High-level policy panel on the development of financial markets: macroeconomic and financial stability amidst the global financial crisis – the Singapore experience

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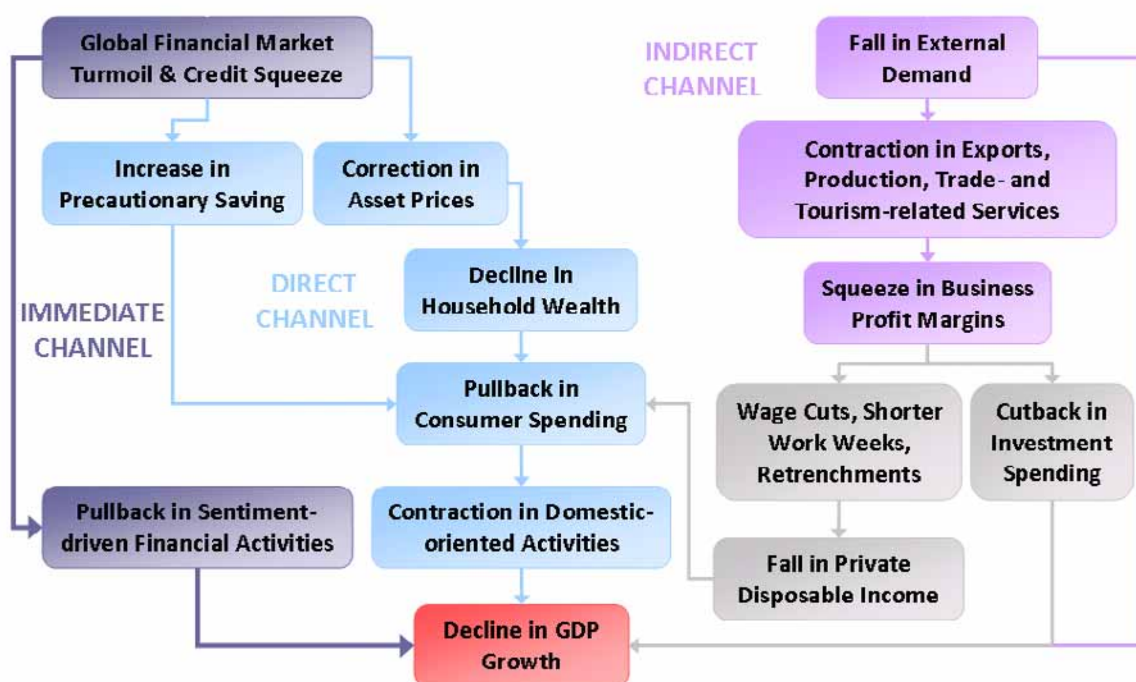
1. Introduction

Singapore is one of the most open economies in the world. Given its deep and extensive integration with international markets, the economy was significantly hit by the global financial crisis.

Chart 1

Transmission of global financial shock to Singapore



There are three broad channels through which the financial crisis and the attendant squeeze in liquidity and credit have impinged on domestic economic activity.

Immediate channel: the impact from the shock was most immediately felt via a pullback in the sentiment-sensitive segments of the financial sector, such as stock broking and wealth advisory.

Direct channel: the weakening in consumer sentiment had a direct bearing on domestic-oriented activities, such as retail trade and the property market.

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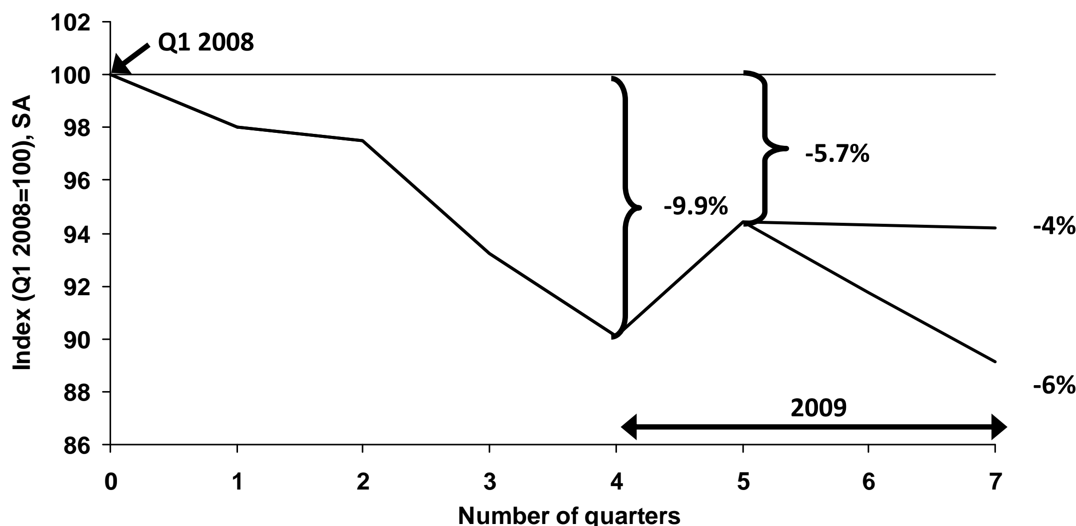
Indirect channel: in an open economy, the repercussions on the external-oriented sectors also came indirectly as external economies contracted. Sagging foreign demand affected industries such as manufacturing, transport-hub and tourism services. In turn, companies cutting back on investment, jobs and wages further dampened consumer sentiment and consumption, feeding back to domestic-oriented industries.

Chart 2

GDP profile

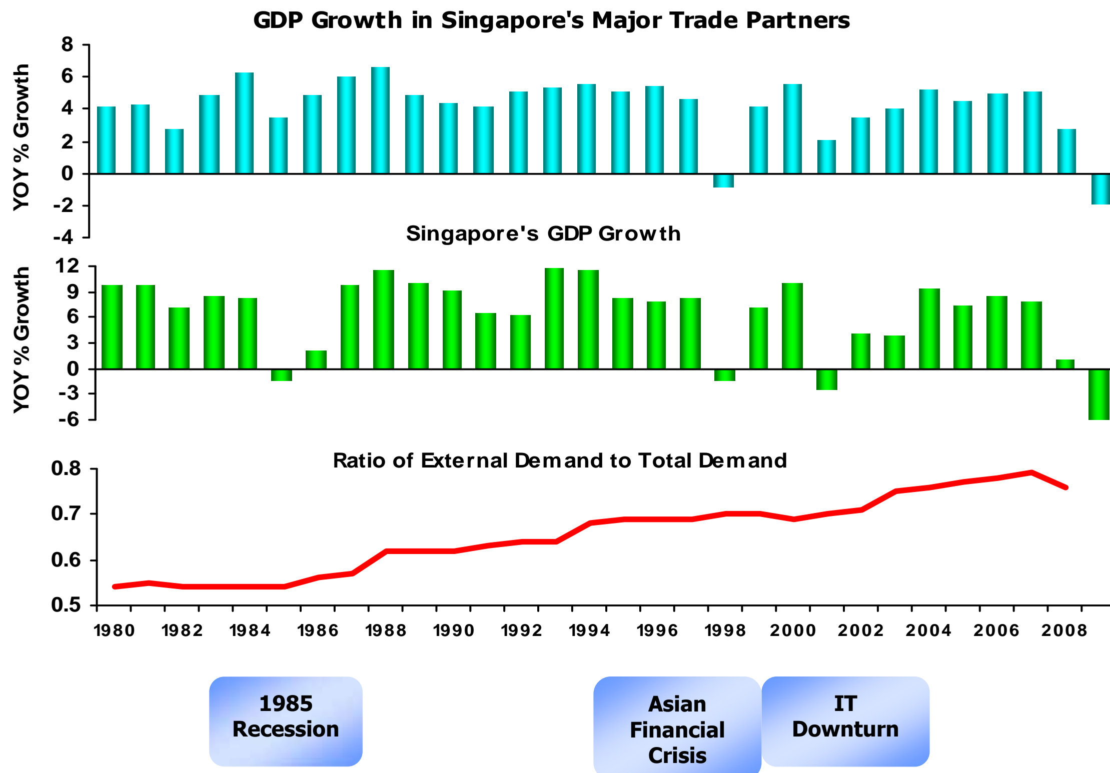


As of Q1 this year, GDP had already fallen by about 10% from its peak. In Q2, some of the previous output losses were reversed, bringing economic activity to levels last seen in H1 2007, resulting in a switch from contraction to stabilisation. However, the next shift to a sustained expansion mode is not expected to be very sharp. A strong once-and-for-all decisive upturn is not expected at this stage. For 2009 as a whole, GDP is expected to contract by 4-6%.

Chart 3 shows that external demand as a share of total demand has increased over the past decade. The Singapore economy has been highly vulnerable to global headwinds, and the recovery path will be heavily predicated on external departments. A decisive recovery will not be possible if global and regional demand does not improve.

Chart 3

GDP growth & external demand



Note: 2009 numbers are consensus forecasts.

2. Government responses to the crisis

While Singapore cannot be insulated from the global financial crisis given the openness of the economy, it is crucial to ensure the soundness of the financial institutions and stability of financial markets, as well as maintain the confidence of investors. There is also a need to put in place appropriate macroeconomic policy settings.

The Singapore economy is currently facing an aggregate demand shock on a global scale, not an erosion of Singapore's competitiveness. Against this backdrop, it is not the aim of fiscal measures to fill in the economy's output gap. Instead, the aim is to facilitate cost adjustments in the business sector and provide supplements to household income where needed, to help businesses and households cope with the downturn and adjust to this new reality.

The assessment has been that fiscal policy is most effective in this situation, and should therefore take on the greater part of the adjustment burden in the overall macro policy stance, while monetary policy maintains its focus on its anchor of stability role. The government budget was brought forward by a month to January this year and is a substantial package, amounting to 8.2% of GDP. It contains a diversified suite of targeted measures with multiple impact points for workers, households and businesses.

In the financial sector space, immediately following the Lehman collapse, the Monetary Authority of Singapore (MAS) put in place measures to instill market confidence and ensure the stability of the financial system. Ample liquidity was kept in the system and the Standing Facility was strengthened, so that banks could operate normally in Singapore. There were

also collaborative efforts to ensure adequate US dollar liquidity in the system by establishing necessary arrangements with the US Federal Reserve. In addition, regulation of financial institutions was enhanced and internal macroprudential assessment stepped up through high-frequency macroprudential surveillance meetings.

In addition, MAS made monetary policy adjustments with policy actions underpinned by the objective of maintaining price stability over the medium term and confidence in the Singapore dollar (Singapore dollar).

The following paragraphs elaborate on some of these policy measures.

2.1 Business financing schemes

As part of the S$20.5 billion Resilience Package announced, S$5.8 billion was set aside for the purpose of stimulating bank lending. With the decline in credit arising from the crisis, there was a need to help good and viable companies obtain funding to enable them to stay afloat and grow.

To address this, the government decided to take on a significant share of the risks of bank lending and extend support to a broader segment of the credit market beyond SMEs. This support comes in the form of enhancements to existing bank lending schemes and the Special Risk-Sharing Initiative (SRI).

The two components are set out in Table 1. Key enhancements include broadening the scope of eligible companies, increasing the government's share of default risk and increasing the maximum loan quantum. It is important to note that while the government is taking on a significant share of the risks of bank lending, the lending business and credit decisions remain with the banks, which have the direct relationships with customers and expertise in credit assessment.

Table 1

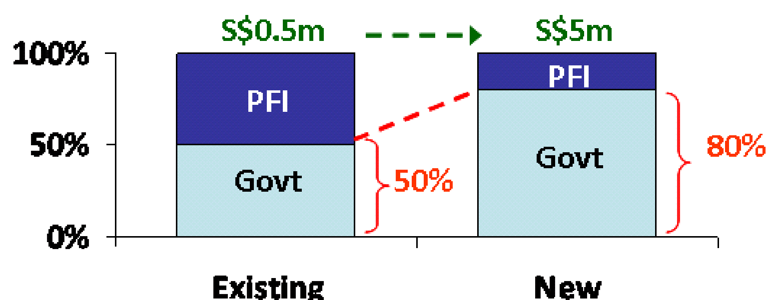
Special risk sharing initiative

Scheme	Description
New bridging loan programme	• For local companies and foreign SMEs • Maximum loan quantum increased from S$500,000 to S$5 million • Government default risk sharing increased from 50% to 80%
Trade Financing	• Domestic facilities: companies with at least 30% local shareholding • Export facilities: companies incorporated in Singapore with at least 3 strategic business functions in Singapore • Government co-shares 75% of default risk • Maximum loan quantum of up to S$15 million per borrower group

Chart 4 provides an illustration of the new Bridging Loan Programme (BLP), which has been substantially enhanced from the scheme introduced in November. The new BLP caters to loans of up to S$5 million, up from S$500,000 currently, and meets the working capital needs of most mid-sized firms and some of the larger ones. The government's share of risk on these loans has been raised from 50% to 80%. Further, the new BLP enables banks to set their own interest rates, allowing higher-risk borrowers to gain access to credit, even if it is at a higher interest rate.

Chart 4

Bridging Loan Programme



While it may be too early to assess the effectiveness of these schemes, the number of government-backed loans has increased significantly following their introduction.

2.2 Deposit guarantee

In October last year, the Singapore Government announced a blanket guarantee on all deposits in banks, finance companies and merchant banks licensed by the MAS. These include deposits with overseas branches of the local banks that fall under the Singapore legal entity. All Singapore dollar and foreign currency deposits of individuals and corporates are covered.

This is an extension of the deposit insurance scheme administered by the Singapore Deposit Insurance Corporation. While the banking system was, and continues to be, sound and resilient, this was a precautionary move taken to guard against erosion of banks' deposit base.

3. Enhancing market resilience

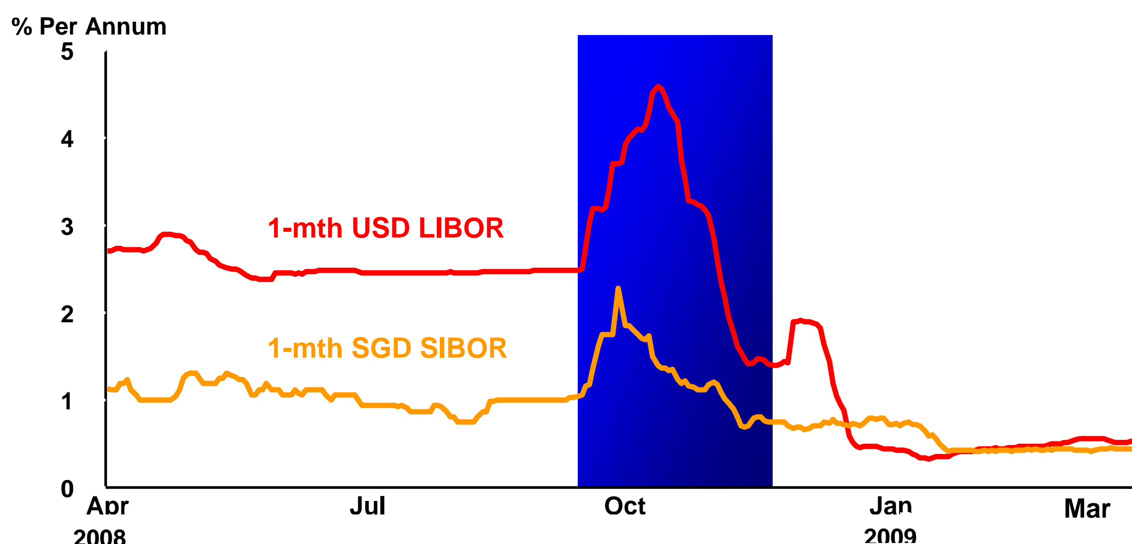
3.1 Money market and liquidity management

Singapore was not immune to the effects of global deleveraging in the aftermath of the Lehman collapse. Tighter credit conditions in the Asian dollar market inevitably spilled over into local currency money markets in Asia. Chart 5 shows the impact of higher US dollar borrowing rates on the Singapore dollar market in September 2008.

To ease pressure in the Singapore dollar money market, MAS kept a higher level of liquidity in the banking system through its market operations and enhanced its monitoring of market functionality through closer contact with financial institutions. MAS also reassured financial institutions that it would continue to anticipate the market's funding needs and would consider the unique liquidity needs of individual banks on a case-by-case basis.

Chart 5

Impact of US dollar borrowing rates on Singapore dollar rates



3.1.1 Enhancements to MAS standing facility

MAS also introduced enhancements to the MAS Standing Facility, which has been a key channel through which MAS provides liquidity to financial institutions. In line with major central banks and recommendations by the Financial Stability Forum, the pool of eligible counterparties and collateral was expanded in July 2008 to help financial institutions operating in Singapore to better manage their risk and liquidity and provide them with greater access to Singapore dollar liquidity.

Even prior to opening up participation in the Standing Facility to all RTGS members, the facility had already covered 80% of the market through the eleven Primary Dealers. The expansion of the Standing Facility has increased market efficiency by shortening the path through which Singapore dollar liquidity reaches non-Primary Dealer banks from MAS and vice versa.

The pool of eligible collateral was expanded in July 2009 to include AAA-rated Singapore dollar debt securities issued by sovereigns, supranationals and sovereign-backed corporates. The MAS has also started the process of entering into cross-border collateral arrangements with major central banks to accept well-rated foreign currencies and government debt securities as collateral.

3.1.2 Cross-border collateralisation arrangements

Under these cross-border collateralisation arrangements, banks operating in Singapore are able to tap on MAS for Singapore dollar liquidity by placing foreign currency cash and securities in MAS account facilities with a correspondent central bank via either a swap, repo or under pledge (and vice versa). The MAS has signed an MOU with the Dutch Central Bank and discussions are ongoing with several other central banks to establish similar arrangements. Singapore's cross-border collaboration efforts on the liquidity front go beyond the establishment of such arrangements.

3.1.3 US federal reserve swap line

In line with global US dollar interbank markets, banks in Singapore faced some US dollar funding pressures following the onset of the crisis. In an effort to ease these pressures, MAS established a temporary reciprocal currency arrangement with the Federal Reserve last

October. This was a precautionary measure to boost market confidence by reassuring financial institutions in Singapore, many of which have international operations, that they would have access to US dollar liquidity amidst the global US dollar funding shortage.

Under the arrangement, the Federal Reserve committed up to US$30 billion, to be made available at MAS' request, and each swap between MAS and the Federal Reserve can be for up to 84 days. The arrangement was extended further in June and is now valid until 1 February 2010.

This has helped to enhance the robustness of the US dollar funding and foreign exchange markets in Singapore. MAS has not needed to draw on the swap facility as money markets remained relatively orderly.

3.1.4 Enhancing the resilience of Singapore government securities

With the rise in government bond issuance globally as governments broadened fiscal measures and banks' balance sheets shrank, the volatility in government bond markets has risen with the unfolding of the financial crisis. The rising supply risks and deteriorating financial sector conditions have led to volatile government bond yields and poor government bond primary auctions.

Singapore is unique, and privileged, as the government issues bonds for the sole purpose of building a risk-free yield curve for the corporate sector to price its debt and not to finance any budget deficit. However, the Singapore Government Securities (SGS) market can be affected by weak sentiment spilling over from other markets. While there is very limited risk of an uncovered auction occurring, since SGS primary dealers are obliged to underwrite auctions fully, there remains the risk that unexpected changes in financial market conditions on the day of SGS auctions may result in unexpectedly skewed auction results. This risk has increased as global market volatility has risen and banks' balance sheets come under strain.

A skewed auction result would be detrimental to a market that is already volatile. The effects of a poor auction with an unusually high cut-off yield could include an upward shift in the entire yield curve, the marking down of banks' SGS portfolios and a knock-on repricing of Singapore dollar-denominated debt. Any or all of these would hurt investor confidence and impinge on Singapore dollar-denominated debt as a reliable investment class. The effects could be prolonged and perpetuate higher yields for future bond auctions in all tenors.

As such, pre-emptive safeguards were put in place to strengthen the SGS market's resilience and reduce the risk of outlandish and disruptive auction results, where yields cut off either well above or well below prevailing market yields. Under the safeguards, MAS is empowered to vary its subscription amount if the auction cut-off yield falls outside a 25 basis point corridor around the prevailing market yield at each auction. This mitigates the risk of disorderly trading in specific securities or volatility in the secondary market. It is noteworthy that while the yield corridor of ±25bps is set in advance, the reference rate (ie. prevailing yield that serves as mid-point) is determined by the market. This is important as MAS does not have an interest rate policy framework and does not take a view on rates.

4. Monetary policy

Chart 6

Monetary policy profile

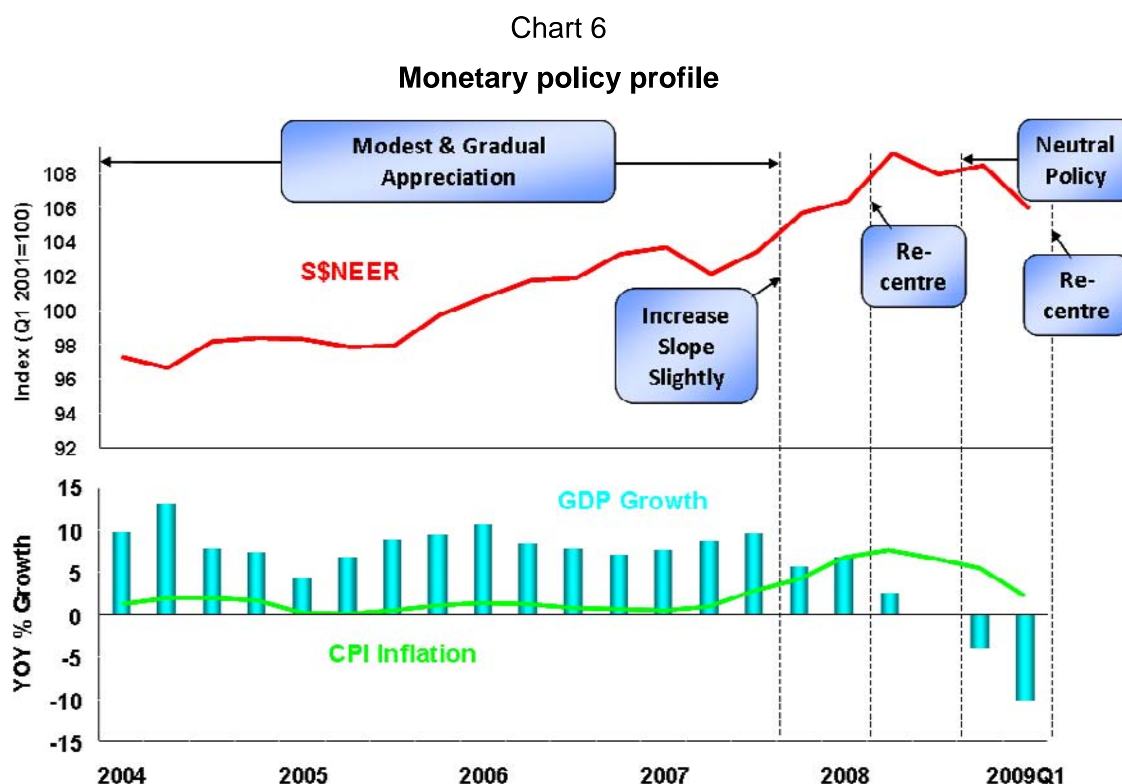


Chart 6 shows Singapore's exchange rate, GDP growth with inflation and monetary policy responses since 2004. A calibrated and moderated response to the global inflation and demand shock has been taken, and is guided by a number of factors, including:

1. External-demand-drive nature of the shock;
2. Medium-term objective of maintaining price stability;
3. Need to ensure that the Singapore dollar remains an anchor of stability.

MAS' monetary policy has focused on medium-term price stability. Chart 7 shows the results of counterfactual simulations if a more vigorous response to commodity price inflation had been adopted in 2007.

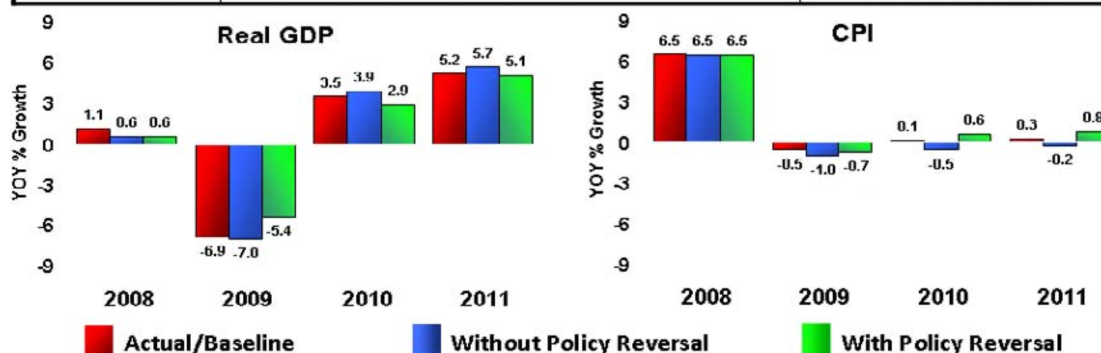
First, the tighter policy would not have had an immediate impact on the high inflation rates. Second, the abrupt and significant strengthening in the exchange rate would have led to a sudden loss in competitiveness, leaving the economy vulnerable to an unanticipated sharp decline in external demand in the latter half of 2008. Under the tighter policy, GDP growth would have come in lower at 0.6% in 2008, compared to 1.1% in the actual outcome. Third, if the tighter policy had been reversed in Oct 2008, the macroeconomic outcome in 2009 would have been similar to that under the actual policy.

Based on this understanding, a drastic easing in policy stance would have been required to offset the effects of the tighter policy. However, such a policy reversal could have tarnished the credibility of MAS and affected investors' confidence in the Singapore dollar. Domestic interest rates could have risen sharply, partially offsetting the initial stimulus from a weaker exchange rate.

Chart 7

Simulated impact of tighter policy to 2007 commodity price inflation

Policy Response	Actual	Tighter Policy Without Policy Reversal	Tighter Policy With Policy Reversal
Oct 2007	Increase slope of $NEER policy band slightly	Increase slope of $NEER policy band by a greater extent	
Apr 2008	Re-centre $NEER policy band upwards		
Oct 2008	Flatten $NEER policy band		Flatten $NEER policy band & re-centre $NEER policy band downwards



In conclusion, if policy had been further tightened in response to the inflation threats, the policy setting could have become inappropriate with the subsequent onset of the global economic downturn, given the inherent lags in monetary policy transmission.

4.1 Pillars of monetary policy

MAS' response to this crisis has shown the relevance of several principles that serve as pillars of monetary policy:

1. medium-term orientation on price stability – a medium-term orientation on price stability means that policy direction is not changed each time there is a fluctuation in business activity, to avoid introducing unnecessary volatility.
2. Singapore dollar as anchor of stability – this ensures that the Singapore dollar remains an anchor of stability for Singapore's small and open economy.
3. maintain confidence in Singapore dollar – in times of volatility in the financial markets, it is important to maintain confidence in the Singapore dollar.
4. understanding economic realities – policy has to be anchored in an understanding of the underlying realities behind economic shifts, and on what monetary policy can influence and what it cannot.
5. limited role in demand management – monetary policy plays a limited role in aggregate demand management. Internal estimates show that Singapore's exports are significantly more responsive to income effects than price effects. While depreciation may provide a short-term buffer for domestic firms facing cash flow problems, it would at the same time increase their costs of production.
6. does not work in a vacuum – lastly, monetary policy does not work in a vacuum. Policymakers continue to ensure that the macroeconomic response from fiscal and monetary policy is complementary and supports the economy.

5. Challenges ahead

Looking ahead, as policies that will continue to ensure a stable and conducive business and financial environment are reviewed, broad structural shifts in the economic landscape and the challenges presented by globalisation have to be taken into account.

Global trade flows have steadily trended upwards in the last 140 years, accelerating further since the 1950s. Meanwhile, capital flows have surged even more rapidly after the 1980s, although accompanied by frequent sharp reversals, reflecting the pernicious effects of financial crises.

Indeed, this financial crisis has highlighted the tighter links that have developed between emerging market economies and the global financial system over the past decade, as a result of globalisation and greater capital flows. While greater diversification of funding sources should have made emerging markets more resilient to some shocks, the greater integration can also transmit severe global shocks further and faster.

At the global level, this suggests the need for further research to understand the financial linkages between, as well as within, different financial systems. It also points to the need to develop toolkits to help identify potential imbalances or asset bubbles at an early stage, as well as research on appropriate policy responses.

For emerging markets, greater financial integration has led to higher and more volatile capital flows. Going forward, further consideration may need to be given to how policy should respond to these flows. For example, volatile capital flows can induce volatility into the exchange rate, complicating monetary policy. Also, given the importance of maintaining market confidence, more volatile capital flows implies that a fall in confidence in one economy could quickly prompt outflows from neighbouring economies. International contagion remains a risk.

Against this backdrop, Singapore's openness to capital flows poses a challenge. Large and volatile capital flows could potentially cause excessive volatility in exchange rates and domestic liquidity conditions, leading to asset price bubbles.

In this context, Singapore's managed float exchange rate framework has proven robust and adaptable to capital flows and volatility in markets. Short-term capital flows, which can be highly volatile and quickly reversible, are accommodated in the first instance by the policy band, with the nominal exchange rate bearing most of the adjustment burden. However, if the capital flows were to cause undue volatility in Singapore dollar and domestic liquidity conditions, MAS would intervene in the foreign exchange markets and step up money market sterilisation operations. More stable and persistent capital inflows have typically been associated with periods of strong expansion in the domestic economy and these are then accommodated by an appropriate appreciating crawl in the policy band.

Dealing with large capital flows and asset price bubbles cannot be the burden of monetary policy alone. Singapore's experience has shown that it is effective to use targeted prudential, administrative, and fiscal measures to deal with asset price bubbles and mitigate the threats to macroeconomic and financial stability.