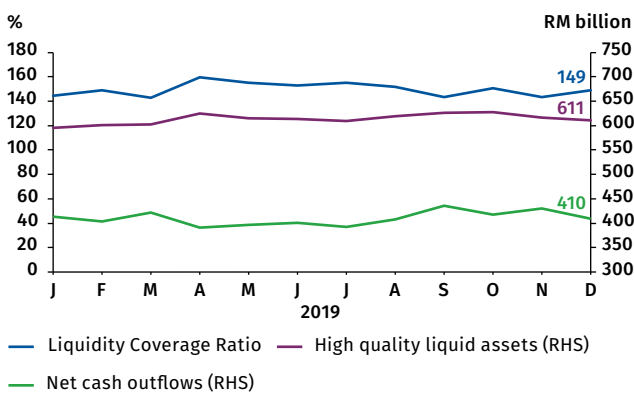


Chart 1.25: Banks' External Debt – by Instrument

Higher external funding reflects higher deposits accepted from financial institutions and customers, and interbank borrowings

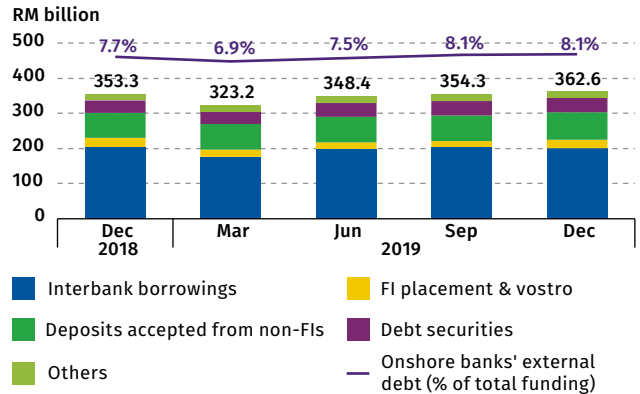


Chart 1.26: Banking System – FCY External 'Debt-at-Risk' and Liquid Assets

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

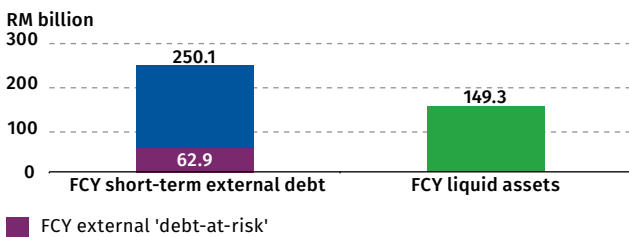
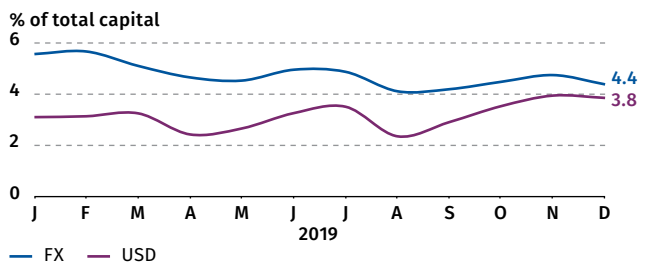


Chart 1.27: Banking System – FX and USD Net Open Positions as Percentage of Capital

FX and USD net open positions remained low



Note: 1. Banks' external debt in this context refers to external debt of DBGs, LIFBs, and LIBFC banks
 2. Banking system or onshore banks refer to only DBGs and LIFBs
 3. Liquid assets comprise cash and cash equivalents, unencumbered debt securities held and interbank placements

Source: Bank Negara Malaysia

Benchmark Rate Reform: LIBOR Transition

London Interbank Offer Rate (LIBOR) has been a dominant reference rate used in financial transactions globally, with more than USD300 trillion in outstanding financial contracts that reference LIBOR. As part of the global reform of benchmark interest rates, LIBOR will be discontinued by end-2021³⁹ and replaced by alternative risk-free rates (RFRs).⁴⁰ As existing LIBOR panel banks will also gradually cease to support this benchmark rate, it is likely that LIBOR will no longer represent accurately and reliably the market or economic reality that the benchmark is intended to measure. The transition away from LIBOR could have significant legal, valuation, accounting, risk management, and system implications for banks globally. Therefore, there is a need for the financial industry to strategise and accelerate the preparation for the transition away from LIBOR.

The Malaysian banking industry's LIBOR exposures⁴¹ are considerable at RM857 billion as of 30 June 2019 (Diagram 1.5). Derivative contracts account for 79% of the LIBOR exposures but pose lower transition risk as these contracts are largely standardised with concerted global efforts⁴² to develop fallback provisions well in progress. Existing LIBOR loans maturing beyond 2021 pose greater concern, as these loans require banks and borrowers to renegotiate existing contracts individually and incorporate fallback provisions. The spread between the existing LIBOR and the RFR can result in potential gains to one party of the transaction and losses to the other. For example, if the RFR is lower than the existing LIBOR, the borrower may gain from the lower rate at the expense of the bank. Any potential transfer of value between parties of the transaction arising from the transition to the RFR could complicate contract modifications and pose legal, tax, reputational and economic risks to banking institutions.

Diagram 1.5: LIBOR Exposures as of 30 June 2019



*Mainly interbank lending/borrowing and customer deposits

Note: At consolidated banking group level

Source: Bank Negara Malaysia

The unavailability of a reliable term structure for RFRs presents a further challenge as under the new RFRs, the actual term rate will only be known at the end of the compounding period.⁴³ Given this constraint, borrowers are reluctant to adopt the new RFRs as they prefer more certainty in their expected monthly cash flows. In response, industry and regulatory efforts to offer new RFR term rates have recently intensified. The Federal Reserve Bank of New York, administrator of the US Dollar Secured Overnight Financing Rate (SOFR), for example, has begun to publish SOFR term rates⁴⁴ beginning 2 March 2020. This move will facilitate the renegotiation of LIBOR loan contracts.

For the Malaysian banking industry, the Bank has established key signposts to ensure that banks adequately prepare for and manage a smooth transition away from LIBOR (Diagram 1.6).

³⁹ Financial Conduct Authority (FCA) UK indicated that by end-2021, the FCA would no longer compel panel banks to submit quotes for LIBOR.

⁴⁰ Based on overnight trades in markets, whether unsecured or secured, where liquidity is deep enough to allow the rate to be strongly anchored in transactions, including in more adverse market conditions. The RFRs, by largely excluding bank credit risk, also closely track central bank policy rates, offering a more efficient and transparent way of measuring, managing, and hedging movements in those rates.

⁴¹ On balance sheet outstanding amount and derivatives notional amount at consolidated banking group level.

⁴² Developments in derivative contracts' fallback provisions are driven by International Swaps and Derivatives Association (ISDA).

⁴³ At present, only the overnight RFR is available. In the absence of published term rates for RFRs, the interest chargeable for RFR loans is calculated by compounding the overnight rate over the loan interest payment period (e.g. monthly). As a consequence, the actual rate of the loan will only be known at the end of the interest payment period.

⁴⁴ 30 days, 90 days and 180 days.

Diagram 1.6: LIBOR Transition Signposts



Note: Signposts may be reviewed if there is any change in the global transition timeline

Source: Bank Negara Malaysia

All banks have since established dedicated transition teams to oversee the process but actual progress remains uneven across institutions. There is an urgent need for banks to ensure a robust process for identifying and evaluating the range of possible transition risks and accelerate efforts to prepare for the transition. Aside from the potential challenges in renegotiating existing contracts with borrowers, other risks should also be given due consideration. These include banks’ operational readiness and system capability to support products referenced to alternative RFRs, potential tax implications and the impact of changes to banks’ risk management models that rely on LIBOR-based parameters. Banks should also undertake adequate measures to mitigate consumer conduct risks arising from the issuance of new LIBOR-based financial contracts maturing beyond 2021. If not managed well, banks could face significant reputational risks arising from the failure to properly disclose and educate borrowers on the transition to an RFR.

CONTAGION RISK

Contagion Risk Posed by Non-bank Financial Institutions Remained Low

Assets of non-bank financial institutions⁴⁵ (NBFIs) in Malaysia expanded by 2.9% in the second half of 2019 to account for 40.6% of financial system assets (Chart 1.28). Holdings of common assets and equity interests in financial institutions continue to be the key channel for the transmission of risks from NBFIs to the financial system (Chart 1.29).

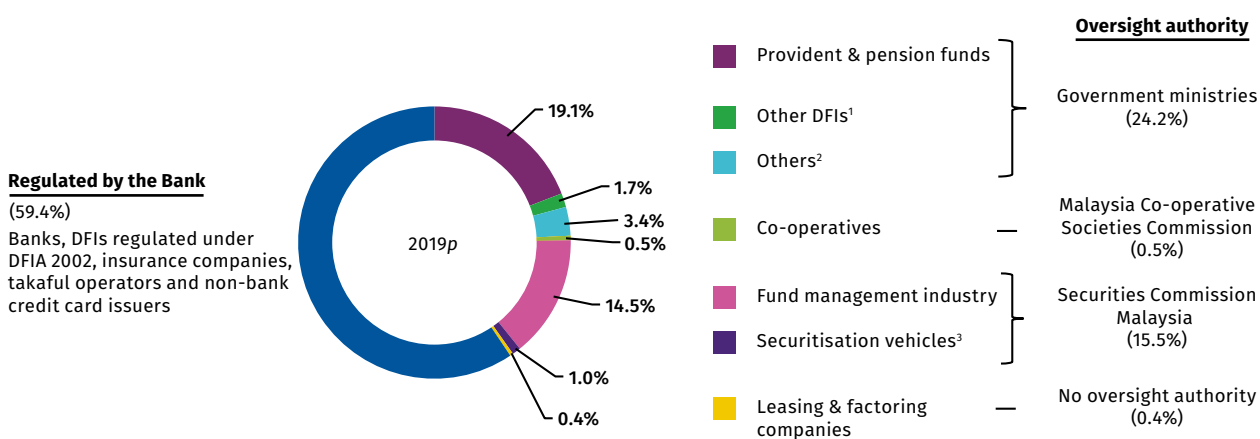
The retirement funds and fund management industry, comprising entities including *Kumpulan Wang Simpanan Pekerja* (KWSP), *Kumpulan Wang Persaraan* (KWAP) and *Amanah Saham Nasional Berhad* (ASNB), account for approximately 82.8% of NBFIs' total assets. Investments by these entities recorded a marginal decline (-1.1%) during the second half of 2019, against the backdrop of a weaker domestic equity market. Their combined

investment holdings remained significant, accounting for 30.0% and 42.3% of total equity market capitalisation and total outstanding debt issuances, respectively. Any large-scale disposal of these assets could impact market sentiment and cause sharp price adjustments, which may subsequently affect the balance sheets of other financial institutions holding similar assets. This can arise if these entities come under financial stress or display herd behaviours in response to adverse market developments. Such risks remain low given the strong financial buffers of the larger entities and their sizeable share of strategic investments that are less reactive to temporary valuation changes. The medium- to long-term investment horizon of retirement funds is also expected to continue to support orderly domestic market conditions during periods of non-resident outflows.

The share of savings by households with retirement funds and the fund management industry increased slightly in 2019 to 51.6% (1H 2019: 50.3%) of household financial assets. About a third of these savings are discretionary savings that are more sensitive to returns and could precipitate "runs" on the funds. Despite the weaker equity market

Chart 1.28: Financial System – Composition of Assets

NBFIs accounted for 40.6% of total financial system assets



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¹ Development Financial Institutions (DFIs) that are not regulated by the Bank under the Development Financial Institutions Act 2002 (DFIA 2002)

² Refers to pawn brokers, money lenders, non-bank providers of credit and hire purchase financing, non-bank provider of education financing, non-bank provider of housing credit, government-owned trustee company and social security organisation

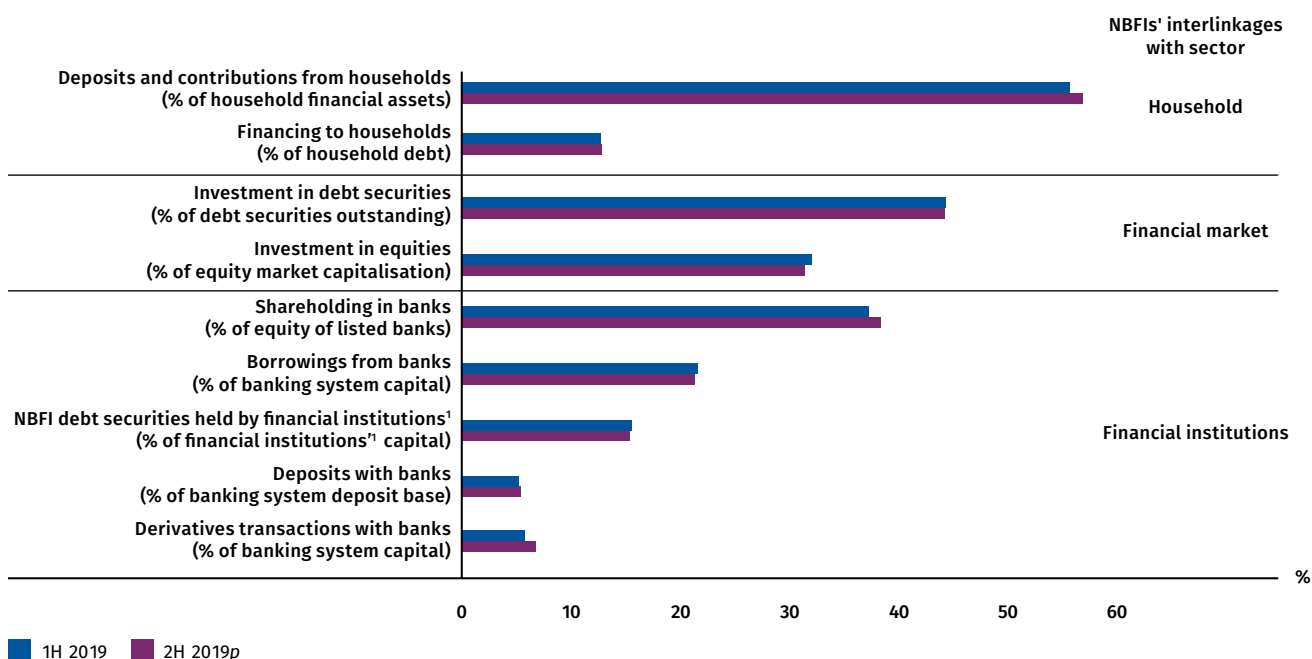
³ Refers to outstanding asset-backed securities and asset size of national mortgage corporation

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

⁴⁵ Refers to entities undertaking activities including the provision or facilitation of credit creation and investments through management of public funds, collective investment schemes and retirement funds, that are not under the purview of the Bank.

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

Key channel for the transmission of risks from NBFIs to the financial system remained through holdings of common assets and equity interests in financial institutions



p Preliminary

¹ Refers to banks, insurance companies, takaful operators and DFIs under DFIA 2002

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

performance and lower dividends announced by some funds during the year, the funds are expected to remain resilient against withdrawal risks. This continues to be supported by adequate liquidity buffers in the form of deposits and government debt securities held by the funds to meet potential withdrawals. Prudential requirements on investments and leverage that apply to fund management companies that are regulated by the Securities Commission further mitigate the risks of “runs” on fund management companies that could have broader spillovers to the financial system.

Financial stability risks arising from the activities of non-bank credit intermediaries are assessed to be low

About 12.3% of the NBFIs’ assets in Malaysia are represented by activities of specialised and small credit intermediaries such as credit co-operatives, moneylenders as well as non-bank providers of housing loans, hire purchase, and student loans. Financing extended by these NBFIs grew by 2.9%

in the second half of 2019. Financial stability risks arising from these NBFIs are assessed to be minimal as aggregate financing still remained small (12.2%) in comparison to the banking system. More than 40% of NBFIs’ financing to households feature automatic salary deduction facilities, which help to contain credit risks. Some NBFIs, including credit co-operatives, must also comply with responsible financing guidelines applicable to banks that require NBFIs to conduct affordability assessments before granting loans. Among the larger non-bank credit intermediaries, financing activities are largely funded by long-term loans and debt issuances, thus mitigating funding rollover risks. As at end-2019, the average remaining maturity for NBFI-issued debt securities increased further to 7.4 years from 6.7 years (2018) due to the longer average tenure of new debt issuances.

In recent years, incidents of default and failure among non-bank credit intermediaries in Asian economies have raised some concerns over broader risks to their respective domestic financial systems. In Malaysia, the small share of credit intermediation activities by NBFIs and strong

financial buffers of significant NBFIs substantially reduce such risks. Additionally, most NBFIs in Malaysia are subjected to formal regulatory oversight as statutory bodies or institutions licensed and prudentially supervised by the Securities Commission and Malaysia Co-operative Societies Commission. Over the longer term, the continued growth and concentration of statutory retirement funds could present heightened risks

to the domestic financial system in the unlikely event of stress in the institutions that manage these funds. Measures by the NBFIs to diversify their investment portfolio through holdings of foreign and alternative assets,⁴⁶ commensurate with their risk management capabilities, as well as measures to encourage the growth of private retirement schemes, will contribute towards mitigating these risks.

⁴⁶ Among others, this includes property, infrastructure and private equity investments.

OPERATIONAL RISK

Operational Risk Losses among Financial Institutions Remained Small but Emerging Risks Warrant Close Vigilance

Occurrences of operational risk incidents in the financial system have risen amid increasing digitalisation and greater reliance on third party service providers. Nevertheless, the number of and total losses from these incidents have remained insignificant for banks, insurers and takaful operators relative to the volume of intermediation activities.

For banks and development financial institutions, total losses in 2019 from the materialisation of operational risk events accounted for 0.7% of total profit before tax, compared to 3.1% for credit risk

losses. Almost all of the operational risk losses were attributable to trade finance related fraud, involving the recycling of used bills of lading and invoice reference numbers for fictitious trades. Such fraud continues to account for a small portion of the total trade finance exposures.

In the insurance and takaful sector, operational risk losses were largely driven by fraudulent claims, typically in relation to exaggerated vehicle accident damage or injuries, and staged accidents or thefts. As these types of fraud often involve multiple parties, many cases are difficult to prove and often remain unreported as fraud. Consequently, total reported losses from the materialisation of operational risk events in this sector accounted for a much smaller proportion of total profit before tax (less than 0.5%).⁴⁷

Financial institutions' internal safeguards to detect and address fraudulent activities thus far have kept losses low. However, financial institutions should

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events (Table 1.4). It is inherent in all activities, products and services of a financial institution. Often, operational risks materialise in the form of fraud, physical damage, transaction failures and business disruption. This may result in direct as well as indirect financial losses, for example, loss of business and market share due to reputational damage.

Table 1.4

Characteristics of Operational Risk

Idiosyncratic	The operational risk profile of a financial institution is unique to its internal processes, people and systems. For example, an institution that is reliant on manual processes is more at risk of human error, while an institution that is reliant on IT systems is more at risk of IT system failures.
Multifarious	Operational risk can traverse multiple business lines and external parties associated with the institution. For example, disruptions to an institution's critical system can be caused by the failure of a third-party service provider to follow terms of a Service-Level Agreement. Conversely, operational failures in a financial institution can affect other institutions through connections to a shared infrastructure.
Fat-tailed distribution	Most of the time, operational risk events incur small-scale losses, such as fraudulent insurance claims. However, some operational risk events, such as a cyber-attack on a major payment system infrastructure, could lead to severe disruptions in the provision of financial services and erode public confidence.
Difficult to model	The fat-tailed nature of operational risk losses, the absence of a clear link with macroeconomic factors, the lack of historical data and difficulty in mapping past operational loss events ⁴⁸ are among the factors that make operational risks particularly challenging to model. Risk modelling is also constrained by the evolving nature of a financial institution's operational risk profile with on-going changes in its business model, internal processes and the operating environment.

⁴⁸This is because the realisation of losses from an operational risk event may only happen some time after the occurrence date, for instance, losses incurred from a fraud event may only materialise well after the fraud event has occurred

Source: Bank Negara Malaysia

⁴⁷ This is an estimation as the Bank continues to refine the operational risk data reporting by insurers and takaful operators to improve the industry's quality and consistency in reporting.

remain vigilant of the evolving modus operandi of such activities in response to the heightened controls by financial institutions.

While several financial institutions reported disruptions that affected the provision of financial services to some customers during the year, these were mostly isolated incidents involving temporary branch closures or disruptions to online transaction and customer services. For most incidents, services were resumed within one to two hours. In a few cases of more prolonged disruptions, customers were still able to access alternative channels to conduct financial transactions, including online and at neighbouring branches. During the Movement Control Order in March 2020 following the escalation of the COVID-19 pandemic, consumers continued to have access to essential financial services with financial markets also remaining open.

In an annual operational risk survey of financial institutions, a number of emerging risks were noted among the top risks that financial institutions face:

i. Cyber threats

Cyber threats are expected to become more sophisticated and frequent as financial institutions embrace digitalisation. Operations that are heavily dependent on interconnected systems are particularly at risk. Additionally, unauthorised access or unintended disclosure of customer information to external parties, arising from hacking or cyber-attacks could expose financial institutions to legal action and reputational risk, as well as affect public confidence.

ii. Outsourcing including cloud computing

Increasing reliance on cloud services and third-party vendors exposes financial institutions to higher risk of operational lapses as these vendors and services are not within the financial institution's direct control. Over-reliance on these service providers could also hamper the ability of financial institutions to maintain continuity of critical functions in recovery and resolution scenarios.

iii. IT system failure impacting more interconnected systems

System downtime and IT failures typically arise from power outages, obsolete hardware or

applications, and poor legacy systems migration. In increasingly interconnected systems, a failure in one IT system is more likely to affect other customer-centric applications such as internet banking, online insurance services, and trade and settlement systems.

iv. Human error

Financial institutions expect human error⁴⁹ to continue to persist despite the adoption of technology. This risk is heightened by obsolete legacy systems that are not replaced in time and are unable to support new products and increasing business volumes, thus requiring more manual exception handling.

v. Regulatory complexity

The increasing complexity of global regulatory requirements have led to higher compliance risk for financial institutions. Compliance risk is higher for financial institutions with overseas operations, as they have to manage variations in the implementation of global reforms in other jurisdictions. Gaps in regulatory adherence may expose these institutions to enforcement actions including penalties.

The Bank has intensified its engagements with financial institutions on improving approaches to the measurement of operational risk as well as scenario analysis and stress testing. Financial institutions have also been required to regularly update and test their operational incident response plans in order to identify and address gaps in prevention, response and recovery capabilities.

In addition, the Financial Sector Cyber Threat Intelligence Platform (FinTIP) that is being established by the Bank in collaboration with the industry to collate, aggregate, analyse and share cyber threat information from multiple trusted sources is expected to be operational by the end of 3Q 2020. In the insurance industry, the Fraud Intelligence System (FIS) facilitates more efficient identification and investigation of potential fraudulent motor claims using data analytics and scoring. Efforts are ongoing to enhance the fraud alert accuracy and quantify cost savings from its utilisation. These developments complement

⁴⁹ Human error can arise from a combination of factors, including intentional and unintentional breaches of policies, careless execution of tasks, lack of knowledge and training, and unclear operating procedures.

the Bank's Operational Risk Integrated Online Network (ORION)⁵⁰ which facilitates system-wide monitoring and early detection of operational risk trends. An industry crisis simulation exercise planned for 2021 will provide an important opportunity to test current arrangements for responding to a crisis event both at the institution and system-wide levels. This in turn will provide further insights for ongoing improvements to the financial system's crisis preparedness and response capabilities.

Payment and Settlement Systems Remained Stable without Major Disruptions

In 2019, a total of 5.1 million transactions amounting to RM56.8 trillion were settled via the Real-time Electronic Transfer of Funds and Securities System (RENTAS),⁵¹ equivalent to 37.8 times of Malaysia's gross domestic product

(GDP). This represents an annual growth of 3.2% in total volume and 2.9% in total value. RENTAS continued to remain resilient and maintained high system availability above 99.9% throughout the year. While there were a few incidents of minor disruptions caused by network and infrastructure issues, these issues were promptly resolved with no recurring incidents.

Malaysia's retail payment systems also achieved high system availability above the target level of 99.9% throughout 2019. Credit transfers, such as Interbank GIRO (IBG) and Instant Transfer, which accounted for the bulk (62.4%) of retail electronic payments both achieved 100.0% system availability. Incidents involving other types of retail payment systems such as DuitNow, JomPAY and FPX which were caused by processing and system configuration issues resulted in some isolated settlement delays but did not affect the execution of payment transactions by customers. Similar to RENTAS, the issues have been resolved.

⁵⁰ Launched in 2014, the ORION is a risk surveillance system that consolidates information on operational risk incidents, including cyber-attacks.

⁵¹ RENTAS is a real-time gross settlement system for interbank fund transfers, debt securities settlement and depository services for scripless debt securities. Besides Malaysian Ringgit, RENTAS also facilitates Renminbi and US Dollar transactions via appointed on-shore settlement institutions.