"Getting in All the Cracks or Targeting the Cracks? Securing Financial Stability in the Post-Crisis Era" - Opening Remarks by Ravi Menon, Managing Director, Monetary Authority of Singapore, at the Asian Monetary Policy Forum (AMPF) on 24 May 2014

Monetary Policy at the Crossroads

1 Professor Tan Chorh Chuan, President of the National University of Singapore, distinguished guests, ladies and gentlemen, good morning, and welcome to the inaugural Asian Monetary Policy Forum. Thank you all for coming.

2 I would like to particularly thank Steve Davis of Chicago Booth and Bernie Yeung of NUS Business School. It was your vision and tireless effort that made this Forum possible. You have assembled here a dazzling array of eminent economists and respected practitioners to discuss and debate the most pressing questions in monetary policy today.

3 One of these questions must be: what role should monetary policy play to help secure financial stability? For two decades before the Global Financial Crisis, central bankers thought they had found the secret sauce of monetary policy. The recipe was simple – an independent central bank, a single target (price stability) and a single instrument (the interest rate). Monetary policy was directed at achieving price and output stability, with the central bank's reaction function well-characterised by the Taylor rule on an ex-post basis.

4 The recipe worked brilliantly. Sustained price stability and steady economic growth were the order of the day. The result was the Great Moderation. Indeed, monetary policy was getting boring.

5 Monetary policy was unencumbered by financial stability considerations. To be fair, central bankers were not unconcerned about financial stability. But financial stability was seen as the preserve of prudential regulation and supervision. Academic thinking reinforced policy practice: the macroeconomic models central banks relied on did not map clear linkages between financial and real variables.

6 Economists warned that it was difficult to identify a financial *bubble*. How does one tell if the value of an asset reflected economic fundamentals or speculative fever? So, when faced with potential financial vulnerabilities, it was deemed better to *clean up* after a bubble had actually burst than to try to *lean against* suspected bubbles.

7 But beneath the still waters of macroeconomic stability, deadly financial whirlpools were forming. Financial imbalances built up steadily in the advanced economies from the mid-1990s to mid-2000s and culminated in the Global Financial Crisis of 2008/2009. The Crisis sent financial systems into a tailspin and plunged economies into recession. The cost of cleaning up after the bubble had burst proved extremely high. The "*clean versus lean*" debate has been re-ignited, and within the "*lean*" camp there are differences over how to lean. Monetary policy has become interesting again.

Financial Stability: What We Know and What We Don't Know

8 Following the Crisis, there has been growing consensus that it is important for central banks to pay more attention to financial stability. We know now that macroeconomic

stability does not guarantee financial stability. Nor does prudential supervision of individual institutions guarantee financial stability at the systemic level.

9 We also have a much better appreciation of how credit cycles have strong implications for financial stability.

- Moritz Schularick and Alan Taylor describe financial crises as "*credit booms gone wrong*"[1]. Risks to financial stability stem from both the pace of credit creation as well as the level of credit.
- Claudio Borio and Piti Disyatat argue that the amplitude of financial cycles, such as for credit, exceeds that of business cycles due to what he calls "*excess elasticity*" of the financial system. Cross-border financial flows amplify domestic credit booms and domestic monetary policy fails to constrain the credit creation process adequately.
- Frederic Mishkin warns how the bursting of credit-fuelled asset price bubbles can lead to episodes of financial instability that are particularly damaging for the economy.

10 These findings help us better understand the conditions that led to the Global Financial Crisis. And the concerns remain valid in the post-Crisis environment. Central banks have kept policy rates low for long, and purchased assets in large quantities further out along the yield curve.

- Even though the United States is already "tapering" its asset purchases, global financial conditions remain extremely loose.
- There are signs of growing risk-taking: in the form of leveraged loans, covenant-lite corporate bonds, and narrowing spreads on sub-investment grade paper.
- The risks to financial stability are nowhere near pre-Crisis levels, but they bear close watching. We must not repeat the mistakes of the past.

11 But there is as yet no consensus on how to secure financial stability and, in particular, *what* role, if any should be played by monetary policy.

12 There are three broad approaches to these questions.

- The <u>first</u> is to stick to the status quo. Monetary policy remains focused on price stability and no recourse is made to macroprudential policy beyond the use of capital buffers to pre-empt insolvencies.
- In the <u>second</u> approach, monetary policy explicitly takes account of financial stability in addition to price stability.
- Under the <u>third</u> approach, monetary policy remains focused on price stability, while financial stability is secured with the help of macroprudential policy.

13 I will keep my remarks on the first approach brief as it is well-known and is still the dominant practice in most central banks today, especially in the advanced economies. Under this inflation targeting approach, monetary policy will not try to respond to credit cycles or asset bubbles unless they have a demonstrable impact on inflation outcomes.

- As Lars Svensson puts it, flexible inflation targeting "remains the best-practice monetary policy before, during, and after the financial crisis."
- John Taylor, who will address us this evening, provides a more rule-based characterisation of this approach through the Taylor rule.

- He finds that if monetary policy in the US had been appropriately configured to macroeconomic outcomes in the 2000s, the housing boom would have ended in 2003 instead of 2006 and that mortgage debt levels would not have risen so high.

14 Let me now take up the second and third approaches in more detail.

Monetary Policy: Getting in All the Cracks

15 The intellectual underpinning for the second approach is based on the insight that monetary policy has the potential to affect financial stability through the "*risk-taking channel*".[2]

- Jeremy Stein puts it succinctly – "*Monetary policy is fundamentally in the business of altering risk premiums*."

16 Loose monetary policy can heighten vulnerabilities in the financial system by altering both the perception of risk and the tolerance for risk.

- In conventional monetary policy, lower policy rates boost incomes and profits, and enhance asset and collateral values. This reduces banks' estimated probability of defaults and losses, leading to greater leverage and risk-taking.
- In unconventional monetary policy, large scale asset purchases by central banks depress returns along the entire yield curve. This provides asset managers the incentive to take on more risk, often in a herd-like fashion.

17 When interest rates are below the *natural* rate at which desired investment and savings equilibrate, banks will continue to expand credit. When economic agents are determined to take risks, they will find ways to circumvent measures that central banks and regulators have put in place. Non-monetary tools like macroprudential policy will therefore not adequately address the root problem caused by interest rates that are too low.

18 Under these circumstances, only monetary policy can "*get in all of the cracks*" to plug the vulnerabilities. An increase in short-term interest rates will trigger a more realistic evaluation of asset and collateral values, income flows, and thus risks. This will curtail the extent of leverage created by banks and capital markets and keep asset managers from crowding into risky assets. The effects of monetary policy are all-pervasive, and cannot be easily circumvented.

19 This approach, if formalised, amounts to augmenting the Taylor rule with an additional term to capture deviations in financial variables from their equilibrium levels.[3] If financial market imbalances are growing, *ceteris paribus*, monetary policy should be tightened, even if it causes further deviations in output from potential in the short term. This approach does not preclude the need for robust financial regulation and supervision. But the key is to *get the price of money right*, to encourage a more realistic perception and tolerance of risks.

20 While no central bank currently implements monetary policy in this way, the concept behind the approach may not be as abstract as it seems. I know from my conversations with central bankers that they do not ignore financial stability considerations when setting monetary policy.

Why "Getting in all of the Cracks" May Not Always Work

21 Relying solely on monetary policy to secure financial stability may not always be sufficient. Let me offer three reasons why.

- First, monetary policy could be constrained by its traditional mandate: price and output stability.
- Second, monetary policy could be constrained by global financial factors.
- Third, monetary policy may get in all the cracks, but it may not be able to fill some of them.

I will touch on each of these considerations in turn, drawing from the Asian experience in recent years.

22 First, it is possible that there is a conflict between the objectives of price stability and financial stability in the short term. Financial cycles have longer frequencies than business cycles, and the two cycles tend to diverge. The interest rate appropriate for price and output stability may therefore not be consistent with financial stability. This has been the case in Asia in recent years.

23 When Asian economies recovered fairly quickly from the Global Financial Crisis, their central banks raised interest rates. This was, by a happy coincidence, congruent with the need to stem rapid credit growth that was being fuelled by improved economic prospects domestically and easy monetary conditions globally.

24 But subsequently, economic activity in Asia started slowing down, following the Eurozone debt crisis and other domestic shocks. It became untenable for Asian central banks to raise interest rates further. However, risk-seeking capital flows continued washing into the region, inducing further increases in credit and asset prices. The business cycle and financial cycle began to diverge.

25 A second constraint on the effectiveness of monetary policy to deal with domestic financial stresses is the prominent role played by international liquidity in fuelling these stresses.

- Philip Lane has detailed the strong inter-linkages between global liquidity conditions, international debt flows, and domestic credit conditions.
- Hélène Rey has observed that global liquidity conditions determined by advanced economies' monetary policies, can, at times, override domestic monetary policy even with exchange rate flexibility.
- Maurice Obstfeld, who will speak on this subject in a few minutes, takes a less extreme view. He argues that monetary independence is still possible, but because of the impact of financial globalisation, monetary policy carries a much bigger burden in trying to achieve both financial stability and purely macro objectives.

26 Recent Asian experience is illustrative. The exuberance in Asian asset markets and consequent build-up of financial risk in recent years has been exacerbated by the global search for yield in a zero interest rate environment. Raising policy rates may not sufficiently alter the level of risk-taking in these economies.

- In fact, paradoxically, a central bank that tightens monetary policy to stem financial vulnerabilities could perversely attract more capital flows into the economy, resulting in stronger credit growth and rising asset prices.

27 Third, it is not clear that monetary policy can fill all the cracks. Monetary policy flows into all the cracks no doubt, but some cracks are just too big to fill.

28 Financial vulnerabilities are not evenly spread across the economy. They tend to be concentrated in specific sectors and segments, such as in real estate. So, even when monetary policy has configured overall liquidity and risk-taking settings appropriately, specific pockets of financial market vulnerabilities, e.g. a property bubble, could remain.

29 Monetary policy is too blunt an instrument for addressing such specific risks to financial stability, and it can cause significant collateral damage on the rest of the economy if it tries to do so.

- During a property boom, compared to interest rates, expectations of price appreciation may have a greater influence on current prices.
- Kenneth Kuttner and Illhyock Shim estimate that a 100 basis point increase in the short-term interest rate would lower real annualised credit growth by less than 1 percentage point in the following quarter. Such a rate hike will also reduce real housing price growth by only 1 percentage point.
- Using monetary policy to prick a property bubble may therefore require very sharp increases in interest rates to be effective. But this may have unintended spillovers on other parts of the economy.

Macroprudential Policy: Targeting the Cracks

30 This brings us to the third approach to securing financial stability: using macroprudential policy, while monetary policy continues to focus on price and output stability. Macro-prudential policies can be more effective for “targeting the cracks” where specific vulnerabilities are concentrated.

31 But what exactly are macroprudential policies? Given its recent rise to prominence, it is still a nebulous concept with differing definitions. Let me offer my thoughts on what macroprudential policy is and what it is not, from the perspective of Singapore, which has been an early experimenter and practitioner in this area.

32 First, it is closely related to yet distinct from microprudential policy. Some have called macroprudential policy "*old wine in new bottles*". Yes and no. Many of the tools are indeed the same as the microprudential limits familiar to regulators: loan-to-value ratios, debt-to-income ratios, debt service ratios, and so on.

33 But there are some key differences. When these prudential limits are used for macroprudential purposes, the scope and impact are much larger. Let me give an example.

- A loan-to-value ratio of 80% for property loans, applied through the cycles, as we have had in Singapore for many years, is a microprudential tool.
- But when we limit the loan-to-value ratio to 20% for a third property loan, as we have done in Singapore recently, it becomes a macroprudential measure.

Macroprudential policy may well be old wine, but it is in much bigger bottles!

34 Second, unlike monetary policy which has a single instrument, macroprudential policy requires a multi-dimensional approach. There is no single instrument that has a stable and reliable relationship with financial stability or asset price stability.

35 Macroprudential policies encompass more than just counter-cyclical capital buffers. Adjusting capital requirements in a counter-cyclical fashion or increasing the risk weights for loans to vulnerable sectors cannot fill the cracks completely. In a boom market characterised by keen competition among banks, higher capital charges do not translate into sufficiently higher lending rates that can restrain demand.

- A cross-country study by the Basel Committee on Banking Supervision shows that a 1 percentage point increase in capital ratios results in a median rise in lending spreads of only 13 basis points.

36 Dealing with the magnitude of financial cycles or bubble dynamics that economies typically face from time to time requires some absolute prudential limits. In Singapore, we have employed the following limits on property loans:

- Loan tenure cap of 35 years.
- Loan-to-value ratios of 80%, 50%, and 40% for the first, second, and third property loans respectively, for tenures less than 30 years; for loan tenures more than 30 years, the loan-to-value ratios are 60%, 30%, and 20%.
- Total debt-service ratio of 60%, taking into account all debt obligations and using a medium-term interest rate of 3.5% for residential properties. (Current mortgage rates are generally below 2%.)
- Cap on banks' property-related exposures at 35% of their total exposures.

37 In fact, macroprudential policies need not even be limited to prudential tools at the disposal of central banks or financial regulators. In the face of abundant global liquidity, credit-based prudential measures may not constrain loan growth or asset price increases sufficiently. Singapore has therefore also adopted fiscal measures such as stamp duties on buyers and sellers of properties as part of the macroprudential toolkit.

- The seller's stamp duty ranges from 4% to 16%, while the buyer's stamp duty ranges from 3% to 18%.
- These are essentially transactions taxes that aim to curb the speculative flipping of properties.

38 Third, it is important to draw a distinction between macroprudential policies and capital flow management measures. Capital flow measures are applied "*at the gate*" seeking to regulate flows into and out of the economy; macroprudential measures are applied "*inside the house*" targeted at sectors where financial vulnerabilities are building up.

- Capital flow measures are highly distortionary and pose long-term costs to the economy. Clearly, such measures should not take the place of needed macroeconomic adjustments.

- Capital flow measures may be warranted under extreme circumstances to safeguard financial stability. But as the IMF puts it, their implementation should be "targeted, transparent, and generally temporary".

39 Asian economies have deployed macroprudential policies to deal with financial imbalances, to a greater extent than other economies. So far, the results have not been bad. They have largely tempered the credit cycle and the pace of asset price increases, while generally maintaining price and output stability.

A Synthesis?

40 Let me bring together the main strands of my remarks. The view that central banks ought to pay due consideration to financial stability is gathering momentum. I have described two alternative approaches to the status quo to achieving this:

- The second approach incorporates financial stability considerations in the setting of monetary policy; and
- The third actively uses macroprudential policy to help secure financial stability.

41 Perhaps the differences between the two approaches are exaggerated. Both approaches require the central bank to integrate monetary policy functions effectively with prudential policies.

- In the second approach, strong supervisory and regulatory policies have to be in place even as monetary policy adjusts the level of risk-taking in the economy.
- In the third approach, monetary policy must be appropriately calibrated to the economy for macroprudential measures to effectively target specific areas of imbalances.

42 In practice, the difference between the two approaches is likely to be one of degree and emphasis rather than of fundamental principle. Central banks will choose the most appropriate combination of the two approaches, taking into account the structure of their economies and the nature of the threats to financial stability existing at any point in time.

43 And let us not forget the continued relevance of the traditional approach. Just because central bankers had previously ignored financial stability considerations with costly consequences, we must not overcompensate now by placing such an undue burden on monetary policy to secure financial stability, that it becomes detrimental to price and output stability.

44 We do not need to reinvent macroeconomics. Nor do we need to discard most of what we know about monetary policy, built from decades of rigorous research and painful experience. Much of that knowledge remains relevant. In thinking about the so-called *new normal*, we should pay equal heed to what is *new* and what remains *normal*. No doubt, we need to update our paradigms to meet new realities. But we do not need to overhaul them.

45 We should also bear in mind that the current situation is highly unusual. We must not fall into the trap of believing that the innovative policy measures being taken now in response to these unusual conditions represent the basis for a new paradigm in the future.

46 I suspect that when the dust has settled and more normal conditions return, monetary policy regimes will not look drastically different from pre-Crisis days.

- I think more central banks will have an eye to financial stability considerations - at least informally - when setting monetary policy.
- More central banks are also likely to have macroprudential policy toolkits at their disposal, which they will use from time to time but perhaps not on the scale that has been used in Asia in recent years.
- But in essence, monetary policy will remain largely focused on price and output stability – as it should be.

47 Perhaps as T S Eliot puts it, the end of all our exploring is to arrive where we started and know the place for the first time.

48 I wish you a successful conference. Thank you.

[1] The phrase is taken from Eichengreen and Mitchener's 2003 BIS working paper on "The Great Depression as a Credit Boom Gone Wrong".

[2] Borio and Zhu (2012) coined the term 'risk-taking' channel of monetary policy to refer to the transmission of monetary policy through its impact on asset and collateral values, which would consequently influence agents' willingness to take on risk.

[3] The augmented Taylor Rule equation is: $i_t = \pi_t + r_t^* + \alpha_\pi(\pi_t - \pi_t^*) + \alpha_y(y_t - y_t^*) + \alpha_f(f_t - f_t^*)$, where f is a variable that measures financial market vulnerability, and f* is the equilibrium level of that variable.

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