Spillovers from global monetary conditions: recent experience and policy responses in Malaysia

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Abstract

As a result of growing financial integration, domestic financial conditions are increasingly influenced by global financial conditions. This phenomenon has intensified after the advanced economies implemented their unconventional monetary policies, which have led to a surge in global liquidity. Both push and pull factors have accelerated the flow of capital into emerging market economies. In regard to Malaysia, the first point of impact has been on the exchange rate. There have also been price and quantity effects in the financial markets and on balance sheets. The capital inflows, and their subsequent reversal, have raised concerns over the risks to macroeconomic and financial stability. Given that these risks were assessed to exist only in specific segments of the financial system and the economy, macroprudential measures have been implemented over the past few years to address potential areas of vulnerability. Going forward, although volatility of financial flows and markets is likely to continue, the Malaysian financial system is expected to weather this volatility and remain resilient.

Keywords: Policy spillovers, capital flows management, macroprudential measures, Malaysia, monetary policy, financial imbalances

JEL classification: E44, E58, F62, F32

[1] Central Bank of Malaysia.

I. Introduction

As a result of growing financial integration, domestic financial conditions are increasingly influenced by global financial conditions. This phenomenon has intensified in recent years as the advanced economies (AEs) implemented their unconventional monetary policies (UMP), which have led to a surge in global liquidity. The associated capital inflows into emerging market economies (EMEs), and their reversal since May 2013, have raised concerns about the risks to macroeconomic and financial stability. This note focuses on Malaysia's recent experience, briefly highlighting trends in capital flows, before discussing the main channels of international monetary transmission, the ensuing impact on domestic financial conditions, and the policy implications.

II. Recent trends in capital flows

Along with other EMEs, Malaysia experienced a resurgence of capital inflows in the period following the 2008 global financial crisis (GFC) (see Chart 1). Cumulative net portfolio inflows over the period 2009–12 were more than twice the amount received over the period 2004–07.[2] Both push and pull factors played a role in capital flows to EMEs. This increase coincided with UMP in AEs, especially the three rounds of quantitative easing (QE) by the US Federal Reserve (Fed).[3] Higher interest rates and stronger growth in EMEs than in AEs acted as a "pull" factor for these flows. Using event studies and a global vector autoregressive (GVAR) model to examine the impact of QE[4] on domestic variables, Chua et al (2013) find that the QE episodes have had non-trivial effects particularly on exchange rates and asset prices for a group of EMEs, including Malaysia[5] (See Table 1 for developments in exchange rates and asset prices in selected Asian economies).

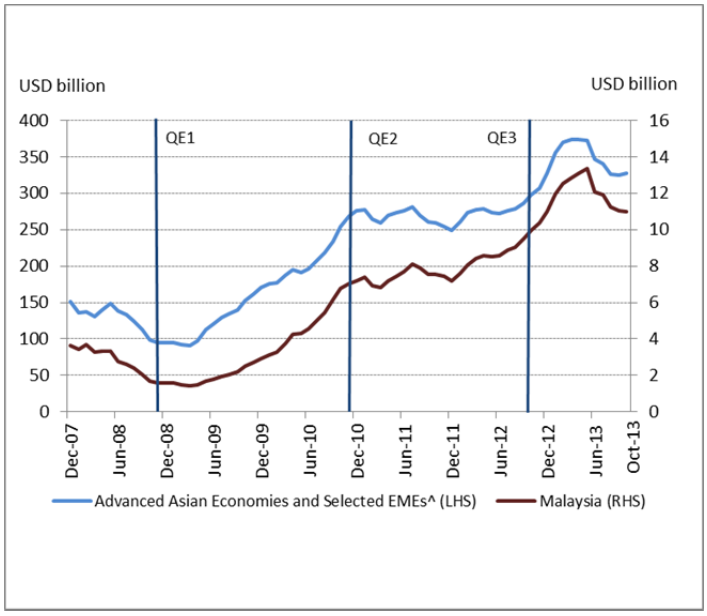
[2] Based on either Balance of Payments (Department of Statistics, Malaysia) statistics or EPFR Global data.

[3] For instance, in Ahmed and Zlate (2013) and Fratzscher et al (2012), the impact of UMP on capital inflows is analysed using panel data models whilst controlling for other potential determinants.

[4] US M2 growth is used as a proxy.

[5] This is corroborated by the Central Bank of Malaysia's internal estimation of factors affecting net portfolio inflows into Malaysia. Controlling for regional interest rate differentials and risk aversion, there appears to be a statistically significant positive effect from global liquidity.

Cumulative net portfolio inflows* into Malaysia and selected economies^ Chart 1



* Sum of net equity and bond inflows, cumulated over time beginning January 2004. ^ Countries comprise China, Chinese Taipei, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Thailand, Brazil, Chile, Colombia, Mexico and Peru.

Source: EPFR Global.

Asian currencies and asset prices performance during QE period
25 November 2008–21 May 2013 Table 1

Countries	Exchange rate (% change against USD)^	Equity (% change)	10-yr government bond yield spread over policy rate (bps change)
Korea	34.0	104	-146
Singapore	20.9	113	-81*
Malaysia	20.2	109	-32
Thailand	18.7	326	60
Indonesia	27.0	355	-755
Philippines	20.7	307	-345

^ Positive values indicate appreciation. * Reflects only the change in 10-year government bond yield since Singapore does not have a policy interest rate.

Sources: Central Bank of Malaysia, Bloomberg, BNM staff calculations.

However, the subsequent period of volatility in international financial markets from May to September 2013, which was primarily due to expectations of the "tapering" of UMP[6] by the Fed, saw significant capital outflows from EMEs. Amidst

[6] See for instance, Koepke (2013), who finds that the capital flows retrenchment episode was primarily driven by a shift in market expectations towards an earlier tightening of Fed policy

heightened uncertainty and risk aversion, concerns about current account deficits and government debt positions in some EMEs increased significantly, amplifying capital outflows. In the case of Malaysia, about 40% of the portfolio inflows that had been received since the QE1 programme by the Fed reversed over a period of three months.[7] With substantial buffers in place, Malaysia was able to weather these reversals with minimal adverse effects on financial system stability and economic activity.[8] This episode underscored the importance of having strong economic fundamentals and understanding how capital inflows permeate the domestic financial system and create vulnerabilities.

III. Transmission channels and impact on domestic financial conditions

Post-GFC developments (November 2008–May 2013)

(i) Direct effects

The first point of impact for the transmission of global monetary conditions was on the exchange rate. In the period following QE1 by the Fed up to when the possibility of a tapering of Fed bond purchases was first raised, the Malaysian ringgit had appreciated by 20.2% against the US dollar (25 November 2008–21 May 2013). Since the floating of the ringgit in July 2005, foreign exchange intervention has become much less frequent. Operations have been focused primarily on ensuring smoothly functioning markets. On occasions when inflows or outflows had reached extreme levels, the central bank intervened in the foreign exchange market with the aim of mitigating volatility, maintaining orderly market functioning and reducing any destabilising effects on the real economy.[9] Intervention operations were accompanied by sterilisation to maintain stable liquidity conditions in the interbank money market.[10]

As net capital inflows into Malaysia have mainly taken the form of portfolio investments rather than cross-border bank credit, the impact on financial markets,

(increasing uncertainty and heightening risk aversion), rather than a markdown in expectations about EMEs' economic performance per se.

[7] May–August 2013. Source: BNM internal calculations.

[8] In general, internal and external imbalances financed by capital inflows are likely to exacerbate reversals, risking overcorrections in asset prices and balance sheets. Importantly, Malaysia has not been over-reliant on portfolio investments and external borrowings to either support the external position or to finance domestic activity. Instead, Malaysia's resilience has been supported by a robust level of international reserves (sufficient to finance 9.6 months of retained imports and 3.7 times the short-term external debt as at 31 December 2013), low external debt (32.1% of GNI at end-September 2013), and a strong and diversified financial system. Although lower than before, the current account balance continues to be in surplus. While the fiscal deficit position is of some concern (witness the Fitch sovereign rating outlook downgrade of Malaysia on 30 July 2013), it nevertheless had a relatively limited impact on capital outflows.

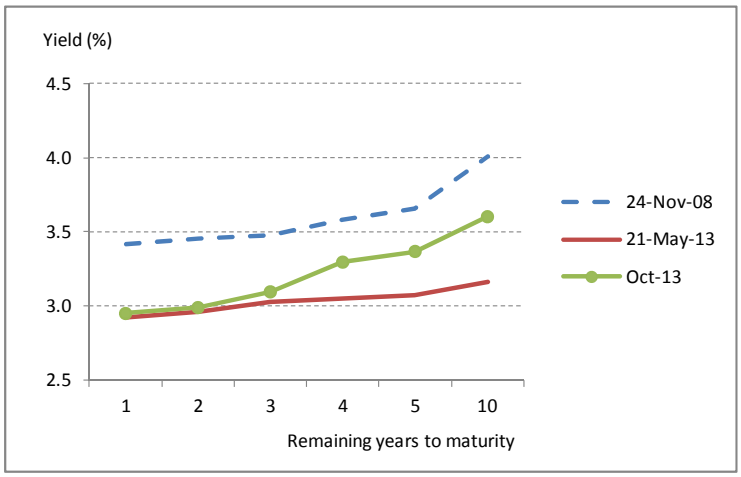
[9] While exchange rate appreciation has been broadly observed across EMEs in the past couple of years, overly rapid and sharp adjustments pose the risk of overshooting scenarios and misalignment, which may be detrimental to the real economy.

[10] See Abdul Aziz (2013) for further details on foreign exchange intervention in Malaysia.

given foreign purchases of bonds and equities, has been more direct. This has the price effect of lowering yields and boosting equity prices, and also the quantity effect of expanding banks' balance sheets through the increase in external assets and bank deposits of the domestic non-bank sector.

Non-resident holdings of outstanding government securities[11] increased from about 12% on 25 November 2008 to 34% on 21 May 2013. Of the various government securities, non-resident demand was particularly pronounced in the case of Malaysian government securities (MGS), with holdings increasing from about 14% of outstanding MGS to approximately half over the same period. This resulted in a flattening of the yield curve (see Chart 2) with yields declining by between 22.9 and 56.6 bps.

MGS benchmark yield curve — Chart 2



Source: Central Bank of Malaysia.

Capital inflows had a lesser impact on equity prices. Although the Kuala Lumpur Composite Index (KLCI) increased by 109% between late November 2008 and late May 2013, the share of non-resident holdings increased by only 4 percentage points to 25.8%. Similarly, in the case of yields on private debt securities (PDS), while some compression was observed, the share of non-resident holdings of PDS had in fact fallen to less than 5%. The impact of non-resident inflows on PDS yields has been indirect, coming through lower MGS yields and through increased demand for PDS among domestic investors following higher MGS prices.[12] PDS yields have also been driven by market-specific factors such as liquidity and changes to the credit outlook for corporates.

From a quantity point of view, as an indication of the impact net portfolio inflows might have had on the balance sheet of the banking system, non-residents effectively took up 61.4% of the increase (RM 203.7 billion) in outstanding

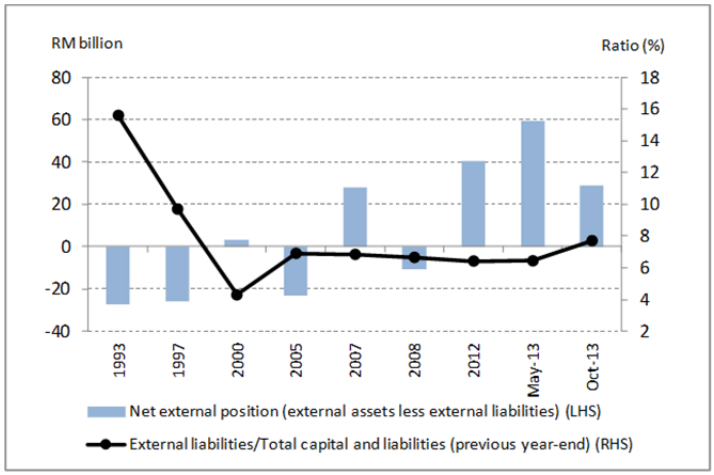
[11] Comprising Malaysian Government Securities, Government Investment Issues (GII), Malaysian Treasury Bills and Government Housing Sukuk.

[12] Controlling for other determinants, BNM's internal estimations suggest that non-resident holdings of MGS have a statistically significant effect on both MGS and PDS yields. Non-resident participation in the PDS market, however, is not a statistically significant determinant of PDS yields.

government securities[13] from November 2008 to May 2013 (36.8% of RM 83.7 billion over 2004–07). The subsequent growth in domestic private sector deposits arising from government spending of these proceeds would have thus been indirectly driven by the external sector. Additionally, though of smaller magnitude, the net buying of equity by non-residents[14] would have also led to an increase in deposits of domestic agents.

Although domestic banks' external liabilities have increased in recent years, the international bank lending channel, via indirect credit (foreign banks' claims on domestic banks), has not been a particularly potent conduit in the transmission of global monetary conditions. The ratio of gross external liabilities to total liabilities of the banking system as a whole has remained relatively small and stable, notably lower than the levels observed during previous peaks in 1993 and 1997, when banks were net external borrowers (see Chart 3). Furthermore, the banking system's healthy net external assets position suggests that banks do not rely on external borrowing to fund their domestic lending activity. At the same time, although direct cross-border credit (foreign banks' claims on domestic non-banks) has increased, it remains small as a share of total financing. The Malaysian corporate sector's external debt[15] as a share of total corporate debt amounted to only 18.0% in September 2013 (end-2007: 22.4%; end-2005: 25.0%).

External position of the banking system — Chart 3



Source: Central Bank of Malaysia

(ii) Indirect effects

The international spillovers on financial markets and banks' balance sheets have also had indirect effects on the supply and cost of bank credit. Capital inflows increase

[13] Comprised of MGS, GII, MTB and Government Housing Sukuk.

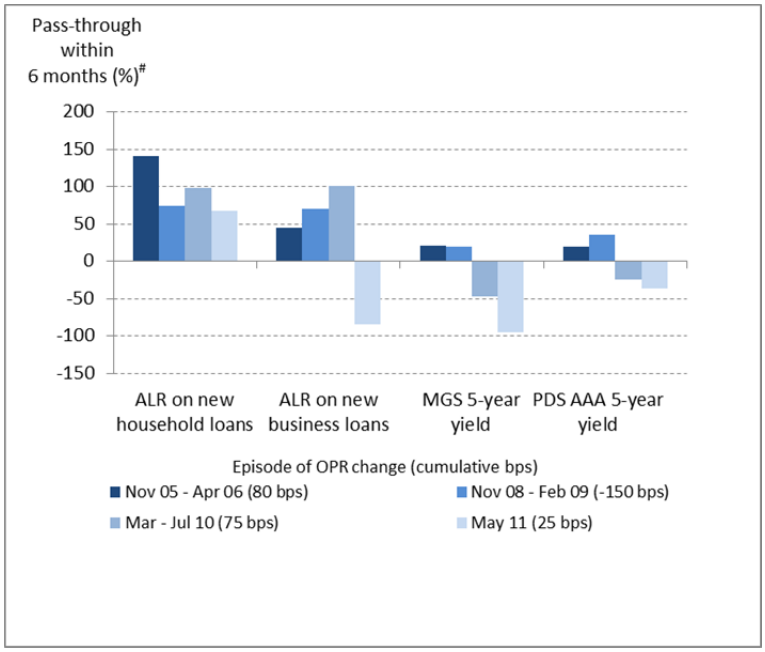
[14] Net buying of equity by non-residents amounted to RM 48.2 billion over January 2010–May 2013 (Source: Bursa Malaysia).

[15] External debt is measured as the foreign currency and ringgit debt owed to non-residents (ie the sum of loans and corporate bonds issued abroad in foreign currency, and non-residents' holding of domestic PDS).

private sector liquidity and banks' sources of funds. This provides an impetus for banks to match higher credit demand while competitively maintaining low or stable lending rates, as well as to increase their risk appetite. Lending rates on new loans to households have also declined. Generally, prices on all types of household loans have been affected by the ample liquidity and intense competition among banks, resulting in the compression of margins. This is notwithstanding different pricing structures across various types of loans. Fixed-rate loans (such as personal loans and hire purchase) are priced off interest rate swaps (IRS) and have a high correlation with MGS yields. Although floating-rate loans are predominantly priced off money market funds, which generally move with the overnight policy rate (OPR), the lending rates on these loans have also experienced downward pressure. Furthermore, the pass-through of policy rate changes to lending rates on new loans and bond yields has also declined slightly in the post-GFC period, particularly in the context of policy rate increases (see Chart 4).

Pass-through from OPR to average lending rates (ALRs) on new loans and bond yields

Chart 4



The pass-through is calculated as the six-month change in rates or yields after the cumulative change in the OPR. A negative value indicates that rates or yields moved in the opposite direction of the OPR.

Source: Central Bank of Malaysia.

A consequential policy concern is to pre-empt these developments from leading to a build-up of financial imbalances, particularly in the form of excessive credit growth and asset price misalignments. Internal assessments suggest that the risks of financial imbalances remain contained. Nevertheless, there are areas that have warranted close attention. In particular, loans to households and house prices have registered strong growth. Although the observed increases in credit to households and house prices have been broadly supported by fundamentals, pockets of vulnerabilities have required policy responses. These include high indebtedness among lower-income households, elements of over-investment and speculative activity in the housing market, as well as increased risk appetites and

intense competition in the personal loans market. As a result, macroprudential measures have been implemented in stages since late 2010 to, among others, limit the maximum loan-to-value ratios on third and subsequent housing loans, increase the risk weights on some housing and personal loans, and reduce the maximum tenures on housing and personal loans. These measures have had positive effects. For instance, the growth rates of multiple housing loans and personal loans have both moderated (in the former case, from 15.4% in 2010 to 2.9% in September 2013, and in the latter case, from 20.5% in 2010 to 13.1% in September 2013).

The direct impact of capital inflows on the property market is estimated to be relatively limited. The participation rate of non-residents in the property market has remained relatively stable, averaging 5.5% of the total transactions involving properties valued at more than RM 500,000 from the period 2010–12. The effect of capital inflows is likely to be indirect via wealth effects and the easier availability of financing.

Volatility episode (May–September 2013)

The impact of capital outflows following market expectations of "tapering" by the Fed was confined to movements in the currency and bond yields. Also, the price discovery process remained orderly. Government bond yields, for instance, increased by less than in other countries, reflecting strong demand from domestic institutional investors.[16] The yield spread over the OPR for the five-year MGS increased by 55.6 bps, which was smaller than that experienced in other regional countries.[17] Despite the volatility, the MGS benchmark yield curve in October 2013 remained below those for various points in the past, particularly at the long-term tenures, while non-resident holdings of MGS remained relatively stable at 47% after the initial dip to 43% in September.

The financing needs of the economy were not compromised given the low reliance of banks on external funding[18] as well as their ability to meet any gaps that may have arisen from a possible curtailment of foreign bank lending to the domestic private sector, such as for trade financing. Retail lending rates were relatively unaffected and the ample liquidity situation in the banking system continued to prevail, as observed from the still large stock of liquidity absorbed by the Central Bank of Malaysia (BNM).

[16] These domestic participants have sufficient capacity to step in and ease excessive volatility in the financial markets. The investible funds of the Employees Provident Fund, the Retirement Fund Incorporated, and insurance and takaful companies together amounted to RM 752.6 billion in 2012.

[17] Average of 145.3 bps across Thailand, Philippines and Indonesia between 22 May and 28 August 2013.

[18] The slight increase in US dollar funding costs by about 20–30 bps did not affect the availability of foreign currency financing.

IV. Policy implications and responses

The OPR remains the main policy lever used to affect aggregate demand in the pursuit of price stability and sustainable growth. While the direct impact of spillovers on the exchange rate and financial markets and the indirect impact on wider monetary and financial conditions complicate matters, the monetary policy stance continues to reflect domestic considerations, namely the outlook for inflation and growth. This is not to say that external factors do not matter for monetary policy – they certainly do, insofar as they affect broad domestic economic, monetary and financial conditions that are relevant for the policy rate decision. The OPR has not responded directly to changes in the monetary stance of AEs. Nor was the OPR used to support the exchange rate or to alleviate capital inflows or outflows that arose from interest rate differentials.

The ability to conduct independent monetary policy in this context is supported by the floating exchange rate regime, which provides more policy scope for managing capital flows, with the impact spread between the exchange rate and foreign exchange reserves. This, in turn, has increased the importance of foreign exchange reserves management and the availability of a range of sterilisation instruments. This is especially the case in an environment where changes in reserves reflect movements in capital flows that are highly dependent on risk sentiment and valuations, and are prone to quick reversals. BNM actively manages its investments, diversifying between short- and longer-term assets and between lower- and higher-rate fixed income assets based on market conditions and with a view to optimising the balance between risk and return. The greater international recognition of some EME currencies in this regard will allow for better optimisation of the trade-offs. Nevertheless, at this juncture, BNM's decisions to invest in other EME currency assets depend on country fundamentals, accessibility, regulatory impediments, financial market valuations and liquidity. On the liabilities side of the balance sheet, BNM relies on a wide range of sterilisation instruments for liquidity management, aimed at keeping the OPR stable and managing structural excess liquidity. The choice of instrument is based mainly on cost and duration considerations and the need for flexibility to manage intermittent liquidity creation and withdrawal. The use of BNM securities in particular has widened the pool of asset classes and allowed for liquidity to be absorbed directly from non-residents. This reduces the impact of capital inflows on other bond yields as well as on banks' balance sheets and excess liquidity, thus limiting, to some extent, the scope for credit expansion.[19]

The spillovers from global monetary conditions on some aspects of the domestic monetary transmission mechanism warrant continuous monitoring. Thus far, the ability of monetary policy to achieve inflation and output goals has not been compromised. In the near future, as global monetary policies become less accommodative, some normalisation in capital flows is likely, thus alleviating the earlier weakening of the pass-through from the policy rate to market interest rates. Given the interplay between economic and policy uncertainties in AEs, the volatility of capital flows will, nevertheless, be a feature of the financial landscape for the near

[19] Sterilisation using BNM securities with liquidity absorbed from non-residents limits the expansion not only in base money but also broad money. As at end-November 2013, non-resident holdings of outstanding BNM securities amounted to 72.2%.

future. How far these flows will affect the transmission mechanism will depend on factors such as their size and persistence, the variety and efficacy of available policy instruments, as well as the domestic financial system' structure and depth. The continuous integration and deepening of the financial markets, while increasing the sensitivity of yields and asset prices to external influences, will help strengthen the expectations channel. Regulatory changes will also play a role. For example, the recent introduction of risk-informed pricing guidelines in Malaysia, which addresses underpricing of risks in credit products, is likely to strengthen the transmission from policy rate changes to lending rates on new loans.

BNM has long recognised that different policy instruments may be required for different situations and objectives, depending on the nature of risks being confronted and taking into account the functioning of the economy and financial system. When domestic or cross-border risks to macroeconomic or financial stability are assessed to be specific, a targeted approach is required. Macroprudential measures implemented over the past few years have been aimed at addressing risks in specific segments of the financial system and the economy. Previously, in 1994 and following the Asian financial crisis (AFC) in 1998, capital flow management measures were used. These provided a similar targeted approach to address externally driven risks that were also hindering monetary policy autonomy and creating risks in the domestic financial system. Additionally, recognising the exceptional circumstances in the post-AFC recovery period, bank lending rates were linked directly to the then policy rate, the three-month intervention rate, to allow for faster transmission of changes in the policy rate. Funds for lending to small and medium enterprises (SMEs) and credit allocation targets were also used to influence the direction of credit extension. Unless in exceptional circumstances, however, the use of a broader policy toolkit does not reduce the importance of giving due consideration to the level of the policy interest rate since monetary conditions set the baseline conditions for risk-taking in the entire economy.

V. Conclusion

In the face of increasing financial globalisation, external factors such as abnormal cross-border capital flows due to UMP in AEs have exerted a stronger influence on the domestic financial conditions of many EMEs, including Malaysia, in recent years – despite the adoption of more flexible exchange rate regimes. In Malaysia's own experience, recent developments have reinforced the importance of the implementation aspects of monetary policy and the need for an expanded toolkit. The strong fundamentals, buffers and policy flexibility built up over the years have put the Malaysian economy on a good footing to meet the near-term challenges associated with adjustments to UMP in AEs. Although intermittent volatility is likely to be unavoidable, the financial system is expected to remain resilient, with the impact on financial markets cushioned by their depth and the liquidity support of domestic institutional investors. Most importantly, to ensure the continuity of sound fundamentals, precautionary measures have been implemented and continue to be taken to address potential areas of vulnerabilities. These have included macroprudential measures to address risks related to the property market and household indebtedness, and fiscal reforms to strengthen public finances and ensure fiscal sustainability.

Appendix: Developments in financial prices and quantities

	Cumulative Change		
	25 Nov 08 - 21 May 13[1]	**22 May 13 - 31 Dec 13**	**25 Nov 08 - 31 Dec 13**
Net portfolio inflows (USD billion) (Source: EPFR Global)	8.8	-2.2	6.7
MYR/USD (% change)	20.2	-8.2	10.3
MGS yields (bps change)			
3-year	-22.9	30.9	8.0
5-year	-35.3	58.9	23.6
10-year	-56.6	96.6	40.0
5-year PDS yields (bps change)			
AAA	-96.4	20.1	-76.3
AA	-110.1	18.5	-91.6
A	-31.1	7.0	-24.1
KLCI Index (% change)	109	4.5	118.3
	Nov 08 - May 13	**May 13 - Nov 13**	**Nov 08 - Nov 13**
ALRs on new loans (bps change)			
Households	-52	-2	-54
Businesses	-42	-19	-61
Lending to BNM by banks (RM billion)	13.5	-36.4	-22.9
	As at end		
	25-Nov-08	**22-May-13**	**31-Dec-13**
Non-resident holdings (% of total outstanding)			
MGS	14.1	50.3	44.9
Total Government Securities [2]	11.8	33.5	28.9
PDS	5.0	3.6	3.4
Equity	21.8	25.8	23.9

[1] Fed's QE1 announcement to market expectations of a scaling back of monetary accommodation.
[2] Includes Malaysian Government Securities (MGS), Government Investment Issues (GII), Malaysian Treasury Bills (MTB) and Government Housing Sukuk.

Source: Central Bank of Malaysia.

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