

Ong Chong Tee: Technological innovation and supervision of financial institutions

Keynote speech by Mr Ong Chong Tee, Deputy Managing Director (Financial Supervision) of the Monetary Authority of Singapore, at the Asia Securities Industry & Financial Markets Association (ASIFMA) Annual Conference 2018, Singapore, 1 November 2018.

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Mr Mark Austen, CEO ASIFMA,

Distinguished guests,

Ladies and gentlemen,

1 Good morning. Thank you for inviting me to join you at this 2018 ASIFMA Annual Conference.

Post-crisis Regulatory Reforms

2 It has been ten years since the Global Financial Crisis. Many of you will be familiar with the post-crisis reforms to make the financial system more stable and resilient, such as on the quality and quantity of banking regulatory capital and the enhanced liquidity requirements. A minimum leverage ratio has also been introduced as a “back-stop” to complement the risk-weighted capital requirements. The Financial Stability Board also led various work to address “too-big-to-fail” concerns, and Global Systemically Important Banks (G-SIBs) are now subject to higher capital, more intense supervision and resolution planning requirements.

3 In the capital markets, we have also seen important regulatory developments. Take for example, the work of the G20 OTC derivatives reforms. Almost all the G20 jurisdictions as well as key financial centres such as Singapore and Hong Kong have or are putting in place their regulatory frameworks for trade reporting, central clearing and platform trading. These will be supplemented by new margin requirements for non-centrally cleared OTC derivatives and extension of regulations to all derivatives markets intermediaries. In Singapore, we have also introduced a regulatory framework for financial benchmarks.

4 The actual implementation of the new requirements including those overseen by various standard setting bodies are ongoing and will be done over several years for two good reasons: one, a number of the reforms will require new regulations, as well as changes to systems and processes in financial institutions; and two, a phased approach allows authorities to assess impact and any unintended consequences, for review and fine-tuning of the new rules.

5 Meanwhile, national authorities have also sought to strengthen our respective regimes in other ways. For instance, we have enhanced a number of areas relating to retail investor protection. We have expanded our regulatory perimeter to include less conventional investment products such as gold buy-back schemes and land banking. In doing so, such schemes will be subject to similar safeguards such as information disclosures and authorisation requirements as for conventional financial products. As another example, we have also imposed additional rules on capital market intermediaries in relation to client protection such as safeguarding of monies and assets for margined OTC derivatives, due diligence on custodians and better disclosures.

Technology Revolution and Financial Services

6 In the last ten years, the financial landscape has also been shaped by a potent force of change – what some have referred to as the Technology Revolution.

7 Technology has always been an important driver for innovation in financial markets. But this

time, technology and its use has permeated into our lives through the ubiquity of smart devices. This coupled with advances in “AIDA”, or Artificial Intelligence and Data Analytics, mean that new technology can transform or create new business models in ways unseen previously. The rise of social networks and the digital ecosystems, enabled by BigTech and FinTech players, have spurred new business collaborations including with conventional financial institutions that cut across economic sectors. Advancements in distributed ledger technology (blockchain) have also opened up new possibilities to disrupt existing market infrastructure.

8 Already, FinTech developments have revolutionised the way financial services can be delivered. Some examples in capital markets include:

- (a) In fund and wealth management, the rise of robo-advisory services and AI-driven investment management;
- (b) In equity research, the use of AI to generate analyst reports; and
- (c) In primary and secondary markets, blockchain-based platforms that can substitute for central trusted parties by providing an alternate reliable protocol for fund-raising, trade execution, settlement and custody.

Regulatory Stance to Innovation

9 Let me broadly share MAS’ stance towards innovation in financial services.

10 Financial institutions have always been at the forefront of innovative use of technology. To the extent that new developments in technology and business models bring benefits to the broader economy, allow improvements in business management, and give customers better choices or services, these are to be encouraged and even supported. MAS therefore takes the view that thoughtful and purposeful use of technology to drive innovation have been and will continue to be important for the financial industry to progress. In our regulatory role, the MAS also proactively engages the industry both to understand and even to shape the technology-driven transformations in financial services.

11 Technology can bring about new or heightened risks when mis-used or abused. So while MAS is supportive of financial institutions to experiment with technology to harness potential new opportunities, or to innovate existing processes, we also require that they understand and can manage the associated risks. It is this philosophy that underpins the MAS to be among the first regulators in the world to adopt a regulatory sandbox regime.

12 MAS regulatory sandbox provides a constrained but more flexible space for players seeking to test new technology or approaches before a full launch. Such sandbox pilots are held within defined risk parameters and are time-bound. These restrictions help to limit the impact from unsuccessful applicants but equally important, they allow MAS to also understand the new model up close – how it is run, how the technology or its application is used, how the risks are managed and the value proposition to clients before mainstream use and scalability. This will also allow the MAS to calibrate our final rules that are appropriate to the new business model or start-up while addressing any level-playing field concerns.

13 As another example, the MAS recently issued a consultation paper on changes to our Recognised Market Operator (or “RMO”) regime. Under the current approach, Singapore-based market operators must be Approved Exchanges if they are systemically important, or else regulated as RMOs. But new forms of market places have emerged – such as trading facilities that make use of blockchain technology or peer-to-peer platforms without intermediaries. Our regulatory framework will need to be flexible to accommodate innovative business models by market operators with rules that are commensurate with the risks including factors such as retail access and scale of business.

14 There have been some queries on our regulatory stance towards crypto-currencies, or more generally, digital tokens and ICOs (initial coin offerings). We have issued a public advisory to caution those who “invest” in crypto-tokens to do so with caution and to understand their characteristics including being volatile and non-legal tender.

15 MAS has also issued a guide on digital token offerings last year to explain that our regulatory treatment depends on the digital tokens’ inherent characteristics. For utility tokens, which are for restricted usage within a defined set of products or services, these are not subject to MAS regulations. On the other hand, for payment tokens which are designed to be an alternate form of a medium of exchange, the intermediaries processing these tokens will come into our regulatory ambit under the proposed Payment Services Bill. This is to ensure that these providers adopt the necessary measures and controls to manage money laundering and terrorism financing risks. Finally, there are digital tokens that represent ownership interest akin to securities, debentures or collective investment scheme products. These will be subject to existing laws under our Securities and Futures Act (SFA) including investor protection safeguards, as for conventional securities.

16 Technology is not only an enabler for the private sector. Many financial regulators also actively use technology tools and solutions to augment or improve surveillance, supervision and enforcement actions. More than a year ago, the MAS set up a dedicated *SupTech* Office to serve as an expertise hub to support our line supervisors across banking, insurance and capital markets. There are several ongoing projects to support business process automation and the adoption of enhanced supervisory tools and applications. We are also exploring the use of Data APIs to streamline the submission of regulatory data, and “live dashboards” for better visualisation of trends and analyses. Our supervisors will also be incorporating the use of Artificial Intelligence and Machine Learning to support big data and network analytics in our surveillance and enforcement work. Collectively, these and other *SupTech* capabilities will complement the industry’s drive towards *RegTech* for better risk management and regulatory compliance.

17 As financial services increasingly become digital, management of technology-related risks especially cybersecurity is paramount. MAS recently issued a consultation paper on a set of mandatory Cyber Hygiene requirements. In Singapore, the new Cyber Security Act also established a legal framework for the protection of critical information infrastructure that include those in our key financial institutions.

18 The increased uses of AI and data analytics have also led the MAS to work with industry partners to develop a set of principles that promote fair, ethical and responsible use of data in financial services.

Conclusion

19 Disruption is often an inevitable part of innovation. The ongoing waves of new technology will present exciting possibilities to uplift the range, quality and delivery of financial services. They also offer financial institutions new ways to be more effective and efficient. But the adoption of technology or simply being more digital can also open up new vulnerabilities if not properly understood and managed— such as in area of cybersecurity risks.

20 Notwithstanding the opportunities and challenges that technology and digitalisation present, it is worthwhile to remember that the fundamental principles underpinning a sound and progressive financial centre, and the capital market place, have not changed. These are:

- (a) Markets should be fair, orderly and transparent;
- (b) Intermediaries should act in their clients’ best interest;

(c) Infrastructure must be efficient, safe, and resilient;

21 A financial sector must ultimately be purposeful in supporting the broad spectrum of economic activities including to facilitate savings, investments, insurance, payments for goods and services and credit intermediation.

22 I am sure that the forum today will be a good occasion to exchange views and to gather new insights.