Changing patterns of financial intermediation and implications for central bank policy: the Malaysian perspective

Bank Negara Malaysia

Abstract

The effects of the 2008 global financial crisis have confirmed the increasing interaction between global financial conditions, on the one hand, and domestic financial intermediation and the effectiveness of the central bank's monetary policy, on the other. This paper details Malaysia's perspective on the financial sector reforms undertaken over the past decade, which strengthened the financial system's resilience and ensured uninterrupted domestic intermediation despite global economic and financial market uncertainty. Notwithstanding changing patterns of financial intermediation, Malaysia has been able to rely on a broad financial policy toolkit that has enabled monetary policy to focus on its main objective of maintaining price stability while giving due regard to economic developments.

Keywords: banking institutions, debt securities market, financial intermediation, Malaysia, monetary policy, macroprudential policy, bank-based financing, market-based financing

JEL classification: E44, E52, E58, G18, G21, G28

I. Overview

The Malaysian economy has experienced significant financial deepening over the last decade. The size of the financial system was approximately 5[1] times GDP in 2013 (in 2000 it was approximately 3.5 times GDP), with a growing contribution to real GDP of 9.1% (2005: 7.5%). The role of market-based financing has become significantly more pronounced, particularly for established and large corporations. Financing from the private debt securities market as a share of domestic business financing rose further over the last decade, reflecting a more diversified financing structure. This resulted in a lower concentration of loans from the banking system to meet financing needs. Household financing, together with lending to small and medium sized enterprises (SMEs), has remained the mainstay of the banking system. A notable feature of the Malaysian financial sector is the dual system of conventional and Islamic finance. This system was established pursuant to a strategy that had the objective of promoting an inclusive financial system and of strengthening linkages between the financial system and the real economy.

Structurally, the diversification of intermediation channels has served to promote a more efficient allocation of financial resources domestically and mitigate undue external pressures. The combination of market-based and bank-based financial systems has provided a wider array of financial policy tools to respond to macroeconomic and financial stability risks. This has increased policy flexibility. At the same time, more developed financial markets and stronger financial institutions, as a result of financial reforms implemented following the Asian financial crisis, have enabled Malaysia to better weather episodes of heightened global economic uncertainty and international financial market volatility. This was borne out during the 2008 global financial crisis. The ensuing episode of market volatility remained modest in Malaysia. Intermediation activity continued undisrupted, reflecting a more resilient financial system as broad-based domestic funding sources for Malaysian businesses reduced vulnerabilities to external developments.

On the whole, domestic structural developments have contributed towards the strengthening of monetary policy effects on the economy. This is notwithstanding the somewhat increased exposure to global monetary and financial conditions. Various macroprudential measures implemented since 2010 to mitigate the risks of financial imbalances are likely to have complemented certain channels of the monetary transmission mechanism. However, these did not substitute for the monetary policy stance being at the right level so as to mitigate broad-based risk-taking behaviour which may have been detrimental to medium-term growth prospects.

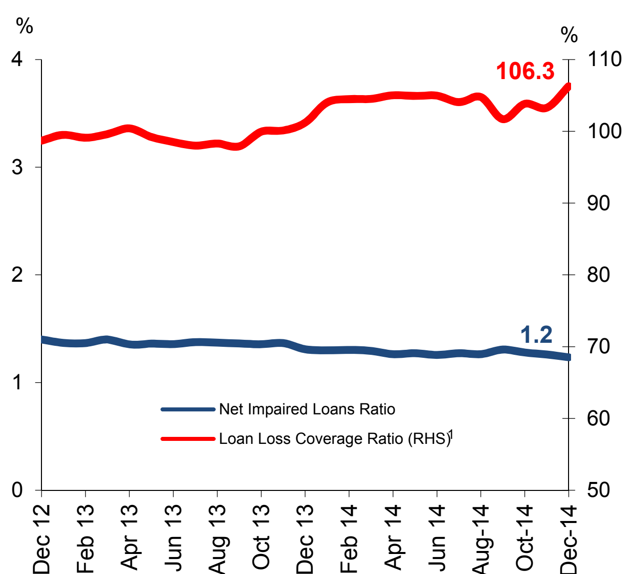
This paper comprises five sections. Sections II and III provide an overview of the Malaysian financial system, focusing respectively on the role of banking institutions and debt securities market. Section IV discusses the impact of the patterns of financial intermediation on domestic monetary policy. Section V concludes.

[1] Financial system depth is proxied by the stock of outstanding loans granted by financial institutions, equity market capitalisation and the stock of outstanding bonds, all relative to GDP.

II. The role of banking institutions

The assets of the banking sector have grown considerably over the last decade, to 210.5% of GDP in 2014 (2004: 184%). Of this, the share of Islamic banking assets has grown from only 2.7% in 2004 to 22.8% of total assets of the banking system at end-2014. Loans remain the largest component of banking system assets. Despite the global slowdown that followed the 2008 financial crisis, credit to the economy continued to expand at an average annual growth rate of 9.3% between 2008 and 2014 (based on the stock of loans outstanding). This has been accompanied by sustained improvements in asset quality (Chart 1).

Net impaired loans ratio and loan loss coverage ratio — Graph 1



Note: Beginning January 2010, loans are reported based on FRS139; [1] Refers to ratio of individual plus collective impairment provisions to total impaired loans.

The past decade has also witnessed a notable shift in bank lending to households. Loans to households now constitute a significantly larger share of banking sector loans (2014: 56.9%) compared to earlier periods (1998: 32.8%). This trend is driven primarily by an increasing demand for credit in tandem with higher consumption and investment activities on the back of an expanding economy and rising incomes. Ample liquidity conditions, alongside sustained efforts by the Malaysian authorities to promote financial inclusion, with a focus on enhancing not only access but also the effective use of financial services, have further contributed to the growth in loans to households.

The growing significance of loans to households has resulted in a greater dispersion of credit risk and corresponding changes in credit risk management approaches by banking institutions, with the wider use of credit scoring models for risk assessments. In Malaysia, the establishment of a public credit registry (Central Credit Reference Information System or CCRIS) in 2001, which captures both positive and negative credit information relating to household borrowers from financial institutions, has supported sound credit risk assessments. Reflecting the

increased exposure of financial institutions to households, institutional arrangements have also been put in place to pre-emptively respond to potential stress in the household sector. Specifically, a fully operational credit counselling and debt management programme is in place to assist households that may face financial difficulty.

The banking system's household loan portfolio remains largely secured. A significant proportion of household borrowing is for the purchase of properties and motor vehicles, which collectively accounts for close to 77% of total household loans. Banks' exposure to the property sector (through the financing and holding of debt securities) amounted to about 26% of the total assets of the banking system, of which 17% was mainly exposure to households for the purchase of residential property. In the more recent period, there was a marked increase in unsecured personal financing as a share of total household loans, driven by low borrowing costs and rising consumer spending. While the banking sector continues to account for the bulk (about 80%) of household financing needs, the rising demand for personal financing has also been increasingly met by significant growth in the activities of non-bank financial service providers. Between 2010 and 2012, personal financing by non-bank financial service providers expanded on average by 28.2% annually to account for 57.5% of total personal financing to households in 2012.

In response to these developments, a series of macroprudential policies were implemented since 2010 to mitigate the risks of an excessive accumulation of household debt. This included measures to comply with responsible financing practices, such as strengthened affordability assessments and requirements. The measures were also extended to non-bank financial service providers to reduce opportunities for regulatory arbitrage given the increasing role of these providers in intermediating household funding needs. With the continued strong growth in housing loans and rising property prices, fiscal and macroprudential measures were also implemented to reduce speculative purchases in the property market. Collectively, these measures have reduced the build-up of risks in the household and property sectors.

Bank lending to businesses is broad-based (Chart 2). A significant share of the portfolio comprises lending to SMEs, including micro-enterprises, which has increased over the last decade to account for 45.8% of overall bank lending to businesses (2001: 40.3%). This is supported by a coordinated national SME development strategy that has expanded access to financing for these businesses while improving the quality of loans extended. The introduction in 2006 of a nation-wide micro-financing scheme[2] by the Central Bank of Malaysia (CBM) has also increased the role of banks in providing access to financing for viable micro enterprises. Commercial banking institutions remain the largest providers of financing to SMEs. At end-2014, commercial bank loans to SMEs accounted for 94.3 % of total loans extended to SMEs. Complementing the role of banks, development financial institutions[3] (DFI) retain an important role in bridging financing gaps and acting as catalysts to promote broader access to financing from

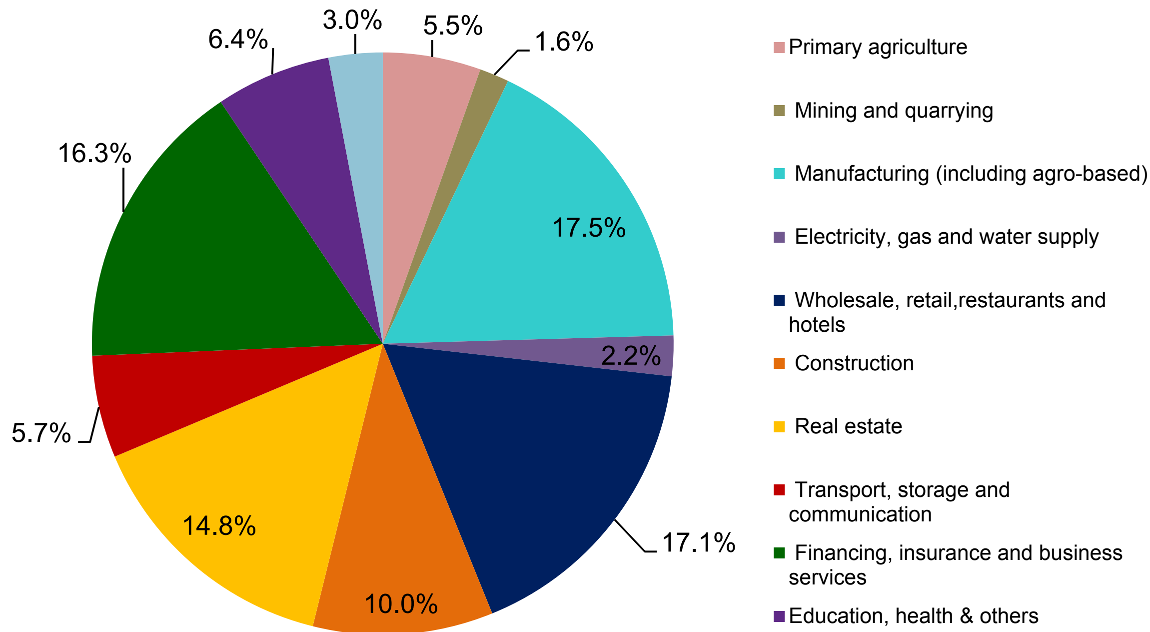
[2] The Micro-financing Scheme provides small loans ranging from RM1,000 to RM50,000 for micro-enterprises and is solely for business financing, such as for working capital and capital expenditure purposes.

[3] Financial institutions mandated by the government to promote specific social and economic objectives.

the private sector, particularly in specialised and new growth industries as well as key strategic sectors.[4] Reflecting their focus on specific mandates, total assets of DFIs represent less than 9% of total assets of the banking system, and that share has remained broadly unchanged in the last 5 years.

Banking system - loans to businesses by sector

Graph 2



Loans extended by the banking sector are predominantly denominated in ringgit. However, demand for foreign currency loans has been on a rising trend owing to the working capital needs of the overseas operations of Malaysian businesses. The foreign expansion of Malaysian banks in the last decade has enabled such banks to fund their loans with local currency deposits, thus reducing their reliance on offshore wholesale funding and currency mismatches. The overall share of foreign currency loans to total loans outstanding remains small at about 4%.

Floating-rate loans have increased in the last decade to account for 72% of total outstanding loans (2005: 59%). While this has contributed towards reducing the interest rate risk exposures of banks (or rate of return risk for Islamic banks), movements in borrowing costs will, however, have a larger potential impact on banks' asset quality. In view of this, significant focus is given in the supervisory activities of the Central Bank of Malaysia (CBM) on ensuring sound credit assessments by banks, and on stress testing to ensure that banks maintain adequate financial buffers against the potential deterioration in the debt servicing capacity of floating-rate borrowers.

[4] Including technology and agriculture-based industries.

Average lending rates have been on a declining trend since late 2006, reflecting efficiency gains achieved by banks as well as heightened competition. The combination of benign domestic credit conditions, ample liquidity and more intense competition has led to an under-pricing of risks among some banks. This prompted measures by the CBM to strengthen pricing practices through the implementation of standards on risk-informed pricing and supplement existing supervisory interventions. The introduction of a new reference rate framework which came into effect on 2 January 2015 will promote further discipline in banks' pricing practices by increasing the level of transparency in retail lending rates.[5]

Collateral practices, in terms of the level and composition of loan security coverage, have remained largely unchanged. The market value of collateral, as a percentage of total loans outstanding and total loans approved, stood at 133% and 70%, respectively, at the end of 2014. Properties account for the bulk (66%) of collateral accepted. Other common forms of collateral accepted include shares, unit trust funds and guarantees. Valuation practices for collateral provided against loans have been aligned with the International Financial Reporting Standards (IFRS) since 1 January 2010, resulting in a shift from prescriptive-based rules to principle-based standards. Supervisory standards were correspondingly strengthened to reinforce sound valuation practices.

Debt securities holdings constitute the second largest component of the Malaysian banking system's assets, of which public debt securities and domestic non-financial corporate paper comprise respectively 57% and 33% of such holdings. Hence, while market-based financing has become increasingly important, the banking system continues to play an important role in this evolution through its total holdings of outstanding private debt securities over the past decade (2014: 26.4%, 2004: 35.3%). Such holdings, however, also expose banking institutions to additional indirect channels for the transmission of risk from significant institutional investors in the capital markets, such as pension funds and insurers, as well as non-resident investors in the domestic financial markets. Volatile and significant price movements arising from the liquidation of assets held in common with banks would affect the valuations of debt securities on banks' balance sheets. This risk is currently largely mitigated by the profile of bank holdings, which are predominantly in higher-rated and more liquid paper. Bank holdings of foreign currency debt issues and non-resident debt issues remain limited and manageable, respectively representing about 7% of total debt securities held by banking institutions at end-2014.

The liability structure of banks has remained broadly unchanged and reflects a significantly stronger liquidity position compared to the period before the Asian financial crisis. A diversified deposit base accounts for approximately 70% of total funding. Drawing from the lessons of the Asian financial crisis, banking institutions are now less reliant on interbank and other market-based funding. At end-2014, the share of deposits from households and businesses constituted respectively 35.4% and 34.8% of total deposits. Securitisation activities of the banking institutions remain limited and have declined since 2007, comprising less than 0.2% of total

[5] Under the new reference rate framework, retail lending rates set by banks are determined by and expressed as the bank's benchmark cost of funds plus a positive fixed spread over the tenor of the loan. For most banks, the benchmark cost of funds is referenced to the Kuala Lumpur Interbank Offered Rate (KLIBOR).

loans outstanding (2007: 0.7%) in an environment of ample liquidity. Hire purchase receivables comprise the bulk (about 70%) of loans sold to Cagamas (the national mortgage corporation), followed by housing loans. The bulk of securitised transactions are undertaken with recourse to banking institutions as part of liquidity management strategies. Strong incentives are therefore preserved for banks to maintain sound underwriting standards. Reflecting stronger liquidity buffers maintained by domestic banks as well as ample liquidity conditions, the banking system has also been a net lender in the domestic interbank market in the past several years, with net placements with the CBM totalling RM91 billion in 2014 (2007: RM164 billion).

Of late, competition for banking system deposits has intensified, with such deposits growing at a slower rate between 2013 and 2014 than in earlier periods. Factors contributing to this include the increased outflow of funds as a result of investments abroad by resident non-bank corporates as well as the reversal of non-resident portfolio funds. The on-going process of financial deepening has resulted in access to a broader range of financial products and services, including alternative investment options. This, combined with increasingly discerning consumers with more sophisticated and differentiated needs, and investors in search of higher yields, has moderated placements of deposits within the banking system. The increased competition for deposits also reflects banks' anticipation of the new liquidity coverage ratio (LCR) rules under Basel III which, will come into effect in Malaysia in June 2015. These factors have prompted pricing adjustments to both deposit and wholesale market rates, which have previously been relatively low. Generally supportive conditions for debt issuance, reduced regulatory arbitrage between banks and non-bank financial service providers (as a result of prudential measures applied to significant non-bank institutions), as well as greater clarity about the operationalisation of the new LCR rules, are expected to ease the current pressure on deposit and wholesale market rates.

The overall dependence of banks on external wholesale markets to fund domestic or overseas operations remained marginal at less than 11% of total funding. Hence, the impact on banks' balance sheets of a potential tightening of global financing conditions was limited. Based on the network contagion analysis undertaken on cross-border claims and liabilities of Malaysian banks with major banking counterparties, the combined effects of credit and funding shocks are expected to have a limited direct impact on the Malaysian banking system. The indirect impact arising from capital flows on domestic funding conditions is similarly contained. Under a simulated worst-case scenario of severe portfolio outflows,[6] the potential shortfall in US dollar liquidity would not exceed 6%[7] of the CBM's international reserves.

Foreign banks in Malaysia are required to be locally-incorporated and comply with capital and liquidity standards at the local entity level. This serves as an important safeguard in mitigating contagion risk that can arise from stress affecting foreign financial institutions that have significant operations in Malaysia. During the global financial crisis, the operations of foreign banks in Malaysia were less exposed to funding pressures arising from the withdrawal of intra-group financing. Such a

[6] Assuming outflows equivalent to 100% of cumulative inflows since global financial crisis.

[7] As of 15 January 2015.

withdrawal was observed to have been more pronounced among banks operating as branches in the region. The requirement for dividend payments to be approved by the CBM has also served to mitigate the contagion impact of adverse external shocks on domestic credit intermediation by preserving strong capital buffers within the Malaysian subsidiaries. Throughout the global financial crisis, the operations of foreign banks in Malaysia have remained resilient and profitable (with high capitalisation levels and sustained credit quality).

III. The role of the debt securities market

Since the Asian financial crisis, the debt securities market has assumed a more significant role in financing growth of the Malaysian economy. Total outstanding securities in that market amounted to RM 1,117.0 billion at end-2014, or 104.4% of GDP (at end-2013). Over the period 2004 to 2013, the domestic debt securities market grew at a compounded average growth rate (CAGR) of 10.9%, compared with the growth in domestic bank credit of 10.4%. Malaysia is one of the few emerging economies with a private sector debt securities market comparable in size to those of advanced financial systems. It is also a leading international centre for sukuk (Islamic) bond issuance. In 2014, the private debt securities market represented 41.7% of total outstanding debt securities.

Although the debt securities market was historically dominated by government bonds, measures taken to develop the private debt securities market have made financing more efficient, in particular for large corporates, complementing the role of the banking system. These measures include enhancing the price discovery process through the Bond Information and Dissemination System (BIDS) and the establishment of domestic credit rating agencies. In parallel, a more efficient issuance process has been facilitated by a web-based Fully Automated System for Tendering (FAST) as well as the development of a Real-Time Gross Settlement System (RENTAS) that has also mitigated settlement risk. The establishment of Malaysia's first financial guarantee insurer, Danajamin Nasional Berhad, has further supported the ability of viable corporations with a lower credit standing to source funding through the debt securities market. Corporates financing from the debt securities market has correspondingly increased to 37.1% of total business financing at end-2014 (1998: 1.8%).[8]

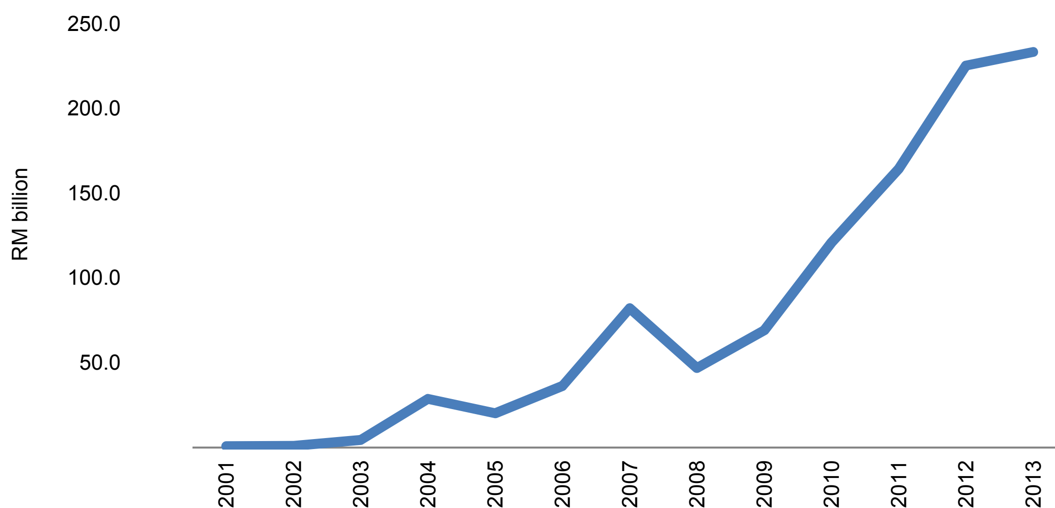
Another prominent feature of Malaysia's financial landscape is the sukuk bond market. The country hosts the largest such market with total issuance of approximately RM272.3 billion in 2014 and total outstanding securities of RM 582.7 billion at end-2014. Malaysian sukuk securities accounted for 65.6% of global issuance in 2014 and 57% of the total stock of sukuk securities outstanding at end-2014. The sukuk market grew at a CAGR of 23.6% during the period 2001-2014, far outpacing the conventional debt securities markets (CAGR: 13.8%). Its share of the total debt securities market correspondingly increased from 25% in

[8] The percentage share is calculated as the ratio of outstanding private debt securities (PDS) to total domestic business financing. Total domestic business financing comprises outstanding loans of the banking system and development financial institutions (DFIs) to businesses (including SMEs), and outstanding PDS. The 1998 figure excludes outstanding loans from DFIs.

2001 to 52.2% in 2014. Issuance has been supported by a more liberalised market place which has allowed multilateral financial institutions, multinationals and national corporations from other jurisdictions to issue both ringgit and non-ringgit denominated sukuk securities. Foreign investor participation in the sukuk market has also increased. Of importance is the structure of that market, which is based on underlying assets that reinforces the link between financial transactions and real economic activity.

As with other Asian economies, Malaysia witnessed a surge in capital inflows in the period following the global financial crisis. These large inflows were precipitated by unprecedented monetary easing in several advanced economies. Since the introduction of the first quantitative easing programme (QE1) by the US Federal Reserve in 2008, Malaysia has accumulated US$ 69.4 billion of non-resident portfolio inflows (4Q 2008-4Q 2014),[9] channelled mainly into the debt securities market. Correspondingly, non-resident participation in the government securities market[10] has increased from 11.4% of total government bonds outstanding in 4Q 2008 to 28.0% in 4Q 2014.[11] The proportion of non-resident participation in the private debt securities market, however, remains relatively small (4Q 2008: 5.0% of total outstanding private debt securities; 4Q 2014: 3.0%).

Foreign holdings of Malaysian debt securities — Graph 3



Source: Bank Negara Malaysia.

While the surge of capital inflows comes with a risk of abrupt reversals, the development of the financial sector has contributed to the preservation of orderly market conditions in an environment of more volatile capital flows. This was evident during the "taper tantrum" episode (May-August 2013) when Malaysia experienced significant outflows following the US Federal Reserve's announcement of its

[9] Source: Department of Statistics Malaysia

[10] Comprising Malaysian Government Securities (MGS), Government Investment Issues (GII), Malaysian Treasury Bills and Government Housing Sukuk.

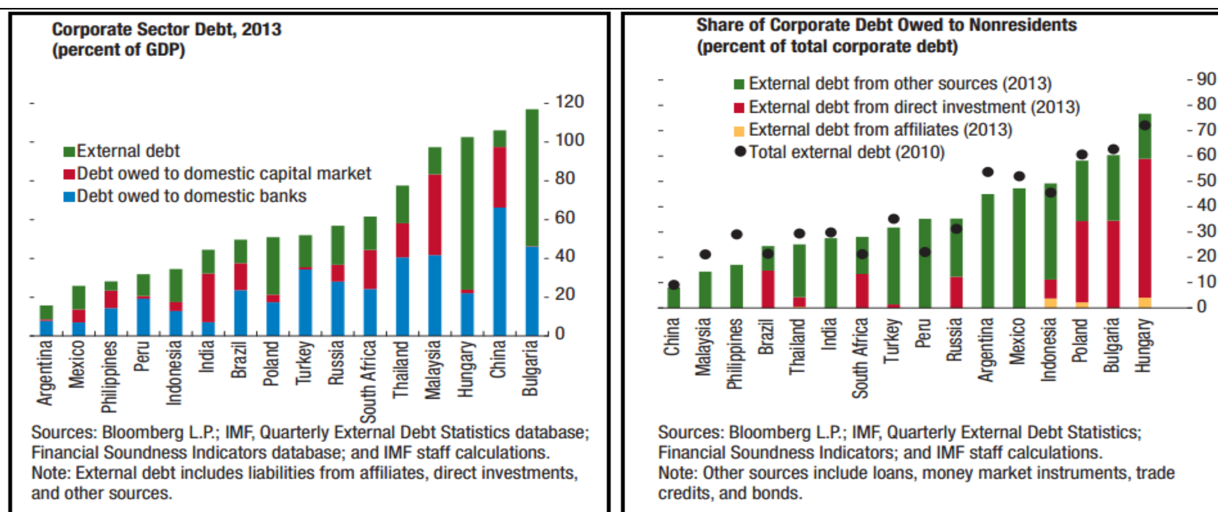
[11] In terms of the MGS market, non-resident participation had increased from 13.5% in 4Q 2008 to 46.9% in 3Q 2014.

intentions to scale back its quantitative easing measures. Malaysia did not experience highly disruptive price movements due to deeper financial markets, a broader investor base (supported by strong domestic institutional investors), a more developed insurance industry and a larger fund and wealth management industry (with the capacity to absorb episodes of heavy selling by non-residents). Despite selling pressure by non-residents in the Malaysian government securities market (MGS), MGS yields across the five- to ten-year tenors increased moderately within a range of 58 and 92 basis points (Philippines: 59 and 73 basis points; Thailand: 76 and 92 basis points; Indonesia: 240 and 276 basis). At the same time, liquidity in the bond market remained intact as it was underpinned by strong demand from domestic institutional investors.

The maturity profile of both public and private debt securities has lengthened but remains relatively short. The average maturity at issuance for all sectors (government, financial corporate and non-financial corporate) expanded from 4.36 years in 2004 to 5.49 years in 2013. Efforts to extend the maturity profile of debt have seen well-received issuance of bonds with maturities of up to 30 years. The extended maturity profile has reduced the exposure of borrowers to refinancing risk particularly for projects with a longer gestation period, such as infrastructure, power plants and toll roads. The broader investment horizon for investors has also contributed to the improvement of the asset liability management of insurance companies and pension funds with longer term obligations.

In terms of domestic exposure to international borrowing, growth in external borrowing was low prior to 2013. However, corporations in emerging market economies, including Malaysia, have more recently increased such borrowing through the offshore issuance of debt securities (see Chart 4). The external borrowing of non-bank corporations in Malaysia rose rapidly in 2013 before moderating in the second half of 2014 to account for 18.9% of total business sector debt (2013: 19.2% of total).

Cross country comparison of non-bank corporate sector balance sheet exposure Graph 4



Source: IMF (2014).

External borrowing is largely concentrated in capital intensive sectors (such as oil and gas, telecommunication and transportation) and issued for the overseas

operations of businesses in these sectors. Such borrowing is naturally hedged by foreign currency earnings. External borrowingby residents is also subject to approval by the CBM and information submitted in connection with such approval shows that resident companies, including large multinational companies, have been active in hedging their foreign currency exposures through derivative transactions with onshore banks.

The growing international debt issuance and external borrowing of non-financial corporations, particularly in emerging economies, have raised additional concerns about the effectiveness of domestic monetary transmission and the stability of banks' funding sources.[12] In the case of Malaysia, the bulk of external borrowing by non-financial corporations is earmarked for the expansion of overseas operations. While non-resident corporations in Malaysia have been receiving an increasing amount of inter-company loans, these are mainly provided by the global parents to invest in the business activities of these companies in Malaysia. There is limited evidence of "carry trade" activities, as indicated by the gap between gross leverage (debt to earnings) and net leverage (debt minus cash to earnings) of non-financial corporations, which has not exhibited a widening trend. This shows that the proportion of new debt held as cash balances with banks has not increased substantially. In fact, the share of non-financial corporate deposits declined slightly to account for 34.8% of total bank deposits as at end-2014 (2013: 35.5%; 2012: 36.1%; 2011: 37.3%), due to higher investment abroad by a few large corporations in recent periods.

Based on stress tests conducted by the CBM on the debt servicing capacity of non-bank corporations in Malaysia,[13] the impact from higher borrowing costs and a significant depreciation of the ringgit would be limited. The post-shock aggregate interest coverage ratio (ICR) of sampled corporations would remain comfortably above the prudent threshold of 2 times.[14] However, the impact from a decline in operating profits (due to lower earnings and/or higher costs from operating activities) would be far more significant. These results suggest that corporate vulnerabilities arising from higher external borrowings continue to be relatively contained.

IV. Implications for monetary policy

A number of factors seem to have contributed towards strengthening the impact of monetary policy in Malaysia. As a whole, improvements in access to financing and a widening in the range of financial products, coupled with other factors such as

[12] Due to the favourable interest rate differentials, non-financial corporations in emerging economies could undertake "carry trade" i.e. borrowing cheaply from abroad and placing the funds in local banks (typically in the form of deposits).

[13] Simulation based on the performance of 160 companies tracked by the CBM (representing 80% of Bursa Malaysia's market capitalisation).

[14] The IMF defines a weak debt servicing capacity as an interest coverage ratio of less than 2 times. The interest coverage ratio is defined as operating profit over interest expense.

demographic shifts, appear to have increased the sensitivity of domestic economic activity to policy rate changes.

Firstly, the pass-through of policy rate changes to retail lending rates has become progressively stronger (see Chart 5).[15] One reason is the increasing use of financial market rates, such as KLIBOR, as benchmarks for the pricing of loan and deposits. As the transmission of overnight policy rate (OPR) changes to these money market rates has been fast and complete, transmission to retail lending rates has been enhanced as well. Nevertheless, while as a whole the interest rate pass-through has become stronger, it remains uneven. Alarger pass-through has been observed for loan and deposit products that are tied to the short-end of the financial market yield curve, such as floating-rate housing loans, than with lending rates that are priced off the longer end of the curve, such as fixed rate loans for the purchase of cars.

Secondly, the development of financial markets has also increased the holding of securities (including equity) by businesses and households (2013: unit trust and equity holdings accounted for 20% of households' total assets; 2002: 13%[16]). As a result of this shift, changes in housing and financial wealth (including unit trust and equity holdings) have become a key determinant of private consumption (see the box in CBM (2013) on the determinants of consumption in Malaysia). This has strengthened the wealth channel of monetary policy, as the greater accumulation of financial assets has increased the sensitivity of balance sheets to asset price movements arising from monetary policy changes. For example, housing wealth is the largest contributor to private consumption growth after income, contributing on average to 14.5% of consumption between 2005 to 2Q 2013.

Thirdly, the substantial share of floating-rate loans (about 70%) suggests that the impact of a change in the policy rate should have an effect on repayments, disposable income and, ultimately, consumption. This impact is expected to differ by income groups, with concentration mainly in middle income households. This is due to the size of their exposure to floating rate loans, which are used to finance the purchase of residential property, and their relatively higher marginal propensity to consume.

The degree of sensitivity to global monetary and financial conditions can be assessed from two angles. The first is the extent of direct reliance on external financing by either banks or non-banks. The second is the indirect impact of capital flows on domestic financing costs and banks' sources of funds.

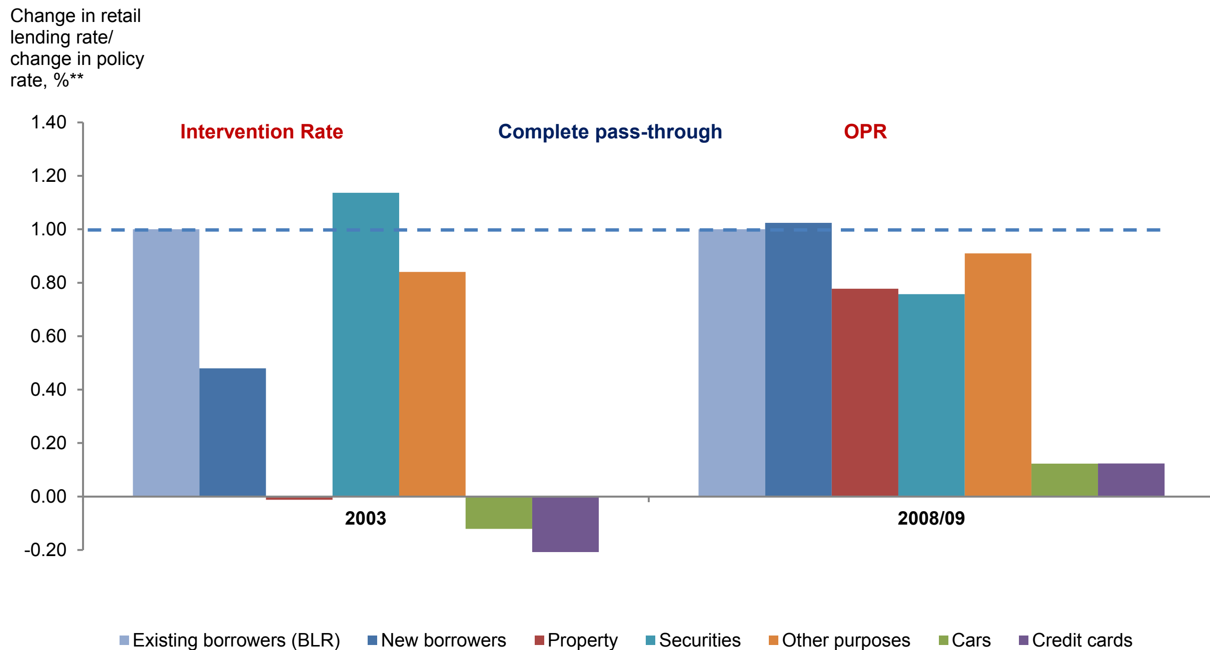
From the perspective of the monetary transmission mechanism, these may potentially lead to weakening effects. On one hand, financing supply and costs tied to global monetary and financial conditions are beyond the reach of domestic monetary policy. On the other hand, there might be a possible dampening effect on the pass-through of policy rate changes arising from the accumulation of liquidity. At the same time, a curtailment or reversal of global financing may lead to a tightening of domestic monetary and financial conditions, even as the policy rate

[15] Wholesale and retail rates of return for Islamic financing are generally similar to those of conventional credit. This is also the case for the pass-through of policy rate changes.

[16] The percentage share is calculated as the ratio of unit trust and equity holdings to total financial and real assets (deposits, insurance, unit trust and equity, Employee Provident Fund (EPF) savings, and housing wealth).

remains unchanged. As noted earlier, notwithstanding the recent increases in external financing, the dependence of Malaysian corporates and banking institutions on external funds has remained relatively low. These trends suggest that direct cross-border credit and international bank lending have not increased significantly in their relevance for the monetary transmission mechanism.

Transmission of policy rate reductions to household retail lending rates — Graph 5



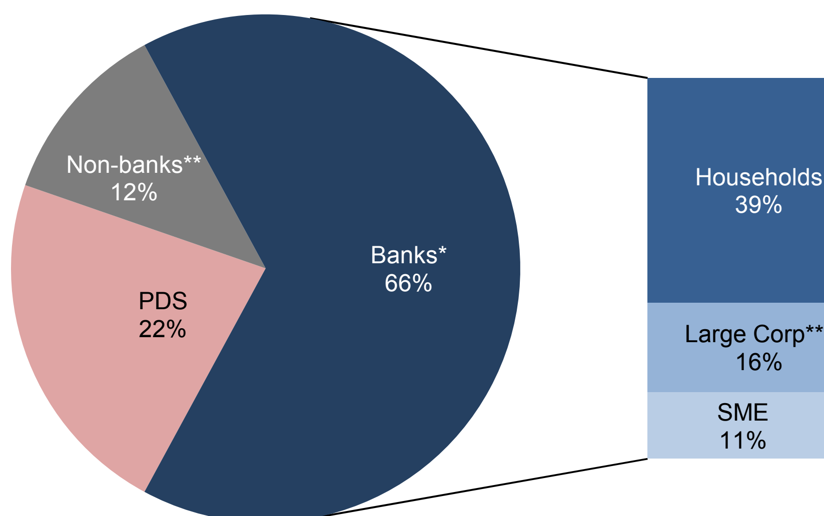
* With the exception of the base lending rate (BLR) for "Existing Borrowers", retail lending rates reflect the average lending rates (ALRs) on new loans approved.

** In 2003, the policy rate was reduced by 50 bps from 5.00% to 4.50% under the Intervention Rate system. In 2008/2009, the policy rate was reduced a cumulative 125 bps from 3.25% (Nov 2008) to 2.00% (Feb 2009) under the OPR framework. Changes in rates over different periods of adjustment were calculated as the average over 6 months before and after the policy rate change. The rates were normalised to an adjustment of 100 bps.

In terms of the indirect impact of capital flows, as noted in Section III, as with many other emerging market economies, Malaysia has experienced an increase in portfolio capital inflows, making the consideration of this channel of sensitivity particularly important. Nevertheless, these developments *per se* do not substantially affect the CBM's ability to influence the economy for a couple of reasons. One, while MGS yields are used to price private debt securities (PDS), other domestic factors, such as liquidity and credit premiua, also affect the pricing of PDS. Two, bank-based credit is still the main source of financing for the economy, particularly among households and SMEs (see Chart 6), and retail lending rates are predominantly priced off money market rates.

Domestic debt-based financing of the private sector

(Share of Outstanding Value as at end-December 2014) Graph 6



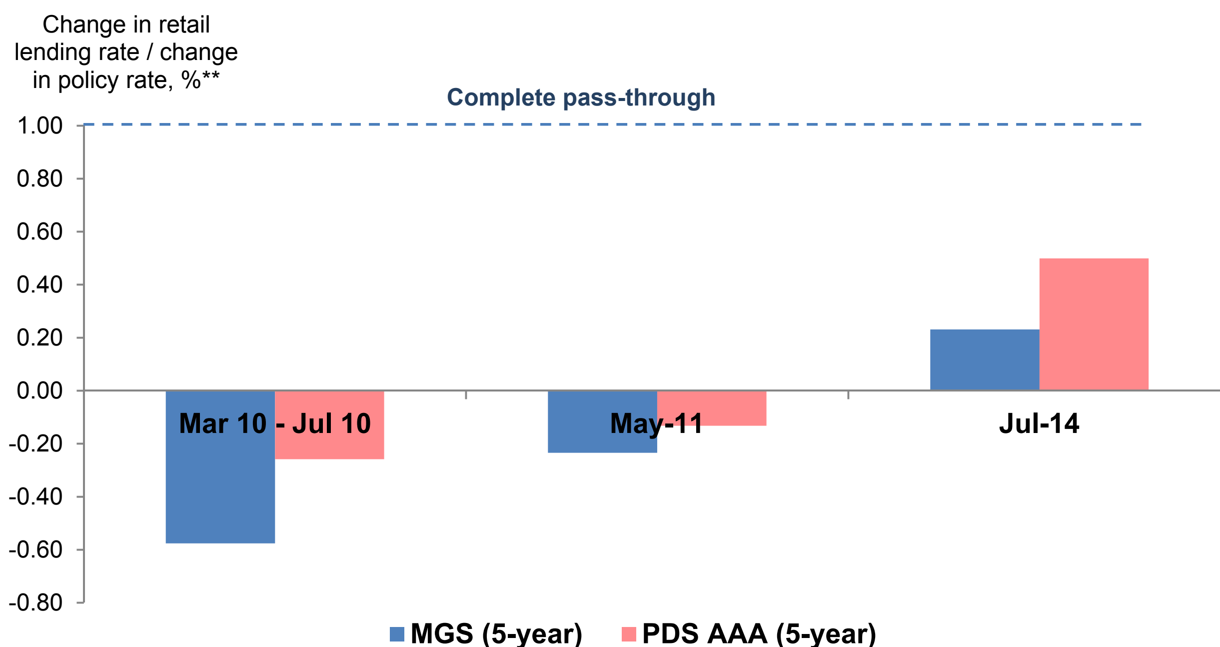
* Comprises outstanding loans of the banking system.

** Comprises development financial institutions (DFIs), other non-bank financial institutions, Treasury Housing Loan Division, insurance and stockbroking companies.

*** Large corporations comprise domestic business enterprises (excluding SMEs), non-bank financial institutions and banking institutions.

In the post-global financial crisis period, amid the increased participation of non-residents in the public debt securities market, there was relatively weak pass-through of OPR changes to bond yields, more so for MGS than PDS (see Chart 7). Capital inflows have also had indirect effects on banks' balance sheets via the increase in private sector deposits. In an environment of intense competition, this ample liquidity situation helped banks meet increased credit demand while maintaining low or stable lending rates (see Singh (2014) for a more extensive discussion of the transmission channels of global monetary conditions on domestic financial conditions). Nevertheless, in contrast to the case of bond yields, there are partial indications of noticeably weak pass-through of policy rate changes to lending rates on new loans approved (see Chart 8). Furthermore, as noted earlier, the net impact of monetary policy on the economy has strengthened compared to the early 2000s owing to various developments in the economy.

Transmission of policy rate increases to bond yields | Graph 7



* Bond yields reflect 5-year Malaysian Government Securities (MGS) and AAA-rated Private Debt Securities (PDS) yields

** The OPR was increased during these periods as follows: Nov 2005-Apr 2006, 80 bps; Mar – Jul 2010, 75 bps; May 2011, 25 bps; Jul 2014, 25 bps). Changes in rates over different periods of OPR adjustment were calculated as the average over 6 months before and after the OPR change. The difference was then normalised to an adjustment of 100 bps.

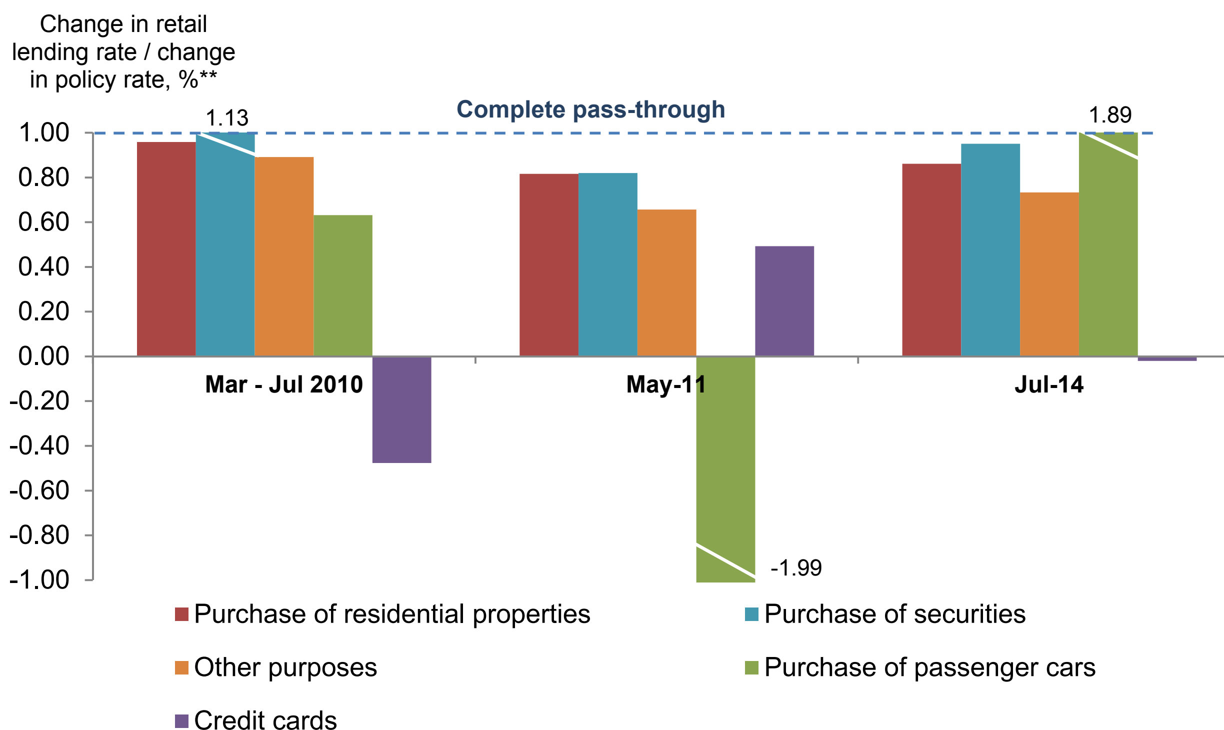
Several other factors have also helped to dampen sensitivity to global developments and prevent sharp adjustments in domestic financial conditions. For instance, in terms of the sensitivity of balance sheets, corporates and banks alike have been able to weather externally generated volatility in recent years, owing to greater flexibility in hedging foreign currency exposures,[17] and a sound capital and funding positions of banks.

In the financial markets, the growing demand for investible assets from domestic institutional investors, including insurance companies and pension funds, has helped to stabilise prices and yields during selling episodes by non-residents. The CBM also has a wide range of money market instruments to manage domestic liquidity. This provides flexibility in dealing with the volatility of capital flows. In particular, the issuance of CBM securities, which are subsequently taken up by non-residents, helps to cushion the impact of capital flows on the prices of other financial assets, and also prevents liquidity brought in by non-residents from manifesting itself as excess liquidity on banks' balance sheets. Going forward, these factors will provide important buffers against the effects of volatile capital flows arising from the divergence in monetary policies in the advanced economies. The

[17] The average daily volume of foreign exchange swaps, forwards and options increased from US$ 1.8 billion in 2008 to US$ 4.7 billion in 2014.

CBM closely monitors the impact of movements in capital flows on domestic monetary and financial conditions. Despite upward pressure on funding costs amid heightened competition for stable deposits in recent periods, lending rates have remained broadly stable in a competitive lending market. Aggregate surplus liquidity within the banking system also remains ample.

Transmission of policy rate increases to household retail lending rates Graph 8



* Retail lending rates reflect the ALRs on new loans approved.

** The OPR was increased during these periods as follows: Nov 2005-Apr 2006, 80 bps; Mar – Jul 2010, 75 bps; May 2011, 25 bps; Jul 2014, 25 bps). Changes in rates over different periods of OPR adjustment were calculated as the average over 6 months before and after the OPR change. The difference was then normalised to an adjustment of 100 bps.

While changes in financial intermediation have to some extent increased Malaysia's exposure to external influences, the main objective of monetary policy formulation in Malaysia remains the same; that is to achieve price stability whilst giving due regard to developments in the domestic economy. Monetary policy is therefore conditioned upon changes in financial intermediation in so far as they have implications for this final objective. There is also a role for monetary policy to the extent that changes in financial intermediation lead to a broad increase in risk taking. This change in behaviour may manifest itself as financial imbalances which threaten macroeconomic stability over the longer-term (ie beyond the typical monetary policy horizon of one to two years).

It follows that under the exceptional circumstances of large financial shocks and acute financial stress, a case can be made for monetary policy action, even of an unconventional nature, and liquidity provision. This is especially so if financial developments threaten to disrupt economic activity and future price stability. In this regard, financial stability and price stability concerns are not inconsistent.

During the period of global shortage of US dollar liquidity following the collapse of Lehman Brothers in 2008, the CBM provided a US dollar facility to Malaysian firms involved in international trade to ensure that trade financing, especially in US dollars, was not interrupted. Further back, during the Asian financial crisis recovery period, bank lending rates were linked directly to the policy rate then prevailing (the three-month intervention rate), to allow for the faster transmission of changes in the policy rate. Funds for lending to SMEs, and credit allocation targets were also used to influence the direction of credit extension (Singh (2014)).

Importantly, however, depending on the nature of shocks and risks, different situations will require different policy responses. Policymakers need to be wary of overburdening monetary policy when other policies are needed to address risks and deficiencies in the financial system and economy. More generally, risks emanating from changes in financial intermediation, including potential adverse effects from capital outflows and sharp changes in borrowing costs, should be managed pre-emptively by building buffers and addressing vulnerabilities. It is best to preserve financial stability at the outset rather than having to deal with the fallout from instability.

It is likely that macroprudential measures have complemented certain channels of the monetary transmission mechanism in the recent period. However, these do not substitute for the appropriate monetary policy stance needed to achieve the primary mandate of price stability and mitigate the adverse effects of financial imbalances on medium-term growth prospects. Given the balance of risks to inflation and economic growth, monetary conditions were progressively normalised over 2010 to 2014 with a cumulative increase in the OPR of 125 basis points. The policy interest rate was also increased in part to mitigate the risk of a widespread build-up of financial imbalances.

The macroprudential measures referred above have been implemented since late 2010. A targeted approach was adopted given that risks of financial imbalances had developed in specific market segments, especially in the property and retail lending sectors. An over-reliance on monetary policy in such circumstances could have had more widespread damaging effects on the broader economy. Given that these measures can affect banks' lending behaviour, they are likely to have complemented the credit and asset price channels of the monetary transmission mechanism and dampened elements of risk-taking. These measures were implemented alongside other fiscal and long-term structural measures, for example, the imposition of a real property gains tax (RPGT) and enhancing housing supply.

Based on Malaysia's experience, depending on the nature of imbalances being addressed, macroprudential policies are most effective when used in complement to monetary policy and/or supplemented with an array of complementary supervisory, fiscal and structural policies. For example, the loan-to-value (LTV) ratio limit is targeted at speculative purchases for borrowers with three or more outstanding housing loans and implemented alongside fiscal and long-term structural measures. In addition, the coverage of macroprudential measures needs to be sufficiently broad to minimise cross-sectional spillovers, such as a shifting of risk from banks to the shadow banking system. The above would require (i) the central bank or financial stability authority to be empowered by the law to do so; (ii) a robust governance arrangement for effective checks and balance; and (iii) a solid coordination mechanism with other domestic regulatory and supervisory authorities, or government agencies, to implement, monitor and enforce such

measures over time. In Malaysia, the CBM, as the macroprudential authority, is equipped with a broad range of financial stability policy instruments that can be extended to entities that are beyond its supervisory oversight. In considering the application of such policy to entities that are not regulated by the CBM, coordination begins at the decision-making stage, where the Financial Stability Executive Committee,[18] which is chaired by the Governor, is legally empowered to deliberate and decide on proposed orders with the objective of preserving domestic financial stability.

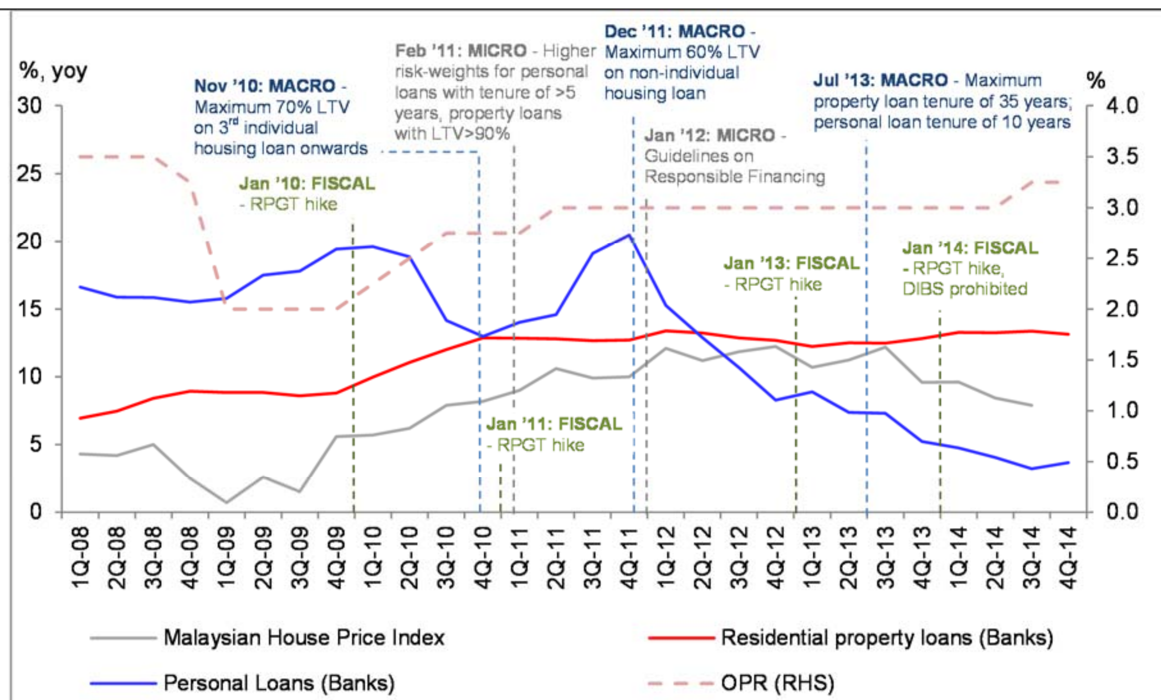
Following the implementation of various measures, household debt growth[19] moderated from 15.1% in 2010 to 9.9% in 2014, with observed signs of reduced speculative activity in the property sector. The growth of house prices also moderated (2Q 2014: 8.4%; 2013: 11.6%), although it still remains relatively high (1990-2012: 6.0%) due in part to structural factors, such as inelastic housing supply in the short-term and higher demand for housing resulting from demographic changes. Broadly, as well, improvements have been observed in the underwriting standards of banks in recent years.

The use of a broad policy toolkit allows monetary policy to focus on its main objectives of maintaining price stability while giving due regard to developments in the economy. However, this does not reduce the importance of calibrating the stance of monetary policy to mitigate broad-based excessive risk-taking behaviour, which would be detrimental to longer-term growth prospects. Recognising the interaction between monetary and financial stability policies, the Bank has also established the Joint Policy Committee (JPC) to deliberate on cross-cutting issues and to ensure the effective coordination of policies that may have an impact on the financial system and the broader economy.

[18] The Executive Committee, established under the Central Bank of Malaysia Act 2009, decides on recommendations to issue financial stability orders or extend liquidity assistance to entities not regulated by the Bank, or to provide capital support to the Bank's regulated entities, for the purpose of averting or reducing risks to financial stability. The Executive Committee comprises the Secretary General to the Treasury, Chairman of the Securities Commission Malaysia, Chief Executive Office of the Malaysia Deposit Insurance Corporation, selected independent technical experts and heads of other supervisory agencies (where relevant, by invitation).

[19] Comprises outstanding household loans extended by banks and non-banks. Non-banks comprise DFIs, other non-bank financial institutions, Treasury Housing Loan Division, insurance and stockbroking companies.

Policy measures, and credit and house price developments (2008-2014) Graph 9



V. Conclusion

The Malaysian financial system has undergone significant evolution, particularly over the last two decades. From a predominantly bank-based system, financial intermediation in Malaysia has become more diversified, characterised by the increased role of capital markets and non-bank financial intermediaries. Concomitantly, the interlinkages with the global and regional financial systems have also increased, in tandem with similar trends in the real sector.

While these developments have resulted in more efficient financial intermediation, the optimal allocation of resources and diversification of risks, they have also changed the nature and speed at which risks and vulnerabilities can be transmitted across markets and national boundaries. As a result, central banks and other policymakers have needed to build buffers to support the robust functioning of their financial systems and have required a wider array of policy tools to deal with emerging risks and shocks effectively and pre-emptively.

In this regard, Malaysia's relative financial stability has also been largely attributable to a series of reforms undertaken to strengthen the resilience of the financial system to withstand such shocks and emerging risks. Additionally, Malaysia relies on a broad policy toolkit, recognising that different policy instruments may be required for different situations and objectives. Macroprudential measures implemented over the past few years have been aimed at addressing risks in specific segments of the financial system and the economy. This has allowed for monetary policy to focus on its primary mandate of price stability.

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