

## Ravi Menon: Securing price stability as Singapore restructures

Speech by Mr Ravi Menon, Managing Director of the Monetary Authority of Singapore, at the Asian Bureau of Financial and Economics Research (ABFER) Opening Gala Dinner, Singapore, 21 May 2013.

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Professor Bernard Yeung, Dean, NUS Business School, whose tireless efforts have brought to fruition the Asian Bureau of Financial and Economics Research, distinguished guests, ladies and gentlemen, good evening.

### Interesting times again

Monetary policy has become interesting again.

The Great Moderation, beginning in the mid-1980s and spanning two decades, marked the triumph of monetary policy over the scourge of inflation. The formula worked brilliantly – independent central banks, with clear mandates to pursue price stability, and doing so with consistency and credibility, ushered in an era of macroeconomic and financial stability supporting steady economic growth and rising prosperity.

Then came 2008/2009 – unleashing a financial crisis of unmatched scale and impact, and a global recession deeper than any seen since the Great Depression. We are still living in the shadows of these two shocks, with the global economy stuck in a hesitant and uneven recovery and financial market stresses resurfacing from time to time.

Monetary policy in the advanced economies has entered uncharted waters, in a valiant effort to support economic growth, which was being weighed down by deleveraging. In the emerging economies, central banks and governments have had to be equally nimble in their policy responses, as they grapple with the spillover effects of these unconventional monetary policies.

Singapore has not been spared the effects of these broader global developments. Our exchange rate-centred monetary policy has been remarkably successful over the decades, in securing price stability amidst rapid economic growth and an open trade and capital account. Consumer price inflation has averaged 1.3% per annum during 1985–2005, one of the lowest in the world.

Inflation surged briefly in 2008, moderated in the wake of the Global Financial Crisis, but resumed an upward creep from 2010 onwards. Consumer price inflation averaged 4.2% during 2010–2012, the longest period of sustained inflation above 4% in Singapore’s history. It is particularly challenging that the current bout of inflation is occurring against the backdrop of a slowing economy, weighed down by weak external demand and a tight domestic labour market. And in a world awash with liquidity searching for both yield and safety, Singapore has been at the receiving end of such flows.

Tonight, I will set out MAS’ policy approach to securing price and financial stability, in this “new normal” of an economy restructuring amidst a global environment of slow growth and easy money. In most respects, this approach builds on the existing framework for monetary policy; but in other respects, it takes a more comprehensive view of macro stability and signifies the need for policy innovation in dealing with new realities.

Let me begin by describing the external and domestic context within which MAS is currently operating.

### External context: surging liquidity, diverging leverage

First, the global backdrop.

Monetary policy in the advanced economies has been extraordinarily loose for a prolonged period of time. It has been unconventional in three important regards.

- First, short-term interest rates are at or close to the zero bound – and have been so for over four years now.
- Second, central banks are purchasing non-traditional assets in large quantities to exert downward pressure on long-term interest rates. This has been going on for close to five years now, with central bank balance sheets in the US and the UK, for example, ballooning to more than three times their pre-crisis levels.
- Third, central banks are providing “forward guidance”, either in the form of commitments not to raise interest rates until certain real economy thresholds are met or plans to expand the monetary base until an inflation target is reached, helping to extend expectations of easy monetary conditions.

The overall impact of these measures has been to reduce tail risks in the advanced economies and prevent a sharp deceleration in growth. But they have been less successful in restoring economic growth to pre-crisis trend rates, in the face of deleveraging pressures. Debt-to-GDP ratios in the G3 economies must normalise at lower levels to restore macroeconomic and financial stability. This necessitates a decline in consumption. Banks are less willing to lend, and the private sector less willing to borrow. The relationship between liquidity and credit appears to have broken down.

The wall of money created in the advanced economies has led to extremely low interest rates globally. This, coupled with stronger economic conditions, has led the private credit-to-GDP ratio in Emerging Asia to rise from 97% in 2008 to 122% in 2012 – this is higher than the level seen at the start of the Asian financial crisis.

In short, the advanced economies are deleveraging, and the Asian economies are deleveraging. In and of itself, this is not a problem. In fact, the divergence in leverage is to be expected in the context of global rebalancing, with advanced economies restraining consumption and Asian economies boosting domestic demand.

But it is the pace and composition of Asian deleveraging that is cause for concern. While much of the rapid loan growth has supported productive economic activity, there have also been substantial flows to asset markets, especially real estate. Low interest rates and abundant liquidity have contributed to accelerations in property prices and sharp increases in household debt.

- Residential property prices in Taiwan, Hong Kong, and Singapore have increased by 52% on average since 2009, while nominal wages have risen by only 13%.
- Household debt as a percentage of GDP has trended up in these countries, with mortgages accounting for a significant 70–80% of consumer credit.

Inflation in asset prices and build-up in leverage have important implications not just for macroeconomic stability but also financial stability. I will come back to this later.

## **Domestic context: supply constraints and economic restructuring**

Next, the domestic context.

The Singapore economy is facing a demographic double-whammy: the effects of low birth rates over the last two decades combined with the entry into retirement of the baby boom generation.

- Singapore's total fertility rate has been very low, at about 1.4 over the last 20 years.
- Baby boomers entering the “65 & above” age group, where significant numbers retire and leave the workforce, will surge by 65% during 2011–2020.

The overall impact of this double-whammy is unmistakeable: Singapore's resident labour force will start to shrink over the next few years, even after taking into account the inflow of net migrants.

Singapore had previously supplemented its resident labour force with foreign workers. Total labour force growth averaged 3.7% per annum in the last decade (2001–2010); almost half of which was contributed by foreign workers. This is unsustainable. Foreigners (excluding foreign domestic workers) already account for about one-third of the total labour force in Singapore.

Singapore is heading towards a *demographic cliff*. It cannot be avoided. The question is whether the economy achieves a soft landing or a hard landing. If we restructure our economy and raise our productivity, Singapore can grow at a slower but more sustainable pace with a moderate increase in costs and prices. If we do not, costs will continue to escalate, competitiveness will erode, and growth will dip sharply amidst higher inflation.

The transition to productivity-led growth will not be easy. As labour becomes more scarce, its price will rise, prompting an adoption of labour-saving technologies or a shift of resources into activities that utilise less labour. This increase in wage cost is a necessary part of the restructuring process but will feed through more generally into prices, especially for a range of domestic consumer services which had hitherto depended heavily on foreign labour, such as cleaning, healthcare, cooked food, and hospitality. Inflation will be temporarily higher, as productivity-enhancing measures take time to bear fruit.

During this transition, which will take a few years, the growth-inflation trade-off will worsen.

- GDP growth will be slower during 2011–2020, at 3–5% per annum, about 2% points lower than the average 6% growth in the last decade. This will mainly reflect a sharp reduction in labour force growth.
- At the same time, inflation is expected to be around 1% point higher in this decade compared to the last. MAS Core Inflation is likely to average 2.5% per annum, and CPI-All Items inflation around 3%.

Managing inflation expectations and preventing inflation from escalating will be the key challenge facing monetary policy during the transition to a productivity-based economy.

## **Macro policies for economic and financial stability**

Macro policies would need to be on heightened alert to ensure that Singapore's enviable track record for macroeconomic and financial stability is safeguarded. Let me now elaborate on the two key thrusts of Singapore's macro stability policies – monetary policy and macroprudential policy.

### **Monetary policy: containing inflation in a restructuring economy**

Let me start with monetary policy framework. I will cover two areas:

- First, the continued relevance of the exchange rate in our monetary policy framework.
- Second, the calibration of monetary policy responses within this framework.

#### *Relevance of exchange rate as the instrument of monetary policy*

MAS' exchange rate-centred monetary policy framework was formalised in the early 1980s. While other central banks sought to control money supply or interest rates, MAS has chosen to focus instead on the exchange rate as its monetary policy tool to keep inflation in check. The exchange rate-centred framework has served Singapore very well for over three decades. As I mentioned earlier, Singapore has had one of the best inflation records in the world despite enjoying one of the fastest rates of economic growth.

Let us quickly recall why the exchange rate is MAS' chosen tool of monetary policy. Singapore is a small and extremely open economy. Total exports and imports of goods are each well in excess of 100% of GDP.

- Imports make up 40% of domestic consumption; the exchange rate is thus a powerful tool to moderate the impact of foreign price changes on domestic inflation.
- Exports are the chief driver of economic growth; and the exchange rate, as a key factor affecting export demand, is thus also an effective means for managing aggregate demand and hence overall inflationary pressures.

But every now and then, analysts and commentators ask whether the exchange rate-centred monetary policy has outlived its usefulness and whether a switch to interest rate targeting or inflation targeting would make better sense. With the pickup in inflation in recent years, these questions have been more frequently raised.

Let me assure everyone that, every few years, MAS itself conducts a review of whether the exchange rate continues to be the most appropriate tool for Singapore's monetary policy. Let me share briefly the outcome of these studies as they relate to three questions.

First question: with most of recent inflation in Singapore attributable to the imputed cost of accommodation services and car prices, is the exchange rate a less relevant tool? It is true that imputed rentals on owner-occupied accommodation accounted for about a quarter of overall inflation during 2010–2012. But if MAS had not let the Singapore Dollar appreciate, CPI-All Items inflation would have been around 2.5% points higher in 2012. Rising housing rents and car prices do not undermine the importance of the appreciating exchange rate in restraining price increases in the broader basket of goods and services consumed by people.

Second question: with the principal threat to consumer and asset price stability emanating from easy monetary conditions and low real interest rates globally, shouldn't MAS abandon the exchange rate target and seek to control domestic interest rates instead? Well, this is not as straightforward as it might appear.

First, in an open economy setting, higher interest rates will attract even more capital inflows to Singapore, especially given our strong macroeconomic fundamentals and persistently low foreign interest rates. This could fuel further asset price inflation.

Second, the hike in interest rates would have to be very aggressive for it to dampen demand for credit, and tame asset prices. This would mean a sharp appreciation in the exchange rate, which would impose significant collateral damage on the broader economy. Indeed, some regional countries with interest rate regimes are facing the dilemma between raising rates to curb credit booms and preventing the spillovers on capital inflows and their exchange rates.

On balance, a switch to a regime of managing interest rates will be highly destabilising. There are potentially unpredictable costs associated with a shift in the monetary policy regime, quite apart from its limited impact on the other broader and more predominant sources of underlying price pressures in the economy.

MAS' assessment has been corroborated by Professor Ilian Mihov, Professor of Economics at INSEAD. His pioneering academic work has demonstrated that for an open economy like Singapore, a monetary policy response based on the exchange rate delivers superior economic welfare outcomes compared to an interest rate regime. In particular, the exchange rate is better able than the interest rate to reduce volatility in output and inflation.

Third question: with the gradual shift in Singapore's economic structure towards services (which are typically regarded as being non-tradable), does the exchange rate have as much impact on aggregate demand and prices in the economy? It is true that services have indeed contributed more to GDP growth recently. But a significant portion of these services are exportable, such as financial, IT and professional services. External-oriented manufacturing

and services sectors together continue to account for more than half of Singapore's GDP. The fundamental structure of the economy as an export-dependent one has not changed.

Firms – both MNCs and SMEs – have consistently highlighted the importance of keeping the exchange rate stable for planning and investment purposes. The exchange rate continues to play a key role in household and business decisions, and is an important equilibrating price for the economy.

#### *Calibration of monetary policy responses*

So, the monetary policy framework centred on the exchange rate remains valid. But has its calibration been sufficiently responsive to recent challenges to price stability?

The chief consideration underpinning the stance of monetary policy in recent years has been to anchor inflation expectations and contain the risk of a wage-price spiral arising from the short-term effects of economic restructuring.

Since April 2010, the policy band of the Singapore Dollar nominal effective exchange rate has been on a modest and gradual appreciation path. The nominal effective exchange rate has strengthened by about 3% per annum on average during this period. Within this overall tightening stance, MAS has allowed a temporary increase in core inflation to accommodate some of the changes in relative prices. This is to signal resource scarcity and stimulate behavioural shifts. Policy should not be so tight as to hinder the ability of firms to restructure.

The tight monetary policy stance since April 2010 has been effective in containing inflationary pressures and keeping the economy on an even keel. It has had three important effects.

First, the tighter monetary policy stance has successfully restrained imported inflation despite significant price pressures in the external environment during this period.

- In foreign currency terms, wholesale price inflation among Singapore's major trading partners averaged around 5% per annum from 2010 to 2012.
- In comparison, overall imported inflation in Singapore dollar terms has been fairly benign, averaging slightly less than 2% per annum in this period.

Specific examples illustrate well the efficacy of the exchange rate in dampening imported inflation.

- Global oil prices have risen by an average of 16% per year in 2010–2012. However, local petrol pump prices have only increased by 8%.
- Global food prices, as measured by the IMF Food and Beverage Price Index, rose by 9% per annum during this period, but domestic food prices increased by just 2%.

Second, the stronger Singapore Dollar has dampened inflation indirectly by moderating the demand for our exports. In turn, this has eased the demand pressure on domestic resources such as labour and industrial space. This has reduced business cost pressures and thus overall inflation.

Third, the tighter monetary policy stance has nudged the level of output closer to its potential, thus preventing the economy from overheating. The positive output gap is projected to narrow from nearly 4% of potential GDP in 2010 to around 1% this year.

MAS' policy stance has begun to yield results. Both CPI-All Items inflation and MAS Core Inflation have eased from their recent peaks.

- CPI-All Items inflation has fallen from 5.5% in Q3 2011 to 4.0% in Q1 2013.
- At 1.6% in the first quarter of this year, MAS Core Inflation is running at nearly half the pace seen a year ago.

But there is no room for complacency. The pace at which business costs are passed through to consumer prices could pick up in the latter half of this year. MAS will remain vigilant in ensuring that the recent gains in controlling inflation are sustained.

### **Macroprudential policies: augmenting monetary policy to promote economic and financial stability**

Let me move on now to macroprudential policy. This is the new buzzword in central banking circles. It has not been much referred to in Singapore, but we have been applying macroprudential policies for some time now.

I will describe now the workings of macroprudential policies in Singapore, explaining why they are necessary in our context, and how they have been applied.

#### *Why macroprudential policy*

The conventional thinking pre-crisis was based on two assumptions:

- First, asset prices did not matter much. Central banks therefore focused on consumer prices and placed less emphasis on asset prices.
- Second, if risks in individual financial institutions were well controlled, the financial system as a whole would generally be safe. Regulators therefore focused on the safety and soundness of individual institutions and paid less heed to systemic risk.

The collapse of the real estate markets in America and Europe, the breakout of the Global Financial Crisis, and the contagion of risk to seemingly sound financial institutions – against a backdrop of relative macroeconomic stability – showed both assumptions to be wrong.

Thus was born macroprudential policy – which focused on the health of the financial system as a whole and its interactions with the macroeconomy, particularly developments in liquidity, leverage, and asset markets. In many emerging market economies, macroprudential policy has become an important complement to monetary policy to help secure economic and financial stability.

In Singapore, the focus of macroprudential policy has been to promote *sustainable asset prices*. Asset prices matter for four reasons.

First, volatile asset prices pose a risk to financial stability, especially when a run-up in asset prices is financed by easy credit and accompanied by a build-up in leverage in the economy. When asset prices correct, financial institutions' vulnerability to default and loss increases.

Second, asset price inflation is as distortionary as consumer price inflation. Both create uncertainty, misallocate resources, discourage productive investment, and ultimately drag down economic growth.

Third, asset prices have important feedback loops with consumer prices. Rapidly rising asset prices raise general inflation expectations and also directly affect rentals and accommodations costs that go into the consumer price index.

Fourth, asset purchases financed by excessive borrowing on the expectation of future capital gains undermine financial prudence. If households or corporates build up leverage during periods of low interest rates, they will be vulnerable when interest rates normalise.

What can central banks or governments do about asset bubbles or the leverage cycle? An oft-cited reason for not doing anything is that we cannot reliably determine whether asset prices have overshot fundamentals or whether leverage has reached unsustainable levels.

But the issue is not whether we can establish if there is an asset bubble or not. The issue is whether the rise in asset prices is creating negative spillover effects on the economy or whether a future sharp reduction in asset prices will lead to instability or serious dislocations. If the assessment is that it would, we have to act proactively to moderate prices now. And

this has indeed been the approach taken by MAS and the government with respect to property prices.

#### *How macroprudential policies have been applied*

Singapore applied macroprudential tools as early as 1996, to help cool an overheated property market. But it is only since 2009 that macroprudential policies have been applied in a more concerted and calibrated fashion – again to help moderate price increases in the residential property market. Following the Global Financial Crisis, the confluence of low interest rates, firm domestic demand underpinned by sustained income growth, and supply shortages in the residential property markets caused home prices to rise rapidly. This had implications for both price stability and financial stability.

As rentals increased on the back of rising property prices, imputed rentals on owner-occupied accommodation accounted for about a third of overall inflation during 2011–2012. CPI-All Items inflation averaged 4.9% per annum during this period. MAS was concerned that this would unhinge general inflation expectations and spill-over into more rapid wage growth across the economy.

At the same time, the stock of mortgages surged by about 70% from end-2009 to end-2012, posing risks for financial stability. To be sure, there was little imminent danger. Households' net asset positions were still strong, with the aggregate household debt-to-asset ratio stable at around 16%. The non-performing loan ratios for mortgages remained low at 0.25%, and the amount of housing loans in negative equity was negligible.

But if domestic income growth faltered or if the global interest rate cycle turned abruptly, mortgage financing burdens could escalate. Households' balance sheets could deteriorate if home prices fell, as much of the increase in household wealth had been driven by a rise in the value of property assets. The government was thus concerned that households were over-extending themselves in the low-interest rate environment. If a sufficiently large number of borrowers ended up in distress, financial institutions would also come under stress, thereby posing risks for financial stability. Since neither monetary policy nor financial supervisory policy could directly address the property market, the government had to resort to macroprudential policies.

However, unlike monetary policy which has a single instrument and a clear target, macroprudential policy requires a multi-dimensional approach. This is because there is no single instrument that has a stable and reliable relationship with financial stability or asset price stability. Each is influenced by a variety of factors.

Macroprudential policy has thus relied on a range of policy instruments. In fact, many of these instruments are not at the disposal of MAS but involve other government agencies. The conduct of macroprudential policy has entailed a co-ordinated approach across MAS, the Ministry of Finance (MOF), and the Ministry of National Development (MND).

MAS, MOF, and MND, worked in concert to implement several rounds of macroprudential measures to help cool the property market:

- MAS has progressively lowered the loan-to-value ratios on property loans and capped mortgage tenures at a maximum of 35 years.
- MOF has successively raised taxes on property transactions, in the form of the Sellers' Stamp Duty and the Additional Buyer's Stamp Duty.
- MND has ramped up land sales for residential property developments.

Property prices finally appear to be stabilising. The annual increase in private residential property prices slowed significantly from 18% in 2010 to 5.9% in 2011, and further to 2.8% in 2012. In sequential quarter-on-quarter terms, price increases have dipped below 2%.

The motor vehicle market is another example of macroprudential policy in action, this time complementing monetary policy in addressing concerns regarding consumer price stability.

Singapore has perhaps the most stringent restrictions on car ownership in the world. Anyone who wishes to register a new vehicle in Singapore must first bid for a Certificate of Entitlement (or COE), which represents a right to vehicle ownership and use of our limited road space for 10 years. The number of COEs is tightly controlled, so as to minimise the number of cars on the road.

As the supply of COEs dwindled and demand for cars remained firm on the back of strong income growth and low interest rates, COE prices rose rapidly in the last three years. At their peak early this year, COE prices averaged around \$90,000, nearly five times the level in January 2010. This in turn drove up the overall inflation rate, and started having spillover effects on the rest of the economy and shaping price expectations more generally. There was also a growing risk that buyers were over-extending themselves by purchasing more expensive cars, given the low interest rate environment.

In February this year, MAS announced measures to restrict the financing of car purchases for private use. Buyers were limited to borrowing only 50–60% of the total purchase price of the car. Loans had to be repaid within five years. COE premiums for cars have adjusted downwards by about 25%.

Macroprudential policy in Singapore is still work-in-progress, as is the case elsewhere. The measures have achieved some degree of success in the property and car markets but it is too early to declare victory. As with traditional macroeconomic policy, these macroprudential measures will be recalibrated as market conditions change.

There are many unknowns in the theory and practice of macroprudential policy. We need to better understand the transmission mechanisms through which our various measures operate, their inter-relationships with one another, and unintended consequences or distortions they may create. The field is ripe for further research and, I hope, will challenge the intellectual curiosity of scholars, such as those assembled here this evening.

In fact, the ABFER can play a very important role in this regard. Policymakers all over the world, including us here at the MAS, have been thrust into a vastly different environment. We need to update existing policy paradigms and even develop new ones. It is my hope that the collaborative network created by the ABFER will help foster a vibrant research culture and provide thought leadership on the important policy debates confronting this part of the world. MAS is happy to sponsor and support the ABFER.

## Conclusion

Let me summarise my main points.

The macroeconomic landscape for MAS has become more complex, with external and domestic forces interacting in unprecedented ways.

- Externally, Singapore is facing a wall of money and rock-bottom interest rates that could potentially set off asset market bubbles that could in turn have knock-on effects on consumer price stability and financial stability.
- Domestically, we are facing a demographic cliff that will tighten labour markets and could potentially set off a wage-price spiral that could unhinge inflation expectations.

Macro policies will be on heightened alert to ensure that economic stability and financial stability are safeguarded as Singapore navigates this new landscape. We are well placed to deal with the risks ahead.

- Our exchange rate-centred monetary policy remains fit for purpose and will continue to focus on keeping inflation contained.
- Our macroprudential policies will complement monetary policy and financial supervisory policies to secure sustainable asset prices and financial stability.

- Most of all, Singapore's fundamentals remain sound. Fiscal prudence, financial discipline, minimising debt and living within our means, will provide us policy space and buffer to weather whatever comes ahead. This is an advantage most countries do not have.

I wish you a successful and enlightening conference. Thank you.