Ong Chong Tee: The post-crisis financial landscape - what next?

Remarks by Mr Ong Chong Tee, Deputy Managing Director (Financial Supervision) of the Monetary Authority of Singapore, at the Society for Financial Studies Cavalcade Asia-Pacific Conference's Gala Dinner, Singapore, 13 December 2018.

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- Associate Professor Johan Sulaeman – Dean's Chair, Department of Finance, NUS Business School

Ladies and gentlemen, a very good evening. Thank you for inviting a few of my MAS colleagues and I to be here tonight.

Introduction

1 The SFS Cavalcade conference is a distinguished forum that brings together some of the sharpest minds in the world of finance and research.

2 This evening, I thought I could share some perspectives of a financial regulator. My hope is to flag a few pertinent issues that could do well with more research insights and discussion. As the great Hungarian scientist Albert Szent-Gyorgyi once said: *"Research is four things: brains with which to think, eyes with which to see, machines with which to measure and fourth, money"*. I am sure that each of you will adequately deal with the money bit, but our collective minds and tools in financial studies that all of you have can do much to raise the understanding of the prospects and challenges for the financial system.

3 One decade ago, we had the global financial crisis (GFC). As Samuelson described it starkly: *"what we know about the global financial crisis is that we do not know very much"*. With the benefit of hindsight, vulnerabilities had indeed built up from:

(a) Highly leveraged financial institutions;

(b) Severe liquidity mismatches;

(c) Fairly opaque over-the-counter derivatives markets that transmitted risks rapidly when liquidity suddenly dried up; as well as

(d) Moral hazards associated with financial institutions that were deemed "too big to fail".

4 Ten years on, a number of key regulatory reforms are being implemented in stages to address these vulnerabilities.

5 Take for example, the Basel III reforms after the GFC, a key work of the Basel Committee on Banking Supervision, of which I am a member of. Many of you may be familiar with its key elements to improve the quality and quantity of bank capital. The Basel III standards also seek to reduce excessive variability of banks' risk-weighted assets. It has now incorporated macroprudential and liquidity risk elements. A new minimum leverage ratio is included. Global Systemically Important Banks are further subjected to even higher capital levels, more intense

supervision and resolution planning requirements.

6 By many measures, the global banking system is more resilient. For example, compared to earlier this decade, Common Equity Tier 1 risk-weighted assets of internationally active banks stand at around 13%, from about 7% before. Their leverage ratios average about 6% now, from less than 2% previously.

Implementation of post-crisis regulatory reforms

7 We should also remember that the global banking regulatory standards are minimum requirements. National supervisors can use other levers of the Basel framework to apply higher standards or additional requirements on their banks, as appropriate, based on idiosyncratic considerations.

8 There is a general consensus that the financial system is safer than before. But the follow-on question can be: safer, yes – but is the system *safe enough*?

9 To say that regulators have addressed all that can go wrong would be great hubris. Indeed, this will be contrary to the evolving and adaptive nature of financial activity. The reality is a recurrence of financial crises in economic history. I would add that no amount of regulations and supervision can *prevent crises*; what regulators seek to do is to *reduce* the likelihood and negative impact from one. This will require banking regulators to remain vigilant against emerging risks, and hence the importance of forward-looking supervision to complement regulations.

10 On the other hand, with the last global financial crisis becoming a distant shadow of sorts, there are already calls that “this time it is different” and to dial down the enhanced regulatory requirements – just as all the crises before it.

11 Two weeks ago, at a forum of the International Conference of Banking Supervisors, Sir John Vickers (who oversaw the Vickers Report to reform the UK banking market) shared his views that the Basel III capital requirements are not stringent enough, and have not sufficiently reduced the likelihood of crises as intended. I am not saying that this is the view of the MAS. I am sure that many bankers will disagree. But the point is that this is an area which is deserving of greater discourse.

12 Evaluating the effects of the banking reforms will be a key exercise. One set of issues revolve around whether the reforms are having the intended outcomes or, on the other hand, whether there are unforeseen and undesirable effects. This will involve an assessment of banks’ behavioural responses, whether there are new forms of arbitrage strategies, and the spillover effects on the broader economy.

Cross-border lending to developing economies

13 One example relates to the impact on cross-border lending to developing economies.

14 There are studies that indicate that some global banks have reduced their presence and activities in developing economies as part of their business review, and some have attributed this to the banking reforms. Establishing a clear, causal link between the declining trend in cross-border bank loans to developing economies and the post-crisis reforms will be helpful, if possible.

15 Such investigations can support the Basel Committee’s work on a full, timely and consistent implementation of the reforms globally.

The increasing role of market-based finance in credit provision

16 The decline in bank inflows to developing economies has been partially offset by these

economies relying more on market-based finance, or non-bank financial intermediation. In my view, this is a positive development since a more diverse funding system comprising bank-based finance and market-based finance can possibly better meet the changing needs of the real economy.

17 But the increased prominence of market-based finance has also led to some concerns that large redemptions from open-ended funds can potentially pose liquidity risks and hence destabilise financial markets.

18 International organisations and standard-setting bodies such as the Financial Stability Board (FSB), International Organisation of Securities Commissions (IOSCO) and Basel Committee have sought to assess the potential financial stability risks posed by market-based finance. The FSB, for example, developed a set of policy recommendations to address structural vulnerabilities of open-ended funds, and IOSCO is reviewing these recommendations.

19 There can be other related areas that merit further investigation, including from academia. For example, the interaction between market-based finance and traditional asset management activities, and the effect on underlying markets in which these are invested.

Evaluating the impact of macroprudential policies

20 A key element of the Basel III reforms is its macroprudential framework to assess new system-wide risks and the use of a countercyclical capital buffer if warranted. In addition, macroprudential policies have become integral to many central banks' policy toolkits. Various jurisdictions in Asia such as Singapore, Hong Kong, and Indonesia have used macroprudential measures to reduce risks to their domestic financial systems and to dampen the impact of economic shocks, such as the application of loan-to-value limits for mortgage borrowings. However, the detailed impact of macroprudential policies is arguably less well understood.

21 There are research challenges in this regard. For example, the Bank for International Settlements (BIS) highlighted that the impact of tools are likely to vary across jurisdictions based on their domestic circumstances and phase of the financial cycle. A key focus area is how best to study the spillover impact across jurisdictions from a macroprudential policy decision point of view.

22 Another challenge relates to effectiveness. Macroprudential tools have largely been employed in more recent years, and isolating their effectiveness from other measures will require further studies.

23 In this context, it may be remiss of me not to mention the apparent artificial divide that has existed between the analysis of the financial vis-à-vis the real sides of the economy. During the GFC, I recall some criticism that economists used mathematical models that did not sufficiently factor the critical roles that banks and other financial institutions play in the economy.

24 Since then, important strides have been made, including in the workhorse Dynamic Stochastic General Equilibrium (DSGE) models used at central banks, to better capture the key interactions between the financial sector and the rest of the economy. This is most pertinent for regulators and for central banks' work in economy-wide forecasting, policy analysis and scenario simulation. I would also encourage further research in this area, including developing empirically-validated feedback relationships that can be embedded into models for stress testing purposes.

Evaluating the impact of FinTech

25 Turning now to a recent pet topic of interest – FinTech. Much has been written and reported on technology innovations that have and will continue to disrupt business models. There are also many views around disruptions to jobs and on socio-economic relationships.

26 Let me make some brief comments on MAS' regulatory stance towards innovation in financial services. For any innovation or a new technology-based business model to take off, it must be *purposeful* and *value creating*.

27 For example, there are FinTech entities that have entered the financial inclusion space, especially in the rural areas, and boosted economic growth.

28 There are other examples. Robo-advisory services can allow investors greater access to customised, low-cost financial advice. Other initiatives like open banking can provide potential benefits to a broad range of consumers by allowing for the easy portability of data and payment instructions. The use of distributed ledger technology, or blockchain, may replace traditional central party systems or intermediaries by creating alternative trusted platforms. Such blockchain-based immutable transaction and account records may help to facilitate cross-border transactions, by cutting costs and settlement time without compromising on security and certainty.

29 There is no contradiction between regulation for safety and prudence vis-à-vis regulations that are open to, or supportive of, good financial innovations. These may be new business models or use of a technology that promote competition, improve customer experiences or simply a more efficient or pleasant delivery of services. So far from adopting a *Luddite* instinct, many financial regulators have in fact set up dedicated teams to both support and to monitor new FinTech developments.

30 But as with any innovation in any era, FinTechs can also bring about new risks. In this regard, international organisations such as the International Monetary Fund, FSB, IOSCO and the Basel Committee have all produced several useful public reports on the potential risks.

31 As examples of new risk typologies, there may be increased vulnerabilities to anti-money laundering and efforts to counter the financing of terrorism, given the anonymity of digital currencies. Cyber-security is another area as FinTechs vary in size and risk management capabilities. There can also be an increase in macro-financial risks from contagion, procyclicality, or excess volatility given the increased speed of financial transactions, and new networks of relationships. Open banking and the ease of moving funds can also lead to potentially destabilising movements of money, posing liquidity risks.

32 I welcome more research and studies to guide such developments. It is probably too early to determine whether and how *FinTechs* or *BigTechs* may change the behaviour of incumbent financial institutions. It is also not unreasonable to expect that traditional business lines between financial services, general commerce or telecoms will increasingly be blurred – and activities may concentrate in the biggest institutions with superior competitive advantages including in the areas of talent, customer base, and customer data. The *FAANGs* and *BATs* of this world – the technology giants – come to mind. These may also have implications for financial stability. Indeed, the next systemically important institution could be a *BigTech* with roots in e-commerce, and therefore, whether such entities require some form of oversight by financial regulators in future.

33 With the increasing use of artificial intelligence (AI) and various forms of data analytics (DA), another area of focus will be around the governance of their use. The MAS recently released a guide that we co-created with some industry partners on a set of principles for Fairness, Ethics, Accountability and Transparency (or FEAT) in the use of *"AIDA"*. Whether and how the increasing use of machine-learning systems (both supervised and unsupervised), algorithms and data-driven insights can affect behaviours and decision-making in financial institutions will be a rich area for research and attention. Regulators generally like the idea of deploying smart systems that can do a better job in risk detection or risk management. But what about for business decisions or say, personnel decisions? Whether AI-driven systems will perpetuate bias and discrimination is also ripe for more extensive studies.

34 Another field of research work can be around central bank digital currencies, or to use the buzz word, CBDC. Globally, there has been some discussion on the potential implications of CBDCs, but this is still relatively green field thinking. I will not delve more into it as the subject can be a seminar theme in and of itself.

Conclusion

35 As you will have realised, I have flagged more questions than answers this evening. I think the post-crisis financial landscape is an exciting time to be an economist, analyst or researcher in support of financial market development, as well as to help shape policy reviews and thinking. Many of the developments I have touched on are rapidly evolving, and are also not mutually exclusive from one another.

36 There is a view that we should accept a more central role incorporating beliefs and expectations to both understand and shape financial market developments. New advances in behavioural economics can provide for tractable and psychologically-founded models of beliefs to be integrated into the standard analytical frameworks in finance and macroeconomics.

37 It is important that policymakers and regulators have a firm grasp of these interactions and develop new techniques to calibrate policies and mitigate risks.

38 The MAS therefore welcomes the opportunity to further engage the research community, hopefully with many of you, so that with your knowledge, expertise and research rigour, we can deepen our collective learning and understanding.

39 As an example, recently we collaborated with the Asian Bureau of Finance and Economic Research (ABFER) and NUS Business School to bring together global academics for our Workshop on Digital Currency Economics and Policy. I encourage more of such forums. In fact, I would not be surprised if the themes I have touched on have been discussed in research forums and this Cavalcade.

40 Thank you.