

BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

The BNM Quarterly Bulletin presents a quarterly review of Malaysia's economic, monetary and financial developments. It includes the Bank's latest assessments on the direction of the economy going forward. The Bulletin also provides insights on current economic and financial issues, including highlights of policy initiatives undertaken by Bank Negara Malaysia in pursuit of its mandates.

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Key Highlights on
Economic and Financial Developments in 2Q 2018

Slower economic growth of 4.5% due to commodity-specific shocks

Continued expansion in private sector activity and across major economic sectors

Real GDP Growth

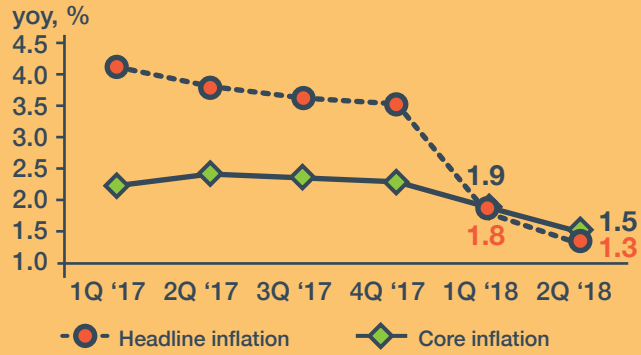


- **Stronger domestic demand supported by higher private sector activity**
- **Services and manufacturing sectors remained the key drivers**
- **Supply disruptions in the agriculture and mining sectors**

Headline inflation declined

Lower inflation during the quarter mainly reflected the zerorisation of the GST rate

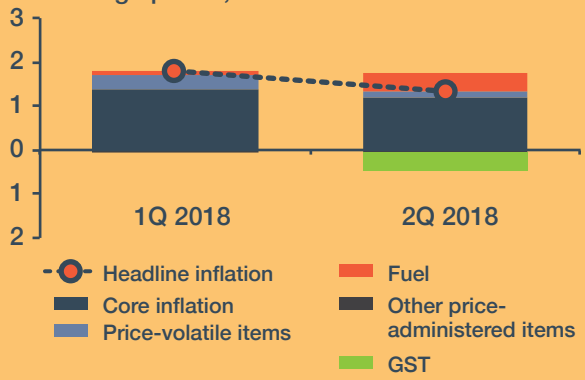
Headline and Core Inflation[1]



[1] Core inflation excludes the estimated direct impact of GST zerorisation.

The impact of GST zerorisation was offset by higher transport inflation

Contribution to Headline Inflation by Component



Box and Feature Articles

Divergence of Economic Performance and Public Sentiments

5 issues affecting the economic well-being of Malaysians

- **Low and uneven income distribution**
- **Rising cost of living**
- **Deteriorating housing affordability**
- **Elevated household debt**
- **Perceptions of corruption**

Transforming Mobile Phones into E-Wallets in Malaysia

- **All customer accounts made reachable**
  Interconnected network between banks and non-banks
- **More innovative value-added services**
  Establishment of a shared payment infrastructure to spur competition at the product level
- **Superior user experience**
  Availability of seamless payments via simple identifiers (e.g. mobile phone number, identity card number, business registration number and a common QR code)

Source: Department of Statistics Malaysia, Bank Negara Malaysia unless stated otherwise
For more information, visit www.bnm.gov.my

International Economic Environment

HIGHLIGHTS

- Global economy continued to expand, but indicators point to growth becoming less synchronised.
- Export growth in Asia remained robust, despite a slowdown in recent months.
- Elevated financial market volatility amid trade tensions.

Global growth expanded further

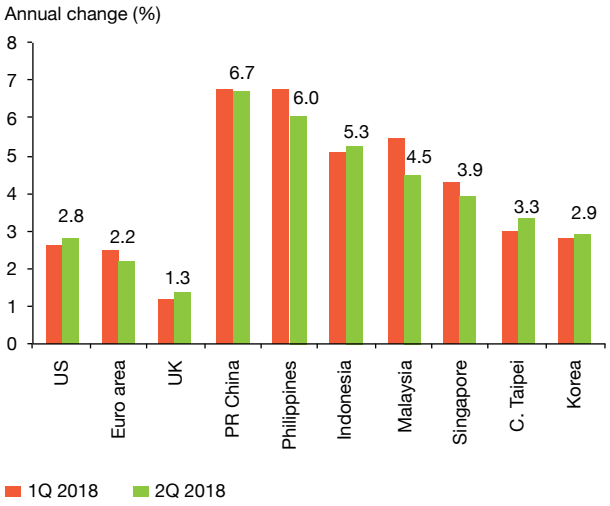
The global economy continued to expand in the second quarter of 2018. Following a year of strong growth among both advanced and Asian economies, GDP outturns in the second quarter showed that global growth is becoming less synchronised. While growth in the United States of America continued to accelerate, many major countries recorded either sustained or more moderate expansions.

In the advanced economies, labour conditions remained supportive of private consumption, as unemployment rates continued to decline amid a steady increase in wage growth. In particular, euro area unemployment in the second quarter of 2018 reached its lowest level since December 2008. Investment activity, however, moderated in most economies with the exception of the United States of America, where business spending was supported by the 2017 tax reforms.

Growth in the Asian region was more modest. During the quarter, high-frequency indicators such as the Purchasing Managers Index (PMI) for the manufacturing sector registered declines for the first time since 2015. PR China recorded slower growth as the effect of credit tightening policies weighed on domestic investment, particularly from local government spending on infrastructure. Domestic demand in the rest of the Asian region remained resilient, due to policy support and higher infrastructure spending.

Global economic activity continued to expand in 2Q 2018

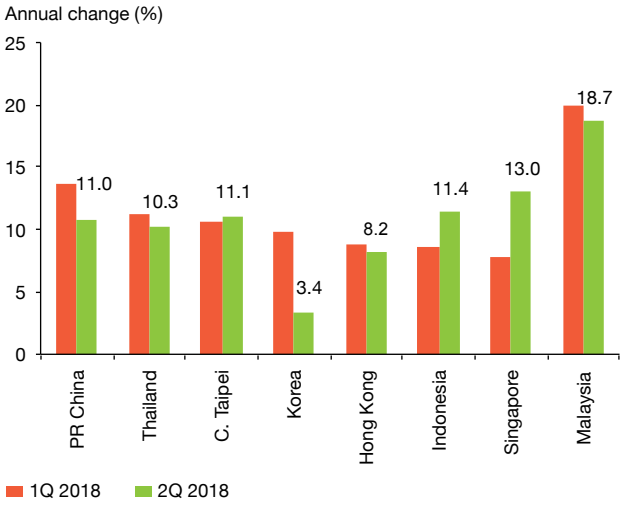
Chart 1: GDP Growth of Selected Economies



Source: National authorities

Robust export performance in 2Q 2018

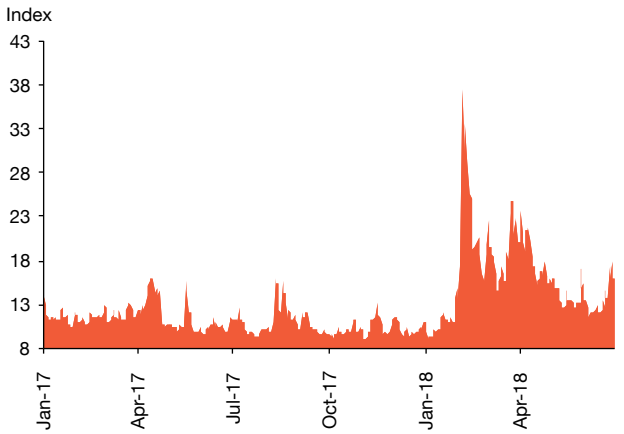
Chart 2: Export Growth of Selected Economies (in USD terms)



Source: National authorities

Higher volatility in the financial markets

Chart 3: Chicago Board Options Exchange (CBOE) Volatility (VIX)



Source: Bloomberg

Export growth remained robust

Most regional economies continued to record relatively high export growth in the second quarter of 2018. Nevertheless, a month-by-month analysis depicts a significant slowdown in June. This reflects a normalisation of demand from major economies such as the euro area and PR China. Demand for E&E products, which had driven shipments from Korea and Chinese Taipei in previous periods, also slowed.

There were early signs that trade tensions have begun to weigh on the global outlook. PMIs in several economies reflected slowdowns in new orders and confidence sub-indices. Anecdotal evidence also suggest that some firms may be facing higher input costs and supply chain disruptions. As global demand moderates, the disruptions to trade may further exacerbate the downturn in global growth.

Higher volatility in the financial markets

Global financial market volatility remained elevated, as market gyrations due to trade-related tensions persisted throughout the quarter.

In May, the United States of America's Department of Commerce began investigations into imports of autos and auto-parts, opening up the possibility of future tariffs. June marked the lapse of tariff exemptions on steel and aluminum for the euro area, Canada and Mexico, leading to retaliation. In addition, tariffs on USD34 billion worth of Chinese imports took effect in July, prompting tit-for-tat measures by PR China. These developments triggered declines in financial markets most directly exposed to the trade actions, such as Chinese equities, and the steel and aluminium industry.

In addition to trade tensions, capital outflows for emerging markets were also affected by higher interest rates in the United States of America, and a stronger US Dollar.

In the commodities market, Brent crude oil prices recorded a higher average of USD75 per barrel in the second quarter of 2018 (1Q 2018: USD67). The increase in oil price was supported by expectations of a tighter global oil market following the re-imposition of US sanctions on Iran. Prices were also lifted by concerns over supply disruptions in the Middle East and Venezuela.

Developments in the Malaysian Economy

HIGHLIGHTS

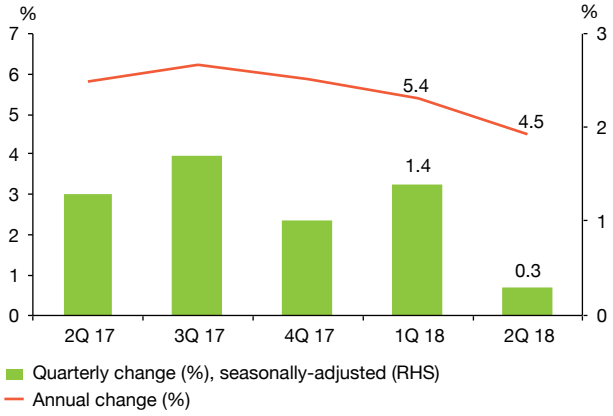
- The Malaysian economy expanded by 4.5% in the second quarter.
- Headline inflation declined to 1.3%.
- Current account surplus narrowed to 1.2% of GNI.

The Malaysian economy registered a growth of 4.5%

The Malaysian economy expanded at a slower pace of 4.5% in the second quarter of 2018 (1Q 2018: 5.4%). Growth was slower on account of supply disruptions in the mining sector and lower agriculture production. The latter is due to supply constraints and adverse weather conditions. On the demand side, growth was dampened by lower public investment and net export growth. Private sector spending remained resilient, expanding further by 7.5% (1Q 2018: 5.2%). In particular, private consumption increased strongly by 8.0% (1Q 2018: 6.9%). On a quarter-on-quarter seasonally-adjusted basis, the economy grew by 0.3% (1Q 2018: 1.4%).

Continued growth in 2Q 2018, albeit at a slower pace

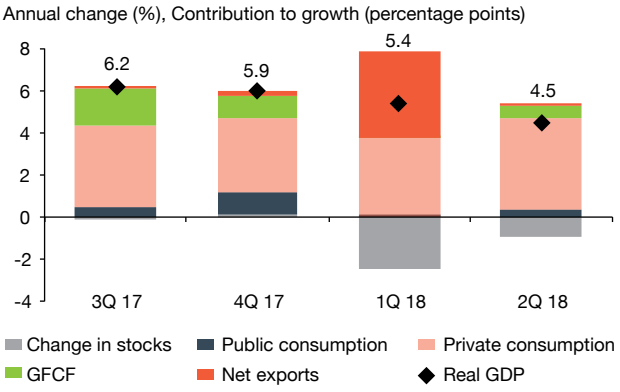
Chart 4: GDP Growth



Source: Department of Statistics, Malaysia

Private sector demand remained the key driver of growth

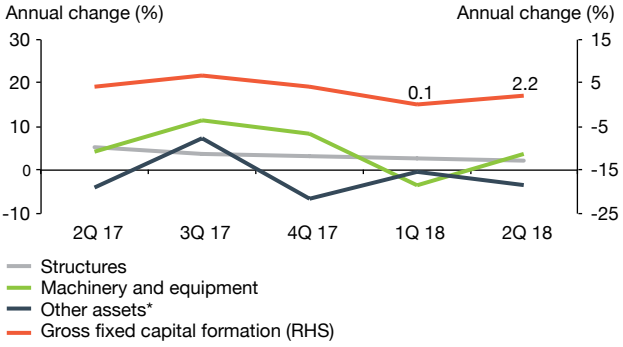
Chart 5: Contribution of Expenditure Components to GDP Growth



Source: Department of Statistics, Malaysia

Continued expansion in gross fixed capital formation

Chart 6: GFCF Growth by Type of Assets



*Other assets include mineral exploration, research & development and capitalised planting

Source: Department of Statistics, Malaysia

Domestic demand driven by the private sector

Domestic demand recorded a stronger growth of 5.6% (1Q 2018: 4.1%), as the higher private sector activity (7.5%; 1Q 2018: 5.2%) more than offset the decline in public sector spending (-1.4%; 1Q 2018: -0.1%).

Private consumption expanded at a stronger pace of 8.0% (1Q 2018: 6.9%), the highest since the first quarter of 2015. This was driven by continued strength in income and employment. Consumer spending was also boosted by the lower inflation during the quarter following the zerorisation of the Goods and Services Tax (GST) rate[1] and stronger consumer sentiments.

Private investment growth was higher at 6.1% (1Q 2018: 0.5%), driven mainly by capital spending in the manufacturing and services sectors. The better performance was supported by positive business sentiments, favourable demand conditions and continued high capacity utilisation during the quarter.

Public consumption registered a higher growth of 3.1% (1Q 2018: 0.4%), supported by improvement in supplies and services and sustained growth in emoluments.

Public investment continued to contract during the quarter (-9.8%; 1Q 2018: -1.0%). This was in part due to the near completion of ongoing projects and lower Federal Government development expenditure.

Growth in gross fixed capital formation (GFCF) improved to 2.2% (1Q 2018: 0.1%), attributed to higher private sector investment activity. By type of assets, capital spending on machinery and equipment rebounded to 3.6% (1Q 2018: -3.6%). Investment in structures expanded at a slower pace of 2.1% (1Q 2018: 2.8%), due mainly to a slower expansion in investments in non-residential property such as office and retail space. Investment in other types of assets contracted by 2.9% (1Q 2018: -0.2%).

[1] The reduction in the GST rate from 6% to 0% beginning 1 June 2018

Continued expansion in major economic sectors

On the supply side, growth was affected by commodity-specific shocks. Major economic sectors, notably the services and manufacturing sectors (77.5% of GDP), remained supportive of growth.

Growth in the mining sector contracted, due mainly to declining natural gas output following unplanned supply outages. The agriculture sector's growth declined as the oil palm sub-sector was affected by production constraints and adverse weather conditions.

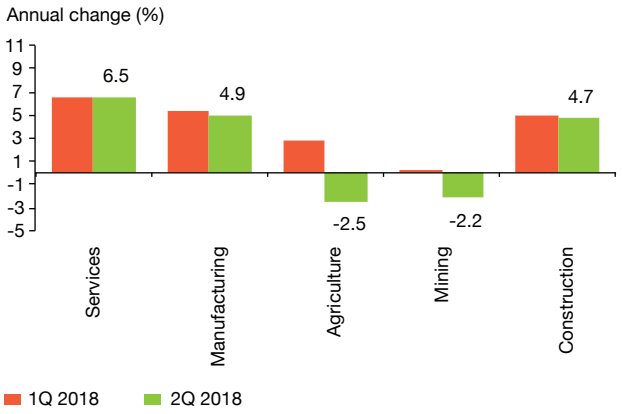
Growth in the services sector was sustained during the quarter, driven primarily by the wholesale and retail trade sub-sector arising from increased household spending following the zerorisation of the GST rate. Growth was further supported by the information and communication sub-sector, following continued strong demand for data communication services. Growth in the finance and insurance sub-sector was driven by continued strength in lending activity.

The manufacturing sector grew at a more moderate pace supported by continued strength in the electronics and electrical (E&E), consumer- and construction-related clusters. This can be attributed to the continued demand from fast growing semiconductor segments (e.g. automotive and Internet of Things (IoT)), and the zerorisation of the GST rate. These gains partly offset the slower performance in the primary-related cluster which was affected by the commodity-specific shocks upstream.

Growth in the construction sector continued to moderate in the second quarter. In the civil engineering sub-sector, growth was supported by the ongoing transportation, petrochemical and power plant projects. In the residential and non-residential sub-sectors, growth continued to decline. The development partly reflected the significant number of unsold residential properties and oversupply of office spaces and shopping complexes.

Other economic sectors continued to expand despite weak growth in the commodity sectors

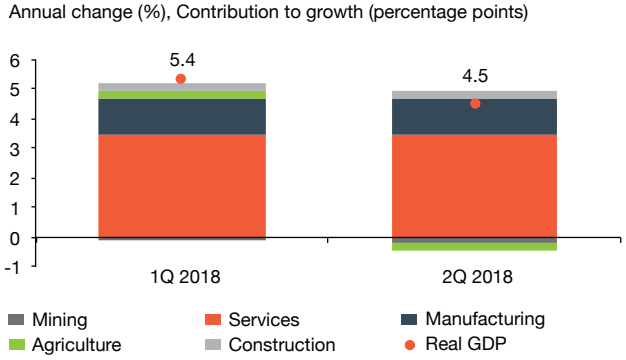
Chart 7: Growth by Sector



Source: Department of Statistics, Malaysia

Services and manufacturing sectors remained the key drivers of growth

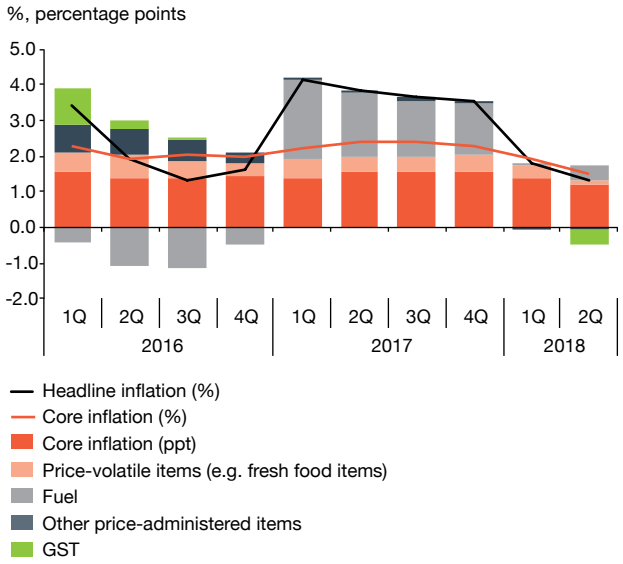
Chart 8: Contributions to Real GDP by Economic Sector



Source: Department of Statistics, Malaysia

The contribution from the zerorisation of the GST rate was offset by higher transport inflation

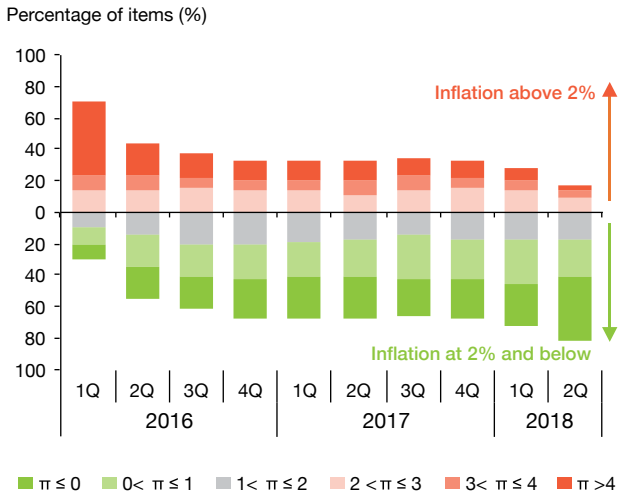
Chart 9: Contribution to Headline Inflation by Component



Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates

Inflation pervasiveness declined in 2Q 2018

Chart 10: Inflation Pervasiveness



Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates

Lower inflation during the quarter mainly reflected the zerorisation of the GST rate

Headline inflation, as measured by the annual percentage change in the Consumer Price Index (CPI), declined to 1.3% in the second quarter of 2018 (1Q 2018: 1.8%).

The lower inflation outcome mainly reflected the zerorisation of the GST rate. As a result, inflation declined to 0.8% in June (May: 1.8%, April: 1.4%). The decline in prices was broad-based where more than 90% of the items that were previously taxed at the standard-rate under the GST were observed to register price declines ranging between 0.06% and 6.75%. As a result, the percentage of items in the CPI basket that registered inflation of more than 2% declined to 18% in the second quarter (1Q 2018: 28%). However, the extent of price decline in June was smaller than anticipated. Prices of standard-rated items in the CPI basket only declined by an average of 2.3%.

The impact from the GST zerorisation, however, was offset by higher transport inflation. While the domestic RON95 petrol price was maintained at RM2.20 per litre since 22 March 2018, the lower prices in the base period of the second quarter of 2017 resulted in higher inflation in the *transport category*[2]. Nevertheless, the fixed RON95 petrol price has helped to contain further increases in fuel inflation during the quarter.

Core inflation, excluding the impact of the GST zerorisation, also moderated during the quarter to 1.5% (1Q 2018: 1.9%). This was mainly due to lower inflation in the *food away from home* sub-category, contributed by the stronger ringgit exchange rate in the first half of 2018 relative to the second half of 2017. Demand-driven inflation remained stable.

[2] RON95 petrol price averaged RM2.10 per litre in the second quarter of 2017.

Supportive labour market conditions

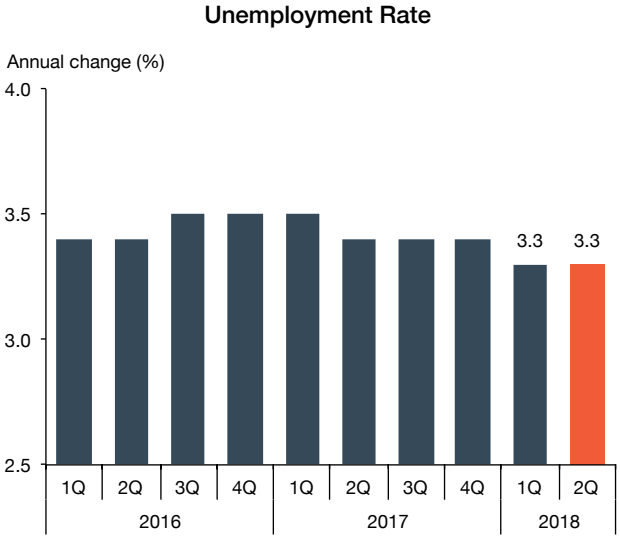
Labour market conditions in the second quarter of 2018 remained supportive of growth. Labour force expansion continued to match net employment gains, resulting in an unchanged unemployment rate at 3.3% (1Q 2018: 3.3%). Employment conditions in the quarter registered stronger growth of 2.4% (1Q 2018: 2.3%).

In the financial sector[4], there was a net employment gain of 1,412 jobs to 165,628 employed persons (1Q 2018: 164,216 persons). This mainly reflected the increase in high-skilled occupations (+ 1,762 persons).

Private sector wage growth moderated to 5.7% (1Q 2018: 6.6%). Manufacturing wage growth moderated to 10.1% from a strong growth of 13.9% in the first quarter of 2018. On the other hand, the services sector recorded an improvement of 3.7% (1Q 2018: 3.5%) in wage growth, supported by the wholesale and retail trade, and professional services sub-sectors.

Sustained unemployment rate

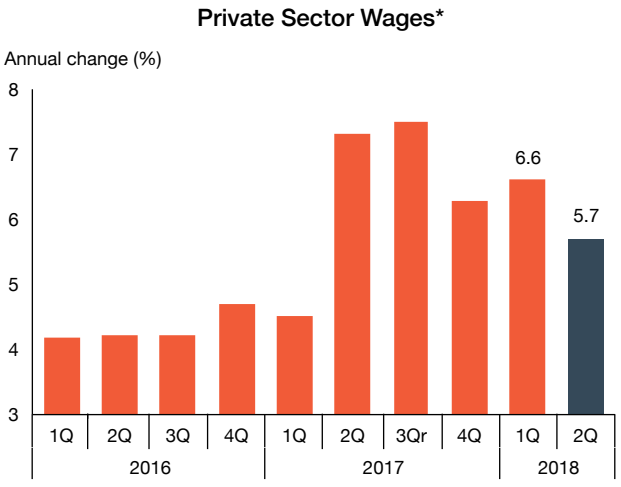
Chart 11: Unemployment rate



Source: Department of Statisitcs, Malaysia (DOSM)

Moderation in private sector wage growth

Chart 12: Private sector wages



* Private sector wages is derived from the salaries and wages data published in the Monthly Manufacturing Statistics and Quarterly Services Statistics by the Department of Statistics, Malaysia (DOSM). It covers 64% of total employment.

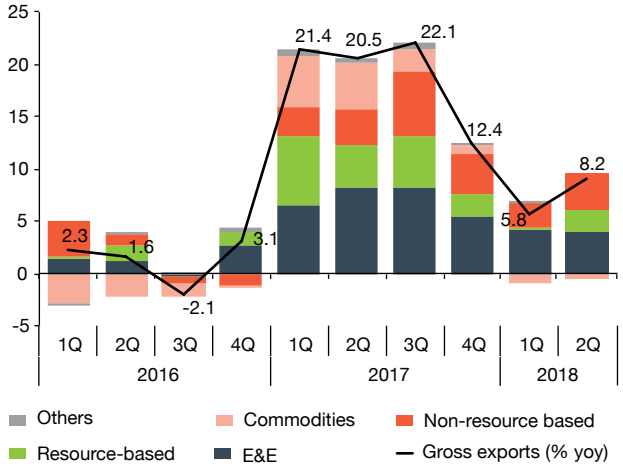
Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates

[3] Covers only the banking institutions, development financial institutions, insurance companies and takaful operators. The information is obtained from an establishment survey conducted by Bank Negara Malaysia.

Manufactured goods remained the key driver of exports

Chart 13: Gross Exports by Products

Annual change (%), Contribution to growth (percentage points)

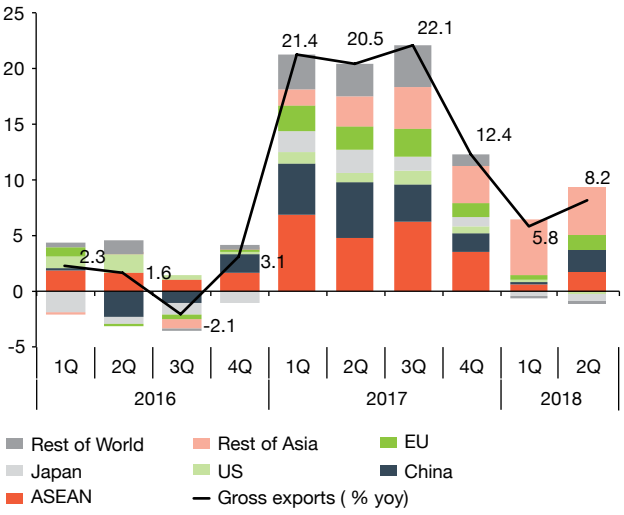


Source: Department of Statistics, Malaysia

Continued growth in exports to most major markets

Chart 14: Gross Exports by Markets

Annual change (%), Contribution to growth (percentage points)



Source: Department of Statistics, Malaysia

Faster expansion in exports while imports rebounded

In the second quarter of 2018, gross exports expanded at a faster pace of 8.2% (1Q 2018: 5.8%), supported mainly by re-export activity which grew by 53.5% (1Q 2018: 42.3%). Domestic exports[5] turned around to register a positive growth of 0.2% (1Q 2018: -0.7%). The trade surplus remained healthy, albeit narrower at RM27.2 billion (1Q 2018: RM33.4 billion).

Gross exports was supported by continued demand from major trading partners, particularly the region. Manufactured exports registered a double-digit growth of 10.6% (1Q 2018: 8.2%). Semiconductor exports continued to record robust growth of 21.0% (1Q 2018: 29.6%), in tandem with continued expansion in the global technology cycle as reflected in the double-digit growth of global semiconductor sales. Both resource and non-resource based manufactured exports registered a faster pace of growth, driven mainly by chemicals and chemical products, petroleum products and manufactures of metal. Commodity exports recorded a smaller contraction, as the continued decline in crude palm oil, LNG and rubber exports were partially offset by higher crude petroleum export volumes and prices.

Gross imports rebounded to register a positive growth of 7.7% during the quarter (1Q 2018: -0.8%), underpinned by robust re-export activity and recovery in capital imports. Imports for re-exports was driven by the E&E segment. Capital imports turned around following stronger domestic investment activity and dissipation of high base effect in transport equipment segment in the first quarter of 2017. Intermediate imports, however, continued to decline, albeit at a slower pace in tandem with subdued exports of domestically-produced manufactured goods.

[4] Domestic exports is defined as gross exports excluding re-export activity. This is a newly published time series data by the Department of Statistics, Malaysia.

Lower current account surplus

The current account surplus narrowed to RM3.9 billion in the second quarter of 2018 (1Q 2018: RM15.0 billion), or 1.2% of GNI (1Q 2018: 4.5% of GNI), due to a lower goods surplus[2] and higher deficits in the services and primary income accounts.

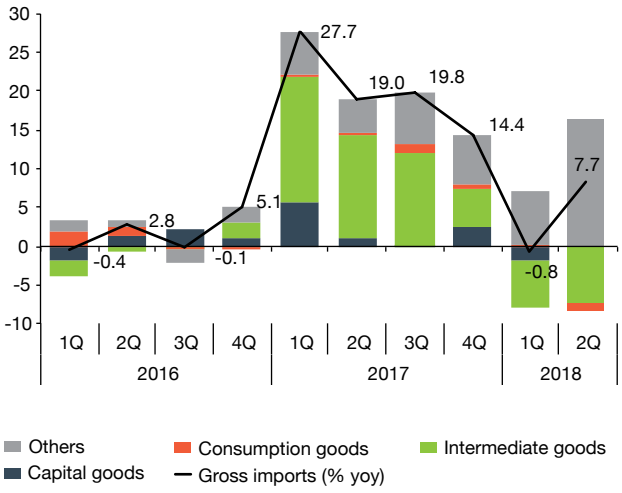
As the rebound in imports outpaced the increase in exports, the goods surplus narrowed to RM26.1 billion (1Q 2018: RM35.7 billion). In the services account, the deficit widened to RM6.2 billion (1Q 2018: -RM5.8 billion), owing mainly to higher net payments to foreign providers in the construction and transportation services segments.

The primary income account deficit widened to RM11.2 billion (1Q 2018: -RM10.2 billion), largely attributable to higher dividends earned by foreign portfolio investors in publicly-listed firms amid broadly sustained profits earned by MNCs investing in the domestic economy. The secondary income account recorded a sustained deficit of RM4.7 billion (1Q 2018: -RM4.7 billion), reflecting continued outward remittances by foreign workers.

Imports turned around, driven by robust re-export activity and recovery in capital goods

Chart 15: Gross Imports by Products

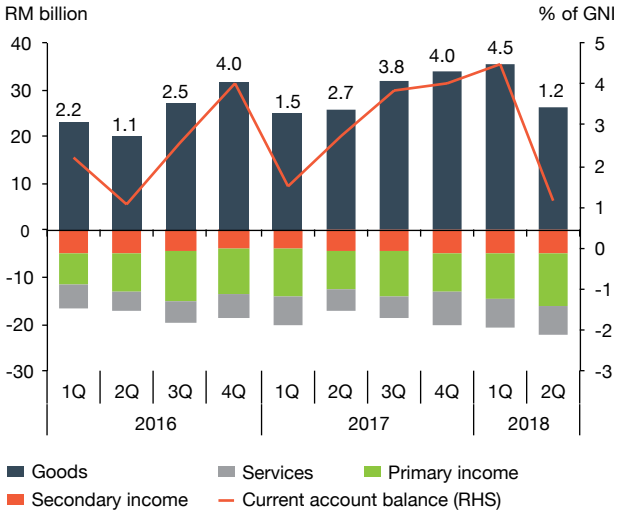
Annual change (%), Contribution to growth (percentage points)



Source: Department of Statistics, Malaysia

Current account surplus narrowed

Chart 16: Current account balance

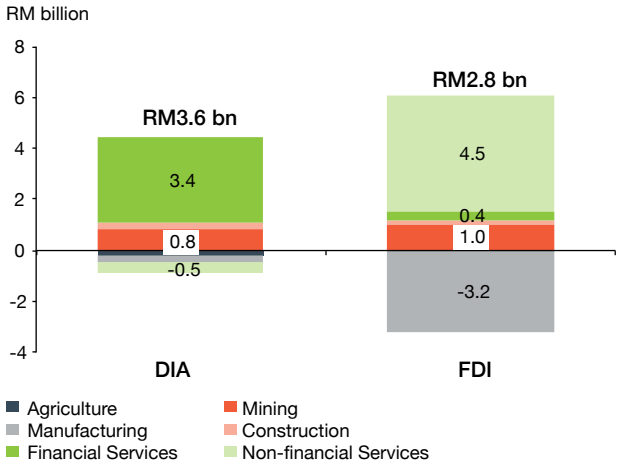


Source: Department of Statistics, Malaysia

[5] The difference between the goods surplus and trade surplus may arise from the exclusion of goods for processing, storage and distribution in the goods accounts as per the 6th Edition of the Balance of Payments and International Investment Position Manual (BPM6) by the IMF.

Net outflow in the direct investment account

Chart 17: Net Direct Investment Flows by Sector

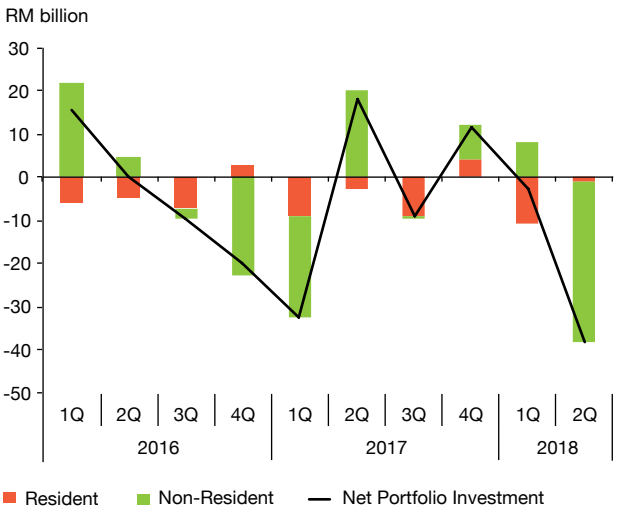


Note: For DIA, positive values refer to net outflows while negative values refer to net inflows

Source: Department of Statistics, Malaysia and Bank Negara Malaysia

Net outflow in portfolio investment account contributed mainly by non-residents

Chart 18: Portfolio Investments



Source: Department of Statistics, Malaysia and Bank Negara Malaysia

Financial account recorded net inflows

In the second quarter of 2018, the financial account registered a lower net inflow of RM9.2 billion (1Q 2018: net inflow of RM15.2 billion). Higher placements of currency and deposits with domestic financial institutions were partly offset by large outflows of non-resident portfolio investments.

The direct investment account registered a marginal net outflow of RM0.7 billion (1Q 2018: net inflow of RM10.7 billion). During the quarter, foreign direct investments (FDI) registered a lower net inflow of RM2.8 billion (1Q 2018: net inflow of RM12.0 billion), on account of lower retained earnings and some liquidation of foreign equity holdings in firms in the manufacturing sector, following acquisition by residents. FDI inflows were mainly channelled into the services sector, particularly the real estate and wholesale and retail trade sub-sectors, followed by the mining sector. Direct investments abroad (DIA) by Malaysian companies recorded a higher net outflow of RM3.6 billion (1Q 2018: net outflow of RM1.3 billion), mainly in the form of equity capital injection and reinvestment of earnings in subsidiaries abroad. DIA outflows were channelled mainly into the services sector, particularly the financial services sub-sector, followed by the mining sector.

The portfolio investment account registered a higher net outflow of RM38.3 billion (1Q 2018: net outflow of RM2.6 billion) attributed to non-resident outflows (2Q 2018: net outflow of RM37.2 billion; 1Q 2018: net inflow of RM7.9 billion) and continued net acquisition of foreign financial assets by resident domestic institutional investors, fund managers and banks (2Q 2018: net outflow of RM1.0 billion; 1Q 2018: net outflow of RM10.5 billion). Non-resident portfolio outflows were driven primarily by external factors, including expectations of a faster pace of US interest rate normalisation and further escalation of trade tensions and some concerns over domestic policy uncertainties.

The other investment account recorded a higher net inflow of RM48.4 billion (1Q 2018: net inflow of RM6.4 billion), due mainly to placements of currency and deposits with domestic financial institutions. Net errors and omissions amounted to -RM13.9 billion or -3.0% of total trade. The international reserves of Bank Negara Malaysia amounted to USD104.7 billion as at end-June 2018, compared to USD107.8 billion as at end-March 2018.

Manageable external debt

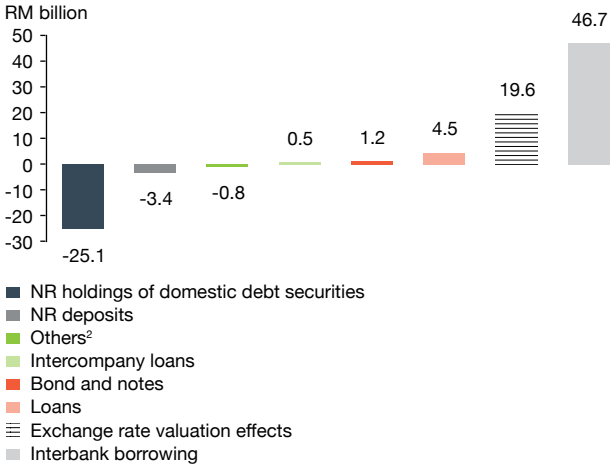
Malaysia's external debt amounted to RM936.5 billion, or 64.7% of GDP as at end-June 2018 (end-March: RM893.4 billion or 61.8% of GDP). The higher external debt reflects largely the increase in interbank borrowing and valuation effects of a weaker ringgit against selected major and regional currencies in the second quarter of 2018. These was partially offset by some liquidation of domestic debt securities by non-resident (NR) investors.

Malaysia's external debt remains manageable given its currency and maturity profiles, and the availability of large external assets. Close to one-third of total external debt is denominated in ringgit (31.2%; end-March: 34.8%), mainly in the form of NR holdings of domestic debt securities and in ringgit deposits in domestic banking institutions. As such, these liabilities are not subjected to valuation changes from the fluctuations in the ringgit exchange rate.

The remaining external debt of RM644.3 billion or 68.8% of total external debt (44.5% of GDP) is denominated in foreign currency (FC) and is subject to prudential liquidity management practices and hedging requirements on banking institutions and corporations. The bulk of these obligations are offshore borrowings, raised mainly to expand productive capacity and to better manage financial resources within corporate groups. As at end-June 2018, offshore borrowing stood at 40.5% of GDP (end-March: 35.8%), much lower compared to 60% of GDP during the Asian Financial Crisis in 1997-98.

Higher external debt in 2Q 2018

Chart 19: Changes in External Debt
Net change[1]: +RM43.1 billion

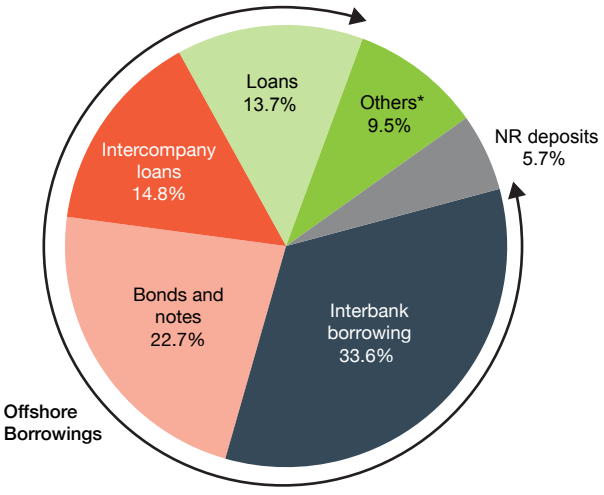


[1]Changes in individual debt instruments exclude exchange rate valuation effects
[2]Comprises trade credits, IMF allocation of SDRs and other debt liabilities
Note: NR refers to non-residents

Source: Ministry of Finance, Malaysia and Bank Negara Malaysia

FC-denominated debt subjected to prudent liquidity management practices and hedging requirements

Chart 20: Breakdown of Foreign Currency-denominated External Debt (% share)



*Includes trade credits and miscellaneous, such as insurance claims yet to be disbursed and interest payables on bonds and notes

Source: Ministry of Finance, Malaysia and Bank Negara Malaysia

Of the total FC-denominated external debt (inclusive of valuation effects), 39.3% (or amounting to RM253.0 billion) is accounted for by interbank borrowing and FC deposits in the domestic banking system. This largely reflects banks' intragroup liquidity management and placements of deposits from foreign parent entities. In addition, during the quarter, several banks strengthened their FC liquidity buffers in anticipation of potential withdrawal and maturities of foreign currency deposits, as well as expectations of tighter and volatile conditions in the foreign exhange market. Banks' funding and liquidity risks continue to be proactively managed via robust internal controls and policies, including internal limits on (i) interbank borrowings, (ii) foreign currency funding and liquidity positions and (iii) foreign exchange market risk exposures. Foreign-currency risk, measured in net open position of foreign currency denominated exposures is stable at 5.2% of banks' total capital.

Long-term bonds and notes issued offshore amounted to RM144.8 billion as at end-June 2018, and is channeled primarily to finance asset acquisitions abroad that will generate future income. The intercompany loans are typically on flexible and concessionary terms, such as no fixed repayment schedule or low interest rate.

From a maturity perspective, more than half of the total external debt is skewed towards medium- to long-term tenure (52.0% of total external debt; end-March: 55.5%), suggesting limited rollover risks.

As at 31 July 2018, international reserves stood at USD104.5 billion. The reserves position is sufficient to finance 7.5 months of retained imports and is 0.9 times the short-term external debt. Malaysia's international reserves coverage of short-term external debt is adequate given the availability of external assets for borrowers to meet their external obligations.

Reserves is not the only means to meet external obligations. The progressive liberalisation of foreign exchange administration rules has resulted in greater decentralisation of reserves. This is reflected in the increasing acquisition of assets abroad by residents and corporations. In particular, banks and corporations hold three-quarters of Malaysia's external assets (as at end-2Q 2018: RM1.3 trillion), which can also be drawn down to meet their external debt obligations (RM740.9 billion), without creating a claim on international reserves. The adequate level of international reserves, together with the availability of substantial external assets by banks and corporations, and a flexible exchange rate, will continue to serve as important buffers against potential external shocks.

Box Article

Divergence of Economic Performance and Public Sentiments

Authors: Ahmad Haris Mohd Zukki, Joanne Tay Rui Ying and Mohamed Rizwan Habeeb Rahuman

HIGHLIGHTS

- Despite the strong macroeconomic performance in recent years, there have been some reservations that the high GDP growth has not translated into improvements in the overall well-being of Malaysians.
- Factors that have contributed to this divergence include uneven distribution of income, rising cost of living, high debt obligations, deteriorating housing affordability and perceptions of corruption.
- Beyond macro headline figures such as GDP and inflation, greater emphasis must be placed on the distributional aspects of growth, with sharper focus on the quality of jobs created, cost of living and housing affordability.

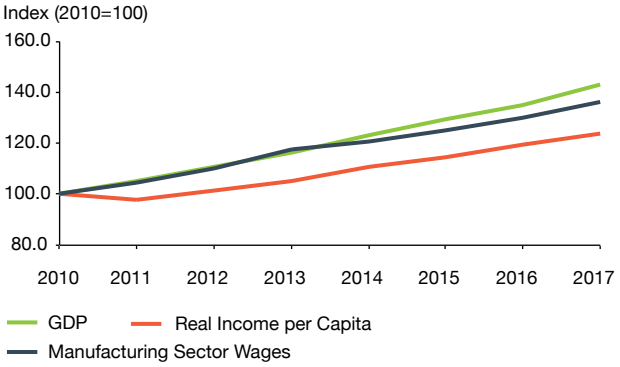
Introduction

Growth of the Malaysian economy improved significantly to 5.9% in 2017, the highest since 2014. The World Bank commended this economic performance as a "significant acceleration in growth" and expects Malaysia to "achieve high income status in the next few years" (World Bank, 2017). However, the uplifting growth narrative contrasts with the on-the-ground sentiments. In particular, the MIER Consumer Sentiment Index had consistently remained below the optimism threshold in the past three years (2014-17), the longest period that it remained below the optimism threshold. This is symptomatic of the broad-based reservations that Malaysia's strong growth performance has not translated into material improvements in the well-being of Malaysians. This article seeks to explain the paradox of Malaysia's headline macroeconomic performance and discontent among Malaysians on their economic well-being.

Uneven distribution of income

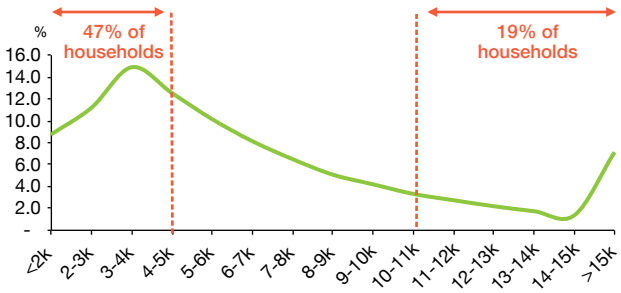
On aggregate, Malaysia's growth improvements have contributed to a steady increase in income. Real GDP grew by 5.2% per annum and income per capita rose by 3.1% per year between 2010 and 2017. This trend is also observed in the steady increase in manufacturing sector wages during the same period (Figure 1). Nevertheless, at a more granular level, it is observed that the nation's growth dividends have not been adequately distributed across all segments of society. Globally, this is a prevalent occurrence, as the world's top 1% earned twice as much as the bottom 50% between 1988 to 2008 (Milanovic, 2013). In Malaysia, while overall income inequality, as measured by the Gini coefficient, has trended lower, there is some scope to improve the nation's income distribution. In 2016, the number of households earning less than RM5,000 per month is more than double those earning more than RM10,000 (Figure 2). This partly reflects uneven job creation and wages across different skill levels. Between 2015-17, 54% of total net employment gains were in the low- to mid-skilled segments, which on average pays RM1,095 and RM1,493 monthly, respectively.

Figure 1: GDP, Real Income per Capita and Manufacturing Sector Wages (2010 Prices), 2010-2017



Source: Department of Statistics, Malaysia

Figure 2: Percentage Distribution of Households by Income Category, 2016



Source: Household Income and Basic Amenities Survey 2016, Department of Statistics Malaysia

Rising cost of living

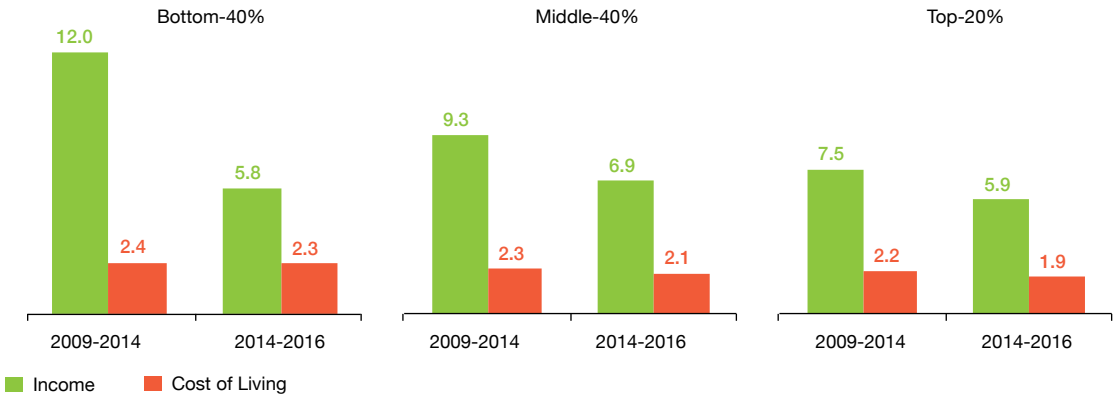
Households are also forced to grapple with higher expenditure commitments, which is one of the key factors that affect their optimism. In the past three years, multiple shocks, such as subsidy rationalisation, the introduction of GST and a weaker ringgit, have collectively led to higher cost of living. The rising cost pressures were reflected in the higher average inflation of 2.7% post-GST (Apr. 2015 – Apr. 2018), compared to the pre-GST average of 2.0% (Jan. 2009 – Mar. 2015). During the same period, following the ringgit depreciation, the cost of imported finished goods in the CPI basket also increased by 2%, compared to a smaller increase of 0.8% between Jan. 2009 – Mar. 2015.

The higher cost of living has been more profoundly felt by vulnerable and lower-income households. Notably, 35%[1] of a bottom-40[2] (B40) households' average expenditure is on food, which experienced the largest price increase during the same period (Food inflation between Apr. 2015 – Apr. 2018: 3.8%; Other expenditure: 2.3%). B40 households also experienced much slower income growth relative to higher-income households (Figure 3). As a result, these households are also more vulnerable to the increase in living costs as they have more limited income buffers. In particular, the income increase for B40 households were almost completely offset by the increase in expenditure in 2016 (Figure 4), mainly for the purchase of necessities. In contrast, households in the middle-40% (M40) and top-20% (T20) accumulated higher income buffers, due to larger income increases in level terms. This reinforces the notion that the improvement in macroeconomic conditions only benefits selected segments of the Malaysian society, which also dampens household sentiments.

[1] Refers to spending on food and non-alcoholic beverages, including food away from home.
[2] B40 households refer to households with income levels below RM4,360 (M40: RM4,361 to RM9,615, T20: ≥RM9,616) in 2016.

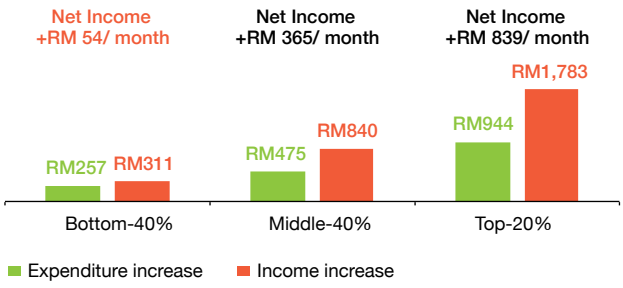
Given the uneven distribution of income and sustained increase in cost of living, some households are unable to realise their aspiration for a higher standard of living. Even a decent living standard may be unattainable for some. In 2016, up to 27% of households in Kuala Lumpur were earning below the living wage[3] required to achieve a socially acceptable minimum standard of living (Chong et al., 2018). The shortfall between living wage and current wage levels prevents households from meaningful societal participation and opportunity for personal and family development, such as festive season travel and recreational activities. This is even more prominent for the vulnerable households, given their persistently low income levels.

Figure 3: Household Income and Cost of Living Growth (%, CAGR)[4]



Source: Household Income and Basic Amenities Survey 2016, Household Expenditure Survey 2016, Department of Statistics Malaysia

Figure 4: Net Average Income and Change in Mean Household Income and Expenditure, 2014-2016



Source: Household Income and Basic Amenities Survey 2016, Household Expenditure Survey 2016, Department of Statistics Malaysia

[3] The living wage in Kuala Lumpur for a single adult is RM2,700, (Couple without child: RM4.500, Couple with two children: RM6,500)
[4] Cost of living is computed based on the share of household expenditure by category for different income groups obtained from the 2016 Household Expenditure Survey and the Consumer Price Index.

Housing affordability

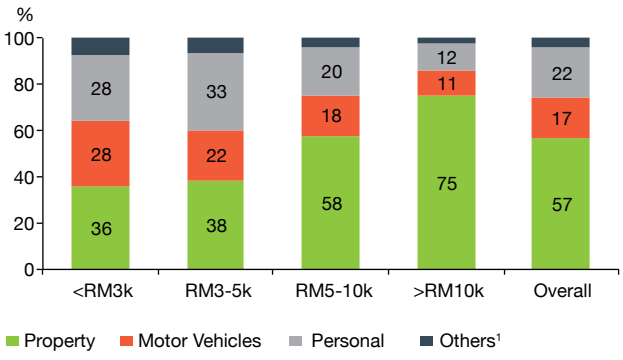
Owning a property is the aspiration of many Malaysians, as evidenced by the nation's high homeownership rate (2016: 76.3%). This Malaysian dream, however, is becoming more elusive, as houses are now less affordable across most parts of the nation. In 2016, Malaysian house prices were on average about 5 times the annual median household income (2009: 4.4 times), making houses seriously unaffordable compared to the international affordability standard of 3.0 times. Based on the median household income of RM5,228, the maximum affordable house price in Malaysia is estimated to be RM282,000 (Cheah et al., 2017). However, actual median house price was 11% higher at RM313,000.

The deterioration in housing affordability is largely attributed to supply-demand mismatches and slower income growth. On the supply front, housing construction has consistently fallen short of household demand. Between 2014-16, there was an average supply of 114,000 new houses, markedly lower than the formation of 154,000 new households. The undersupply of affordable homes is also exacerbated by the fact that recent housing launches were skewed towards the higher-end property segment, which are out of reach for many Malaysians. The supply-demand mismatch, together with the societal preference towards homeownership instead of renting, has exerted further upward pressure on house prices. Fundamentally, household income growth has also not kept up with the rise in house prices. Between 2007-16, average house prices increased by 10%, but income only grew at an average of 8%. The widening gap between income and house prices worsens the perception of rising cost of living, as housing accounts for a quarter of household spending[5].

Spending constraints resulting from elevated household debt

An additional issue weighing on Malaysians' sentiments is the elevated level of indebtedness. While household debt growth has moderated in recent years, it remains relatively high at 84.0% of GDP in 1Q 18. Despite recent income gains, the financial position of households has not improved significantly, as a sizeable portion of household income is directed to service debt obligations. Between 2014 and 2016, the debt service ratio of Malaysian households had increased from 30.9% to 32.7%. High debt burden is more prevalent among the lower-income households, accounted mostly by personal and motor vehicle loans (Figure 5). For 21% of households earning less than RM3,000, more than 60% of their income is used to repay debt (Figure 6) (Borhan et al., 2018). This situation directly affects sentiments and future spending decisions - the current accumulation of debt is akin to reducing consumption in the future. Highly indebted households are also less optimistic about their economic well-being, as they are more vulnerable to income and expenditure shocks.

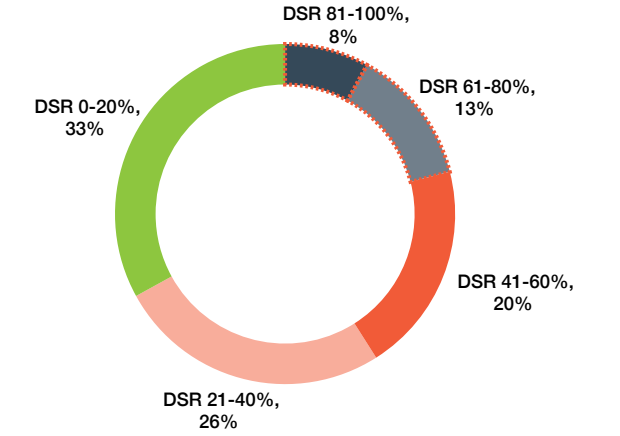
Figure 5: Household Debt by Purpose and Income Group, 2016



[1]Refers to securities and others
Source: Bank Negara Malaysia

[6] Department of Statistics, Malaysia – Household Expenditure Survey 2016

Figure 6: Debt Service Ratio (DSR) of Households Earning Less than RM3,000, 2016



Source: Bank Negara Malaysia

Perception of corruption and high exposure to negative news

The perception of corruption and frequent exposure to negative news are also factors that affect the sentiments of Malaysians on the economy and the state of the nation. Between 2015 and 2017, Malaysia experienced a steady fall in the ranking of the Transparency International Corruption Perception Index to 62nd in 2017 (2015: 54th). The perception of corruption weakens the belief among households and businesses of fair opportunities to pursue their economic aspirations. Of greater concern, studies have shown that corruption could negatively affect economic well-being through higher income inequality[6] (Gupta et al., 2002). Additionally, households are also continuously exposed to a steady flow of negative news, particularly in social media, which often stand in stark contrast to news reports in mainstream media. This fuels further scepticism over the strength of the Malaysian economy.

Conclusion

Across most economic and social metrics, it is apparent that the Malaysian economy has performed considerably well. However, there are critical gaps felt by vulnerable segments in the society, particularly the B40 and lower M40 households, which must be addressed. An immediate policy priority is to ensure that the strong economic performance will lead to better economic outcomes for all, and not just selected segments of society. If left unacknowledged and unaddressed, this gap could widen, fuelling discontent, leading to future imbalances and an undesirable outcome of uneven prosperity.

On a promising note, Malaysians are exhibiting a high degree of optimism that has not been observed in years. Consumer sentiments recently hit a 20-year high in 2Q 2018. The Malaysian economy is expected to continue on a steady growth path, with strong fundamentals supported by positive domestic and external outlook. These positive tailwinds provide fertile grounds for initiating deep economic and structural reforms, which should prioritise efforts to raise income levels across all household segments, lift productivity and wages, and improve housing affordability. This is indeed the country's opportunity to achieve higher-quality economic growth that is sustainable and beneficial to all Malaysians.

[6] Income inequality as measured through the Gini coefficient, is assessed to increase by 0.11 points when corruption worsens by 1 standard deviation.

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Monetary and Financial Developments

HIGHLIGHTS

- The domestic financial markets, including the foreign exchange market, bond market and equity market, were driven mainly by external developments, with movements in line with regional markets.
- Despite non-resident portfolio outflows during the quarter, liquidity conditions remained sufficient to facilitate financial intermediation, with sustained net financing growth.

The ringgit depreciated against the US dollar in the second quarter

The ringgit depreciation against the US dollar was in line with regional currencies, as expectations of a faster pace of monetary policy normalisation in the US, which resulted in higher US Treasury long-term yields and stronger US dollar, led to non-resident portfolio outflows from regional economies. The escalation of global trade tensions also contributed to the negative sentiments during the quarter. Going forward, the ringgit will continue to be influenced by external uncertainties, in particular the pace of monetary policy normalisation in the US and global trade tensions. On the domestic front, the underlying resilience of the economy, together with policy clarity will provide the support for the ringgit.

Regional currencies depreciated against the US dollar

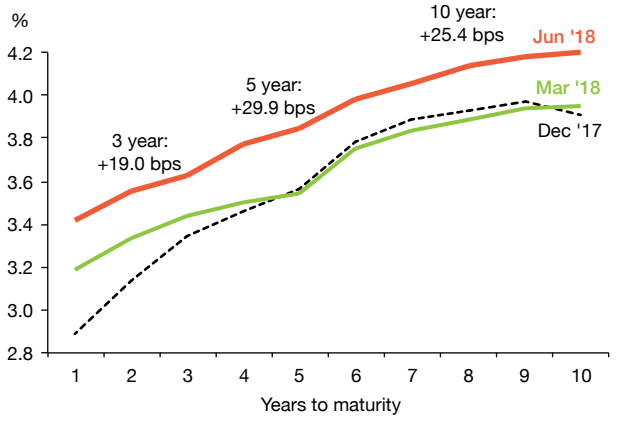
Chart 21: Summary of Performance of Regional Currencies Against the US Dollar (1 April - 29 June 2018)



Source: Bank Negara Malaysia

MGS yield curve shifted upwards during the second quarter

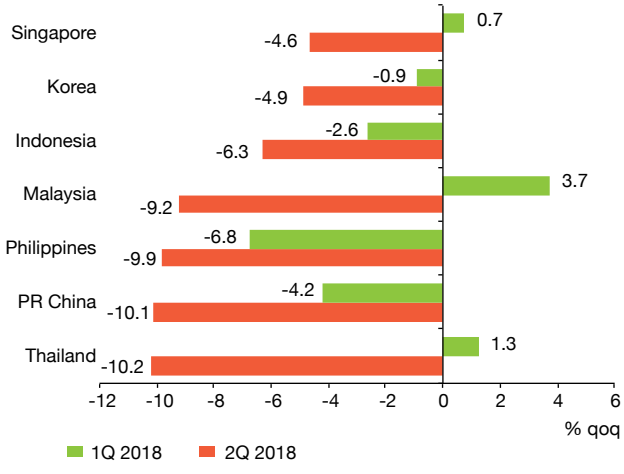
Chart 22: Trend in MGS Yields



Source: Bank Negara Malaysia

Domestic equity market declined during the second quarter

Chart 23: Performance of Regional Equity Markets



Source: Bloomberg

Government bond yields trended higher due to non-resident portfolio outflows amid external developments

During the second quarter, domestic bond yields increased across tenures amid non-resident portfolio outflows. The broad-based sell-off was triggered by risk-off sentiments arising from expectations of a faster pace of monetary policy normalisation in the US and escalating trade tensions. These external developments also led to higher US Treasury yields, which added upward pressure on MGS yields. As a result, the 3-year, 5-year and 10-year MGS yields increased by 19.0, 29.9 and 25.4 basis points, respectively.

The equity market experienced elevated volatility due to a confluence of external and domestic factors

The FBM KLCI continued to be affected by external factors during the second quarter, declining by 9.2% to close at 1,691.5 points as at end-June (end-March 2018: 1,863.5 points). The decline was in line with the downward trend in regional equity markets as non-resident investors shifted funds to safe-haven assets amid uncertainties on the pace of monetary policy normalisation in the US and rising global trade tensions. Domestically, construction counters were affected by reviews on large infrastructure projects, which weighed on the overall index.

Higher real return during the quarter amid lower inflation

Nominal interest rates in the wholesale and retail markets were stable throughout the quarter. With the 3-month KLIBOR unchanged at 3.69%, interbank rates across other maturities were also broadly stable. In the retail market, the weighted average base rate (BR) and the weighted average lending rate (ALR) on outstanding loans were stable at 3.89% and 5.43% respectively.

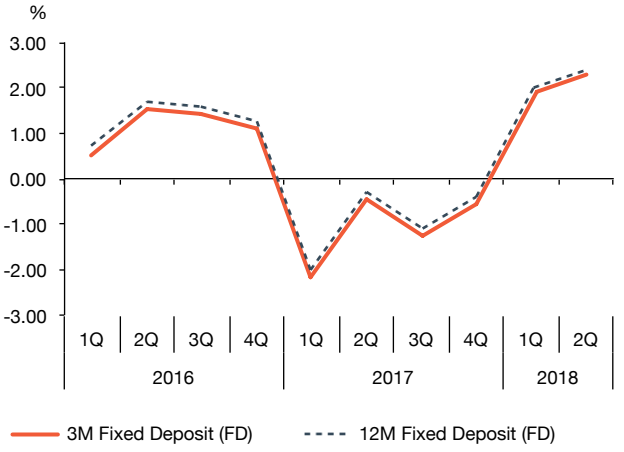
Against moderating inflation, real fixed deposit (FD) rates continued to increase in the second quarter. In particular, the real 12-month FD rate increased to 2.53% from 2.03% in the first quarter.

Liquidity conditions remained sufficient to facilitate financial intermediation

In the banking system, liquidity conditions remained sufficient at both the institutional and system-wide levels. Reflecting the overall non-resident portfolio outflows during the quarter, the level of surplus liquidity placed with the Bank was lower. Nevertheless, interbank lending and borrowing activities remained orderly. At the institutional level, most banks continued to maintain surplus liquidity positions.

Real deposit rates increased, reflecting lower inflation

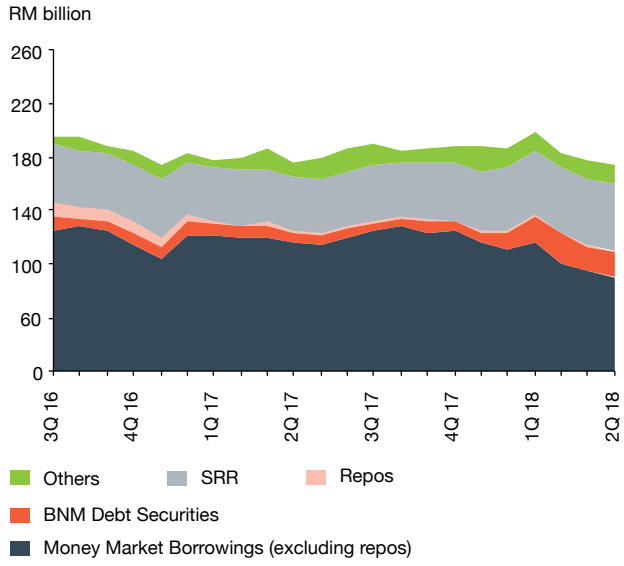
Chart 24: Real Fixed Deposit Rates (by Maturity), as at End-period



Source: Bank Negara Malaysia

Outstanding surplus ringgit liquidity placed with the Bank declined

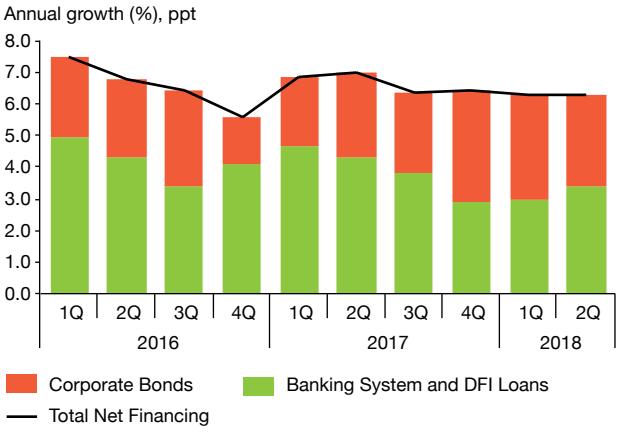
Chart 25: Outstanding Ringgit Liquidity Placed with Bank Negara Malaysia, as at End-period



Source: Bank Negara Malaysia

Net financing growth supported by growth of loans and corporate bonds

Chart 26: Contribution to Net Financing Growth



* Net financing comprises outstanding banking system and DFI loans, and outstanding corporate bonds

Source: Bank Negara Malaysia

Net financing sustained during the quarter

The annual growth of net financing was sustained at 6.3% in the second quarter (1Q 2018: 6.3%). The growth in outstanding loans[6] increased to 4.4% during the quarter (1Q 2018: 3.9%), while the growth of net outstanding issuances of corporate bonds[7] continued to expand at a double-digit rate of 12.4% (1Q 2018: 14.1%). During the quarter, corporate bonds were mainly issued for infrastructure project financing and working capital. Total outstanding business loans increased by 2.2% (1Q 2018: 1.3%), driven mainly by the *manufacturing; electricity, gas and water supply;* and *wholesale and retail trade, restaurants and hotels* sectors. Loan growth to SMEs was steady at 4.6% (1Q 2018: 4.8%) and the amount of loans disbursed sustained during the quarter (RM73.4 billion; 1Q 2018: RM75.9 billion). The growth of outstanding household loans remained stable at 5.3% during the period (1Q 2018: 5.2%). Of note, the growth of household loan applications and approvals for the *purchase of passenger cars* increased significantly in the second quarter to 14.2% and 21.0%, respectively, due mainly to the higher demand for financing amid stronger car sales following the zerorisation of the GST rate (1Q 2018: -6.2% and 0.2%, respectively).

[6] Loans extended by both banking system and development financial institutions (DFIs).
[7] Corporate bonds exclude issuances by Cagamas, Danaharta, Danamodal and non-residents.

The Bank's Policy Considerations

HIGHLIGHTS

- **The MPC kept the Overnight Policy Rate unchanged in May and July, maintaining the degree of monetary accommodation amid the positive domestic demand outlook.**

The OPR remained accommodative

In May and July 2018, the Monetary Policy Committee (MPC) maintained the Overnight Policy Rate (OPR) at 3.25%.

The Malaysian economy continued to expand in the first half of 2018, supported by private sector activity. In terms of growth prospects, the MPC assessed that growth of the domestic economy is expected to remain firm. Private consumption will be underpinned by continued wage and employment growth, with an additional lift from higher household spending due to the zerorisation of the GST. Investment activity is projected to be supported by capacity expansion mainly in the export-oriented industries and ongoing infrastructure projects. The external sector will continue to benefit from the continued expansion in global growth, despite emerging risks amid escalation of trade tensions.

Headline inflation in 2018 is projected to be lower compared to the forecast earlier in the year. This revised forecast has taken into account the anticipated impact of recent policy measures, including the zerorisation of the GST and the fixing of retail fuel prices, on domestic cost factors. However, the low inflation environment is expected to be transitory, reflecting the one-off impact of the policy measures that would lapse from the second half of 2019. Core inflation is nevertheless expected to remain relatively stable in line with sustained private sector spending.

The MPC will continue to monitor key risks from any material shifts in the prospects for domestic growth and inflation. Risks to the global outlook have tilted to the downside from more balanced prospects earlier in the year, reflecting the escalating trade tensions, and spillover effects from global liquidity shifts in an environment of monetary policy normalisation. Domestically, the growth outlook will be further supported with greater certainty in policy in the coming months. The inflation outlook is subject to uncertainties from the extent of pass-through from the policies on consumption tax to prices.

The positive domestic demand outlook, sound financial sector and improving current account surplus of the balance of payments will continue to support Malaysia's fundamentals. Domestic financial markets have remained resilient through heightened volatility caused by non-resident portfolio outflows. The ringgit exchange rate would be more reflective of the underlying fundamentals of the economy when the external and domestic uncertainties recede. The domestic monetary and financial conditions remain supportive of economic growth. Monetary operations will continue to ensure sufficient liquidity to support the orderly functioning of money and foreign exchange markets and intermediation activity.

Domestic financial stability remain preserved

Domestic financial stability continued to be preserved, while overall level of risks remain contained and unchanged. Domestic financial institutions remain resilient with banks continuing to be well-capitalised, and having sufficient liquidity to support the financing needs of the real economy. Households continue to record low impairment levels amid sustained debt servicing capacity. Overall risk outlook for the business sector remains stable. Direct risks from exposures to the non-residential property segment, where certain segments continue to face an oversupply situation, remain low as banks maintain sound underwriting standards. A more comprehensive assessment on risks to financial stability will be published by the Bank in September.

Other policy highlights in the second quarter of 2018

Development financial institutions (DFIs) play a crucial role in developing strategic sectors in the economy. To enable DFIs to pursue such development mandates sustainably, it is important that DFIs continue to provide credit intermediation in a prudent manner. As part of the Bank's continued efforts to enhance financial institutions' risk management practices, DFIs have been encouraged to adopt relevant standards and practices set out in the credit risk policy document issued to financial institutions. Concurrently, the Bank will continue to engage closely with DFIs in establishing prudential standards on credit risk management that is tailored to reflect their roles and mandates.

In line with the increasing depth and breadth of Islamic finance, the Bank issued two policy documents that specify the Shariah and operating requirements relating to Ijarah and Bai' al-Sarf (currency exchange) contracts. The policy documents highlight salient features of the respective contracts and outline regulatory expectations on governance, risk management, disclosure and business conduct for both contracts.

The Bank has also published two exposure drafts to further develop the takaful sector in Malaysia. The Trade Credit Insurance and Trade Credit Takaful exposure drafts are intended to position insurance and takaful products to better meet the protection needs of businesses. Proposed revisions to the current Takaful Operational Framework have also been issued for public consultation. The revisions are aimed at spurring greater innovation in the takaful sector while safeguarding the best interests of takaful participants.

In view of the increasing frequency and ferocity of cyber-attacks, PayNet, the operator of shared payments infrastructures for Malaysia, issued guidelines on cyber resilience for participants of its services. The guidelines seek to provide PayNet's participants, including financial institutions, with guidance to assess and improve their ability to prevent, detect and respond to cyber-attacks. The guidelines also include protective measures to mitigate cyber risks relating to PayNet and the ecosystem as a whole.

Macroeconomic Outlook

HIGHLIGHTS

- Continued expansion in global growth, underpinned by the advanced and emerging market economies.
- The Malaysian economy is expected to remain on a steady growth path in 2018.
- Headline inflation is expected to moderate in 2018 due mainly to the changes in the consumption tax policy.

Global growth to continue expanding

Global economic momentum, although still strong, is expected to moderate in the second half of 2018.

In advanced economies, activity will continue to be driven by strong labour market conditions, lending support to private consumption. The US economy will also continue to benefit from the impact of expansionary fiscal policy on business spending, amid more moderate investments in other advanced nations.

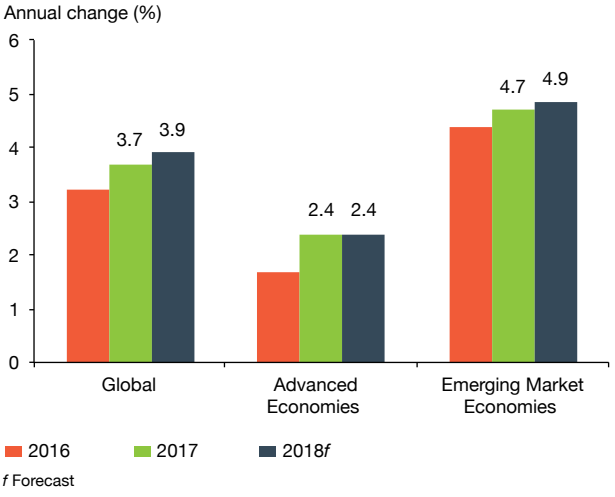
Growth in the Asian region is expected to slow in the second half of the year, as the global trade cycle normalises. Nevertheless, domestic activity will continue to anchor growth, supported by expansionary fiscal measures, such as higher infrastructure spending.

Downside risks to the global economy have risen in recent months. Trade developments remain the primary source of concern, as conflicts among major economies continue to worsen. Further escalation is likely to weigh on trade and business sentiment in export-related industries. There will also be disruptions in the global supply chains from higher input costs, which will constrain profitability.

Downside risks also stem from ongoing monetary policy normalisation in the advanced economies. Amid rising inflationary pressures, a faster-than-expected pace of tightening could accelerate capital outflows from emerging economies, posing further risk to the global outlook.

Growth improvements projected across regions

Chart 27: GDP Growth

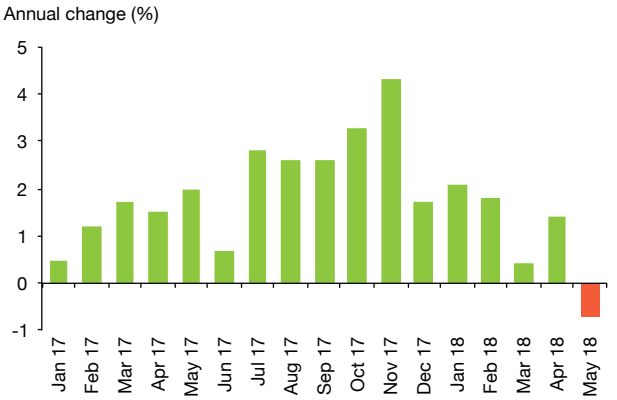


f Forecast

Source: IMF World Economic Outlook (July 2018)

Mixed performance of leading indicator in recent months

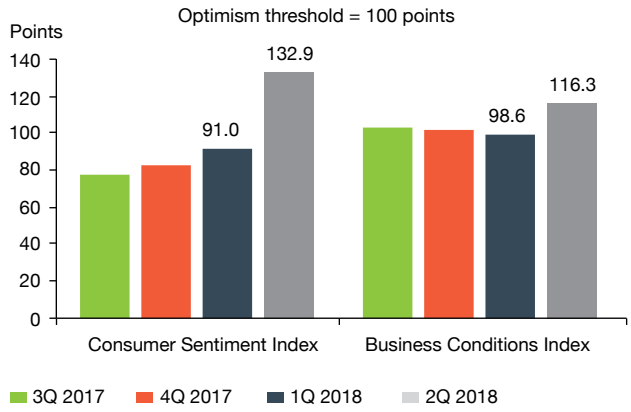
Chart 28: Composite Leading Index



Source: Department of Statistics, Malaysia

Strong improvements in sentiment indicators in 2Q 2018

Chart 29: MIER Consumer Sentiments and Business Conditions Index



Source: Malaysian Institute of Economic Research

The Malaysian economy is expected to remain on a steady growth path in 2018

The Malaysian economy continued to expand in the first half of 2018. Private sector activity remained firm. Going forward, growth is expected to be broadly sustained, supported mainly by private sector spending.

While the Department of Statistics, Malaysia's Composite Leading Index indicated mixed performance in recent months, the strong improvements in the MIER Consumer Sentiments Index and MIER Business Conditions Index are expected to be supportive of private sector spending. Private consumption will be underpinned by continued wage and employment growth, with an additional impetus from higher household spending due to the zerorisation of GST. Investment activity will be driven by capacity expansion mainly in the export-oriented industries and ongoing infrastructure projects, particularly in the transport and utilities sub-sectors. Nevertheless, overall growth may be partially weighed down by lower public sector spending. On the external front, trade activity will continue to benefit from the continued expansion in global growth. As such, Malaysia is still expected to achieve a healthy current account surplus of 2-3% of GNI for the year.

Greater certainty in domestic policy in the coming months is expected to provide support to growth prospects. Malaysia's macroeconomic fundamentals remain strong, and thus provides the country with the requisite buffers to effectively manage potential shocks to the economy.

While headline inflation is expected to moderate, the extent of moderation would depend on the pass-through from changes in the consumption tax policy

Headline inflation is projected to remain moderate during the zerorisation of the GST, before it increases in September after the implementation of the sales and services tax (SST). This inflation outlook would depend on the extent of pass-through from the zerorisation of the GST rate and from the SST. For 2018 as a whole, headline inflation could be lower than earlier forecast.

Underlying inflation, which excludes the impact of changes in the consumption tax policy, is expected to remain relatively stable in the coming quarters supported by sustained private sector spending. Demand-driven inflationary pressures is expected to remain contained amid the lack of persistent tightness in capital stock and wage pressures.

Feature Article

Transforming Mobile Phones into E-Wallets in Malaysia

Authors: Lee Zhi Wei and Daniel Khaw Peng Tsu

HIGHLIGHTS

- The Bank's reforms have enabled significant progress in Malaysia's efforts to migrate to e-payments. Moving forward, mobile payments have a significant potential to reduce the usage of cash. Mobile payments are at an early stage of development in Malaysia, but are gaining traction amid the entry of new non-bank players.
- To spur greater adoption of mobile payments, the Bank introduced the Interoperable Credit Transfer Framework (ICTF) that establishes a shared payment infrastructure that connects bank and non-bank accounts while managing the resultant risks.
- The Real-time Retail Payments Platform (RPP) (expected to go live by end-2018) will enable seamless and secure payments via the use of simple identifiers, such as mobile phone, IC, and business registration numbers, and the use of a common Quick Response (QR) code.

Introduction

The migration from paper-based instruments, such as cash and cheques, to cost-effective electronic payment (e-payment) alternatives has the potential to enhance a nation's competitiveness. There are two key aspects: (i) greater cost savings and efficiency gains estimated to be up to 1% of Gross Domestic Product (GDP) yearly[1]; and (ii) lower risk of leakages to the shadow economy, particularly through illicit activities such as tax evasion and corruption. This article provides a broad overview of the Bank's progress in accelerating Malaysia's migration to e-payments, with a focus on key developments relating to mobile payments and its potential to transform Malaysia's payments landscape.

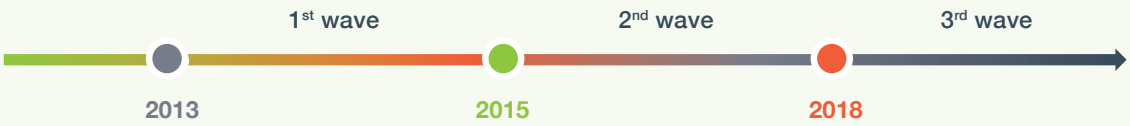
Encouraging progress made in accelerating Malaysia's migration to e-payments

The Bank has a longstanding commitment to accelerate Malaysia's migration to e-payments, which is encapsulated in the Financial Sector Blueprint 2011-2020 (FSBP). To this end, the Bank's strategy has been to optimise and strengthen existing infrastructure that support e-payments. This includes leveraging on electronic fund transfer services (such as the Interbank GIRO (IBG) and the Instant Transfer services which are accessible to 99.9% of current and savings account holders in Malaysia) as an alternative to cheques. To reduce the usage of cash, the Bank continues to promote the use of debit cards given its high penetration[2] among Malaysians. To foster an enabling environment for greater adoption of e-payments, the Bank has introduced three broad waves of reform measures (Diagram 1). Collectively, these reform measures aim to correct price distortions, 'rewire' market incentives, and improve the accessibility, quality and value proposition of e-payment services.

[1] Based on a study conducted by the European Central Bank in 2012, countries with high usage of e-payments as compared to cash and cheques incurred a lower retail payment cost of as low as 0.42% of GDP, while countries with low usage of e-payments as compared to cash and cheques incurred a higher retail payment cost of as high as 1.35% of GDP.

[2] As at end-2017, there were 44.1 million ATM cards that doubled up as debit cards for a population of 32.1 million in Malaysia.

Diagram 1: The Bank's three waves of reform measures for Malaysia's payment systems



Focus Areas	**Electronic fund transfers to displace cheques**	**Debit cards to displace cash**	**Mobile payment to displace cash and cheques**
Challenges	Price distortion between cheques and credit transfer	• High MDR[1] • Moderation in POS terminal growth	Estimated 12 mil adults without online banking services
Initiatives	**Pricing Reform Framework and ePIF[1]** • IBG (max. fee: 10 sen) • Instant Transfer (max. fee: 50 sen) • Introduction of cheque fees and ePIF[1]	**PCRF[1]** • Ceiling for interchange fees • Establishment of MDF[1] • Implementation of Chip and PIN	**ICTF[1]** • Open and fair access to shared payment infrastructure for banks and eligible non-banks • Account reachability through common identifiers • Interoperable QR scheme and common QR code • Instant Transfer transactions up to RM5k to be FOC[2] for individuals and SMEs[3]

[1] Refers to e-Payment Incentive Fund (ePIF), Merchant Discount Rate (MDR), Payment Card Reform Framework (PCRF), Market Development Fund (MDF) and Interoperable Credit Transfer Framework (ICTF)
[2] Free-of-charge
[3] Effective 1 July 2018

As a result of these reform measures, significant progress has been made in widening the adoption of e-payments in Malaysia. Since 2011, the annual cheque volume had declined by 42% while the volume of electronic fund transfers had surpassed cheques by 2.8 times in 2017. In parallel, the volume of debit card transactions had increased by more than six times from 25.1 million in 2011 to 162.3 million in 2017 while the number of point-of-sale (POS) terminals had almost doubled from 207,499 in 2011 to 407,122 in 2017.

Notwithstanding this progress, challenges remain to reduce the usage of cash, particularly among lower tier merchants which often perceive cash to be free despite hidden economic costs (Table 1). For lower tier merchants, the need to pay a transaction fee (also known as the Merchant Discount Rate or MDR) to subscribe to POS terminal facilities continues to be a barrier for such merchants to accept payment cards.[3] This is not unique to Malaysia, as cash usage remains prevalent in most countries (with Sweden being a notable exception) (Chart 1).

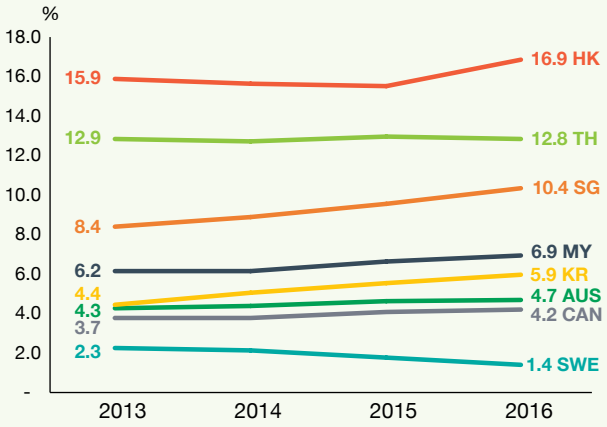
[3] This is so notwithstanding the decline in the average Merchant Discount Rates (MDR) for the period between 2015 and 2017 following the implementation of the Bank's Payment Card Reform Framework, i.e. from 0.86% to 0.56% for the domestic brand debit cards (MyDebit), from 1.39% to 0.89% for international brand debit cards (Visa, Mastercard and UnionPay) and from 1.48% to 1.33% for credit cards.

Table 1: Economic costs of using cash

Type of cost	Examples
Resource costs (Includes time-based costs, labour-based costs, travel costs, capital/technology-based costs and security costs)	• Time to get to an Automated Teller Machine (ATM) to withdraw cash or initiate a payment; • Time costs relating to preparing the cash register before opening hours and closing the cash register at the end of the business day; • End-of-day cash processing at a store or reconciliation; • Error costs relating to losses typically incurred by businesses and government agencies due to imbalances between cash registers and actual receipts; • Mileage to get to the bank branch; • Insurance costs with respect to cash, including insurance premiums paid against losses induced by activities related to the production, issuing, collecting, storing and destroying of banknotes and coins; and • Costs relating to loss, robbery, fraud and theft that are induced by the occurrence of loss, fraud and/or theft of banknotes and coins to the extent they are not covered by insurance.
Transfer costs (Includes fees paid to other stakeholders in the retail payment process for services rendered)	• Fees paid to external actors that are not generated in-house (e.g. to cash logistic companies)

Source: World Bank Group

Chart 1: Ratio of cash-in-circulation over Gross Domestic Product (CIC/GDP) of selected countries[4]



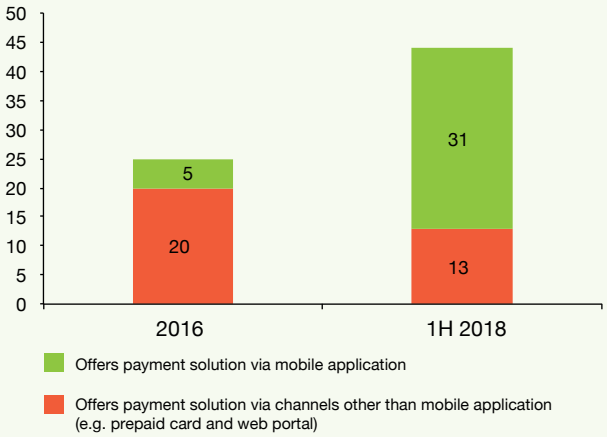
Mobile payments – the next transformative wave in payments

To accelerate the reduction of cash usage, mobile payments are expected to play a significant role going forward. Given the high mobile phone penetration rate in Malaysia[5], mobile phones can readily serve as a means of making and accepting payments with no additional infrastructure costs. For example, the use of Quick Response (QR) code payments can remove the need for POS terminals. At the same time, consumers in Malaysia are also becoming increasingly familiar with making transactions via the mobile channel. The number of mobile banking accounts had increased to 11.5 million in 2017 (2011: 1.6 million). Financial transactions via mobile banking also grew at a compounded annual growth rate of 91% over the past seven years, recording a total of 106.1 million transactions valued at RM48.3 billion in 2017 (2011: 2.2 million transactions; RM0.9 billion).

[4] Australia (AUS), Canada (CAN), Hong Kong (HK), Malaysia (MY), Singapore (SG), South Korea (KR), Sweden (SWE) and Thailand (TH)
[5] As at end-2017, there were 42.4 million mobile phone subscriptions (of which 75.9% are smartphones) for a population of 32.1 million in Malaysia.

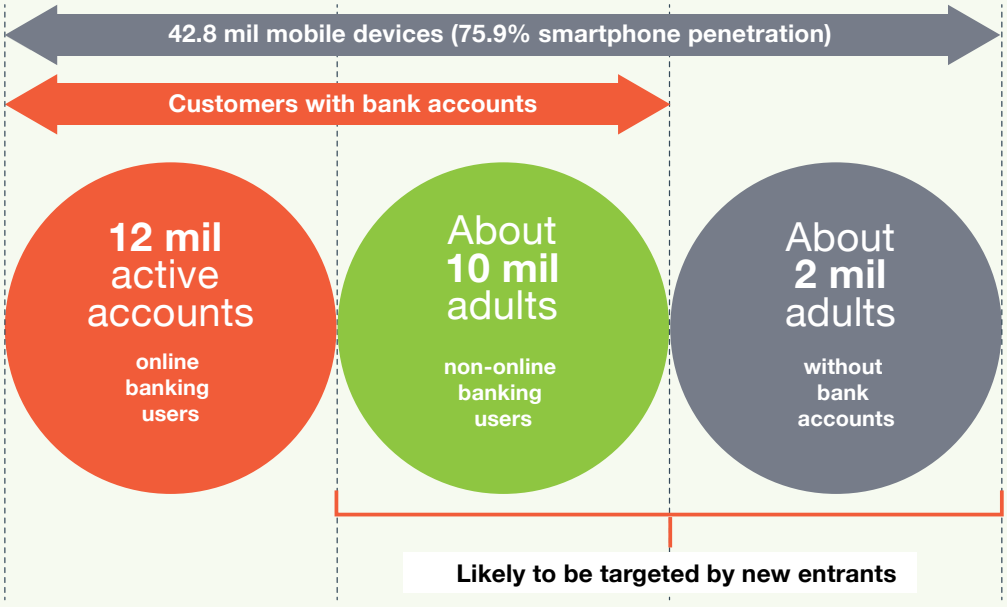
Complementing this, there has been a surge of interest to provide mobile payment services in Malaysia in recent years. The number of approved non-bank e-money issuers had increased from 25 in 2016 to 44 as at end-June 2018, with most of the new entrants offering payment solutions via mobile applications (Chart 2).

Chart 2: Number of approved non-bank e-money issuers in Malaysia



This is expected to contribute further to a more vibrant ecosystem as mobile payment providers develop more new and innovative applications to entice users to adopt digital payment services, including in currently untapped segments. The mobile phone is thus envisioned to accelerate the on-boarding of an estimated 12 million adults (out of a total adult population[6] of 24 million in Malaysia) who currently remain underserved or unserved by existing Internet banking solutions to adopt digital payments (Diagram 2). This is also consistent with the findings made by the World Bank[7] in some countries, where mobile payments had helped to increase access to financial services for adults in lower income groups.

Diagram 2: The mobile phone as a convenient channel to on-board underserved and unserved segments



[6] Individuals aged 15 and above.
[7] Based on the World Bank's "The Global Findex Database 2017" (page 28-29).

Although Malaysia's mobile payment landscape continues to be dominated by banks – which accounted for 98.4% and 99.4% of mobile payment transaction volume and value, respectively in 2017 – mobile payment services offered by non-banks are beginning to gain traction. The number of subscribers to mobile payment services offered by non-banks had more than quadrupled from 0.8 million subscribers in 2017 to 3.4 million subscribers as at end-June 2018. In the first half of 2018 alone, mobile payment transactions processed by non-bank e-money issuers stood at 7.2 million transactions (valued at RM404.7 million), which is more than seven times higher than the 1.0 million transactions in 2017 (valued at RM240.3 million).

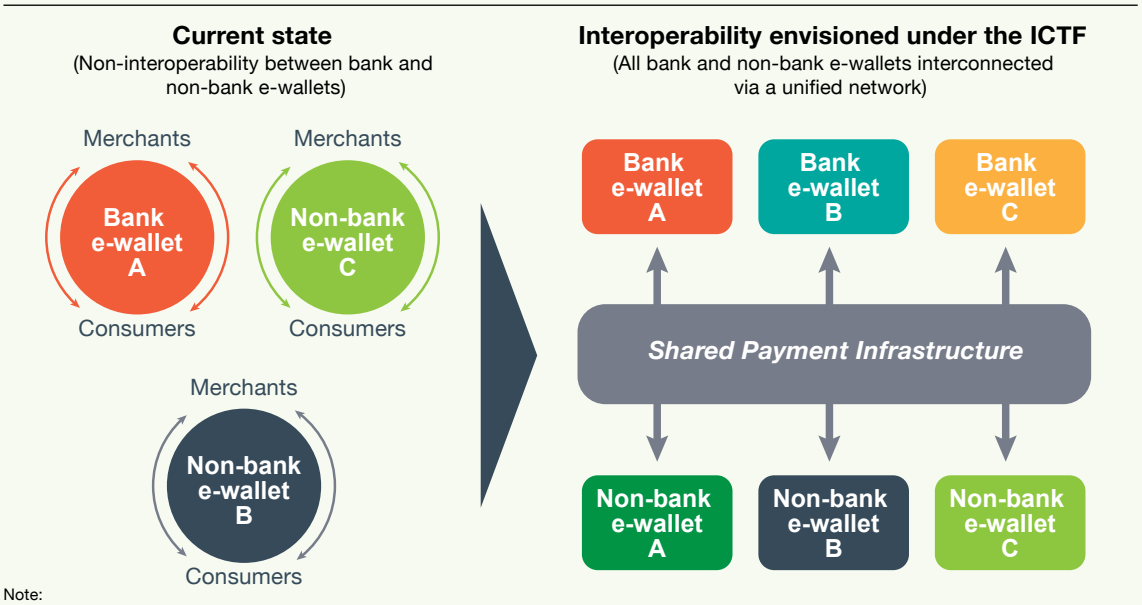
Non-bank mobile payment services also demonstrate a significant potential in reducing the usage of cash due to their usage for lower value transactions. Of note, non-bank mobile payments recorded an average transaction value of RM15 in the first half of 2018, compared to RM391 for mobile banking.

The Bank's approach to foster an enabling environment for mobile payments

Although mobile payments are still at an early stage of development in Malaysia, the Bank expects the current trends to intensify further. To this end, the Bank seeks to foster an enabling environment for mobile payments while managing the resultant risks, such as those arising from the introduction of new payment technologies and the proliferation of players in the market.

A key initiative in this regard is the Bank's Interoperable Credit Transfer Framework (ICTF)[8], which took effect on 1 July 2018. The ICTF seeks to promote collaborative competition ('co-opetition'), namely: (i) industry players collaborate at the infrastructure level through a shared payment infrastructure, which is intended to expand network reach and avoid the duplication of resources; and (ii) competition is envisioned to take place at the product level through the development of innovative value-added features for end-users. This may include a superior user experience and seamless integration with lifestyle features, such as loyalty programmes for food and beverage (F&B), entertainment and other services. This approach reflects the Bank's objective to avoid a fragmented landscape characterised by proprietary payment networks that are not fully interoperable (Diagram 3). Such a challenge is more pronounced in markets that are experiencing a proliferation of players.

Diagram 3: Enabling interoperability under the ICTF

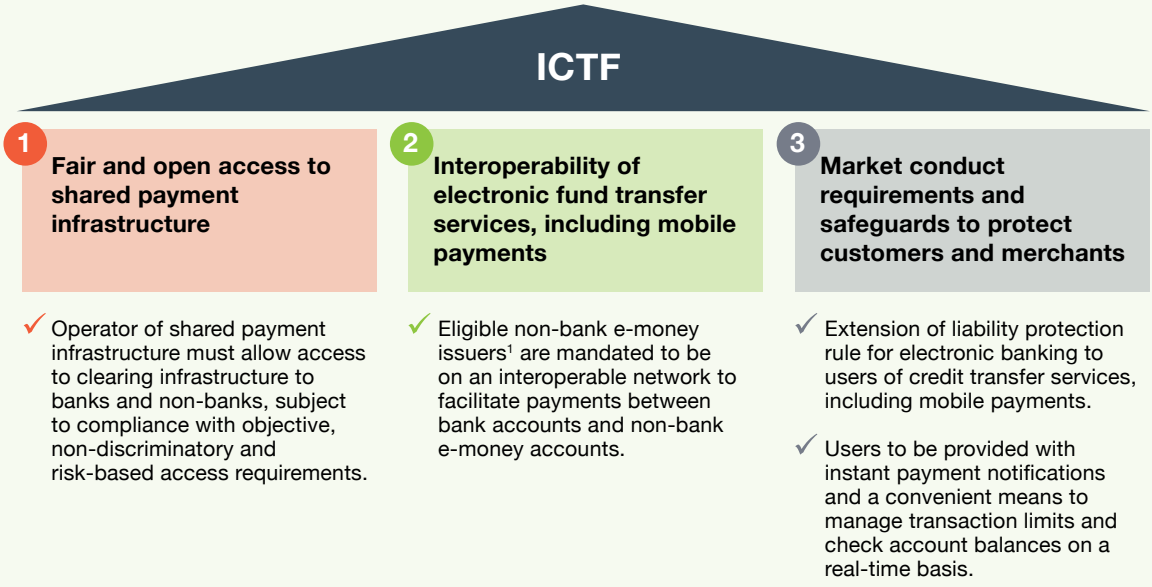


Note:
Examples of bank e-wallets include Maybank, CIMB, Bank Muamalat, etc.
Examples of non-bank e-wallets include TnG Digital, WeChat Pay, GrabPay, Boost, etc.

[8] https://www.bnm.gov.my/index.php?ch=57&pg=543&ac=692&bb=file

Through a shared payment infrastructure, the ICTF aims to ensure that all customer accounts (bank accounts and e-money accounts) are made reachable via an interoperable network to facilitate seamless payments which may in turn drive the adoption of mobile payments to reduce the usage of cash. In achieving these outcomes, the ICTF builds on three key pillars as illustrated below (Diagram 4):

Diagram 4: Three key pillars of ICTF



[1] Non-bank e-money issuers that have a substantial market presence

The Bank's focus on promoting interoperability is highlighted in the ICTF's approach to Quick Response (QR) code payments. In recent years, QR code payments are increasingly being seen as an affordable alternative to cash payments, particularly in Asia where mobile phone penetration is relatively higher. Across different jurisdictions, regulatory approaches have varied. Some authorities have opted for a 'light touch' regulatory environment, thereby allowing for market forces to freely shape the QR payments landscape. Other authorities have sought to organise the industry towards QR code standardisation, with some jurisdictions considering allowing the usage of only a single QR code standard.

Considering Malaysia's market characteristics, the Bank has adopted a unique approach that aims to ensure a unified and interconnected network amid the proliferation of QR code payment providers. More specifically, the ICTF requires banks and eligible non-bank e-money issuers[9] to be connected on a common platform for QR payments, otherwise known as an "interoperable QR payment scheme". The scheme thus enables customers and merchants to make and receive payments seamlessly between one another at the point-of-sale, regardless of the participating QR code payment provider where their accounts are maintained.

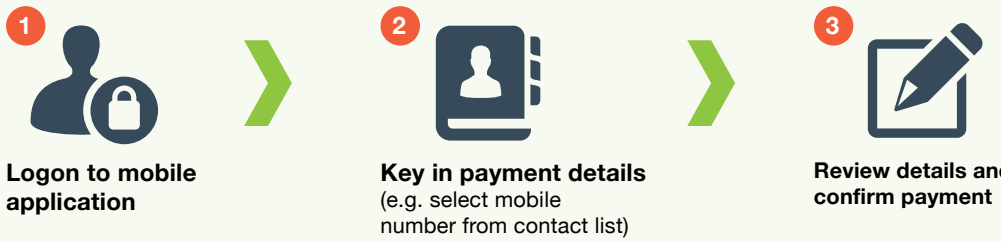
Notwithstanding the requirement for an interoperable QR payment scheme, the Bank does not seek to mandate for only a single QR code standard to be used for Malaysia's mobile payments landscape. Merchants have the discretion to choose whether to use the common QR code standard or a proprietary QR code standard for purposes of accepting payments, depending on their unique business needs. This reflects the Bank's intention to foster market dynamics that do not stifle innovation, given that certain proprietary QR codes may offer distinct value propositions to the merchant.

[9] Eligible non-bank e-money issuers refer to non-bank e-money issuers that have substantial market presence as defined under ICTF.

Implementation of the Real-time Retail Payments Platform (RPP)

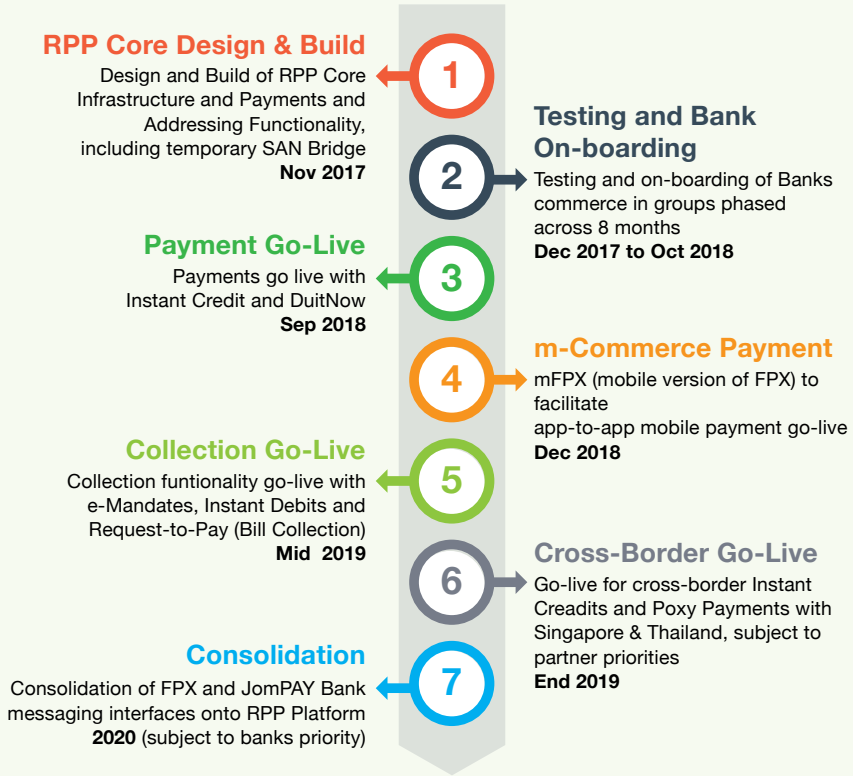
PayNet, as an operator of the shared payment infrastructure, is expected to play a key role to facilitate seamless and secure mobile payments to be made via the new Real-time Retail Payments Platform (RPP). The RPP represents the next phase in enhancing existing real-time fund transfer services, which have been available in Malaysia since as early as 2010. Under the RPP, a National Addressing Database (NAD) will be established to enable payments to be made conveniently using the recipient's mobile number, National Registration Identity Card (NRIC) number or business registration number (Diagram 5). In addition, an interoperable QR payment scheme will also be established under the RPP to facilitate payments to be made through the use of a common QR code standard. In line with the ICTF's principle of 'co-opetition', the RPP will serve as an interoperable network connecting bank accounts and non-bank e-money accounts, including for QR payments.

Diagram 5: Seamless payments enabled via the NAD



The RPP is expected to be launched later this year. To ensure that risks of market fragmentation are well managed, PayNet has been engaging with key non-bank e-money issuers to facilitate a smooth and timely participation in the RPP. Looking ahead, the implementation of the RPP will be supplemented by a series of initiatives outlined in the RPP Technology Roadmap (Diagram 6).

Diagram 6: PayNet's RPP Technology Roadmap[10]



[10] The proposed timelines indicated are tentative and may be subject to change.

The path ahead for mobile payments

Although mobile payments are still at a nascent stage of growth in Malaysia, it is expected to gather momentum moving forward. Consequently, the landscape for mobile payments is likely to continue its rapid evolution. From this, new opportunities will emerge, including a greater potential for collaborative opportunities whether at the industry-wide level or between incumbent players and new entrants. However, shifts in the business model and consumer behaviour towards greater usage of e-payments will also lead to new risks, particularly in relation to cyber security.

In this regard, the Bank in collaboration with the industry will continue to be vigilant in safeguarding the stability and reliability of Malaysia's payment systems, while promoting greater market competition and payment efficiency. For mobile payments in particular, the Bank will focus on the following priority areas moving forward:

- Ensure the timely and effective implementation of the RPP to facilitate interoperable mobile payments to reduce the usage of cash;
- Strengthen security controls and risk management of mobile payment providers to complement existing supervisory expectations in respect of managing cyber security risks; and
- Ensure that financial institutions' customer education measures remain effective and are in line with evolving fraud modus operandi to foster confidence in the use of mobile payment services.

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