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Navigating the year ahead
Financial Services Regulatory
Outlook 2017

CENTRE for
**REGULATORY
STRATEGY**
ASIA PACIFIC

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Global foreword

2016 has been another difficult year for the financial sector, with economic and political uncertainty complicating the completion of the post-crisis regulatory repair agenda.

A prolonged period of tepid economic growth and persistently low and volatile interest rates has squeezed profitability in some sectors and put significant pressure on longstanding business models and balance sheet management. Firms are further challenged by continuing uncertainty over the final shape of post-crisis financial regulation. While regulators are keen to preserve the hard won reforms of recent years, rising political uncertainty in developed economies (as demonstrated by the UK's referendum decision to leave the EU and the US Presidential election results) has increased the volatility and hence unpredictability of the macro-policy environment. This has caused some to go as far as questioning the sustainability of free trade and open markets.

At the same time, the introduction of new technologies and digital distribution platforms in the financial sector are unleashing disruptive forces, promising benefits to consumers and markets and posing further challenges to the strategies (and margins) of established firms. New technologies also stand to multiply the cyber and IT risks the industry currently faces. Nevertheless, if properly harnessed, these technologies also present opportunities for incumbents which move quickly and wisely to revitalise their business models.

2017 starts with a range of highly anticipated regulatory developments at or near their finalisation. The Basel Committee on Banking Supervision (BCBS) is expected to conclude most of its banking framework; recovery and resolution planning is expected to move closer to being implemented for most large banks and increasingly clarified for non-banks; and markets are expected to continue to shift towards central clearing and higher standards for transparency. How these reforms and new regimes are implemented in national jurisdictions will, however, be more sensitive to concerns about going too far and potentially harming an already weak economic recovery. The risk of fragmentation of global regulatory approaches is rising.

From a supervisory perspective, compliance with these new requirements is the bare minimum; as important will be firms' preparedness for the unexpected. Supervisors will, more than ever, want to see that firms have in place robust plans for scenarios that could threaten their own stability, or the interests of their customers.

Despite the uncertainty that characterises 2017, one fact is becoming increasingly clear: financial services firms will not be able to wait out this current period of difficulty without taking decisive and, in some cases, bold actions in response.

Strategies for a more constraining regulatory environment

Despite the uncertainty that characterises 2017, one fact is becoming increasingly clear: financial services firms will not be able to wait out this current period of difficulty without taking decisive and, in some cases, bold actions in response. 2017 marks nearly a decade since the circumstances surrounding the financial crisis began and many of the problems the industry has faced over the past decade are now starting to look more structural than cyclical. Despite a view in some quarters that the “regulatory pendulum” has swung too far, given the tastes of many politicians worldwide (if not those of supervisors as well), the regulations that have already been implemented to date are unlikely to be materially watered down, at least not soon. If interest rates stay lower for longer in major markets, many bank and insurance business models will need to be rethought. Yet rising interest rates would not be a panacea either, given the pressure it would put on (household) borrowers and counterparties with fragile balance sheets.

As a result, firms need to refresh their strategies for how they respond to regulation and how they do business in a regulatory, economic and political environment that could be fundamentally more constraining. Not all firms will succeed in doing this in the year ahead. Those that do will be those that find ways of making this new environment work for them, capitalising on their inherent resilience, agility and efficiency.


It is in this fluid context that we¹ present the Deloitte Centre for Regulatory Strategy's Asia Pacific Regulatory Outlook for 2017. This gives our view on how regulatory themes will shape the financial industry in the year ahead and how firms can respond to the challenges they will face.




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Asia Pacific regulatory outlook

Asia Pacific has not been as significantly impacted by economic headwinds or political changes that are currently shaking the EU, UK and US. Nonetheless, financial institutions in the region are living with moderating economic growth, operate under complex regulation and are facing competition from new technology enabled players. The political events that have occurred elsewhere will also, in time, have an influence in the region, particularly if there is a trend to dismantle efforts aimed at global harmonisation of regulation.

Asia Pacific will continue to have an active voice in international regulatory thinking during 2017. Hong Kong's Ashley Alder has assumed the Chairmanship of the International Organisation of Securities Commissions (IOSCO), which has also set up a regional hub in Malaysia. Jacqueline Loh of the Monetary Authority of Singapore (MAS) was appointed as Chair of the Bank for International Settlements (BIS) Markets Committee and Hiroshi Ota, from Japan's Financial Services Agency (JFSA), was elected as Vice Chairman of the Executive Committee of the International Association of Insurance Supervisors (IAIS). Steps are also being made to connect the traditionally fragmented region. The ASEAN economic community was established at the end of 2015, and 2016 saw the Asia Region Funds Passport's Memorandum of Cooperation come into effect. Whilst the US may withdraw from the proposed Trans Pacific Partnership Agreement for regional free trade, early indications are that Asia Pacific governments will continue to support its development.

Overall, the prescriptive post-crisis rule making is nearing completion and the period ahead will be one of implementing and embedding these measures, as well as confronting remaining or new frontiers. We see four major regulatory themes dominating the outlook for Asia Pacific financial services firms during 2017:

1. Maintaining the **resilience** of financial institutions and the financial system, including "Basel IV", stress-testing and recovery and resolution planning. Firms may need to devote significant energy and resources to meet new sets of rules and uplift capabilities in these resilience building areas.
2. Ensuring firms have robust **governance** frameworks and are cultivating the right culture. Firms should start reviewing existing frameworks and tackle practices that could signal problematic culture.
3. Increasingly intense and data driven **supervision**. Firms will need to be in a position to clearly articulate their business strategy and may need to invest in advanced data and analytics technologies.
4. Managing the impact of innovations in **technology**. Firms wishing to maintain a competitive edge will need to invest in innovative technology, retain ongoing engagement on the evolution of regulatory technology (RegTech) and take an integrated cross-functional cyber resilience approach.

These four themes are explored in more detail in the pages that follow and are accompanied by a timeline of key international regulatory events expected during 2017 and beyond, as well as in Australia, Hong Kong, Japan and Singapore. Whilst the significance of each theme will vary across the different jurisdictions, the different industry sectors and the different institutions, we believe all will be relevant to financial services firms operating in Asia Pacific. By understanding the dominant regulatory themes our aim is to help simplify the landscape and steer the development of forward looking regulatory strategies.



Resilience

Building resilience

Finalising Basel “IV”, progressing the Insurance Capital Standard and thinking about asset managers

Testing resilience

More intricate and diverse stress testing scenarios

Preparing for failure

Implementing and operationalising recovery and resolution planning



Governance

Frameworks

Robust enterprise wide governance frameworks

Culture

Embedding and monitoring the right culture



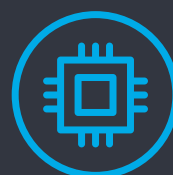
Supervision

Increasing intensity

Continuous and dynamic interaction

Data driven

More data on a greater variety of matters



Technology

Managing disruption

Harnessing opportunities and managing risks

Exploring RegTech

Recruiting innovation to power better regulatory and compliance outcomes

Building cyber resilience

Boosting cyber-resilience capabilities



Resilience

Ensuring the resilience of financial institutions and the financial system has been the focal point of the post-crisis regulatory response. Whilst the Basel Committee on Banking Supervision (BCBS) hopes to finalise “Basel IV” by the end of 2016, global capital standards for insurers continue to be developed and regulators are also investigating the resilience of the asset management industry. Complementing these resilience enhancing requirements are stress testing and recovery and resolution planning. Currently less advanced on the latter than the rest of the world, regulators across Asia Pacific will be working to uplift capabilities and embed frameworks in 2017.

Building resilience

Implementing “Basel IV” capital rules for banks

The BCBS is working to finalise calibrations to the Basel III regulatory capital framework (“Basel IV”) by the end of 2016 for approval by the Group of Governors and Heads of Supervision (GHOS) in early 2017. Finalising these reforms will bring a greater level of clarity and certainty for banks across the globe, but will also likely mean a great deal of energy will need to be devoted over the next few years to implementing reforms, and assessing business and strategic impacts.

“Broadly speaking, 2016 is the year for finalising the international framework, 2017 will be the year for consultation on its domestic application ... and 2018 will be the year for implementation.”

Wayne Byres

Australian Prudential Regulation Authority²

The current round of Basel reforms seek to improve the consistency and comparability of capital calculations both across firms using internal models, and between those using internal models and standardised approaches. A key component of the reforms is the removal, or restrictions on the usage, of internal models for certain regulatory capital calculations. Therefore a number of complex and interrelated reforms, some with potentially significant impacts for certain businesses and certain banks, are well advanced in their development. While there is a recognition that outcomes should, by design, vary across banks, businesses, and geographies, regulators are determined to address what they see as an “unwarranted and unwanted variation” in risk weighted assets.³ In carrying out this work the BCBS has committed that there would not be a significant increase in aggregate system-wide capital requirements, although it has also been noted that “this does not mean that the minimum capital requirement for all banks will remain the same...some banks which are genuinely outliers may face a significant increase”.⁴

Reforms that remain outstanding relate to the treatment of credit risk, operational risk and capital floors. Stefan Ingves, Chairman of the BCBS, has recently stated that “the contours of an agreement are now clear” and include:

- A revised standardised approach to credit risk which is more risk-sensitive, consistent with the internal model-based approaches and neutral in terms of its capital impact
- The use of internal models will be retained but input floors will be applied and there will be revisions to the foundation internal ratings-based (IRB) approach
- A revised standardised approach for operational risk to replace the four existing approaches
- Introduction of a leverage ratio surcharge for Global Systemically Important Banks (G-SIBs)
- An aggregate output floor based on the standardised approaches.⁵

As finalisation approaches it is important to note that several regulators, including in particular those from Japan, have publicly indicated concerns around the extent of standardisation and limitation in the original proposal which will lead to a loss of risk sensitivity and excessive capital increases. As reported in a Bloomberg interview, Japan’s Shunsuke Shirakawa noted that “an increasing reliance on the standardized approaches could hamper effective risk-management by the industry and may provide banks with a ‘perverse incentive’ to take too much risk in some cases. Elements in the [Basel] regulator’s main proposals are ‘too conservative’”⁶. Recently similar concerns have been broadly expressed in Europe regarding the impact of the original proposal. Therefore it is safe to assume that the final version will be less restrictive than the consultation package, but the scope and degree of changes is currently uncertain.

Aside from the concerns around the loss of risk-sensitivity in general, one specific impact that will be widely felt across the Asia Pacific region is the impact on corporate and cross-border lending. Lower risk counterparties without an external credit rating will be particularly adversely impacted on capital calculations, and given the lack of external ratings in many Asian economies this will impact the price and availability of credit.

It is important to note that many banks will still be expected by supervisors to use internal modelling for their own risk management and pricing purposes, and so whether using standardised or advanced approaches for any given portfolio, these banks will need to maintain both sets of models in nearly all cases so as to calculate the output floor and/or continue to enhance risk management knowledge. Building the new

requirements into existing models, building new models, running both sets of models, and increased challenges in managing economic and regulatory capital, will require significant energy and resources on the part of firms.

While Basel seeks to finalise reforms, there will remain uncertainty as to how they will be implemented at a national level. Basel rules are minimum standards. Earlier phases of reforms were implemented with some delay compared to originally agreed timetables (e.g. Pillar III, SA-CCR and the treatment of exposures to funds), quite often with accelerated transition periods.^{7,8} Therefore, there is a broad expectation, or rather concern, that Asia Pacific regulators will adopt the reforms with prompt timelines whereas other regions may delay, but given the extent of the reforms envisaged this is perhaps less clear during this final phase.

Figure 1
Basel III implementation

	AU	CN	HK	IN	ID	JP	KR	SG
Risk based capital (2013 - 2019)	✔	✔	✔	✔	✔	✔	✔	✔
LCR (2015 -2019)	✔	✔	✔	✔	✔	✔	✔	✔
G-SIBs (2016 - 2019)	⊖	✔	⊖	⊖	⊖	✔	⊖	⊖
D-SIBs (2016)	✔	⋯	✔	✔	✔	✔	✔	✔
Leverage Ratio (2018)	✘	✔	✘	✔	⋯	✘	✔	✘
NSFR (2018)	⋯	✘	✘	⋯	✘	✘	✘	✘

✔ Implemented
⋯ Partially implemented
✘ Not implemented
⊖ Not applicable

Source: FSB Implementation and Effects of the G20 Financial Regulatory Reforms 31 August 2016, available <http://www.fsb.org/wp-content/uploads/Report-on-implementation-and-effects-of-reforms.pdf>

⁷ Implementation of OTC reforms around uncleared margin were also delayed in Europe and many jurisdictions in Asia Pacific apart from Japan.

Progressing global capital standards for insurers

Whereas banks have been accustomed to operating under a global capital standard for many years, the same is not true of the insurance industry. However that is set to change with the IAIS developing the first global capital standard for insurance companies (ICS).

The ICS will be the minimum capital standard for Internationally Active Insurance Groups (IAIGs), identified based on their international activity and size of assets/premiums, as well as for Global Systemically Important Insurers (G-SIIs). G-SIIs will also be subject to additional capital requirements: the Basic Capital Requirement (BCR) and Higher Loss Absorbency (HLA), although it is expected that in time the ICS will replace the BCR for G-SIIs.

ICS Version 1.0, due to be finalised by mid-2017, is being developed based on two valuation approaches, with a focus on establishing a standard methodology for confidential reporting purposes. Version 2.0, due to be completed by the end of 2019, will consider other methods of calculating capital requirements such as the use of internal models, external models and variations to the standard method. The standard will need to be implemented into local rules by IAIS member jurisdictions (most of Asia Pacific is represented), although local market circumstances can be taken into account.⁹

There has been intense debate over the ICS and a good deal of challenge in trying to find a common global format. Industry has raised concerns that the adoption of ICS will lead to conflicting solvency regimes, disruption to firms' asset and liability management, reduced availability and affordability of insurance and impede insurers' ability to continue as stable, long-term investors and contributors to global economic growth.¹⁰ The Financial Services Agency of Japan (JFSA) has urged the IAIS to be careful of creating a framework that has unintended impacts, such as hindering internal risk management efforts, causing excessive risk-aversion or leading to similar investment strategies.¹¹ Despite this, the IAIS Secretary General has expressed confidence that ICS Version 1.0 will be delivered in 2017 and Version 2.0 in 2019.¹²

Insurance firms should stay abreast of the IAIS' schedule of ICS consultations and actively contribute to discussions regarding its development. As John Maroney, IAIS's Head of Capital & Solvency has said: "2016/17 is a unique opportunity to help shape the future global insurance supervisory framework".¹³

Investigating liquidity risks for asset managers

Regulators at the global level have started to turn their attention to resilience in the asset management industry. Regulatory concerns about the systemic stability risks posed by this industry are focusing on leverage, liquidity mismatch and situations where redemption runs result from a significant negative shock to funds or market fears.

The Financial Stability Board (FSB) identified “tackling structural vulnerabilities of asset management activities” as a “top priority” for 2016¹⁴ and this will continue into 2017.¹⁵ In June this year, it recommended, among other things, that IOSCO develop simple and consistent measure(s) of leverage in funds, that national authorities require and/or provide guidance on stress testing at the level of individual open-ended funds and that data be collected on leverage¹⁶. Industry is already receiving an increased number of ad hoc data and information requests from regulators and some big firms have been asked to stress test a redemption run.

The debate on the issue is somewhat polarised. The FSB has acknowledged that most open-ended funds have been generally resilient and have not created financial stability concerns in recent periods of stress, but considers important the continuing investigation into risks associated with asset management activity. Industry has argued there is no evidence of threat to financial stability from resolution of investment funds and that the pursuit of a non-bank non-insurance G-SIFI assessment methodology should be abandoned. Nonetheless, the FSB has stated that it will finalise its recommendations on funds liquidity mismatch by the end of 2016, that IOSCO will operationalise them at the end of 2017 and that the following year a simple and consistent measure of leverage will have been developed.¹⁷

Testing resilience

“So the message is: be stress test fit – it will hold you in good stead when you need it most”

Geoff Summerhayes

Australian Prudential Regulation Authority¹⁸

Supervisory stress testing of financial institutions is increasingly becoming a significant component of the assessment of the riskiness of financial services firms. It is considered an important tool for testing resilience in the face of adverse market developments, identifying where risk concentrates, and exposing weaknesses in capital planning and risk management, and for identifying potential systemic risk.

Regulators around the world continue to raise the bar on industry wide and entity level stress testing for banks in particular. The European Banking Authority (EBA) incorporated conduct risk into their 2016 stress testing¹⁹ and in 2017 the Bank of England (BoE) will undertake a new “exploratory” scenario stress test to gauge resilience to a wider range of potential threats, in addition to the annual cyclical test²⁰. In the US, firms that are judged to have failed either the qualitative assessment of the capital planning processes (e.g. inadequate controls and governance) or quantitative assessment of capital adequacy, can be prevented from making capital distributions²¹. Like the UK, the US regime continues to shift and evolve, with recent proposals to exempt smaller firms from the qualitative aspects of stress testing programs and to integrate more macro prudential elements into the regime.²²

²¹ Note, however, that the Financial CHOICE Act of 2016 proposes that the Federal Reserve Board will no longer be permitted to limit capital distributions.

Regulatory requirements around stress testing in the Asia Pacific region will likely escalate in 2017 in line with these international trends. Whilst we don't envision global standards on stress testing, nor do we envision the implementation of regimes in the region as onerous as those in the US, we do foresee more intricate and diverse scenarios being incorporated into stress testing, with a focus on both qualitative and quantitative outcomes. Firms will be encouraged to continually improve, innovate and mature their stress testing models and capabilities, uplift stress testing governance and steadily raise the standard of what constitutes acceptable practices. Results from stress testing in the Asia Pacific region do not commonly lead to regulatory penalties, however this tool could be further explored if industry standards are judged as inadequate.

Australian banks can expect to be subjected to more stringent stress testing by the Australian Prudential Regulation Authority (APRA), given the regulator has been tasked with ensuring capital ratios are "unquestionably strong" and remain in the top quartile of internationally active banks. Stress testing was also recently extended to the Australian life insurance sector, whose capabilities were judged by APRA as "in the main, not well advanced".²³ APRA has also stated that it expects "lessons learnt" from 2017 general insurance stress tests "to be employed by all insurers, including those not involved this time around".²⁴

In Japan the JFSA has already commenced supervisory stress testing for systemically important banks using the regulator's stress test scenarios. The key purpose of this stress testing is to deepen the dialogue with banks on their risk management and not necessarily assess capital adequacy. The stress scenarios have not been published partly due to the regulator's concerns of their publication encouraging business "herding" in the system.

The JFSA has also recently provided examples of what they consider to be advanced, standard and limited stress testing approaches for insurers.²⁵ Larger Japanese insurers will be expected to incorporate advanced practices into their stress testing going forward (e.g. demonstrate full utilisation of test results).

Bank Negara Malaysia (BNM) is currently consulting on new stress testing guidance that covers governance, design, risks and program implementation and is due to come into effect on 1 June 2017.²⁶ The New Zealand Reserve Bank has recommended banks innovate and improve stress testing models over time and with reference to international practices.²⁷ MAS' Deputy Chairman has stated that stress tests "will become an increasingly important and integral part of risk management in the financial sector".²⁸

Determining appropriate scenarios and demonstrating that these are comprehensive and cover all material risks can be difficult for firms. Those operating across multiple jurisdictions may also need to respond to various different scenarios and requirements that can change year to year. Although of significant value to both firms and supervisors, stress testing can be demanding on both firm and regulatory resources. Substantial amounts of data need to be collated and analysed. A variety of business lines and functions must be coordinated. The focus in 2017 on enhancing stress testing capabilities will further bring this pressure to the fore.

Preparing for failure

“Having the right framework is only a first step... If the public is not confident that the resolution regime in place is resilient and robust enough to be able to ensure the continuity of the critical functions of a bank, and the relevant authorities capable of managing the situation without major disruptions, the framework will not achieve its objective.”

Masamichi Kono

Japan Financial Services Agency²⁹

In 2017, the Asia Pacific regulatory spotlight will turn to intensifying and broadening the scope of recovery and resolution planning. Whilst much of the regulatory framework has been designed at the national level, supervisory focus will be on ensuring it is being appropriately implemented and operationalised. It will be important for firms to demonstrate that they have robust and credible arrangements in place, in particular to support operational continuity of critical services in resolution. In Asia Pacific the process is well underway with all G-SIBs and some Domestic Systemically Important Banks (D-SIBs) having completed initial rounds of preparing recovery plans, and regulators have commenced or will shortly commence work on resolution plans.

The international framework is set out in the FSB’s *Key Attributes of Effective Resolution Regimes for Financial Institutions* (Key Attributes) and associated guidance. The Key Attributes propose a variety of tools, such as on-going recovery planning and resolvability assessments, cross-border cooperation agreements to give effect

foreign resolution actions and powers to convert debt to equity (“bail-in”). Figure 2 highlights that there is a great deal of diversity across the region in terms of implementing the Key Attributes.

At one end of the spectrum is Hong Kong which has incorporated the full suite of internationally recommended tools. Japan is not far behind with all elements implemented except bail-in capability. For example, in April, JFSA released its approach to introduce the TLAC framework for Japanese G-SIBs³⁰. Singapore and India are also developing frameworks that would put them in compliance with international norms. APRA has made it clear that recovery and resolution will be top of its forward looking agenda and that this will involve a program for a “materially stronger” framework for managing failure.³¹

Supervisory drafting (and assessment in some jurisdictions) of resolution plans is well advanced in the US and the UK, and Europe is not far behind. The discussions between banks and regulators has finally started to be intensified in Japan recently, partly owing to peering pressures from other jurisdictions. The impact on business models and corporate structures in those other jurisdictions has been profound, in particular the creation of shared service entities and clear separability between business units. Given the current level of maturity of frameworks in Asia Pacific the impact to date has been less severe (although nonetheless noticeable), but the increased scrutiny on resolvability assessments will see impacts in the region trend towards those elsewhere. Notable across the region is the resistance to adopting bail-in mechanisms. Public intervention in bank failures is more acceptable in Asia Pacific and in many countries there are strong links between financial institutions and the state.³²

Figure 2
Implementation of Key Attributes in Asia Pacific

	AU	CN	HK	IN	ID	JP	KR	SG
Complete								
Powers to transfer or sell assets and liabilities			^{HK}	[●]				
Powers to establish a temporary bridge institution			^{HK}	[●]				
Powers to write down and convert liabilities (bail-in)			^{HK}	[●]		^{JP}	[●]	[●]
Power to impose temporary stay on early termination rights			^{HK}	[●]			[●]	[●]
Resolution powers in relation to holding companies			^{HK}	[●]				
Recovery planning for systemic firms				[●]				
Resolution planning for systemic firms	[●]	^{CN}	^{HK}	[●]			[●]	
Powers to require changes to firms' structure and operations to improve resolvability	[●]	[●]	^{HK}	[●]	[●]		[●]	[●]



Implemented



Partially implemented



Not implemented



Reforms under development



Supervisory powers limited to certain circumstances/ purposes

HK legislation passed on 22 June 2016, commencement date to be advised

JP: It is unclear if there are powers to convert creditor claims into equity or of any successor in resolution as per KA 3.5 (ii)

CN: Only for G-SIBs



Governance

Recent examples of governance and conduct failings will mean a sharpened regulatory focus on governance programs in 2017. In particular, it will be important for firms to demonstrate that they have robust enterprise wide governance frameworks in place and that leaders are attending to embedding and monitoring the right culture.

Frameworks

“[G]ood governance driven by boards must feature as an important frontline defence against bad policies, poor conduct and deficient risk management practices...”

Ong Chong Tee

Monetary Authority of Singapore³³

Effective governance requires the implementation of a framework of structures, systems and processes for management, decision making and risk taking. The FSB has recently observed that “governance frameworks” is a relatively broad concept that could include “the structure and responsibilities of the board of directors, individual accountability, internal controls, compliance and audit, culture, as well as financial and non-financial incentives”.³⁴

In 2017 Asia Pacific firms will need to show that they have the frameworks in place that facilitate effective governance across the entire enterprise and which speak to all core risks and functions. The appropriateness of a governance framework will be influenced by the nature, size and strategy of a particular firm. Nonetheless, it will be important to demonstrate that frameworks:

- Have been designed with input from the board and are overseen by the board
- Have enterprise wide application
- Give the chief risk officer sight over the entire business
- Specify how, on an ongoing basis, risks are actively identified, monitored, measured and mitigated

- Identify core policies and procedures and how they are implemented, reviewed and, where necessary, improved
- Include mechanisms for independent challenge and robust checks and balances
- Require regular and timely reporting of critical information to the board and senior management
- Involve the board and relevant committees scrutinising management information
- Assign clear avenues of escalation and action
- Are communicated and embedded across the organisation
- Are periodically reviewed, tested and, where necessary, adjusted
- Are iterative and responsive to changing circumstances.

Regulators will be particularly interested in how governance frameworks and risk management responsibilities permeate through each business unit within the organisation and are not simply being sequestered to the risk, compliance and audit teams. Prioritising sustainable risk practices is a key element, including frameworks to ensure ongoing assessment of business strategy through the lens of the firm’s risk appetite, particularly for the jurisdictions which suffer from the continued situation of negative interest rates.

Firms should start to review and question the validity of their existing frameworks. Getting buy-in to change the current way of doing things could require significant commitment. Ensuring enterprise-wide frameworks are effective across an organisation will be particularly challenging for global or more complex businesses.

Key regulatory events 2017 and beyond

2017

January to April

- BCBS expected publication of revised Basel III framework on **credit risk, operational risk and floors** (Jan)
- BCBS **CCyB**, **SA-CCR** and capital for **equity investments in funds** and **exposures to CCPs** in effect (1 Jan)
- HK (**CCyB**) **ratio of 1.25%** in effect (1 Jan)
- SG **REIT managers/individual directors** to prioritise interests of unitholders (1 Jan)
- SG **amendments to MAS Notice 637** commence (1 Jan)
- AU **charitable investment framework** commences (1 Jan)
- FSB report on **fintech** and workshops on effect of **G20/FSB reforms** (early 2017)
- AU aggregate level **general insurance stress test** outcomes (early 2017)
- BCBS end phase OTC derivatives (VM) **margin requirements** phase in (1 Mar)
- AU/HK/SG **OTC margin** requirements commence (1 Mar)
- JP **insurance company field test results** (Mar)
- HK **short position reporting** for all SEHK Designated Securities (Mar)
- AU revised prudential standard on **residential mortgage lending** (Q1)
- **Securities financing data** to global data aggregator (Apr).

May to August

- BIS final **FX code of conduct** (May)
- IAIS **ICS version 1.0** (mid 2017)
- IOSCO CPMI guidance on **CCP resilience, resolution and recovery** (mid 2017)
- BCBS draft framework for **stress testing of CCPs** (H1)
- FSB report on **measures to reduce misconduct risk** (H1)
- IOSCO **wholesale market conduct** regulatory toolkit (H1)
- SG limits on **unsecured credit** if 18 times monthly income (1 Jun)
- FSB report on **climate-related financial risk disclosures** (Jun)
- HK professional investor new **client agreement requirements** (Jun)
- **G20 summit** Hamburg (7/8 Jul)
- HK **OTC derivatives phase 2 reporting** in effect (1 Jul)
- AU **prudential standards** on risk management, outsourcing, business continuity management, governance, fit and proper, intragroup transactions and exposures, aggregate risk exposures and audit become effective (1 Jul).

September to December

- IAIS **ICS data** due for 2017 confidential reporting process (Sep)
- SG **non-bank financial institutions OTC derivatives reporting** (interest rate/credit derivatives)(1 Nov)
- **G-SII** cohort 2016 to have **systemic risk/liquidity plans** (Dec)
- AU **residential mortgage lending data reporting** requirements commence (Dec)
- AU **industry funding** of ASIC commences (H2)
- AU launch of **New Payments Platform** (H2)
- HK white paper on **distributed ledger technology** (H2)
- FSB guidance on **compensation and conduct** and recommendations for **reporting and collection of data** (end)
- IOSCO **funds' liquidity mismatch** recommendations to be operationalised (end 2017)
- **Asia regional passport** funds to be implemented domestically (end 2017).

During 2017

- HK **NSFR and securitisation framework** draft rules
- SG **leverage ratio and large exposures** draft rules
- AU draft rules on capital requirements for **equity investments in funds, NSFR, leverage ratio, Pillar 3 and large exposures**
- AU report on **mortgage broker remuneration, financial adviser misconduct and conflicts management**.

2018

- BCBS Basel III **Leverage ratio, securitisation framework, Pillar 1** and **NSFR**, including disclosure requirements (Jan)
- FSB numerical **haircut floors** apply to non-bank securities financing (Jan)
- **IFRS9** effective (Jan)
- AU prudential standard and guidance on **liquidity** and **NSFR reporting** (Jan)
- AU new rules on remuneration for **life insurance advice** (Jan)
- AU risk mitigation requirements for **OTC derivatives** commence (1 Mar)
- FSB jurisdictions to have no legal/regulatory barriers to **reporting of OTC derivatives** (mid 2018)
- IAIS consultation on ComFrame including **ICS version 2.0** (mid 2018)
- IAIS **2018 ICS confidential reporting** data due (Sept/Oct)
- SG **non-bank financial institutions OTC derivatives reporting** (FX, commodity, equity) (1 Nov)
- **G-SII cohort 2017** to have systemic risk/liquidity plan (Dec).

2019 onwards

- BCBS capital requirements on **CET1, capital conversion buffer, G-SIB buffer, market risk countercyclical capital buffer, min T1 ratio and min total capital ratio** (1 Jan 2019)
- BCBS **liquidity requirements** on LCR and **large exposures** (1 Jan 2019)
- BCBS **G-SIB min TLAC** of 16% RWA and 6% LRE (1 Jan 2019)
- AU **new standards for financial advisers** commence (1 Jan 2019)
- SG **limits on granting unsecured credit** if 12 times monthly income (1 Jun 2019)
- BCBS G-SIIs' **BCR** and **HLA** requirements (2019)
- IAIS **ICS version 2.0** (end 2019)
- BCBS end phase in for **margin requirements for OTC derivatives (IM)**(1 Sep 2020)
- **G-SIBs min TLAC** of 18% RWA and 6.75% LRE (1 Jan 2022),
- **Emerging market G-SIBs min TLAC** of 16% RWA and 6% LRE (2025) and 18% RWA and 6.75% LRE (2028).

Culture

“Ultimately trust and conduct boil down to culture more than any externally imposed rules.”

Ravi Menon

Monetary Authority of Singapore³⁵

A fundamental component of good governance is a corporate culture of reinforcing appropriate norms for responsible and ethical behaviour.³⁶ Culture has been at the top of the recent regulatory agenda, as problematic cultures have been identified as at the root of poor conduct within financial institutions. Australia’s Wayne Byres has commented that “... tackling the underlying culture within financial firms ...is, to a large degree, the final frontier in the post-crisis response”.³⁷

Regulatory concern about culture will continue throughout 2017 and firms will be asked to demonstrate how they are embedding ethics and culture into their governance structures.

BNM Governor Muhammad bin Ibrahim has said that the bank will “continue to raise the bar on governance”, including “a strengthened emphasis on the softer aspects ... such as behavioural norms, corporate culture and ethics”.³⁸ Hong Kong’s Securities and Futures Commission (SFC) plans to articulate its expectations about senior management responsibility for top down process for corporate culture in the near future³⁹ and the Reserve Bank of India (RBI) has recently encouraged acceleration of governance improvements through instilling culture.⁴⁰ The Chairman of the China Banking Regulatory Commission (CBRC), Mr. Shang Fulin, spoke earlier this year of the importance of good compliance management, including senior management and all

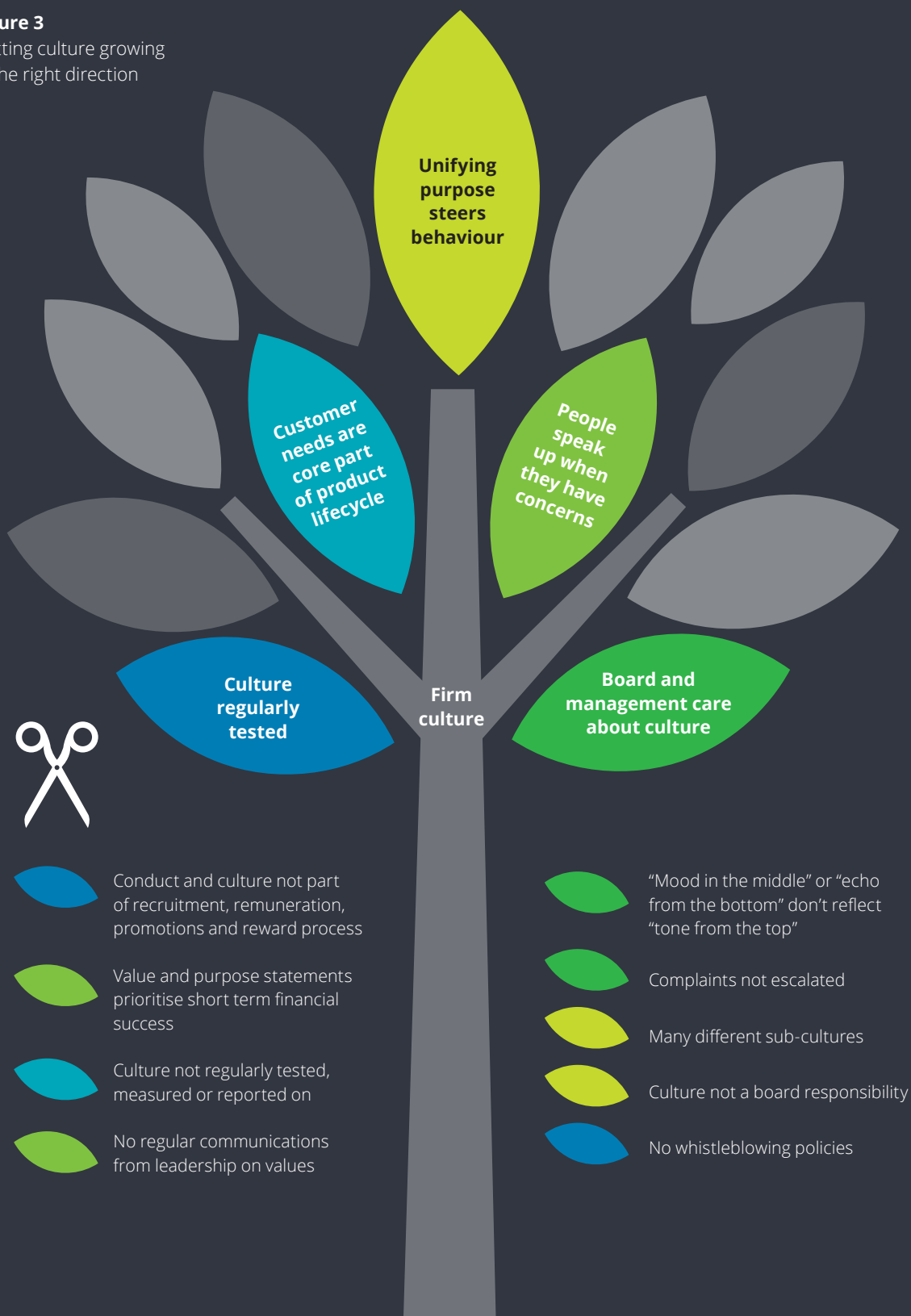
employees taking a part in developing a compliance culture, of the need to ensure communication and collaboration between different departments, that early warning signs should be escalated and that a comprehensive and systemic accountability system should be set up.⁴¹ The Australian Securities and Investments Commission (ASIC) intends to engage with boards on the subject of culture and will be putting a particular focus on gatekeepers.⁴² APRA has recently assessed risk culture programs within Australian firms as being at a very early stage of maturity and the regulator will be undertaking various initiatives in the coming year including pilot reviews and a stock take of remuneration practices and outcomes.⁴³

Although regulators are putting pressure on firms to improve culture, many are reluctant to articulate what actually constitutes good culture. Responsibility for defining, promoting and instilling the right culture is seen as sitting squarely with the board and senior leaders of firms. As Robert Everett, the CEO of New Zealand’s Financial Markets Authority (FMA), has put it: “[T]he FMA doesn’t set culture – that’s your job. Nor are we going to ... give you a handbook for achieving a preferred culture”.⁴⁴

This is not an easy task for firms. The shared set of values, mindsets and assumptions distinct to a firm (its culture) is not particularly tangible. It can be difficult to observe, quantify and measure. Identifying data points to report to leaders and evidencing improvements is challenging. Changing culture can take time, results from hard work may only become apparent after years.

Firms can start by addressing those practices frequently observed as being red flags of a poor culture. By pruning these from the organisation, culture will start growing in the right direction.

Figure 3
Getting culture growing
in the right direction





Supervision

Much of the post crisis rule making is complete. Regulators will be moving beyond a focus on compliance with explicit rules to enhancing supervision. A more active and forward looking approach to supervision will be adopted, involving continual engagement and challenge and requests for more granular data on risk management.

Increasing intensity

“[I]nstead of relying exclusively on static rules calibrated on the basis of point-in-time figures of the bank’s balance sheet, we should try to complement them by close supervision...”

Nobuchika Mori

Japan Financial Services Agency⁴⁵

Supervision is a core element of regulatory activity, but will become the tool of choice during 2017. Firms should expect more intense engagement with regulators, involving ongoing discussion, reviews, testing, guidance and challenge at the highest levels and covering all aspects of the business. Discourse between regulator and regulated will focus on forward looking assessments of the whole enterprise, with a view to identifying potential problems at an early stage, iterative responses and addressing risks so that they do not become significant.

This style of supervision has perhaps been best articulated by Nobuchika Mori, Commissioner of the JFSA, in his April 2016 speech outlining the regulator’s plan to “move from a framework dominated by static regulation” to one “complemented by dynamic supervision”.⁴⁶ In the speech, Commissioner Mori advocates going beyond “the most recent, point-in-time balance-sheet figures” to an approach that involves a tailored, dynamic and continual assessment of individual firms and with regard to the larger ecosystem within which they operate.

The JFSA has further described their new approach as follows:

- From formality to substance: better quality financial services to customers (or best practices), rather than to conduct a formality check of financial institutions’ compliance with rules and regulations (or minimum standards)
- From backward looking to forward-looking: attention to sustainability of business models for the future, rather than financial soundness at a specific point of time in the past
- From individual parts to total picture: address underlying root causes, rather than focusing too much on individual incidents.⁴⁷

APRA’s Chairman Wayne Byres has also recently commented on the importance of active supervision in identifying the risk of failure early and anticipating problems.⁴⁸

Increased regulatory intrusion in the business of a firm understandably raises concerns about situations where regulatory views conflict with firm strategy. Firms should be ready to clearly and confidently articulate their business strategy and the reason for its adoption. Regulatory requests are best responded to in a timely manner and with enough detail. Active supervision can also be viewed as positive for firms; in that it can provide constructive independent third party challenge to approaches and be used as a tool to help shape the best way forward.

Data demands

“With computerisation of various activities ... we have come to expect much higher capability... While we appreciate that the banks use multiple systems, the rules are elaborate and at times qualitative, posing challenges to capture the parameters in computer systems; however, with the progress in technology this problem should have been solved much earlier.”

Shri S. S. Mundra

Reserve Bank of India⁴⁹

Not only will regulators be asking more questions of firms in 2017, they will be demanding more frequent, more detailed and more accurate data. Pressure will be placed on firms to cut data in various different ways, for it to be aggregated across the business and to be subjected to timely analysis and reporting (internally and to the regulator). Failure to meet these requests will leave regulators questioning a firm's ability to manage its risk and will likely lead to a more intrusive supervisory approach.

Big data, advances in analytics and leaps in computational capacity have driven a growing expectation that firms should be able to understand, monitor and report on all aspects of their business and all critical risk types both quickly and correctly.

Regulatory expectations are being shaped by the BCBS' *Principles for effective risk data aggregation and risk reporting* (BCBS 239).

Released in 2013, BCBS 239 contains 11 principles for implementation by G-SIBs and suggests that national supervisors also apply them to D-SIBs. These 11 principles are summarised in Figure 4. An additional three principles are aimed at supervisors and call for periodic review and evaluation of compliance with BCBS 239; appropriate tools and resources to require effective and timely remedial action to address identified deficiencies; and home/host cooperation.

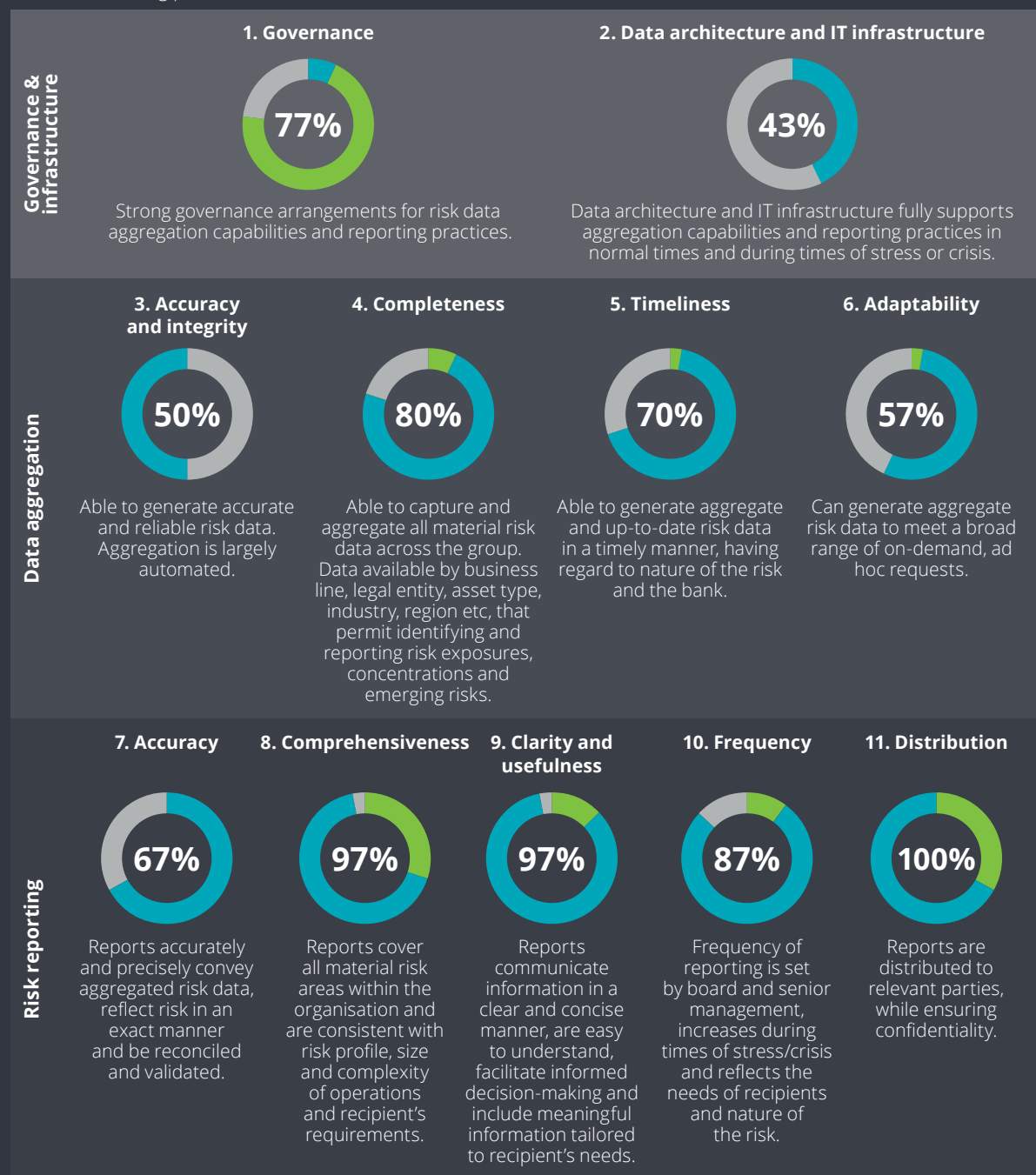
The FSB is also pursuing a work stream on data gaps and in 2017 four thematic workshops will be held to drive forward the implementation of regular collection and dissemination of reliable and timely statistics.⁵⁰

Greater regulatory demands will need to be met with greater capability and governance. Many firms face multiple legacy platforms leading to unwieldy, siloed and manual data process and systems. At the time of writing, the most recent BCBS progress report on compliance with the principles (published end 2015) details that many G-SIBs reported themselves as largely compliant, but very few, or in some cases none, achieved full compliance (see Figure 4). Industry is committed to closing the gaps and further progress reports are expected to show improvements achieved so far and will help to understand and explore continuing challenges.

Whilst G-SIBs have undertaken substantial work in recent years to meet regulatory expectations on risk data aggregation and reporting, this intensity of effort is not reflected in broader industry.

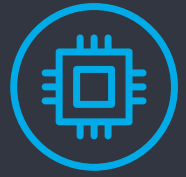
Forward thinking firms should start executing strategies in line with BCBS 239 and be prepared to invest in advanced data and analytics technologies. This will not only reduce the chance of regulatory reproach, but will generate information from which management can develop data driven strategic insights and plan the right strategy.

Figure 4
Measuring up against the BCBS 239 principles
The G-SIB starting point



● Fully compliant |
 ● Largely compliant |
 ● Materially non-compliant |
 ● + ● = %

Source: BCBS "Progress in adopting the Principles for effective risk data aggregation and risk reporting" December 2015, available <http://www.bis.org/bcbs/publ/d348.pdf>



Technology

Technology will continue to be top of mind for firms and regulators. The impact of innovative technologies is seen as both an enabler and a potential threat, although the balance of thinking is in favour of active support. As well as nurturing FinTech, RegTech solutions will be further investigated during 2017. And all this innovation means financial services is more and more becoming a data driven digital industry, amplifying the importance of building cyber resilience.

Managing disruption

“The bottom line is that competition is increasing, and ways of delivering financial services are changing tremendously. Banks have to discover strategies to use their traditional, although eroding, advantages such as convenience, information, and trust to remain on the competitive frontier... They are also a challenge to the regulator, who wants the best for the customer (and therefore wants to encourage competition and experimentation), while maintaining systemic stability (and thus wants to understand risks before they get too large or widespread).”

Dr. Raghuram Rajan
Reserve Bank of India⁵¹

A range of innovative new technologies continues to disrupt the way financial services are being delivered. Robo-advisors, peer-to-peer lending, equity crowdfunding, the cloud, the crowd, distributed ledger technology such as blockchain, biometrics, robotic process automation, big data analytics, the “internet of things” and automated trading systems are some examples. Innovation has also brought new players into the ecosystem - the FinTech start-ups which are designing and launching new products and services and competing with traditional financial services firms.

Regulators are wanting to nurture the benefits that innovation can bring: improving efficiency in the system, encouraging competition, enhancing access to products that better meet consumer needs, facilitating financial inclusion. But regulators are also wanting to manage the risks and frictions brought about by innovation: ensuring new players and products are appropriately regulated, preventing asymmetric regulatory burdens for different participants, protecting consumers from fresh risks that may arise from novel products and services and preparing for a situation where new players or services become systemically important, thus requiring prudential regulation.⁵²

A range of regulatory initiatives have been launched throughout Asia Pacific aimed at both facilitating and monitoring innovation (see Figure 5 overleaf). A popular approach has been the “regulatory sandbox” which provides a flexible regulatory environment in which applications of novel technologies can be road tested. FinTech “hubs” have also been launched in some countries to cultivate and fast track the growth of start-ups and FinTech “bridges” established between different jurisdictions to facilitate cross border market access. Other regulators have set up FinTech contact points and advisory committees, hosted FinTech festivals and provided funding or concessions for FinTechs firms. Chinese authorities have already taken steps to set up a regulatory framework for FinTech with 2015’s *Guiding Opinions on Promotion of Healthy Development of Internet Finance* (which provides rules on matters such as internet payments, crowd funding, internet insurance and online lending) and regulations on peer-to-peer lending platforms and non-banking online payment service providers.

While new rules and regulations have been implemented or are being proposed, regulators have some reticence about designing a comprehensive new regime for fear that “in a rapidly changing landscape, preemptive regulation could quickly become obsolete, and an impediment to innovation”.⁵³

⁵² There have long been concerns about risks associated with shadow banking not being subject to prudential regulation, however recent technologies have accelerated these concerns as new players, products and services are emerging rapidly and frequently.

Figure 5
Regulatory responses to FinTech



Having set up an environment to encourage, test and monitor innovation over the past 18 months, its benefits and risks will now begin to surface and regulatory frameworks will further evolve. Moves will likely be made to ensure regulation is proportionate to the risk posed and is technology neutral (activities not institutions are regulated). Such an approach is most likely to facilitate innovation, but also maintain a level playing field, guard against regulatory arbitrage and reduce systemic stability risks associated with an explosion of unregulated participants.

Given the generally welcoming approach to FinTech that has been adopted by regulators throughout the region, and the public appetite for same, firms will need to invest in innovative technology to maintain a competitive edge. Many firms are already leaders in this regard, setting up FinTech challenges, developing solutions labs and adopting blockchain technology into their business. The impacts of innovation on existing business and operating models could be significant, however as MAS' Ravi Menon has commented "... if we do not disrupt ourselves – in a manner we choose – somebody else will – in a manner we will not like."⁵⁴

Exploring RegTech

"I envisage that the Fintech Innovation Hub will also benefit the HKMA ...we could explore with innovators options and possibilities of using new technologies, such as Big Data Analytics and other "regtech" initiatives, to achieve our objectives more effectively without creating undue risks or burden for our internal systems or databases."

Norman T Chan

Hong Kong Monetary Authority⁵⁵

While innovation is disrupting the way that financial services are being provided to consumers, focus is also turning to how the latest breed of technology can also be harnessed to transform regulation and regulatory compliance ("RegTech").

Globally, the UK regulators are taking the lead with the FCA and PRA having allocated funding to identify ways to support the adoption of new technologies that facilitate the delivery of regulatory requirements.⁵⁶ However Asia Pacific is not lingering. Singapore's MAS has recently hosted a forum on RegTech as part of its FinTech festival and the government is in the process of creating a national know your client/customer (KYC) utility.⁵⁷ In Australia the government is working to develop a digital identity framework, ASIC is establishing a dedicated RegTech team who will collaborate with scientists⁵⁸ and workshops on RegTech and "rethinking regulation" will feature at its 2017 Annual Forum.⁵⁹ In India, the RBI is supporting a group of IT entrepreneurs develop the "India Stack", which will consist with a national system of biometric identification, the set-up of new bank accounts, a common payment API and a series of electronic KYC utility platforms.⁶⁰

Just like everything else in the digital age RegTech is evolving rapidly. We see various new solutions emerging during 2017 for use by both regulators and regulated. Areas that are progressing quickly are in KYC compliance processes, automated regulatory reporting and communications monitoring.

Enlisting technology to improve the efficiency and effectiveness of regulation and compliance is certainly compelling, with the huge resources currently devoted to these tasks arguably being unsustainable and processes and procedures unwieldy and slow. However regulators will also be interested in understanding how to address new hazards associated with RegTech, such as transfer of risk to potentially unregulated players like cloud providers and increase in cyber vulnerability. Firms, regulators and FinTechs should continually engage on the benefits and challenges arising from RegTech so that sustainable solutions can be found.

Building cyber resilience

“Cybersecurity incidents are now frequent across the financial industry... There is no doubt that cybersecurity threats are now the top risk for banks and the broader financial system... Cyber risk management will also remain a major focus of our firm inspections.”

Ashley Alder

International Organisation of Securities Commissions
Hong Kong Securities and Futures Commission⁶¹

The latest breed of technological innovation has seen financial services, like many other sectors, steadily evolve into a digital data driven industry. This means it is far more vulnerable to cyberattack. There are many examples of how such an attack can cause significant financial loss for institutions and, potentially, their customers. Confidential, personal and sensitive customer data can be stolen, manipulated or destroyed, resulting in breaches of privacy and data protection laws, significant damage to organisational reputation and a rupture in public trust.

It is not surprising that cybersecurity is one of the most significant risks firms face and is also a regulatory priority.

Authorities in Asia Pacific are urging firms to upgrade their capability in safeguarding cybersecurity. Across the region there is a push to have firms implement measures that enhance management involvement in cybersecurity, protect sensitive information and skill

up the workforce. Emerging themes include managing risks associated with outsourcing to jurisdictions with weak cybersecurity regimes and improving information sharing across the region, amongst institutions and between regulators and regulated. MAS, for instance, has recently announced that the Financial Services – Information Sharing and Analysis Centre will set up in Singapore to coordinate firm co-operation and sharing of cyber intelligence.⁶²

Regulators in Japan, Hong Kong, Singapore, and Australia have been turning their attention to building cyber resilience. This approach accepts that cyberattacks will be an ongoing part of business and that firms' responses should go beyond protecting core areas in the company's operation and reacting to trends. Rather, firms are being expected to implement enterprise wide cybersecurity frameworks (extending beyond the IT department), predict potential threat scenarios, regularly test security measure against threat scenarios and, if weaknesses are identified, update their defences. Japan and Singapore have mandated periodic simulation exercises and penetration testing and vulnerability assessments are part of the Hong Kong Monetary Authority's (HKMA) Cybersecurity Fortification Initiative launched in May this year.⁶³ China and India are also stepping up regulatory efforts, although to date the focus has primarily been on securing perimeters within an organisation and protection of personal and sensitive information.

Designing a framework that is coherent across the region is difficult as regulation is relatively fractured. Firms who adopt a cyber resilience mentality and framework will be well positioned to meet regulatory expectations throughout the region and provide defence preparedness that will minimise financial and reputational impacts of an attack. An integrated and cross-functional approach is recommended, that addresses both internal and external risks, incorporates vulnerability and penetration testing and includes a post-attack contingency plan.

Conclusion

As with preceding years, the 2017 regulatory agenda remains complex and full for firms operating in Asia Pacific.

Recent political developments outside the region will add a layer of uncertainty but will not change the importance of each of the themes explored in this year's outlook:

- Maintaining the **resilience** of financial institutions and the financial system
- Ensuring firms have robust **governance** frameworks and are cultivating the right culture
- Increasingly intense and data driven **supervision**
- Managing the impact of innovative **technology**.

Firms are facing challenging times. Margins are not just being squeezed by regulatory demands, but also broader economic conditions and old business models being disrupted by competition from new technology enabled players. It is a dynamic world that requires agile responses. Technological innovations, while posing a threat to the established way of doing things, will also provide firms with the best ways to manage the range of stresses arising from the regulatory expectations that have been canvassed in the preceding pages.

We hope we have provided a complete yet straightforward view of the key regulatory themes that will impact firms over the next 12 months. In doing so, we hope to provide confidence for designing and steering forward 2017 regulatory agendas.

Glossary of terms

APRA	Australian Prudential Regulation Authority	IAIS	International Association of Insurance Supervisors
AU	Australia	ICS	Insurance Capital Standard
ASIC	Australian Securities and Investments Commission	ID	Indonesia
BoE	Bank of England	IN	India
BNM	Bank Negara Malaysia	IM	Initial margin
BCBS	Basel Committee on Banking Supervision	IOSCO	International Organisation of Securities Commissions
BCR	Basic capital requirement	IFRS	International Financial Reporting Standards
BIS	Bank for International Settlements	IRB	Internal ratings-based (approach to credit risk)
CET1	Common equity tier I (capital ratios)	JFSA	Japanese Financial Services Agency
CCP	Central counter-party	JP	Japan
CN	China	KR	Korea
ComFrame	Common Framework for the Supervision of Internationally Active Insurance Groups	KYC	Know your client
CPMI	Committee on Payments and Market Infrastructures	LCR	Liquidity coverage ratio
DL T	Distributed ledger technology	MAS	Monetary Authority of Singapore
D-S IB	Domestic systemically important bank	NSFR	Net stable funding ratio
EBA	European Banking Authority	OTC	Over-the-counter (derivatives)
FinTech	Financial technology	RBI	Reserve Bank of India
FMA	Financial Markets Authority, New Zealand	RBNZ	Reserve Bank of New Zealand
FSB	Financial Stability Board	RegTech	Regulatory technology
FX	Foreign exchange	RWA	Risk weighted assets
G-SIB	Global systemically important bank	SA-CCR	Standardised approach for measuring counterparty credit risk exposure
G-SIFI	Global systemically important financial institution	SFC	Hong Kong Securities and Futures Commission
G-SII	Global systemically important insurer	SG	Singapore
GHOS	Group of Governors and Heads of Supervision	STC	Simple, transparent and comparable
HK	Hong Kong	TLAC	Total loss-absorbing capacity
HKMA	Hong Kong Monetary Authority	TR	Trade repository
HLA	Higher loss absorbency	VM	Variation margin
IAIG	Internationally active insurance group		

End notes

1. Deloitte LLP
2. *From Strength to Resilience* AFR Banking & Wealth Summit, Sydney, 5 April 2016, available <http://www.apra.gov.au/Speeches/Pages/From-strength-to-resilience.aspx>
3. Luis M Linde, Governor of the Bank of Spain *Transformation of the banking business model* Madrid, 4 October 2016, available <https://www.bis.org/review/r161018a.htm>
4. William Coen, Secretary General of the Basel Committee *Bank capital: a revised Basel framework* 2016 Annual Membership Meeting of the Institute of International Finance, Washington DC, 7 October 2016, available <http://www.bis.org/speeches/sp161007.htm>
5. *Reflections of a Basel Committee Chairman* 19th International Conference of Banking Supervisors, Santiago, 30 November 2016, available <http://www.bis.org/speeches/sp161130.htm>
6. Taniguchi, Flynn and Brush *Bank-Capital Battle Makes Japan, EU Allies Against U.S. Push* 26 July 2016, available <https://www.bloomberg.com/news/articles/2016-07-26/bank-capital-fight-makes-japan-eu-allies-against-u-s-clampdown>
7. Implementation of OTC reforms around uncleared margin were also delayed in Europe and many jurisdictions in Asia Pacific apart from Japan
8. Basel Committee on Banking Supervision *Eleventh progress report on adoption of the Basel regulatory framework* October 2016, available <http://www.bis.org/bcbst/publ/d388.pdf>
9. IAIS *Frequently Asked Questions for The Global Risk-based Insurance Capital Standard (ICS) Updated 29 July 2016* available [http://hb.betterregulation.com/external/ICS_Frequently_Asked_Questions_\(updated_29_July_2016\).pdf](http://hb.betterregulation.com/external/ICS_Frequently_Asked_Questions_(updated_29_July_2016).pdf)
10. Institute for International Finance and the Geneva Association *IAIS consultation on a Risk-based Global Insurance Capital Standard – Version 1.0* 20 October 2016, available, <https://www.iif.com/publication/regulatory-comment-letter/ifiga-submission-insurance-capital-standard-10>
11. JFSA Comments from the Financial Services Agency of Japan for the Insurance Capital Standard Second Public Consultation 19 October 2016, available <http://www.fsa.go.jp/en/news/2016/20161019-1/01.pdf>
12. IAIS *From the Secretary General* Newsletter, Issue 57, October 2016 <http://www.iaisweb.org/page/news/newsletter/file/62805/iais-newsletter-october-2016>
13. *Trends in Solvency Supervision An International Perspective* IAA / ASHK, Life Insurance Colloquium Hong Kong, 26 April 2016, available <http://www.iaisweb.org/page/news/speeches/file/60311/26-april-2016-john-maroney-before-iaa--ashk-life-insurance-colloquium-hong-kong>
14. FSB *Chair's Letter to the G20* 30 August 2016, available <http://www.fsb.org/wp-content/uploads/FSB-Chair%E2%80%99s-letter-to-G20-Leaders-in-advance-of-their-meeting-in-Hangzhou-on-4-5-September..pdf>
15. FSB *Chair's Letter to the G20* 30 August 2016, available <http://www.fsb.org/wp-content/uploads/FSB-Chair%E2%80%99s-letter-to-G20-Leaders-in-advance-of-their-meeting-in-Hangzhou-on-4-5-September..pdf>
16. FSB *Proposed Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities* June 2016, available <http://www.fsb.org/2016/06/proposed-policy-recommendations-to-address-structural-vulnerabilities-from-asset-management-activities/>
17. FSB *Chair's Letter to the G20* 30 August 2016, available <http://www.fsb.org/wp-content/uploads/FSB-Chair%E2%80%99s-letter-to-G20-Leaders-in-advance-of-their-meeting-in-Hangzhou-on-4-5-September..pdf>
18. *The View from the Other Side of the Table: Regulation, Trust and Social Licence* ANZIIIF Reinsurance Rendezvous, Canberra, 5 October 2016, available <http://www.apra.gov.au/Speeches/Documents/GS%20Speech%20ANZIIIF%20Reinsurance%20Rendezvous%20Oct%202016.pdf>
19. EBA *Briefing: Bank stress testing: stock taking and challenge* 22 September 2016, available [http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/587358/IPOL_BRI\(2016\)587358_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/587358/IPOL_BRI(2016)587358_EN.pdf)
20. K Dent and B Westwood *Stress testing of banks: an introduction* BoE Quarterly Bulletin, Q3 2016, available <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2016/q3/a1.pdf>
21. Note, however, that the Financial CHOICE Act of 2016 proposes that the Federal Reserve Board will no longer be permitted to limit capital distributions
22. US Federal Reserve Governor Daniel K. Tarullo *Next Steps in the Evolution of Stress Testing* Yale University School of Management Leaders Forum, New Haven, Connecticut September 26, 2016, available <https://www.federalreserve.gov/newsevents/speech/tarullo20160926a.htm>
23. Geoff Summerhayes Member APRA *Preparing For The Unexpected Insights From Apra's 2015 Life Insurance Stress Test* Sydney 19 August 2016, available <http://www.apra.gov.au/Speeches/Documents/180816%20Speech%20GS%20Life%20Stress%20Test.pdf>
24. Geoff Summerhayes Member APRA *The View From the Other Side of the Table: Regulation, Trust and Social Licence* ANZIIIF Reinsurance Rendezvous 5 October 2016 Canberra, available <http://www.apra.gov.au/Speeches/Documents/GS%20Speech%20ANZIIIF%20Reinsurance%20Rendezvous%20Oct%202016.pdf>
25. JFSA *Overview of Results of ERM Assessment based on ORSA Reports and ERM Hearings* 15 September 2016 (<http://www.fsa.go.jp/en/news/2016/20160915-1.html>)
26. Bank Negara Malaysia *Stress Testing Concept Paper* October 2016, available http://www.bnm.gov.my/guidelines/01_banking/04_prudential_stds/cp_029_13_stress_testing.pdf
27. Reserve Bank of New Zealand *Discussion Document: Stress-testing methodology for New Zealand incorporated banks* May 2016, available <http://www.rbnz.govt.nz/-/media/ReserveBank/Files/Financial%20stability/stress-testing-discussion-document.pdf?la=en>
28. Mr Lim Hng Kiang, Minister for Trade and Industry and Deputy Chairman of the Monetary Authority of Singapore "Sharpening risk management capabilities" 43rd Association of Banks in Singapore Annual Dinner, Singapore, 28 June 2016, available <http://www.bis.org/review/r160715a.pdf>
29. Keynote Speech, 9th DICJ Roundtable, Kyoto, 17 February 2016 available <http://www.fsa.go.jp/common/conference/danwa/20160217/01.pdf>
30. JFSA *The FSA's Approach to Introduce the TLAC Framework* 15 April 2016, available <http://www.fsa.go.jp/en/news/2016/20160415-1.html>
31. APRA *Corporate Plan 2016-2020*, available <http://www.apra.gov.au/AboutAPRA/Publications/Pages/Corporate-plan-2016-20.html>
32. Chen, Godwin and Ramsay *Cross-Border Cooperation In Bank Resolution: A Framework For Asia* Singapore Journal of Legal Studies, March 2016, available <http://law.nus.edu.sg/sjls/articles/SJLS-Mar-16-1.pdf>

33. *Corporate Governance - A Collaborative Effort* 7th Corporate Governance Week, 26 September 2016, available <http://www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2016/Opening-Address-at-the-7th-Corporate-Governance-Week.aspx>
34. *FSB Measures to reduce misconduct risk Second Progress Report* 1 September 2016, available at <http://www.fsb.org/wp-content/uploads/Measures-to-reduce-misconduct-risk-Second-Progress-Report.pdf>
35. *Singapore's financial centre - resilience, dynamism, trust* Foreign Correspondents Association of Singapore, Singapore, 6 September 2016, available <http://www.bis.org/review/r160907d.htm>
36. *BCBS Guidelines Corporate governance principles for banks*, July 2015 available at <http://www.bis.org/bcb/publ/d328.pdf>
37. Wayne Byres, Chairman APRA *Matching expectations with reality* Global Association of Risk Professionals Global Risk Forum, Hong Kong, 11 November 2015 available <http://www.apra.gov.au/Speeches/Pages/Matching-expectations-with-reality.aspx>
38. *Future banking: reimagining banks - driving transformation and innovation* 20th Malaysian Banking Summit, Kuala Lumpur, 26 May 2016, available <http://www.bis.org/review/r160527b.htm> Hong Kong SFC *Annual Report 2015 -16*, available http://www.sfc.hk/web/EN/files/ER/Annual%20Report/SFC_AR2015-16_Eng.pdf
39. Hong Kong SFC *Annual Report 2015 -16*, available http://www.sfc.hk/web/EN/files/ER/Annual%20Report/SFC_AR2015-16_Eng.pdf
40. Shri S. S. Mundra, RBI Deputy Governor *Banking Sector Reforms: A Journey, Not a Destination* India Banking Reforms Conclave 2016, 24 August 2016, available https://rbi.org.in/Scripts/BS_SpeechesView.aspx?id=1019
41. CBRC *The CBRC Held the Symposium on Development of the Long-term Mechanism of Compliance Management in the Banking Sector* 26 July 2016, available <http://www.cbrc.gov.cn/EngdocView.do?docID=16A26C24E608412FA7CA342240FD3AA9>
42. ASIC *ASIC's Corporate Plan 2016-2017 to 2019-2020* 31 August 2016, available <http://asic.gov.au/about-asic/what-we-do/our-role/asics-corporate-plan-2016-2017-to-2019-2020/>
43. APRA *Information Paper: Risk Culture* October 2016, available <http://www.apra.gov.au/CrossIndustry/Documents/161018-Information-Paper-Risk-Culture.pdf>
44. INFINZ Industry Awards, Auckland, 19 May 2016, available <https://fma.govt.nz/news/speeches-and-presentations/presentation-by-rob-everett-at-infinz-industry-awards/>
45. *From static regulation to dynamic supervision* 31st Annual General Meeting of the International Swap and Derivatives Association Tokyo, 13 April 2016, available <http://www.fsa.go.jp/common/conference/danwa/20160413/01.pdf>
46. Nobuchika Mori Commissioner JFSA *From Static Regulation to Dynamic Supervision* 31st Annual General Meeting of the International Swap and Derivatives Association, Tokyo, 13 April 2016, available <http://www.fsa.go.jp/common/conference/danwa/20160413/01.pdf>
47. JFSA *Summary Points from Progress and Assessment of the Strategic Directions and Priorities 2015-2016* September 2016, available <http://www.fsa.go.jp/en/news/2016/20161028-2/01.pdf>
48. Wayne Byres, Chairman APRA *Finding Success in Failure* Actuaries Institute Banking Conference, Sydney, 30 August 2016, available <http://www.apra.gov.au/Speeches/Documents/06%20Finding%20Success%20in%20Failure%20-%20Actuaries%20Institute%20Banking%20Conference%20-%2030%20August%202016.pdf>
49. *Information Technology & Cyber Risk in Banking Sector - The Emerging Fault Lines* International Seminar on Cyber Risk and Mitigation for Banks, Mumbai, 7 September 2016, available https://rbi.org.in/Scripts/BS_SpeechesView.aspx?id=1022
50. FSB *Second Phase of the G20 Data Gaps Initiative (DGI-2): First Progress Report* 2 September 2016, available <http://www.fsb.org/2016/09/second-phase-of-the-g20-data-gaps-initiative-dgi-2-first-progress-report/>
51. "Interesting, Profitable, and Challenging: Banking in India Today" FICCI-IBA Annual Banking Conference, Mumbai 16 August 2016, available https://rbi.org.in/scripts/BS_SpeechesView.aspx?id=1015
52. There have long been concerns about risks associated with shadow banking not being subject to prudential regulation, however recent technologies have accelerated these concerns as new players, products and services are emerging rapidly and frequently
53. Masamichi Kono JFSA *How can regulators do better the next time?* CFTC International Regulators' Meeting Boca Raton, March 15, 2016 available <http://www.fsa.go.jp/common/conference/danwa/20160315/01.pdf>
54. Speech by Mr Ravi Menon, Managing Director, Monetary Authority of Singapore *Singapore's FinTech Journey - Where We Are, What Is Next* Singapore FinTech Festival, 16 November 2016, available <http://www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2016/Singapore-FinTech-Journey.aspx>
55. *What does it take to build a "Hong Kong Brand" for financial services?* Treasury Markets Summit 2016, 6 September 2016, available <http://www.hkma.gov.hk/eng/key-information/speech-speakers/ntlchan/20160906-1.shtml>
56. UK Financial Conduct Authority *Project Innovate: RegTech*, available <https://www.fca.org.uk/firms/project-innovate-innovation-hub/regtech>
57. Speech by Mr Ravi Menon, Managing Director, Monetary Authority of Singapore *Singapore's FinTech Journey - Where We Are, What Is Next* Singapore FinTech Festival, 16 November 2016, available <http://www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2016/Singapore-FinTech-Journey.aspx>
58. James Eyers *Welcome to the new world of 'regtech'* Australian Financial Review, 20 June 2016, available <http://www.afr.com/technology/welcome-to-the-new-world-of-regtech-20160619-gpmj6k>
59. ASIC *Annual Forum 2017 Program Highlights* available <http://download.asic.gov.au/media/4047188/aaf17-program-highlights-as-at-19-oct-2016-1.pdf>
60. DW Arner, JN Barberis, and RP Buckley *FinTech, RegTech and the Reconceptualization of Financial Regulation* Northwestern Journal of International Law & Business, Forthcoming, 1 October 2016 available <https://ssrn.com/abstract=2847806>
61. Hedge Fund Standards Board Institutional Investor Roundtable, 22 June 2016, available http://www.sfc.hk/web/EN/files/ER/PDF/Speeches/Ashley_20160622.pdf
62. Speech by Mr Ravi Menon, Managing Director, Monetary Authority of Singapore *Singapore's FinTech Journey - Where We Are, What Is Next* Singapore FinTech Festival, 16 November 2016, available <http://www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2016/Singapore-FinTech-Journey.aspx>
63. HKMA *Letter from the Chief Executive to all Authorized Institutions: Cybersecurity Fortification Initiative* 24 May 2016, available <http://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2016/20160524e1.pdf>

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