



Centre for Regulatory  
Strategy, Asia Pacific

2022 Asia Pacific Financial  
Services Regulatory Outlook

**Supporting a Resilient, Sustainable, and  
Inclusive Recovery for Asia Pacific**



Global Foreword	3
Asia Pacific Foreword	9
Market Resilience	11
Firm-level Resilience	21
Digital Innovation	30
Conduct and Culture	39
Sustainability	45
Future of FSI Regulation	55

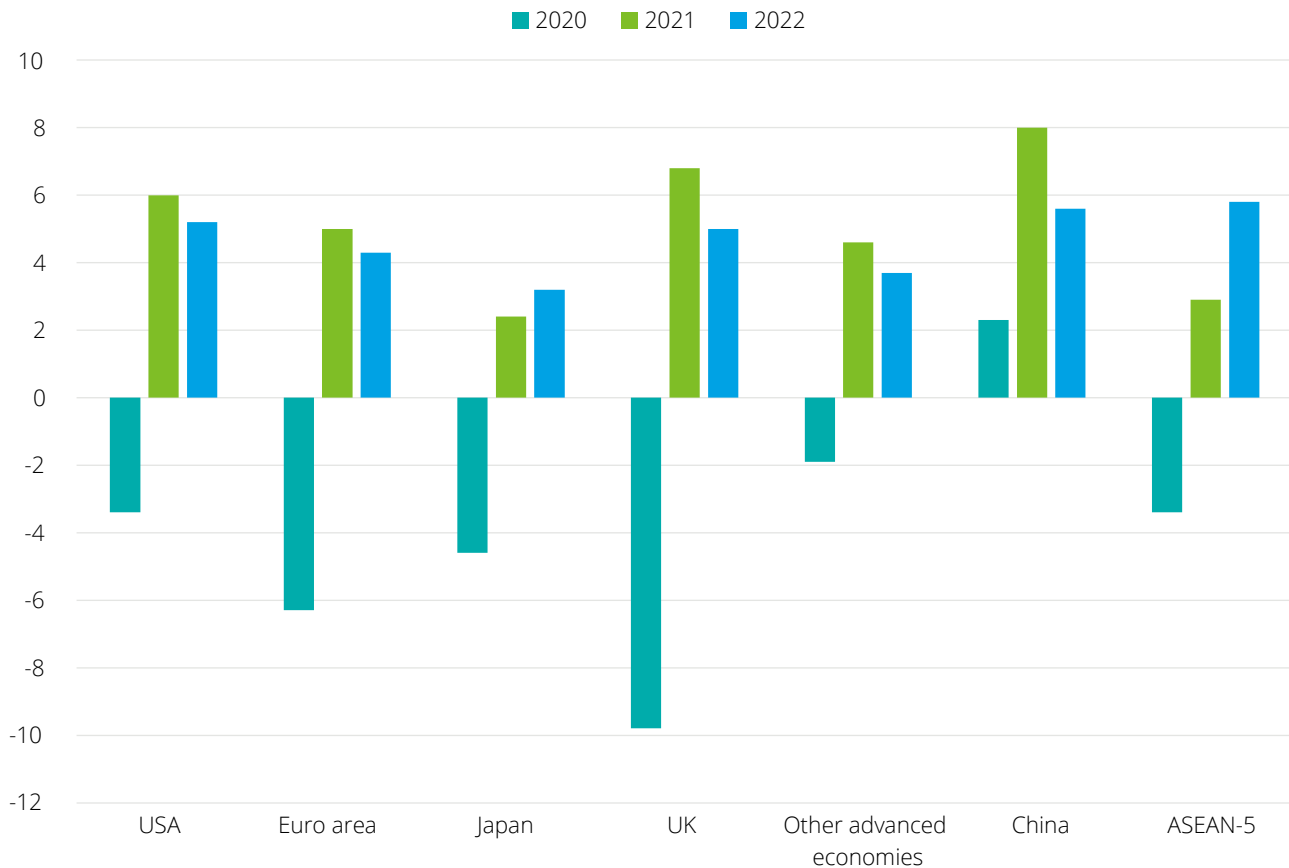
# Global Foreword

## The macro picture

As we head into 2022, the defining features of the global macroeconomic environment are marked regional differences in economic performance combined with significant fragility in the outlook. Following a global contraction in 2020, much of the global economy returned to growth in 2021 and is forecast

to continue to grow (albeit somewhat slower) in 2022 (Chart 1). However, global aggregate figures mask significant variation between countries, and the global economy faces what the International Monetary Fund (IMF) has called a “dangerous divergence in economic prospects”<sup>1</sup> between countries.

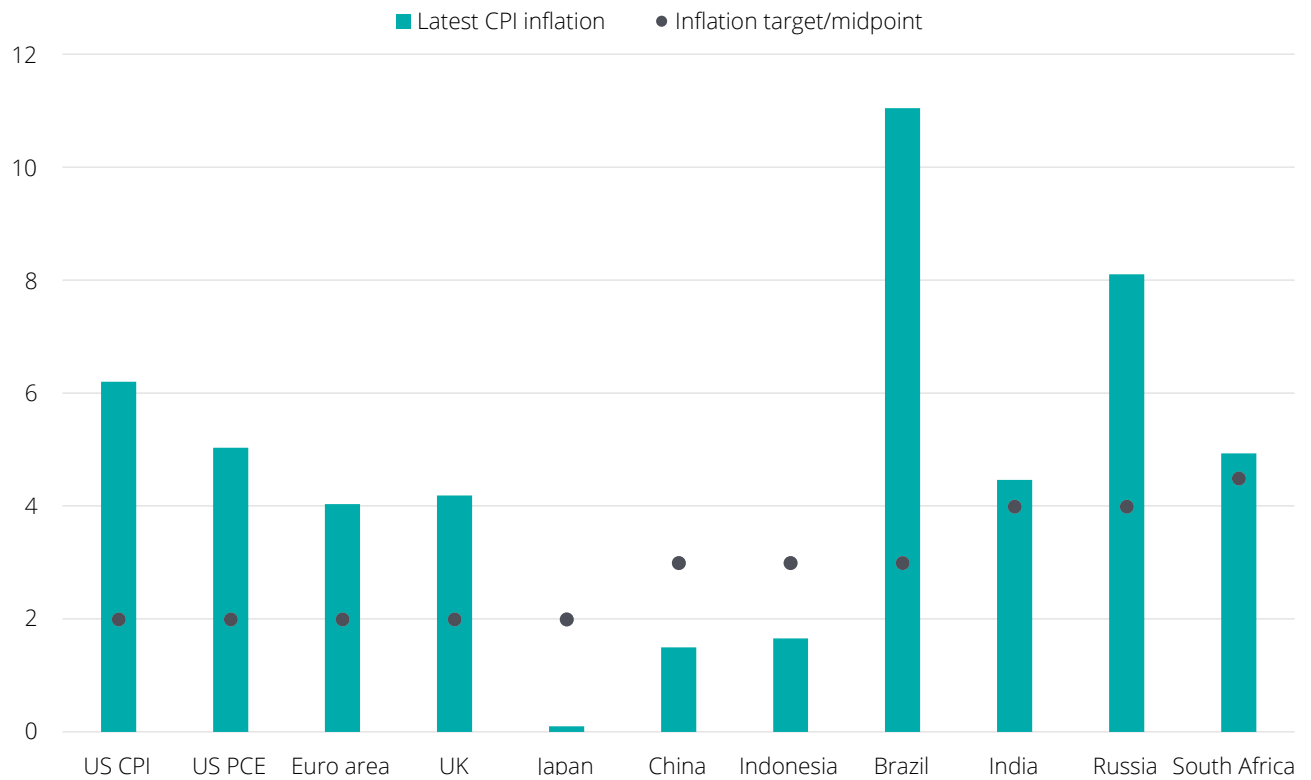
**Chart 1: Percentage change in world output (estimated)**



Source: IMF, World Economic Outlook October 2021.<sup>2</sup>

Inflationary pressures have in some parts of the world proved more persistent than central banks had previously anticipated (for instance running at 6.8%<sup>3</sup> in the United States (US), and 5.4% in Germany<sup>4</sup>—its highest level for 29 years) (Chart 2). Central banks still generally envisage inflation returning to lower levels in 2022, though potentially

remaining above targets, and it is increasingly clear that monetary policy will tighten earlier than previously anticipated through a combination of cuts in asset purchases and rises in interest rates. Meanwhile, some fiscal tightening has already begun, but looks set to proceed at different speeds between countries.

**Chart 2: Global inflation rates vs. targets, percentage change year-on-year**

Source: Refinitiv Datastream<sup>5</sup>

In general, there remains a high degree of uncertainty in current economic projections, and even the tentatively positive economic outlooks are predicated on assumptions that lockdowns and supply chain disruptions continue to ease. The very nature of these supply chain shocks indicates the fragility of the economic recovery—the highly intertwined global economy means that the emergence of problems anywhere could potentially threaten recovery everywhere.

### The challenges confronting financial regulators

Looking beyond the general social and economic upheaval of the last two years, the financial services industry (FSI) and its regulators face major challenges. First, financial services (FS) firms must play their part in global efforts to address climate change, to halt biodiversity loss, and to respond to other social and environmental challenges.

Second, it is increasingly clear that the current sector focused framework governing and regulating FS will struggle to address the shifting risk landscape as a result of a wave of technological innovation. In what follows, we identify particular challenges around technological and operational

resilience, the proliferation of novel forms of digital assets, and the increasingly blurred boundary between FS, technology firms and other unregulated players.

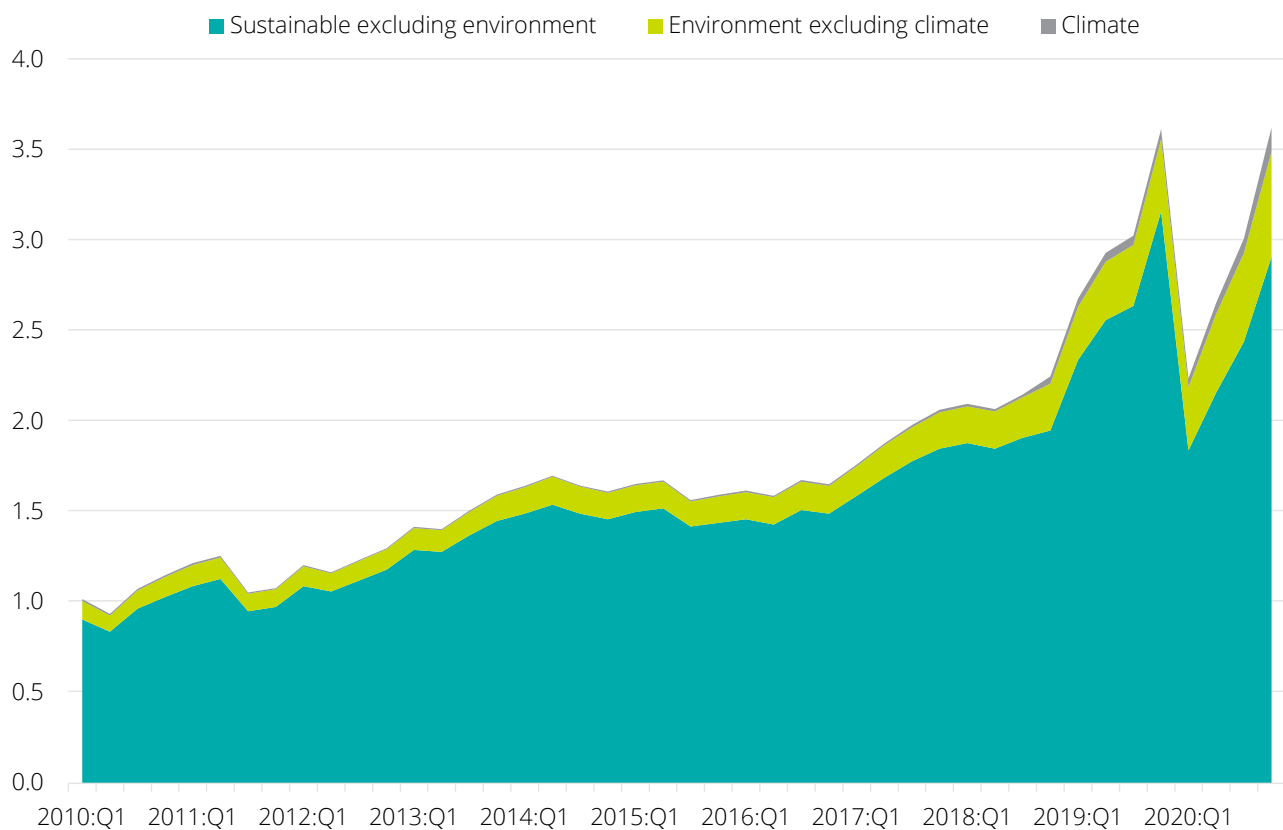
Regulators are aware of these issues in all regions and are working together to address aspects of them through various fora, although national approaches and priorities vary and some countries may also have to contend with misalignments between the views of legislators and regulators on the way forward for certain issues. Given that these issues are shared across regions, we observe some broad commonalities in the solutions being adopted and the outcomes they are seeking. But these global issues have thus far generally not led to the creation of correspondingly global, coordinated, or cross-sectoral standards. This may well reflect the rapidly changing, complex, and highly technical nature of the challenges facing the sector and its regulators. As we begin 2022, this means that FS firms will continue to have to deal with an evolving and still fragmented regulatory framework, within which authorities in different parts of the world explore different approaches. We take each issue in turn, beginning with climate, followed by three trends in technological innovation.

**Climate change and sustainability**

Climate risk is a (and some would assert the) top priority for the global standard setters, with the Financial Stability Board (FSB), Basel Committee on Banking Supervision (BCBS), International Organization of Securities Commissions (IOSCO), International Association of Insurance Supervisors (IAIS) and Financial Action Task Force (FATF) all highly engaged, and new bodies having been incorporated in the form of the Network for Greening the Financial System (NGFS), and more recently, the International Sustainability Standards Board (ISSB). A huge amount of regulatory work is also in train across all regions. Regulators are broadly in agreement that climate risks have the potential to generate financial stability risks, that the industry needs to disclose and manage its exposures to these risks, and that the regulatory regime should be used to facilitate the emergence of green finance and eliminate forms of ‘greenwashing’.

The consensus that has been forged on these principles is translating into a wide range of initiatives affecting banks, insurers, and investment managers. Financial risk management tools such as scenario and stress testing are being adopted in many parts of the world, particularly for banks, but in some instances are also extending to the insurance sector. There is ongoing work to construct regulatory taxonomies for sustainability which have significant implications for investment management, particularly given the substantial increase in sustainability-linked assets under management in recent years (Chart 3). And there are various initiatives designed to improve disclosure across all sectors—voluntary in some jurisdictions, but increasingly mandatory in others.

**Chart 3: Total sustainability-linked assets under management by fund label (USD trillion)**



Source: IMF Global Financial Stability Report, October 2021.<sup>6</sup>

While many of these are heading in the same direction and are designed to deliver similar outcomes, we expect divergence in the details of national requirements in the short to medium term, despite the considerable interest from global standard setters noted above. Incorporation of the ISSB indicates a renewed commitment to global coordination on sustainability disclosure standards, but it will not deliver a new International Financial Reporting Standard (IFRS) on sustainability overnight. In the meantime, disclosure frameworks aligned with the Task Force on Climate-Related Financial Disclosures (TCFD) are in the process of being made mandatory in some jurisdictions, while others continue to work on their own proposals. Elsewhere, we see fewer prospects of alignment on climate stress testing procedures, the development of which remains at very different stages from country to country, or on the finer details of sustainability taxonomies.

As a consequence, the industry faces a classic ‘future proofing’ challenge. It will need to put in place solutions that satisfy its stakeholders in the near term—for instance in relation to measuring climate risks or screening investment portfolios—in the knowledge that the rules will change over the next few years. In general, firms will need to accept that similar ‘green’ products may require different sets of disclosures and other documentation in different parts of the world and prepare accordingly. Furthermore, while climate change is an archetypally global issue, global firms will need to remain attuned to variations in local interpretations of the umbrella term ‘sustainability,’ putting a premium on intra-group dialogue and flexible frameworks for sustainability plans more broadly.

### Coming to terms with technological upheaval

The second set of major challenges stems from the increasing complexity of the FS ecosystem as regulated firms digitise, unregulated technology firms enter the market, and new products such as crypto-assets, Decentralised Finance (DeFi) and non-fungible tokens are developed. Delivery increasingly straddles regulated FS firms and unregulated technology and Financial Technology (fintech) firms, blurring boundaries across the industry, making it clear that the existing financial regulatory framework is in need of realignment. We see several sets of shared concerns across regions, but also varying solutions.

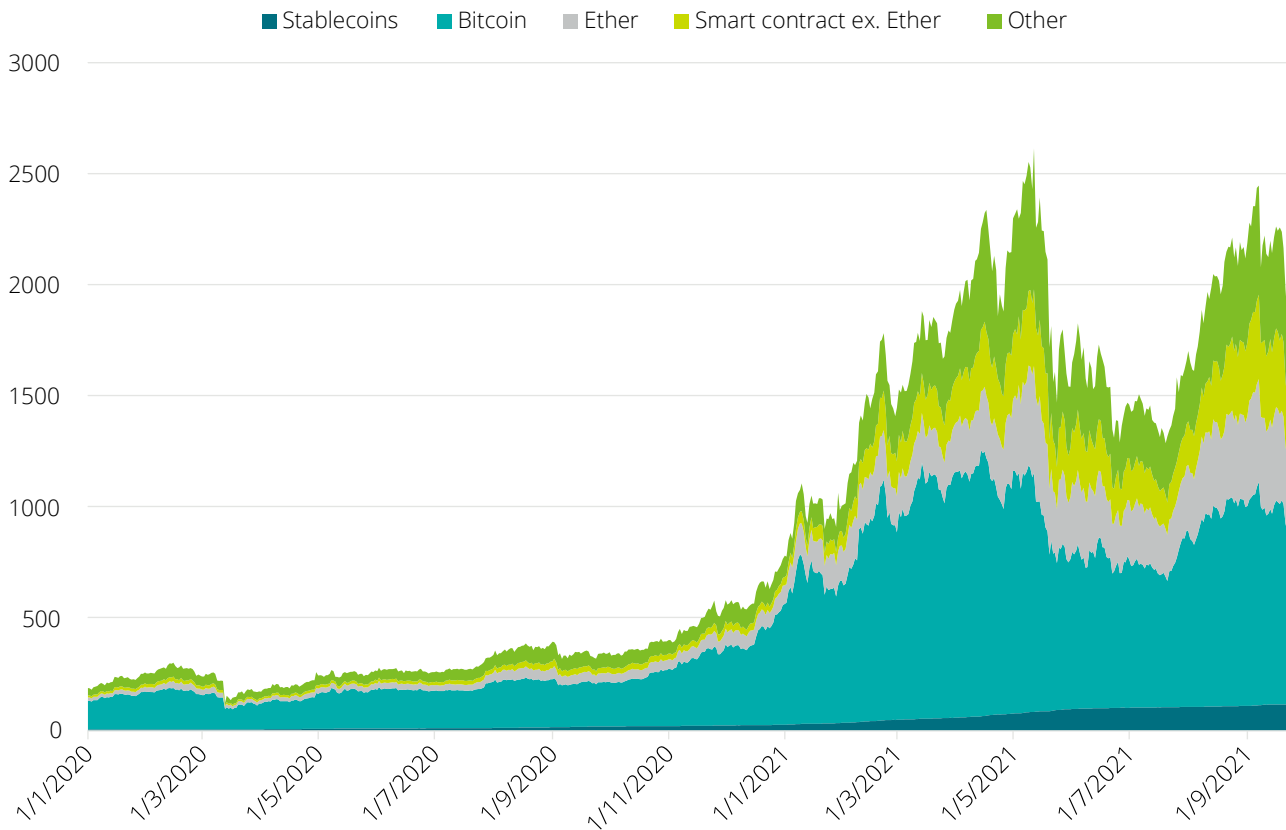
There is a strong supervisory focus across all regions on **operational and technological resilience**. The increased complexity of service delivery, client focus, and the intertwining of FS with third party (or even fourth- or fifth-party) technological service providers combine to introduce new points of vulnerability in the system and increase the challenges of overseeing and managing risk. It has become increasingly difficult to understand where risks lie in this highly interconnected system, not only for regulatory

authorities but for firms themselves, and the focus on technology risk and operational resilience has heightened accordingly. In the European Union (EU), this is encapsulated by the Digital Operational Resilience Act. US regulators are modernising supervisory guidance, for instance across core information security and cybersecurity. They are also bringing examinations in line with these technological innovations with a focus on fintech partnerships and digital assets, and generally heightening their scrutiny of technology risk and controls and innovation frameworks. Cybersecurity and operational resilience remain key areas of focus across the Asia Pacific (AP), although differences in approach are evident across the region.

The direction of travel, if not the details of national approaches, is clear: third party services will be subject to more scrutiny, implying a need for rigorous assurance work on the resilience of service providers while the extension of regulations and guidance could affect their role as providers of services to FS firms. The variations in national approaches create challenges for global firms, as individual national regulators may be interested in different aspects of global relationships that exist between firms and their suppliers.

Elsewhere, novel forms of digital assets—**primarily cryptocurrencies and ‘stablecoin’ variants**—remain outside the regulatory perimeter in much of the world, and regulators are considering ways to bring them in, or in some cases seemingly to regulate them out of existence. Coordination work on stablecoins is taking place at the global level through the FSB, the Committee on Payments and Market Infrastructures (CPMI) and IOSCO, but as yet, has not led to consistent national or regional actions. Some countries and regions—notably the EU and the United Kingdom (UK)—intend to forge ahead with the regulation of stablecoins,<sup>a</sup> while a great deal of uncertainty about the way forward persists in numerous other countries, including Australia and the US. Meanwhile, standard setters have had less to say on other crypto-assets, and national approaches look set to diverge considerably. These differences create challenges for firms looking to understand how best to service the increasing investor demand for crypto-assets and services, indicated by the significant rise in the overall value of the market during 2021 (Chart 4), and the regulatory authorisations needed to provide them. One unintended consequence of these regulatory differences is that regulated firms are taking conservative approaches to developing crypto offerings while unregulated players move to jurisdictions with the fewest restrictions. It has also become more difficult to protect and regulate consumer activity in an environment where retail investors can use virtual private network (VPNs) to exploit national differences in rules, trading unregulated products overseas on platforms that may otherwise be banned in their home countries, sometimes on the advice of unregulated social media ‘influencers’.

**Chart 4: Market value of crypto-assets (USD billion)**



<sup>a</sup> EU regulation of stablecoins will be delivered through the Markets in Crypto-assets Directive (MiCA). UK regulation of stablecoins is in development through HM Treasury and the Bank of England

Source: IMF Global Financial Stability Report, October 2021.<sup>7</sup>

With respect to **the position of ‘Big Tech’ firms**, the waters are muddied by the fact that they sometimes act as competitors to FS firms, sometimes as strategic partners, and increasingly as critical third party service providers.<sup>8</sup> Regulatory debates continue as to whether and how to regulate these firms and the services they provide, focused particularly on the balance between activity-based and entity-based regulation which looks set to vary between regions. Activities-based regimes that may have been deemed suitable for Big Tech firms in their roles as providers of services to FS firms are increasingly seen as insufficient for Big Tech as providers of FS direct to consumers. This has prompted bodies such as the Bank for International Settlements (BIS) to suggest the need for more entity-based rules.<sup>9</sup> Activities-based approaches have predominated to date, with regulators extending regulatory frameworks and supervisory work to scrutinise activities such as cloud

services provision (e.g. under the EU’s Digital Markets Act) and the processing of consumer payments data (e.g. via the work of the US Consumer Financial Protection Bureau). However, the Chinese approach of requiring tech firms to ‘ring-fence’ their FS activities under an in-house financial holding company could inspire similar approaches elsewhere. In general, we expect a widening of the regulator perimeter to capture critical third party services that technology firms provide to FS, and to capture the financial services those technology firms provide directly to customers, with a particular focus on the payments industry.

This cocktail of technology-related change creates significant challenges for FS policymakers and firms alike. Many regulators recognise the need to walk the fine line of enabling innovation while protecting consumers and safeguarding financial stability.



Moreover, the blurred boundaries of service delivery are bringing together the domains of FS and other regulators, principally data and competition authorities—most evident in debates around the collection, use and mobility of consumer data. In general, we see a case for policymakers to adapt their current regulatory and supervisory frameworks—including both the contents of regulation and the institutional architecture within which it is applied—to these new circumstances. However, this will inevitably take time.

**Conclusion**

These issues are shared global challenges: neither climate risk, nor technological risk respect national or regional boundaries, any more than Coronavirus Disease (COVID-19) has done over the past two years. It is clear that regulators in all regions recognise these problems and are working to address (aspects of) them, but in most areas we see little prospect of common solutions emerging in the short to medium term.

For firms operating across borders, the result is a complex picture of different rules and shifting targets. On current trajectories, it will be increasingly difficult for firms to maintain common systems or common controls in relation to climate and technology risks across different regions. We point out these differences in approaches not as a criticism, but simply as the reality of what is facing an industry and its regulators as they grapple with major and complex upheavals for which there are not yet widely agreed-upon solutions.

These challenges highlight the need—now more important than ever—of linking general strategy with regulatory strategy. The nature of the current environment implies a need for cross-border firms to double down on the tracking of regulatory change and industry trends, for instance through risk sensing; it may be particularly advisable for firms to keep their fingers on the pulse on what is happening in countries that might be considered ‘leaders’ on certain topics (for instance the UK and EU on sustainability, or Singapore on cryptocurrencies). But given that resolutions to these challenges will not be swift to emerge, industry needs to be prepared to navigate the evolving environment. Multinational firms will likely have to live with fragmentation and should be prepared to adapt programs to local approaches. With many of these issues being highly complex, there is also a clear need for ongoing and constructive engagement between industry and the regulatory community: with both sides needing to adapt to a rapidly changing external environment, there is scope for sharing of leading practices and lessons learned.

These significant shifts provide the context for our regional Regulatory Outlooks for the year ahead. In this document, we explore the major themes and details of regulatory strategy for Asia Pacific, but readers with an interest in understanding the landscape in Americas or EMEA can find them in the corresponding Regulatory Outlooks from our teams in those regions.



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# Asia Pacific Foreword

This edition of the *Regulatory Outlook* is set in the context of considerable change and uncertainty, creating further pressures on regulatory fragmentation at a time when issues of global significance—namely economic inequality, climate change and the exponential growth in digital and technological capabilities—require more co-ordination and collaboration than ever. These pressures create significant challenges for regulators, the regulated community, and, ever increasingly, the broader non-regulated ecosystems around the FS industry (FSI). The 2008 global financial crisis (GFC) may be more than a decade behind us, but rising regulatory complexity and expectations remain the case in the present, as we deal with more frequent and complex threats to the financial system.

We have highlighted the challenges of rising national regulatory requirements in previous editions of the *Regulatory Outlook* 2021 saw the world enter the second year of the global COVID-19 pandemic; a scenario that was part of stress tests became a reality of geopolitical tensions, national actions (not only varying, but at times conflicting), trade disruption and border closures. The anticipated credit losses may not have materialised, in large part due to swift monetary and fiscal responses taken; however, what is emerging is increased inflationary pressure, asset bubbles and economic nationalism resulting in considerable longer-term threats to stability and equality. It could be said that this crisis has seen 'flight or fight' responses at a national level globally—arguably a 'new normal' for the foreseeable future.

The past year has also seen an increasing realisation of the impacts of climate change in particular, as well as broader environmental, social and governance (ESG) matters. Climate issues were brought to the fore during the November 2021 26th United Nations Climate Change Conference of the Parties (COP26), but the collective consciousness and narrative have pointed towards 'solving the climate problem' before that. While recognition of the need to change is an important step, the need for law and regulation to be enacted at a national level is a major impediment to rapid change. The financial system bears a significant burden of societal expectations, resulting in a variety of approaches from Boards, senior management and shareholder groups. This position is further challenged by the as yet developing taxonomies, accounting and assurance standards. While much work is happening to resolve this, we will continue to see disparate outcomes and unintended consequences for some time. Clearly, climate is a key and complex priority that demands an immediate and collective response.

There remains no global consensus on how technology and digitalisation will impact FS firms, with effects (both positive and negative) ranging from material disruption through the democratisation of technology and digitalisation, through greater efficiency and effectiveness of delivery channels, to the introduction and creation of new sources of risk. This picture is further complicated by varying national perspectives and philosophies on key related questions, such as the role of public versus private provision of services and where ownership and custody of data should reside.

It is becoming more evident that national regulators will be increasingly challenged on their traditional thematic approaches to entity-based regulation. The evolution of the FS ecosystem and the attendant risks arising mean that we will see attempts to more broadly apply regulation across ecosystems and critical service providers, both at the national as well as organisational level—the continued focus on third- and fourth-party service providers across a number of AP (and global) regulators is one such example.

The post GFC packages of regulation—Basel III and capital standards more broadly—are mostly implemented. However, both FS firms and regulators will enter a period of increasing complexity caused by the combined effects of local implementation of existing law and regulation, and inconsistent timelines and processes for creating new law and regulation to deal with current and emerging issues.

Combining the above, we believe there are a number of key implications for FSI participants operating in AP (and indeed globally):

- The costs of regulation will likely increase in 2022 and beyond. This will create material challenges for inbound firms operating in AP, especially those operating in multiple jurisdictions. Due to fragmented regulation and varying attitudes to regulation, AP FS firms are likely to experience significantly higher costs when implementing and embedding regulatory change, compared to firms operating in the EU and Americas, where there is generally a more uniform approach to regulation.
- There will be increasing requirements across the region to localise systems and data, and greater enforcement around existing data privacy and information security laws. Such requirements will continue to add cost and organisational complexity.
- The localisation of regulation will create challenges for FS firms' decision-making nexuses, particularly in relation to

the interpretation of local law and regulation, necessitating more local decision making and accountability and possibly a revisit of the relationship between firms’ headquarters and regional hubs.

- The war for talent, the ‘Great Resignation’, the digital agenda, and general recalibration of expectations post COVID-19 will entail intensifying challenges in attracting and retaining talent in risk and compliance functions and within regulators, which will in turn require the acceleration of digital agendas and significant investment in employee propositions.
- Regulators across AP will continue to accelerate their own digitalisation and data and analytics transformations. The maintenance of effective cross-border collaboration through existing channels, for example regulators’ Crisis Management Groups, will be critical to avoiding adverse outcomes, such as arbitrage and organisational confusion.
- Regulators will continue to wrestle with how to ensure appropriate supervision of the financial system, as ecosystems and unregulated entities grow in influence (and therefore potential impact on financial stability). This will likely entail broader interpretation around the management of and interface with third parties and the use of established tools, for example the resolution powers of national regimes. Overall, regulators will need to reflect on what their evolving role means in terms of their capability needs, capacity, resource allocation, and how they can incentivise industry participants (formally regulated or otherwise) to act appropriately.
- Traditional time horizons of regulation will need to be rethought, given the longer-term view that is required for

contemporary issues like climate change; this will have an impact on the suite of tools that regulators have to hand, and whether these remain effective in the face of lengthening time horizons. (Capital-based regimes, for example, have traditionally been used as one tool to induce firms to take a longer-term view—are these sufficient?)

FS firms in AP have responded well to the pandemic, having seen relatively limited direct impacts during the GFC. The evolving regulatory agenda in AP will continue to be complex and challenging amidst institutions’ continued focused on growth, as well as social and economic inclusion. As we emerge from this crisis, there will still be much work to be done.

It is with this context in mind that we have set out the upcoming sections of this year’s *Regulatory Outlook* as follows:

- [Market resilience](#)
- [Firm-level resilience](#)
- [Digital innovation](#)
- [Culture and conduct](#)
- [Sustainability](#)
- [Future of FSI regulation](#)

These are and will continue to be high priority issues for both regulators and FS firms in AP alike; it will be critical for firms to think through what these issues mean for their business models, and what strategic decisions they will have to make as a result.



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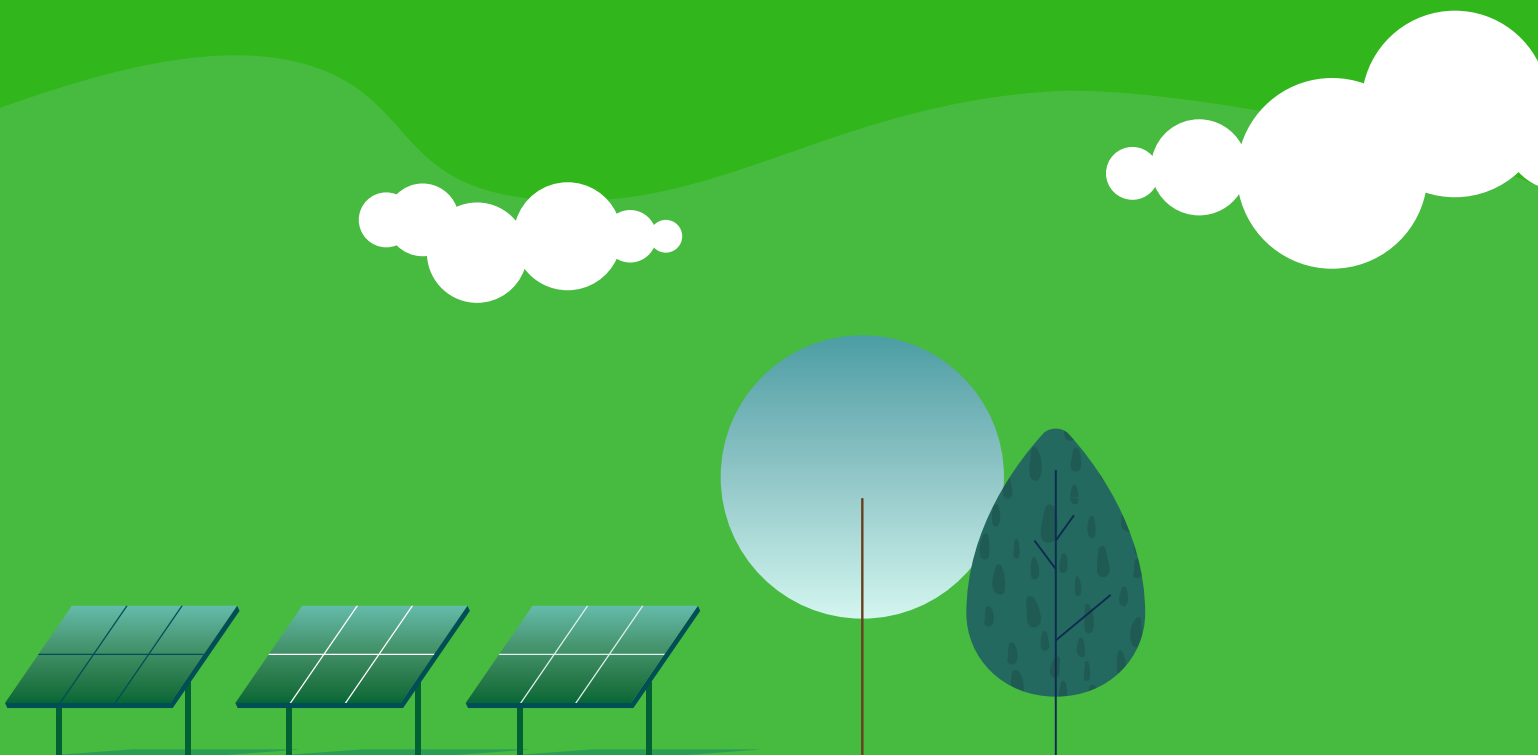
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# Market Resilience



The AP region continues to navigate its way to economic recovery, despite uncertainties around the ongoing COVID-19 pandemic and the scheduled roll-back of COVID-19 response measures. Although projected growth in some countries and jurisdictions across the region are leading the rest of the world, overall recovery in AP has been uneven as a result of new COVID-19 variants, and their impact on case numbers and hospitalisations. In 2022, financial regulators as well as central banks will aim to gradually move 'back to normal', adjusting macroeconomic policies to combat inflation while supporting economic recovery. Against this backdrop, strengthening FS firms' ability to withstand uncertainties seems crucial for maintaining financial stability. Whilst digital innovation and sustainability become increasingly important topics, continued implementation of the FSB post-crisis reforms remains a top priority of AP regulators.

As 2022 progresses, the FS sector should stay vigilant about: 1) the continued impact of inflation, 2) implications of 'policy normalisation', and 3) potential turbulence in the capital markets due to monetary policy tightening.



### Uncertainties over macroeconomic outlook in the AP region

The IMF *World Economic Outlook Update* published in October 2021 marked down the 2022 Gross Domestic Product (GDP) growth projection for emerging and developing Asia from 6.4% in July<sup>10</sup> to 6.3%<sup>11</sup>. In the January 2022 publication, it has been further marked down to 5.9%<sup>12</sup>, largely due to the resurgence of COVID-19 cases. While some jurisdictions may see economic growth as travel restrictions loosen, many areas of the region's economies still look fragile. At the time of writing, the Omicron variant is spreading rapidly around the world, casting a shadow over reopening and economic recovery.

In the 2021 *Regulatory Outlook*, we outlined the impact of low interest rates on the FS sector. One year later, interest rates

in the region remain at a low level; for example, the Hong Kong Special Administrative Region (SAR) base rate remains at the pandemic level at 0.50%;<sup>13</sup> in Australia, the cash rate target also remains at a historic low of 0.1%.<sup>14</sup> Low interest rates, large-scale fiscal stimulus, and supply chain disruptions are causing inflationary pressures globally. Inflation in the AP region has been generally pushed up by persistent food price increases, global supply chain challenges, as well as soaring energy prices. As many jurisdictions within the region are net energy commodity importers, the region has been hit worse, compared to other parts of the world. As the general perception of inflation starts to shift from a transitory issue to a structural problem, it is likely that the current episode of inflation will have a larger impact on economic recovery than previously expected.

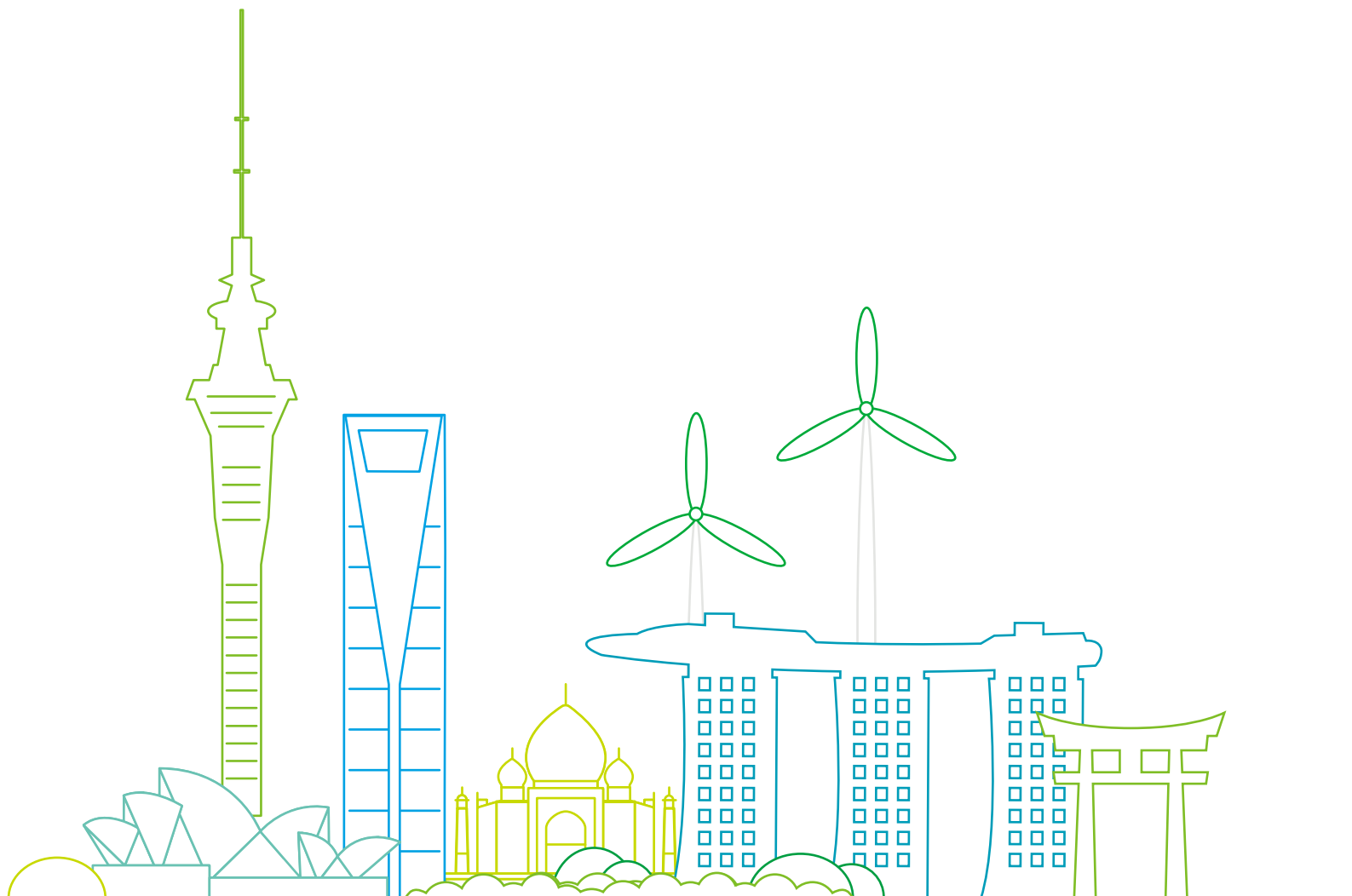
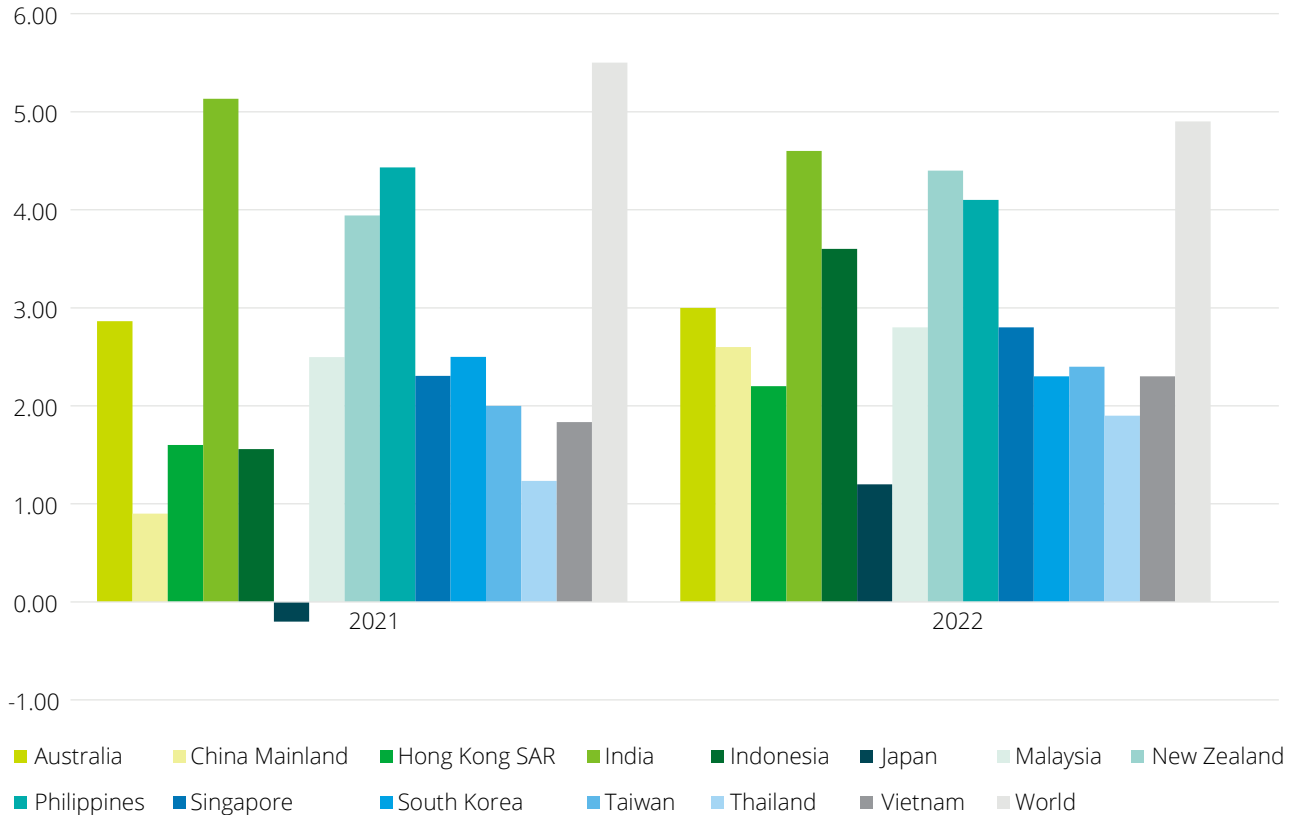


Chart 5: Annual real GDP (%) projections



Source: Economist Intelligence Unit Data (as of 21 February 2022)<sup>15</sup>, IMF World Economic Outlook (January 2022)<sup>16</sup>

**Chart 6: 2022 Consumer Price Index (%) projections for selected AP jurisdictions**



Source: Economist Intelligence Unit Data (as of 21 February 2022)<sup>17</sup>

Inflationary pressures have urged central banks in some jurisdictions that had previously cut interest rates to respond to the COVID-19 crisis to consider rate hikes. However, interest rate hikes could negatively impact on capital markets and borrowers' ability to service their loans. In the October 2021 *Global Financial Stability Report*, the IMF alerted that sudden and rapid increases in interest rates could harm the FS sector, especially life insurers.<sup>18</sup> While it is expected that most jurisdictions in the region will keep interest rates low until mid-2022, the US Fed started tapering at the end of 2021 and signalled rate hikes in 2022, earlier

than previously indicated. A rate hike from the US might pressure AP jurisdictions to follow suit in order to stabilise capital outflows. On the fiscal policy front, the Association of Southeast Asian Nations (ASEAN) plus Japan, China, and the Republic of Korea Macroeconomic Research Office warned against significant asset quality deterioration in the region as some governments roll back fiscal stimulus programmes, raising credit risk concerns. For jurisdictions that continue to provide fiscal support, debt sustainability becomes another risk to recovery.





## Mixed picture of macroeconomic policies (As of December 2021)

Countries that had better control of the pandemic throughout 2020-21 have started tightening earlier than projected. For example, New Zealand started in Q1 2021 by removing temporary liquidity facilities, Australia dropped its ultra-low target for 2024 government bond yields, and Singapore also started to tighten monetary policy in October 2021.

Among other ASEAN countries, the Philippines and Thailand will continue to provide fiscal support, while Indonesia and Vietnam are expected to shift to neutral. According to the ASEAN Macroeconomic Research Office, most countries have moderate monetary and fiscal policy space, but policy space will narrow as governments put more resource into containing the virus and supporting the economy. While most countries still have room for fiscal policy interventions, it is likely that most will not repeat the full extent of extraordinary fiscal injections given in 2020, leaving the fiscal impulse net negative.<sup>19</sup> On the monetary policy front, if inflationary pressures become more entrenched and rate hikes from advanced economies lead to destabilising capital outflows, some regional economies may have little choice but to follow suit.

It is expected that the Bank of Japan (BOJ) will retain its current policy rate through 2022. The BOJ target inflation rate is 2%, and the current rate is only 10 basis points higher.<sup>20</sup> It is unlikely that BOJ will start tightening macroeconomic policies sooner. Indeed, the government has been promoting further fiscal support plans as part of their campaign platforms for the upper house elections later this year.

After cutting its one-year Loan Prime Rate by 5 basis points in December 2021 and lowering interest rate on one-year medium-term lending facility by 10 basis points in January 2022, the People's Bank of China (PBOC) is moving towards more accommodative monetary policy in 2022.<sup>21</sup> During the 2022 Work Plan Meeting that took place in December 2021, it was announced that in 2022, "a prudent monetary policy should be implemented with appropriate flexibility", with the goal to "reduce financing cost for firms at a steady and prudent pace".<sup>22</sup>

On top of inflation, one risk factor FS firms should look out for in 2022 is the temporary nature of consumption booms as travel restrictions are relaxed. As a result of stimulus packages from governments in the past year and a half, many jurisdictions experienced an increase in aggregate savings in 2021. As international borders continue to reopen in 2022, individuals will be eager to step out of quarantine mode after two years, leading to an increase in demand for products and services, such as tourism, boosting economic recovery. While an increase in consumption is a positive indicator for growth and employment, supply chain and labour market challenges, if not managed carefully, could further fuel inflation. A sudden increase in consumption demand could also lead to a bubble if the nature of this trend is temporary, and is misinterpreted by manufacturers and service providers.

Another risk factor comes from the housing market. Due to factors such as low interest rates and stimulus programmes, many jurisdictions have seen significant housing price increases since the beginning of the pandemic. Housing prices in the US and Europe have spiked to record highs. In the AP region, many countries are also seeing heated housing markets including Singapore, New Zealand and Australia. The Singapore regulator is taking measures such as tightening loan-to-value and debt servicing limits to manage rising risks in housing mortgage exposures. In Australia, the Reserve Bank of Australia (RBA) and the federal government are also actively seeking ways to keep housing prices and related risks under control. In October 2021, the Australian Prudential Regulation Authority (APRA) increased banks' loan serviceability expectations,<sup>23</sup> shortly before it released an information paper for public consultation that sets out limits and lending standards to manage risks in residential mortgage lending and commercial property lending.<sup>24</sup> Regulators in other parts of the AP region are also monitoring developments in the housing market, including housing related lending, to manage the increased level of credit risk arising from this sector.

Looking at 2022, the FS sector will need to closely monitor these macroeconomic developments as regulators and central banks address the aftereffects of COVID-19 to bolster economic recovery against vulnerabilities and macroeconomic risk factors. At the same time, regulators are switching 'back to normal' with a full agenda to strengthen the resilience of the sector as a whole and promote innovation and sustainable development for future growth.

### **Banks in the last stage to prepare for Basel III implementation**

In 2019, the FSB indicated that it had concluded the rule-making phase of the post-crisis reforms. While in most jurisdictions, implementation has been delayed for at least

one year, it remains a top priority for domestic regulators in the AP region.

According to the FSB's *Lessons Learnt from the COVID-19 Pandemic from a Financial Stability Perspective* report, the post-crisis reforms have proven to be effective. Banks in the AP region remained well capitalised with sufficient liquidity.<sup>25</sup> During the pandemic, many of the implementation timelines shifted to 2023 and beyond to focus on pandemic responses. In 2022, banks will need to resume their implementation plans while regulators will continue with their evidence-based evaluation of the effectiveness of the Basel III standards, including 'lessons learned' from the COVID-19 pandemic as well as empirical experience over the past decade.<sup>26</sup> Results from these studies should also be monitored by FS firms.

In addition to implementing Basel III, banks will also need to monitor credit risks arising from the roll-back of pandemic-relief policies, such as discontinuation of loan moratoria. In particular, certain sectors such as construction, transport and tourism may be more vulnerable to further disruptions from COVID-19 related issues, such as the potential for new variants and resulting supply chain dislocations.

Furthermore, climate-related financial risks and potential Pillar One approaches to address them lies on the horizon as the discussion on climate change intensifies. This is discussed in the Sustainability section of the *Regulatory Outlook*.

### **Insurers to get ready for new capital regimes and address climate risks**

The 2020 IAIS *Global Insurance Market Report* indicates that, while insurers remained financially resilient, the pandemic impacted insurers' solvency and profitability, in particular from investments.<sup>27</sup> As 2022 opens, the insurance sector will play an important role in providing protection to more customers. Growth of 3.9% is projected for the global insurance sector in 2022, as a result of economic recovery as well as greater customer risk awareness triggered by the COVID-19 pandemic.<sup>28</sup> In a 2021 survey conducted by the industry in the AP insurance market, 30-40% of respondents indicated that they purchased additional life and health insurance during the pandemic.<sup>29</sup> Closing the protection gap for insufficiently protected groups and meeting the needs for additional coverage from current customers will be an important task for AP insurers in 2022.

On the risk front, we flagged the low interest rate environment and issues around business interruption policies as key risk factors faced by AP insurers in the 2021 *Regulatory Outlook*. As stated earlier in this section, rising inflationary pressures coupled with the uncertain economic outlook could lead to interest rate volatility.

Insurance regulators have busy agendas going into 2022. Designing and field-testing capital requirements equivalent to the Insurance Capital Standard (ICS) as well as the transition to IFRS 17 will be key priority items. Additionally, as climate change affects insurers on both the asset and liability sides of the balance sheet, regulators and standard setters are paying close attention to climate change and its impact

on the sector. The IAIS produced a special topic issue of the *Global Insurance Market Report*, underscoring the importance of continued efforts in measuring and managing climate change-related risks in the insurance sector. We will discuss this topic in more detail in the Sustainability section of this *Regulatory Outlook*.

### Key regulatory developments that will impact insurers in the AP region in the next one to three years:

Risk-based capital framework and group-wide supervision are being designed and implemented in some jurisdictions in preparation for the adoption of the ICS and the Common Framework for the Supervision of Internationally Active Insurance Group (ComFrame). The ICS Version 2.0 was adopted in 2019 and has now entered the five-year testing phase. Adoption of the ICS as a prescribed capital requirement is expected in 2024. Regulatory frameworks in some AP jurisdictions are going through updates and developments in line with the IAIS timeline. ComFrame and its integration with the Insurance Core Principles was completed and adopted in November 2019. Going into 2022 and beyond, we expect to see more alignment between national insurance regulatory frameworks with the IAIS frameworks (Table 1).

Digitalisation of the insurance business model accelerated partly as a result of the pandemic, as well as the corresponding increase in cyber risks. Discussions are taking place around topics such as data ethics, cyber risk management, data protection, and use of digital technology in inclusive insurance. Regulatory guidance is being provided on use of technology, including artificial intelligence (AI) and machine learning (ML), in some jurisdictions.

IFRS 17 will have an impact on insurers, changing the way insurers manage data, reporting and entire operational systems, which could require insurers to reconsider their KPIs.

Climate-related risk for insurers is now being assessed in many jurisdictions. Insurers are in scope for climate-related disclosure and stress test requirements in some jurisdictions. More attention is being given to natural catastrophes and their impact on the insurance sector in some jurisdictions.

The low interest rate environment will continue to have an impact on insurers in the region. How potential interest rate hikes will further impact the sector should be closely monitored.

In some jurisdictions, the risk management impacts of business interruption policies and silent cyber risk (or non-affirmative cyber risk, which are cyber risks that are neither covered explicitly in insurance policies nor excluded) is under review and assessment.<sup>30</sup>

**Table 1: Recent national adoptions of IAIS insurance supervisory framework**

Jurisdiction	Adoption and timeline
<b>Australia</b>	On 13 December 2021, APRA proposed updates to the life and general insurance capital standards (LAGIC) framework and reporting framework in response to the introduction of <i>Australian Accounting Standards Board 17 Insurance Contracts</i> . <sup>31</sup> Additionally, APRA also commenced further consultation on measures designed to strengthen the capital framework for private health insurance (PHI). <sup>32</sup> Final standards on both LAGIC and PHI are expected to be released in the second half of 2022.
<b>China Mainland</b>	On 30 December 2021, the China Banking and Insurance Regulatory Commission (CBIRC) released the second version of the China Risk Oriented Solvency System, strengthening risk-based prudential regulation for insurers. <sup>33</sup>
<b>Hong Kong SAR</b>	On 29 March 2021, legislation came into effect giving the Hong Kong Insurance Authority (HKIA) powers to regulate insurance groups and on 14 May 2021, the HKIA assumed the group supervisor role for three Internationally Active Insurance Groups. <sup>34</sup> Group-wide supervision is decided based on the HKIA classifying a Hong Kong incorporated company within the insurance group as a designated insurance holding company (DIHC). In May, the HKIA also issued the <i>Guideline on Group Supervision (GL32)</i> which sets out the principles and standards for DIHCs in respect of their supervised groups. <sup>35</sup>
<b>Japan</b>	In June 2020, the Financial Services Agency of Japan (JFSA) insurance capital study group published a report entitled <i>The Advisory Council on the Economic Value-based Solvency Framework Final Report</i> . The Report recommended a new solvency regime in Japan, constituted of three pillars; the standard formula will be broadly consistent with that in the ICS and the new regime being developed, with the JFSA aiming for its implementation in April 2025. <sup>36</sup>
<b>New Zealand</b>	In March 2021, the Reserve Bank of New Zealand conducted a review into the solvency standards to ascertain how they currently compared internationally, the role of capital in absorbing an insurers losses, the risks they pose to the balance sheet and whether the current standards remain practical. <sup>37</sup>
<b>Singapore</b>	In February 2021, the Monetary Authority Singapore (MAS) released a series of consultation papers, the <i>Proposed Revisions to Enterprise Risk Management, Investment and Public Disclosure Requirements for Insurers</i> . These papers set out MAS' proposals to align rules and regulations with the updated ICPS. <sup>38</sup>
<b>Vietnam</b>	The revised <i>Insurance Business Law</i> will be issued in 2022, and is expected to take effect on 1 January 2023. The revision will comprehensively cover a wide range of topics including scope of the law, insurance capital, fraud prevention, risk management, internal control, use of technology, etc. <sup>39</sup>

**Continued focus on non-bank financial intermediation**

In the FSB Chair's letter to G20 published in October 2021, addressing vulnerabilities in the non-bank financial intermediation (NBFi) sector was cited as a key focus area. Specific issues to be covered include money market funds (MMF), open-ended funds, the impact of margin calls, and the structure of core funding markets. In addition, cross-border payment arrangements continue to be a key agenda item. According to the FSB, a foundational step in its plan to address cross-border payment arrangements is to set specific global targets for addressing the challenges of cost, speed, transparency, and access experienced by end-users by the end of 2027.

In October 2021, the FSB published its final report on *Policy proposals to enhance money market fund resilience*.<sup>40</sup> In addition to ongoing work on MMF resilience, IOSCO indicated that in response to the FSB's priority on NBFi in its 2021-2022 work programme, it will focus on the following action items in 2022: 1) fund valuations, which is directly linked to its work on open-ended fund liquidity risk; 2) analysis on corporate debt and leveraged finance; 3) final report for the assessment committee review of IOSCO'S liquidity risk management recommendations; and 4) policy proposal on exchange-traded funds.<sup>41</sup>



## Key considerations



FS firms in the AP region should get ready for and closely monitor interest rate hikes and fiscal tightening in 2022.



Insurers should monitor mark-to-market losses when interest rates rise faster than previously indicated by central banks.



FS firms should monitor the impact of inflation on their balance sheet and take appropriate mitigation measures.



FS firms should monitor credit quality of assets as a result of the removal of fiscal support and loan moratoria as well as rate hikes.



As banking regulators roll out final versions of Basel III measures, banks should assess their readiness and be prepared for implementation before 2023.



Group-wide supervision and risk-based capital framework will set requirements on all aspects of insurance operations, including capital, enterprise risk management, Own Risk Self-Assessment (ORSA), and disclosure. Insurers that are subject to these requirements should assess readiness of their firms and start preparing for implementation.



FS firms should closely monitor the longer-term effects of COVID-19 support measure roll-backs on the stability of the NBFIs sector.



FS firms should consider enhancements to the understanding of systemic risks in the NBFIs sector to support and enhance associated monitoring activities.



Regulators should consider carefully managing the normalisation of credit risk supervisory standards, so as to avoid unintended shock to the banking sector and the broader economy. The balance between economic support and banks' financial prudence is an important issue to consider.



While macroeconomic policy tightening is necessary in controlling inflation and stabilising capital flows, the manner in which tightening is conducted will have a major impact on economic recovery and financial stability.

# Firm-Level Resilience



Regulations on operational resilience continue to diverge as regulators take fragmented approaches to ensure resilience of the FS sector. Some are taking a rules-based approach, while others remain principles-based.

Since the 2008 GFC, financial regulators and global standard setters, together with the FS sector, have been working on managing systemic risk in the sector. The pandemic has shown us a scenario where potential systemic risk factors could also come from 'black swan' events outside of the financial markets. It is a lesson on how firms should prepare for and recover from such a black swan event, be it a pandemic, a major cyber-attack or a climate change-related incident.

Through implementation of the post-crisis reforms, FS firms have built up sound financial resilience frameworks that have proven to be effective when responding to the pandemic. However, from what we have seen, the impact of the COVID-19 pandemic has been far-reaching, changing how businesses operate and how people live. Regulators globally have identified key takeaways from responding to the pandemic, as well as gaps in the existing regulatory framework. The BCBS released two important publications on this topic: the *Principles for Operational Resilience* and *Revised Principles for Sound Management of Operational Risk* in March 2021.<sup>42,43</sup> These principles cover areas including governance, business continuity planning (BCP) and testing, the mapping of interconnections and interdependencies, third party dependency management, incident management, and management of information and communication technology-related risks. IOSCO has also issued an updated set of *Principles on Outsourcing*. The updated principles acknowledged FS firms' increased reliance on outsourcing activities and addressed the impact of the COVID-19 pandemic on outsourcing and operational reliance.<sup>44</sup>

In 2021, a number of AP regulators updated regulations and guidelines in these areas, and will continue to refresh the existing frameworks to adapt to the shifting risk landscape. For example, MAS is revising its *Guidelines on Business Continuity Management* based on a previous consultation as well as lessons learned in the COVID-19 pandemic.<sup>45</sup> The Hong Kong Monetary Authority (HKMA) will also consider revising its existing guidance to help FS firms to better implement the new guidance from BCBS.<sup>46</sup>

We expect the following to be key areas of focus in operational resilience for FS firms in 2022: 1) strengthening resilience for longer-term flexible working arrangements; 2) managing increased responsibility and accountability on third party risk management; and 3) managing fragmented cyber security/data protection regulations.

### FS firms should ensure operational resilience in the new normal

At the time of writing, the majority of FS firms in the region are still operating under flexible working arrangements. After working remotely from home for the better part of two years, firms and employees have adapted to the new normal of online meetings, digital collaboration, and connecting with consumers virtually. Remote working has not only been accepted, but embraced across the AP region, including countries with more traditional business settings, such as Japan. Flexible working arrangements have not only significantly reduced employees' exposure to the virus, but have also improved work-life balance for many. Some companies, especially in the technology sector, are offering employees the option of working remotely permanently. Some are using flexible working arrangements as a perk to attract talent. However, flexible working arrangements involve certain risks that need to be managed.

For remote working, FS firms in the region are relying on different information technology (IT) infrastructure depending on function. Some firms invested in laptops and other portable devices for employees to connect to work via VPNs, others invested in virtual desktops, others allowed personal devices to be brought into the ecosystem, or combinations thereof. For critical functions under strict data protection policies, FS firms usually have alternative physical and/or server sites as set out in BCP requirements from regulators. When trigger events happen, the secondary location will be activated to run independently or designated as the primary location to secure critical functions.

Team collaboration in a remote working setting is particularly important; with the right technology infrastructure and culture, teams can stay as engaged as in a face-to-face office setting.

Going forward, as the region continues to shift towards the 'new normal' of increased flexibility and remote working arrangements, it is important that FS firms invest in IT infrastructure that both enhances team collaboration and ensures data security and operational resilience. In addition to IT infrastructure, enhancing controls and employee awareness of relevant risks are also crucial. To ensure operational resilience in the new normal, the technology risk management framework of the firm should be updated to reflect the adjustments. Relevant training should be made available to all staff to make sure the risks are well understood throughout the firm.

In this context, remote working has caught regulators' and standard setters' attention regarding resilience implications. In the IOSCO *Principles on Outsourcing*, flexible working arrangements were identified as having a key impact on operational resilience.<sup>47</sup> Some regulators in the AP region have also issued guidance to require firms to manage operational risks arising from flexible working arrangements and ensure resilience. As the BCBS mentioned in *its Principles for Operational Resilience*, reliance on virtual working is shifting the landscape of operational risk for the FS sector. As more firms across the AP region adopt permanent flexible working arrangements, we expect more regulators in the region to conduct similar studies and issue guidance and requirements to supplement the current operational resilience guidelines.





## Examples of operational resilience guidelines from the region

### **Hong Kong Securities and Futures Commission (HK SFC) report on Operational Resilience and Remote Working Arrangements (October 2021)<sup>48</sup>**

The report notes that FS firms faced multiple disruptions during the outbreak of COVID-19, and many transitioned to hybrid working arrangements. Despite the disruptions, FS firms exhibited a strong level of resilience during the pandemic. Through the report, the HK SFC has established operational resilience standards and provided suggested measures for firms to adopt, such as evaluating the risk of key third party and outsourcing arrangements and dependencies.

The report concludes that FS firms should adopt a comprehensive approach to achieve operational resilience objectives and adopt the techniques and procedures suggested in the report as appropriate to firm circumstances.

### **MAS Risk Management and Operational Resilience in a Remote Working Environment (March 2021)<sup>49</sup>**

The paper covers the possible risks of remote working to FS firms' operations and its impact on people and culture under COVID-19 and beyond. The measures set out in the paper are applicable to banks and NBFIs. As it is expected that the associated risks will emerge over time, MAS noted that firms should stay vigilant and take proactive measures to address the associated risks of remote working.

Key areas of risks highlighted in the paper include operations, information security and technology, fraud, staff misconduct, as well as legal and regulatory risks. For example, firms should consider distributing their workforce across locations to enhance business continuity management and response strategies should be in place to ensure functions can promptly recover if a potential threat materialises. MAS encouraged FS firms to benchmark themselves against the guidelines and continually review and enhance their risk management practices.

### FS firms to take more responsibilities on managing third parties and sub-contractors

As digitalisation accelerates and profitability pressures on the FS sector increase, outsourced and procured activities have also been on the rise for digital capacity building, customer experience improvement and cost-efficiency purposes. The increasingly fragmented FS value chain and FS firms' participation in wider ecosystems has caught regulators' attention for operational resilience as well as consumer protection. The BCBS *Principles for Operational Resilience* set out a principle for third party dependence: *Banks should manage their dependencies on relationships, including those of, but not limited to, third parties or intragroup entities, for the delivery of critical operations.*<sup>50</sup>

The principle states that banks should 1) perform risk assessment and due diligence before engaging with the third party and 2) develop appropriate business continuity, contingency planning and exit strategies to ensure resilience. In July 2021, the US federal agencies including the Federal Reserve, the Office of the Comptroller of the Currency (OCC) and Federal Deposit Insurance Corporation proposed a harmonised version of the current third party risk management guidelines for the banking sector. The proposed guidelines will 1) include a broad scope of third parties including fintechs; 2) focus on a continuous third party risk management life cycle; and 3) reduce the prescriptiveness of the current OCC guideline on third party risk management. In March 2021, the United Kingdom's Prudential Regulation Authority (UK PRA) also adopted a supervisory statement on outsourcing and third party risk management, articulating steps FS firms are expected to take regarding sub-contracting.<sup>51</sup> In the AP region, third party risk management is usually covered through a combination of prudential standards and guidelines on outsourcing, technology risk management, and information security. Depending on the shape of the final versions of the new US and UK proposals and how they are implemented, we expect that AP regulators will draw on the US and UK experience where applicable.

To address third party risks arising from fragmented value chains, regulators in the AP region are expecting FS firms to assume the responsibility of monitoring and managing operational risks from all third parties. There is a range of approaches to regulate activities where a FS firm transfers part of its function or service to a third party, whether within or outside of the group. While regulations on third party risk management remain principles-based in some markets, other jurisdictions are taking a more prescriptive approach. FS firms operating in the AP region will need to manage fragmented regulations in third party risk management. For firms operating in jurisdictions where regulators are taking a

more prescriptive approach, these are areas to take action on:

**01. FS firms should apply risk management practices to a broader scope of third parties and stipulate more detailed requirements on third party risk management.**

For example, the technology risk management guidelines issued by MAS in early 2021 explicitly require FS firms to complete risk assessments and due diligence before entering any third party relationship and to monitor data safety and system resilience on an ongoing basis. Compared to prior practice, which differentiated between 'outsourcing relationships' and 'third party service providers', and required close scrutiny only on outsourcing relationships, the new requirement aims at strengthening resilience within a broader group. The level of prescription in general has also increased in the new guidelines. For FS firms that are already following the OCC third party risk management guidelines, which are at the more prescriptive end of the spectrum, the MAS changes should generally be manageable. However, for FS firms that have followed more principles-based approaches, adjustments will be needed for compliance. We expect that regulators will continue to focus on third party risk management, requiring banks to eliminate weak links in the value chain to ensure information security and system resilience.

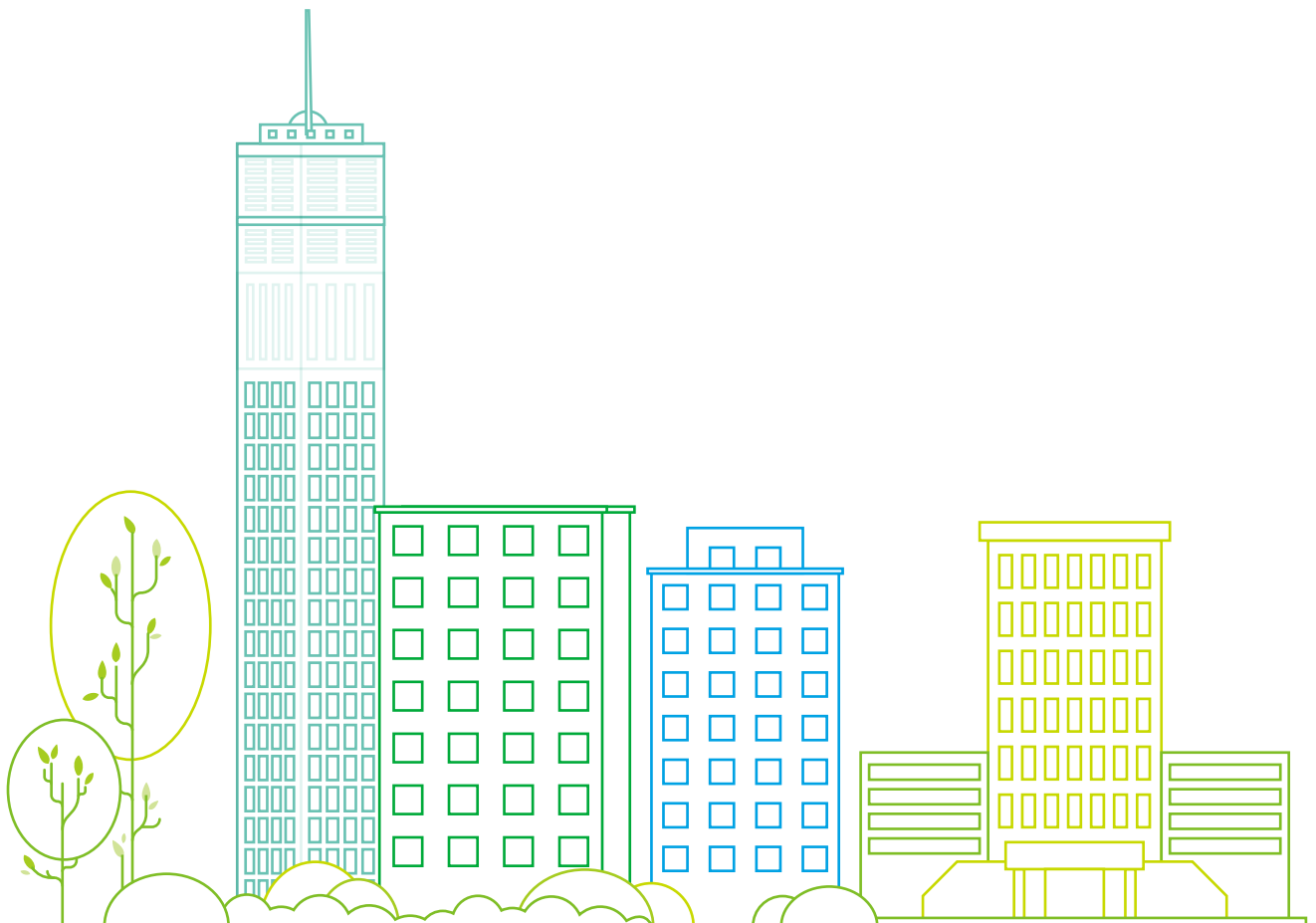
**02. FS firms should ensure operational resilience down the FS value chain which includes sub-contractors of third parties.**

It is becoming more common that the FS value chain involves fourth and even fifth parties, extending the value chain down to outsourcing providers outside of the FS sector. It is essential that the same standards of resilience and data confidentiality and integrity are secured at the third parties and their sub-contractors. For the immediate service providers, many regulators, including APRA<sup>52</sup> and HKMA, require the FS firm to have terms in the contract that allow both the FS firm and the regulator to access relevant information of and to inspect outsourced service providers. Regulatory practices differ regarding sub-contractors. In some jurisdictions, the third party will be held accountable for oversight of the sub-contractor. Regulators in other jurisdictions go one step further by requiring access to information and inspection of the sub-contractors, which is also the approach the UK PRA is taking in its *Supervisory Statement (SS2/21) 'Outsourcing and third party risk'* released in March 2021.<sup>53</sup> Looking at 2022 and beyond, we expect more AP regulators will start to take the latter approach, and in this case, appropriate terms should be included in contracts and service level agreements when the FS firm is entering a partnership with a third party.



## Considerations in the regulation of sub-contracting

One of the most debated legal obstacles to direct supervision over sub-contractors is the reach of the financial regulator. Whether the regulator can impose obligations on the sub-contractor as a 'third party' outside of the contract is treated differently under different legal systems. While civil law allows transfer of contractual rights, the doctrine of privity under common law does not recognise such benefit for a non-contracting party. In this case, the regulator's request to access information from the sub-contractor may be declined or challenged. A solution to this issue is to negotiate with the sub-contractor before entering the contract and agree on terms granting the financial regulator access to information, as well as rights to inspect and require remediation.



<> Use of cloud

Cloud computing is defined by the National Institute of Standards and Technology as “a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction”.<sup>54</sup> Over the past decade, cloud computing has become an important part of FS firms’ IT infrastructure as it helps reduce cost and facilitates innovation. Use of cloud infrastructure has also accelerated AI adoption as it allows ML at scale across different functions of the FS firm, facilitates governance of AI models, and enables access to large volumes of data.

In North America, some banks have adopted an ‘all-in’ approach and have transferred all of their data from their own data centres to cloud platforms. As previously mentioned, cloud platforms, applications and software are also being adopted as a solution to facilitate longer term remote working. In the AP region, many FS firms have only transferred a portion of their data to cloud platforms. While some regulators are open to cloud adoption to promote the digital economy, others are progressing more cautiously.

As we expect more FS firms in the region to move to cloud in the coming years, proper controls around cloud applications will be increasingly important in securing system resilience and

data integrity and confidentiality. Currently, cloud services are regulated as an outsourcing relationship with the FS firm. In outsourcing regulations, materiality is usually taken into account when assessing the relationship, and cloud services are, in some jurisdictions, subject to the strictest form of rules as a material outsourcing relationship.

In a survey conducted by the Institute of International Finance among regulators and central banks in the AP region, 31% of the respondents reported seeing core FS service being migrated to cloud, while all of the surveyed authorities reported non-core FS service migration.<sup>55</sup> In addition, recent research conducted by standard setters recognised that cloud service providers may be better equipped to deal with cyber risk compared to FS firms, with more skilled talent, more sophisticated systems, as well as more experience in cyber incidents.<sup>56</sup>

Regulators will be monitoring the developments closely as the cloud migration trend continues. In addition to operational resilience considerations, regulators have also been concerned with potential concentration risk when a select few cloud providers hold a significant amount of FS data. As more FS firms in the AP region move core services to the cloud, and more virtual banks and online insurers take the cloud-native approach, we expect to see more cloud-specific guidelines from regulators in the AP region in the upcoming three to five years.

**Table 2: Supervisory requirements, guidelines on use of cloud by financial regulators<sup>57</sup>**

	General guidelines / requirements in outsourcing that applies to cloud computing	Cloud specific items in outsourcing guidelines / requirements	Cloud specific items in technology risk management guidelines / requirements	Industry association / research institution guidelines / requirements
Australia	✓	✓		
Hong Kong SAR	✓			
India	✓			
Indonesia	✓			
Japan				✓
Malaysia	✓	✓		
New Zealand	✓			
Philippines			✓	
Singapore	✓	✓		✓
South Korea	✓			
Thailand	✓	✓		

### FS firms to continue to manage fragmentation in cyber security regulation

Cyber security is a top concern for Chief Risk Officers, financial regulators, as well as government authorities in the AP region. In the 2021 *Regulatory Outlook* we discussed the current wave of cyber security regulation being introduced across the region. As we move into 2022, the need for international convergence on cyber security regulation remains front and centre, especially for multinational FS firms. A number of regulators have made cyber security a key priority for the coming years. For example, APRA established a 2020-2040 *Cyber security strategy* to lay out its objectives, actions and outcomes for the next 20 years.<sup>58</sup> In the past year, we have seen some jurisdictions tighten up measures on cyber security. For example, Bank Negara Malaysia previously required independent compromise assessments on the technology infrastructure of critical systems only for large FS firms; these are now also required for smaller FS firms due to an increased level of risk following the COVID-19 pandemic.<sup>59</sup>

In the 2017 FSB *Summary Report on Financial Sector Cybersecurity Regulations, Guidance and Supervisory Practices*, conflicting requirements, similar but not identical requirements, and unhelpful regulatory requirements are among key concerns from the FS sector regarding

cyber security supervision.<sup>60</sup> Following on from the FSB's 2018 publication of the *Cyber Lexicon*, the FSB progressed on its efforts in facilitating global coordination in cyber security supervision and published a report on *Cyber Incident Reporting: Existing Approaches and Next Steps for Broader Convergence* in October 2021. In the report, the FSB identified developing best practices, identifying common types of information to be shared and creating common terminologies for incident reporting as three ways to achieve better convergence.<sup>61</sup>

Nonetheless, fragmentation in cyber security regulation continues to be a major bottleneck. Measures to secure cyber security by national authorities continue to pose challenges to firms operating across national borders. For national security and personal data protection reasons, data privacy laws and regulations are becoming increasingly strict around the world. In 2021, we have seen AP regulatory and legal developments similar to the General Data Protection Regulation in Europe, and we expect this trend to continue in 2022 and beyond. Data protection regulation and restrictions on cross-border data transfer will continue to have a significant impact on cloud adoption, third party relationships, outsourcing and many other aspects of the business of FS firms.



## Key considerations



FS firms should enhance second and third lines of defence to better equip them with the relevant skillsets for the effective monitoring and review of their third party service providers.



FS firms will need to be aware of and manage evolving regulatory landscapes in different jurisdictions, and manage regulatory fragmentation across jurisdictions. In some jurisdictions, this may require firms to manage distinct and intersecting requirements from different regulators.



FS firms should be prepared to assess their third party dependency and extend BCP and contingency planning to include material third parties and sub-contractors to ensure resilience.



FS firms should review their third party management approach, and ensure third party risk management measures remain in place throughout the life cycle of the third party relationship.



Before entering a third party relationship, FS firms should ensure appropriate legal levers are in place to meet regulatory requirements on sub-contractors.



FS firms should ensure that internal or third party arrangements for data depositories and data transfer are compliant with data protection laws and regulations of both home and host jurisdictions. Intensified geopolitical tension may lead to increased legal or regulatory restrictions on cross-border data transfers, and therefore the data transfer infrastructure should be able to adapt quickly to changes.



FS firms should consider updating their operational resilience frameworks, with the 'new normal' of flexible working arrangement and enhanced requirements from regulators.



We believe it is important that regulators strike a balance between clear articulation of regulation and supervisory expectation, and flexibility in the guidelines for quick adaptation to new developments and risks in the sector.

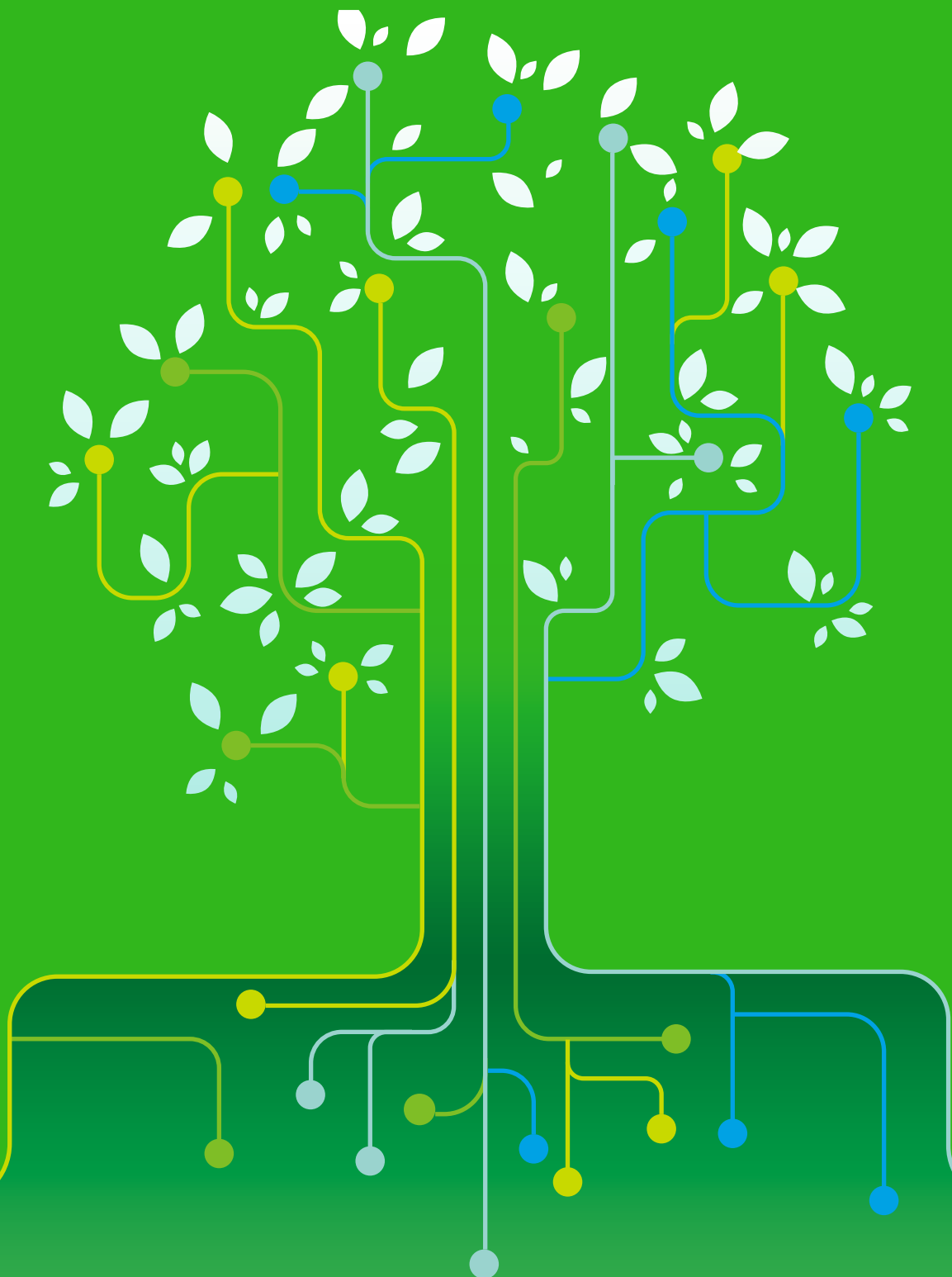


The industry would benefit from a continued risk-based approach in third party risk management regulation. Materiality of outsourcing activities and third party relationships should still be taken into account in regulations and guidelines.



The FS sector would benefit from greater collaboration between regulators and governments to harmonise data protection regulations. Overly conservative 'data localisation' could harm international e-commerce and cross-border data utilisation if governments respond to escalated geopolitical tensions by introducing higher hurdles to cross-border data transfers.

# Digital Innovation



The COVID-19 pandemic has had a profound impact on both the way firms do business and how customers expect to receive their services and products. As profit margins of traditional banking diminish and competitive pressure from new market entrants grows, digital transformation has been an inevitable part of traditional incumbents' strategy to remain relevant. Advancements in digital currencies and global stablecoins will continue in a rapid manner, which may challenge the traditional role of FS firms as central intermediaries in financial transactions. Adding to the complexity of the issue is the divergent views on crypto-assets among regulators in the AP region, where the spectrum of regulatory options range from developing a new regulatory regime to oversee crypto-assets, to banning cryptocurrencies altogether. Varying regulatory practices on digital innovation and digital currencies has global significance and could potentially leave room for regulatory arbitrage.

Another key development expected in the area of digital innovation is the promotion of its role in supporting sustainable and inclusive economic recovery for the AP region and bringing access to financial products to consumers who cannot currently access them. Against this backdrop, FS firms as well as regulators will need to keep abreast of the latest trends in innovation to update existing practice for 2022 and beyond. In this section, we will discuss decentralised finance and the increased use of regulatory technology (regtech) and supervisory technology (suptech) in the AP region.



### Rise of DeFi and the challenge to the traditional FS business model

The term decentralised finance, also commonly known as 'DeFi', has emerged in the past few years, capturing developments in blockchain-based currency and business models. DeFi is developed on the basis of distributed ledger technology, also referred to as blockchain technology. Originally an open-source technology which offers an alternative to the traditional intermediary for transfers of the cryptocurrency Bitcoin, blockchain replaces the intermediary by the collective verification of the ecosystem offering a high degree of traceability, security and speed.<sup>62</sup> According to *Deloitte's 2021 Global Blockchain Survey*, conducted in April 2021 among 1,280 senior executives and practitioners across the globe, 84% of FSI respondents believe that blockchain technology is broadly scalable and has achieved mainstream adoption.<sup>63</sup> Furthermore, 76% of FSI respondents agree with the notion that in the next five to ten years, digital assets will be a strong alternative to or replacement for fiat currencies.

#### 01. Digital currencies and the fragmented regulatory landscape

Digital currencies discussed in this *Regulatory Outlook* include cryptocurrencies, stablecoins and central bank digital currency (CBDC). Digital currency, compared to fiat currencies, could potentially improve efficiency by enabling faster payments, and reduce risks—for example, automated execution by algorithms helps avoid operational risks such as human errors in the traditional finance business model.

Cryptocurrency is the original digital currency and one of the most important applications of blockchain technology. It has been widely covered by news and the media in the past year as many cryptocurrency prices rose to record highs during the COVID-19 pandemic. However, given they are not issued in physical form, their potential for anonymity and obfuscation, and the fact that they may not be backed by a specific government/central bank or a standard commodity such as gold, there are many risk factors associated with the trading and custody of cryptocurrencies. The most pressing risks include volatility risk, technology risk, cyber security risk, and financial crime risk. Regulators have started to study the benefits and risks of cryptocurrencies, but regulations in this area are generally at a nascent stage.

Due to the risks embedded in cryptocurrency, the concept of stablecoins was introduced. As suggested by the name, a stablecoin is defined by the FSB as a cryptocurrency that aims to maintain a stable value relative to a specified asset, or a pool or basket of

assets.<sup>64</sup> It can be issued by private firms, as well as the public sector. The global total supply of stablecoins grew exponentially from 30 billion in January 2021, to 141 billion at the end of November 2021.<sup>65</sup> In recent years, the FSB and the BCBS have been studying the benefits and potential threats posed by stablecoins. In October 2020, the FSB issued 10 high-level recommendations on the regulation, supervision and oversight of global stablecoin (GSC) arrangements, with a subsequent progress report on its implementation released in October 2021. The recommendations touched upon governance, operational resilience, and data protection, as well as recovery and resolution planning of GSC arrangements. The FSB concluded in the progress report that while GSC are not yet widely used, risks continued to grow in the past year, and that jurisdictions are still at an early stage of implementing the FSB high-level recommendations. The FSB will continue to support jurisdictional implementation in 2022, and will complete a review and potential update of these recommendations by July 2023.<sup>66</sup>

In the meantime, a number of central banks across the world are studying and exploring the potential launch of official CBDCs in order to facilitate financial innovation while addressing the risks posed by cryptocurrencies and GSCs. In the AP region, central banks in a number of jurisdictions have already embarked on the journey of CBDC development, with some already piloting small scale launches as test runs. These include the PBOC, BOJ, Bank of Korea, the Bank of Thailand (BOT), MAS, HKMA and RBA. Additionally, central banks from other AP jurisdictions such as Malaysia and Indonesia have announced interest in developing CBDCs. As stated in official announcements from these central banks, the top motivations for developing CBDCs are to adapt to the evolving technology landscape and the changing role of cash; to ensure stability, resilience and data privacy while providing CBDC access to everyone; and to help facilitate international settlements.

To explore cross-border use case scenarios and to support the G20 roadmap for improving cross-border payments, central banks are also collaborating actively with one another and with international bodies to explore CBDC design and applications. For example, the mBridge project is a joint effort among the BIS Innovation Hub, PBOC, HKMA, BOT, and Central Bank of the United Arab Emirates to improve cross-border payments.<sup>67</sup> The BIS Innovation Hub in Singapore has also led a similar project among central banks in Australia, Malaysia, Singapore and South Africa.

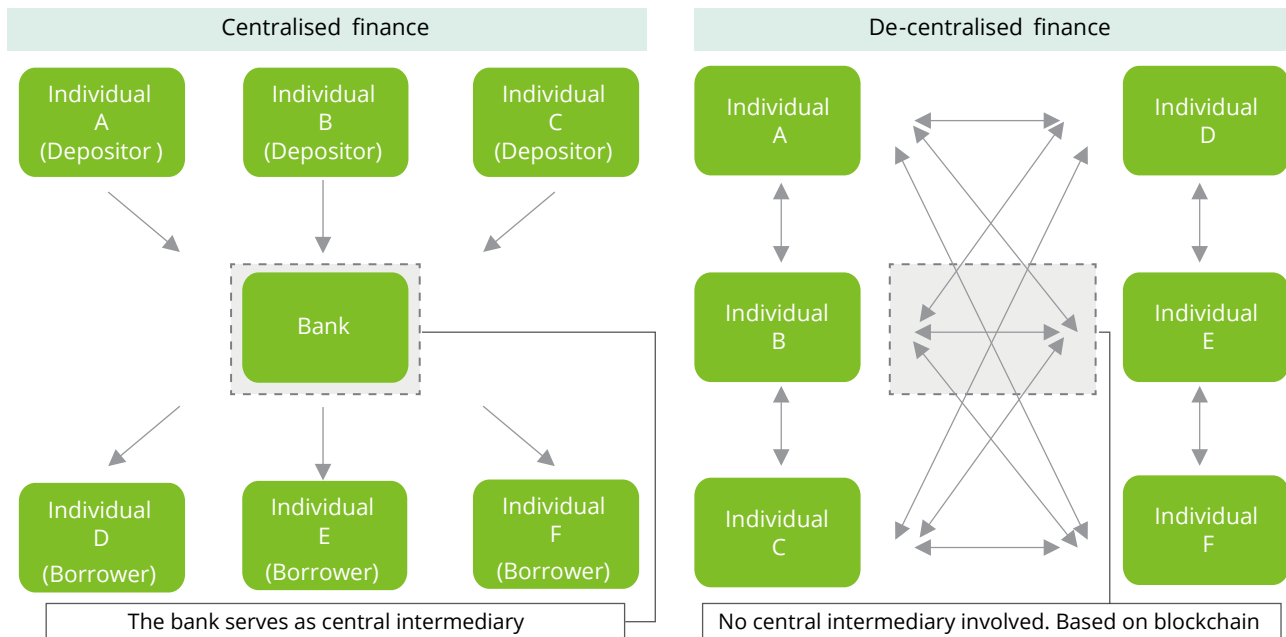
Regulators globally are taking varying actions on regulating digital currencies, while sharing their concern over the volatility of digital currencies and the high level of risk for investors as well as for the financial system. Regulators in the AP region have also repeatedly warned investors against the risks in digital currency investment. In September 2021, regulators in China Mainland jointly announced that “virtual currency related activities are illegal”.<sup>68</sup> On 17 January 2022, MAS issued a new set of guidelines to discourage cryptocurrency trading by the general public.<sup>69</sup> The new guidelines prohibited promotion of crypto-asset trading through advertisements in public areas, or through online influencers. The HKMA also issued a discussion paper on crypto-assets and stablecoins in January 2022 to solicit public opinion on the appropriate regulatory options.<sup>70</sup>

**02. DeFi business models and potential risks**

Blockchain applications in the FS sector go beyond digital currency. Areas such as insurance, trade finance and cross-border transactions could all benefit from the application of blockchain.

DeFi is the business model where financial activities such as payments, borrowing and lending, trading, and insurance are performed without central settlement, risk pooling or reserving performed by traditional FS firms. For example, the traditional banking model is one that takes deposits from individuals who have a bank account, and uses a centrally managed fund for lending. In this model, a bank serves as a maturity transformation vehicle that connects borrowers and lenders. The transactions, operations, and governance of the traditional banking business are managed by the bank with a set of systems, policies and strategies in place. In the DeFi model, financial services can be offered to anyone without having to set up bank accounts and transactions may be executed immediately and automatically by codes on blockchain. By cutting the time and cost associated with financial transactions processes, DeFi is considered a potential solution to improving financial inclusion and economic efficiency.

**Figure 1: Stylised example of decentralised finance in banking**



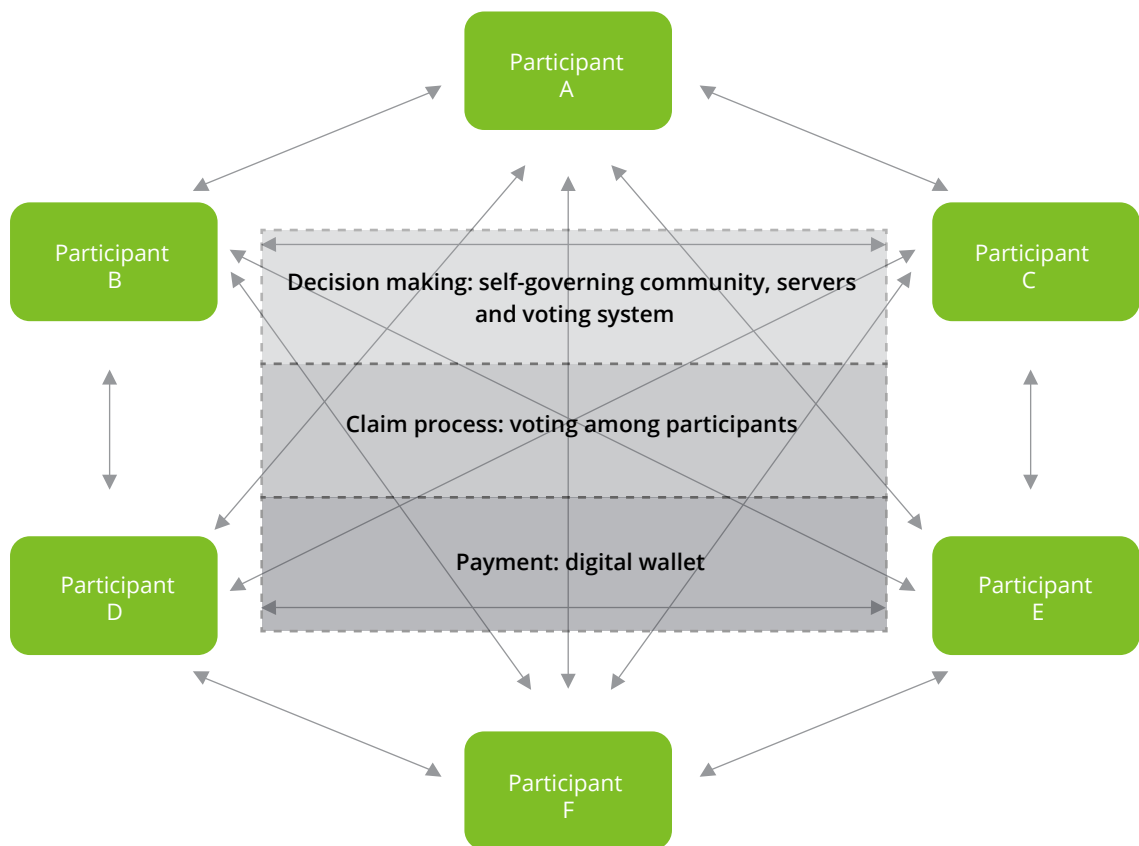
In the insurance sector, one example of the DeFi business model is peer-to-peer (P2P) insurance. The concept of P2P insurance goes back to the original form of insurance where loss is shared among a small group of people with similar interests. In the traditional insurance business model, the core function of an insurer is risk pooling, meaning the insurer collects premiums from policy holders and pays out claims to policyholders who report occurrence of insured events. In this business model, part of the insurer’s profit

comes from the difference between premiums collected and payments made to resolve claims. This profit model implies that there is an inherent incentive for insurers to increase pricing or reduce claims payments in order to maximise profit, and for policyholders to untruthfully report or inflate their losses for higher payouts or withhold information which may impact premiums or coverage. P2P insurance provides a solution to this conflict by allocating responsibilities among participants within the network.



## Example of blockchain-based P2P insurance model

Figure 2: Stylised example of decentralised finance in P2P insurance<sup>71</sup>



This P2P insurance model is based on a set of blockchain-enabled digital wallets. One participant is allowed to withdraw coins only with consent of other participants. The decision-making process consists of a self-governing user community, servers, and a voting system. The group of participants are responsible for managing functions such as coverage policies, admitting new participants, appraisals of claims and approvals and payments of reimbursements. When an insured event happens, the insured can submit a claim request with expense estimates and information on the incident to the team. Other members of the team will then enter the voting stage to decide if they should approve the reimbursement, call an independent appraiser for calculation, or extend the voting period for further consideration. When a decision is made, the server prepares a set of blockchain transactions to settle the payment.

Whether DeFi will be the future of finance is still under debate. Whilst many believe that it has the potential to fundamentally disrupt the FS sector, others remain skeptical. For example, the recently retired RBA Head of Payments Policy, Dr Tony Richards expressed his doubt on DeFi replacing intermediaries in his last speech before retirement.<sup>72</sup> In addition to the risks associated with using cryptocurrency, there are other potential risks in the DeFi business model that regulators should consider:

01. Threat factors include compromised/fraudulent servers or participants in the network.
02. Due to the anonymous nature of the blockchain technology, DeFi could be used for money laundering and terrorist financing purposes.
03. Role of the blockchain platforms and how to regulate their governance and conduct.
04. Algorithms running the DeFi system are written by engineers who may not have relevant understanding of FS.

Given the many risks associated with the DeFi business model, regulators are taking time to evaluate potential supervisory measures. Some regulators have issued guidance to address the risks, such as the recent consultation issued by the Securities and Exchange Commission of Thailand on prohibiting digital assets fund managers from using of DeFi platforms to manage clients' assets.<sup>73</sup>

### Public private collaboration to address scams and frauds

Another trend observed during the pandemic is the increased number of scams and fraudulent incidents as more activities shifted to an electronic and/or online approach. For example, in Hong Kong SAR, cases of suspicious websites, mobile applications, and phishing

SMS and emails in the first half of 2021 increased by 145% compared to the same time in 2020.<sup>74</sup> Whilst scams and fraudulent activities may take different forms, the majority are caused by breaches of personal information. To address this issue, data protection regulations and cyber security measures are being implemented across the AP region. As promising as DeFi and fintech may be, if data protection and cyber security are not properly managed, risks to consumer protection and financial stability remain high.

Another form of misinformation that has caught regulators' attention is the rise of digital media and social media influence on individual investment decisions. Finfluencers, i.e. finance focused influencers who utilise digital and social media to promote their content, have been linked to an increase in misleading or fraudulent information relating to finance and investment. Some AP regulators, such as the Australian Securities and Investments Commission (ASIC) have issued warnings about risks arising from potential market misconduct, unlicensed advice and conflict of interest considerations when engaging the services of finfluencers.<sup>75</sup> The ASIC has also warned against social media-led 'pump and dump' campaigns, which is considered illegal market manipulation, and could lead to financial loss for participating individuals, as well as market disruption.<sup>76</sup> MAS explicitly banned promotion of crypto-asset investment by influencers. Going forward, collaboration with law makers and regulators outside of the FS sector could become increasingly important as digitalisation blurs the boundaries between sectors.

### Regulators continue to digitise with the use of regtech and supotech

As the industry progresses rapidly in digitalisation, regulators are as well. Across the AP region, regtech and supotech are being adopted by regulators to enhance the efficiency and effectiveness of financial regulation and supervision in the digital age.

## Examples across the AP region




 <p>Australia</p>	<p>In order to enhance analytical capabilities and regulatory efficiency, APRA introduced a new web-based data collection tool, APRA Connect, which allows secure information and data reporting by regulated entities. The new platform went live in September 2021, and is currently running in parallel with the existing software-based system, Direct to APRA (D2A), with APRA Connect to progressively replace D2A.<sup>77</sup></p>
 <p>Hong Kong SAR</p>	<p>In June 2021, the HKMA published the <i>Regtech Adoption Practice Guide</i> series as a part of a white paper entitled <i>'Transforming Risk Management and Compliance: Harnessing the Power of Regtech'</i>.<sup>78</sup> The series covers details of specific technologies and application with practical guidance for banks' implementation.<sup>79</sup> In the same month, the HKMA also outlined a three year suptech roadmap looking to enhance existing supervisory process by adopting supervisory technology.<sup>80</sup></p> <p>As part of the 'Fintech 2025' strategy, in collaboration with Cyberport and supported by Deloitte, the HKMA launched the first part of the Anti-Money Laundering Regtech Lab (AMLab) series in November 2021. The AMLab series sees a new stage of collaboration between the HKMA and banks on regtech adoption, providing a collaborative platform to share experiences of regtech adoption approaches. The first AMLab session covered topics such as the use of network analytics to identify fraud-related mule accounts, and how public-private partnerships can strengthen AML data and information sharing. Apart from network analytics, the use of ML in transaction monitoring and workflow automation solutions are also key areas of focus in this series.<sup>81</sup></p>
 <p>Singapore</p>	<p>In order to avoid process complications and data duplication, MAS transformed its data collection measures in March 2018 and issued revised measures in October 2021. The transformed measures include duplication reduction and automation of the data submission process for FS firms. Starting from 1 October 2021, all new regulatory returns from FS firms are required to be submitted in machine readable templates.<sup>82,83</sup></p> <p>In 2021, as part of MAS' Financial Sector Technology and Innovation Scheme, the Regtech Grant was launched to support Singapore-based FS firms regtech solution development. The grant covers funding for FS firms' to pilot potential regtech solutions and funding for FS firms' customised regtech project development.<sup>84</sup></p> <p>In October 2021, MAS introduced a new money laundering/terrorist financing (ML/TF) digital platform—'Collaborative Sharing of ML/TF Information &amp; Cases'. The new platform aims to overcome the challenge of inefficient communication and information sharing of unusual activities detected in customer accounts among FS firms. The information sharing platform will be strictly used for anti-ML/TF purposed and anti-proliferation financing purposes only. The platform is expected to be launched in the first half of 2023.<sup>85</sup></p>
 <p>South Korea</p>	<p>Under the Financial Services Commission's (SK FSC) Fintech and Digital Finance Policy, the SK FSC launched a new data service—'MyData' on 5 January 2022. The MyData service enables consumers and licensed MyData service providers, including FS firms and fintechs, to access financial data across the industry on a single platform.<sup>86</sup> The FSC also published the MyData service guideline, including key details on consumer data protection rights, the scope of data transfer, operational procedures etc, and a support centre was set up to ensure protection and smooth operation for both service providers and consumers.<sup>87</sup></p>

**Talent gaps remain a bottle neck in digital innovation**

As mentioned in our 2021 *Regulatory Outlook*, talent remains a bottleneck in digitalisation. Business operations and organisational culture also play crucial role in cultivating talent in this area. A policy paper published by the B20 Italy Digital Transformation Task Force recommended national authorities to "foster a digital ready and inclusive society".<sup>88</sup>

Authorities are urged to define national strategies to address the digital skills gap and channel investments towards new opportunities in digital technology. The recommendation also encouraged updating school and university curricula to prepare the workforce with the knowledge and skills needed. In the AP region, many jurisdictions are already taking steps to address talent shortages through their school-based education system, as well as through professional workshops and training programs.

**How AP authorities promote education and training in digital technology—Examples**

 <b>Hong Kong SAR</b>	 <b>Singapore</b>	 <b>Thailand</b>
<p>As an early adopter of fintech, the HKMA has sponsored multiple talent schemes in recent years, targeting different age groups, to expand the talent pool of the sector. Under HKMA's 'Fintech 2025' strategy, the Industry Project Masters Network was launched in 2021. In collaboration with four local universities, the network aims to provide opportunities for Masters-level students majoring in fintech to participate in banks' fintech and industry projects, supervised by academia, FS and technology/fintech professionals. In support of this initiative, Deloitte's Asia Pacific Blockchain Lab has also participated in the mentorship network to offer professional expertise and insights. The scheme was piloted in September 2021 and is expected to officially launch in September 2022.<sup>89</sup></p>	<p>Jobs and skills are one of the three key themes in the <i>Financial Service Industry Transformation Map of MAS</i>.<sup>90</sup> The focus on jobs and skills includes expanding the talent pool and deepening specialist skills, promoting flagship programmes and international postings to support Singaporean finance leaders, promoting professional conversion programmes, and strengthening human resources practices.</p>	<p>According to Deloitte's <i>Thailand Digital Transformation Survey Report</i>, survey results show that the digital technology talent gap remains high, especially in the FS, life sciences and health care sectors.<sup>91</sup> At the beginning of 2021, the Ministry of Labour launched the Digital Skill Development Academy, a learning institution providing relevant training and education for young talents over the age of 18. The launch of this academy aims to support the ongoing digital transformation and prepare the workforce for the digital economy.<sup>92</sup></p>



## Key considerations



The regulatory landscape on digital innovation remains fragmented in the AP region, with FS firms operating in multiple jurisdictions needing to manage different requirements. Regulators could consider closer collaboration on topics such as data protection and crypto asset regulation.



FS firms should get to know their target audience customers in order to understand evolving customer expectations and keep up with rapid market developments, and help inform their digital transformation. This should include assessing how they can continue to provide efficient access to financial products to all customers, particularly those with lower digital literacy or limited access to the internet and digital devices.



FS firms should make sure that the Board and senior management understand digital technology and associated risks, and should increase efforts to strengthen fraud risk management in their operational risk management framework.



FS firms should review their human resources, data management systems, risk management systems, control functions, regulatory reporting functions and policies and build a comprehensive strategy on digitalisation that utilises technology in multiple parts of their operations, and embed it in the firm's culture.



FS firms may face issues relating to the firm's appetite and cost of adopting digital solutions; efforts should be made to define their appetite for and develop their strategy to adopting digital solutions, and to cost out the different options. Gaps in talent with background in technology or risk management may be addressed through partnerships with fintech firms until adequate in-house capabilities are established.

# Conduct and Culture





Conduct and culture have a big role to play in achieving inclusive and sustainable growth. The COVID-19 pandemic has only drawn more attention to the importance of strong culture; how firms operate and envision the future has a determining impact on whether cultural transformation is successful. Looking internally, how firms take into account the shifting needs of employees due to the pandemic and make corresponding changes to the culture framework will be a key success factor in 2022.

Looking externally, satisfactory consumer outcomes can be achieved through a combination of success factors such as sound product design, effective communication, and fundamentally, good conduct of the FS firm. As relationships with customers remain one of the biggest competitive advantages traditional FS firms have over new entrants, it is imperative that FS firms take a comprehensive review of customer outcomes with updated metrics to be informed on changes in customer behaviour, challenges encountered through new channels of interaction, potential data protection issues, ethical issues, and the needs of vulnerable customers. Regulators are also raising their expectations on the role played by the FS sector, especially in the economic recovery.

### Promoting sound risk culture is key for FS firms

A key theme discussed throughout this *Regulatory Outlook* is that the COVID-19 pandemic has significantly changed risk profiles. In addition to risk management, risk culture is also crucial for guiding good risk behaviour and decision-making. In the 2021 Deloitte publication, *Risk Intelligent Culture*, insights are shared on how sound risk culture supports recovery from the pandemic, as well as operational resilience.<sup>93</sup> Starting from a strong sense of purpose, leaders can help to foster a strong culture by embracing elements including frequent feedback, transformation, diversity and optimism.

Increasingly, AP regulators are looking at measures they can take to enhance conduct and culture (and in particular, risk culture) across FS firms, such as the introduction of accountability frameworks, and revised standards relating to incentive schemes. In some jurisdictions, regulators have also publicly outlined expectations that FS firms not only comply with their regulatory obligations, but act as 'good corporate citizens' on an ongoing basis.

Below are examples of efforts AP regulators are taking to enhance conduct and culture.



## Australia

Australia has started the process of a comprehensive transformation on governance, culture, remuneration and accountability. For risk culture, APRA developed the 'Risk Culture 10 Dimensions' framework, with five dimensions each under risk behaviours and risk architecture. In 2022, following a pilot conducted in April 2021, APRA will conduct a risk culture survey across banks, insurers and superannuation funds based on the Risk Culture 10 Dimensions framework. The survey aims to gauge a bottom-up perspective on risk culture, and is expected to provide valuable insights on FS firms' risk culture practices, and areas where changes will be needed.

In addition to the risk culture survey, the Financial Accountability Regime (FAR) bill was introduced into Parliament in July 2021. The proposed FAR focuses on strengthening obligations relating to accountability, deferred remuneration, regulator notifications, and key personnel of all APRA regulated entities. Individuals who are identified as Accountable Persons will also need to meet accountability obligations under FAR. After passage, FAR is expected go live for authorised deposit-taking institutions and non-operating holding companies from the later of July 2022, or 6 months after the commencement of the Act, and for other APRA-regulated entities from the later of July 2023, or 18 months after the commencement of the Act.<sup>94</sup>



## Hong Kong SAR

The HKMA commenced its supervisory work to promote sound culture in March 2021. An important component of this effort is the 'Focused Review' on the incentive systems of frontline offices of 20 retail banks. In the interim report published by the HKMA in November 2021, some of the initial findings shared include: 1) current practice indicates a high level of complexity in the design of incentive systems with a range of different factors taken into account; 2) financial performance outweighs non-financial performance in incentive systems; and 3) good non-financial performance is not usually rewarded, while bad non-financial performance could lead to penalties.<sup>95</sup>

The final report of the Focused Review to be issued in late 2022 will consolidate the findings across subsequent phases of the review, and is anticipated to share insights to help promote risk culture across the banking sector.



## Singapore

On 10 September 2020, MAS released its *Guidelines on Individual Accountability and Conduct* (IACG). The IACG is a set of outcomes-based guidelines that focuses on three areas: 1) promoting accountability amongst Senior Managers, 2) strengthening oversight of material risk personnel, and 3) promoting proper conduct amongst all employees.<sup>96</sup> Together with the IACG, MAS also issued an *Information Paper on Culture and Conduct Practices of Financial Institutions* to set out MAS' expectations on FS firms' conduct and culture outcomes. In the Deloitte publication *Aligning Conduct with Outcomes in Financial Services*, a framework was laid out to help FS firms align their compliance programmes with the IACG.<sup>97</sup> The five components of the framework include: governance framework, human resources plan, conduct and culture framework, training and communication, and project governance.

### Shifts in workplace flexibility and its impact on conduct and culture

Earlier in this report, we discussed the impact that the COVID-19 pandemic has had on business operations and workplace arrangements, with increasing flexibility and remote working arrangements significantly impacting the way FS firms conduct business and manage employees. Workplace interactions have been replaced by virtual meetings and virtual events; some find it easier to manage work-life balance given the flexibility, while others find it harder as the boundaries between work and life blur.

Taking a macro view, the pandemic has also changed the global labour market significantly. As the world economy recovers from the pandemic, and many countries shift from 'managing the virus' to 'living with the virus', workplace arrangements have started to have an impact on workforce satisfaction and retention, with many FS firms in the AP region increasingly providing employees with flexible working arrangements and remote working options. Many firms have chosen to take a 'hybrid approach', where employees have the option to balance working in the office or remotely on a rotational or an 'as needed' basis.

In addition to the prevalence of flexible working arrangements, FS firms are increasingly introducing or enhancing non-monetary benefits and initiatives to drive conduct, culture and retention-related objectives. These include programmes focused on mental health and wellbeing, training and education programmes to support up- and cross-skilling of existing employees on topical matters such as climate change, technology and innovation, and the introduction or expansion of volunteer programmes to foster participation in events to benefit the wider community in which the firm operates.

As elaborated in previous sections, talent is one of the most valuable assets FS firms have. In addition to providing financial incentives, career development and training opportunities, FS firms have a responsibility to support employees in other key elements of their lives, such as mental health and wellbeing, and are increasingly recognising how helping their employees 'be the best version of themselves' plays an important role in not only retaining talent, but lifting behaviours relating to firms' conduct and culture.

 **Key considerations**

FS firms should consider incorporating culture and conduct assessments into their internal audit process, reviewing standards of conduct, and re-evaluating the existing mechanisms for the communication and reinforcement of these standards.



FS firms should assess whether their culture is supporting their employees in a rapidly changing environment, and whether their cultural framework is sufficiently flexible and adaptable.



FS firms should ensure their leadership team has a clear understanding of how risk culture should be aligned with the firm's purpose, values, strategy and risk appetite to support resilience.



FS firms should set up risk culture targets, and continuously evaluate their progress.



FS firms should incorporate culture and conduct considerations in their employee lifecycle, including hiring and onboarding processes and performance evaluation processes; for example, in addition to discouraging unwanted or 'bad' behaviours, FS firms should also look for ways to incentivise desirable or 'good' behaviours.



To retain talent in 2022 and beyond, FS firms will need to recognise and adapt to the fact that employees are not only seeking financial value from a job, but also a purpose.

# Sustainability



In the past year, the FS sector has become increasingly motivated to embark on a sustainability journey with customers, investors as well as regulators. On the one hand, as customers become more aware of the urgency to take actions on climate change and social issues, FS firms are under pressure to transform their businesses to stay aligned with customer expectations. On the other hand, banks and investors are applying more pressure and scrutiny on ESG-related matters; for example, with some announcing that they will stop investing in, or financing certain carbon-intensive industries.

Riding the wave of ESG momentum, regulators in the AP region continue to adopt TCFD recommendations in 2022 and beyond. Developments on sustainability accounting standards and taxonomies will progress in the coming year. However, challenges remain for FS firms: Firstly, fragmentation in taxonomies and reporting standards creates complexity for compliance; secondly, the legal framework to support the sustainability agenda continues to lag behind regulatory developments.



### Navigating the sustainability journey with a top-down approach: net zero commitments

Two important top-down drivers are government commitment and supervisory expectations. While numerous initiatives exist in various forms across jurisdictions, there are some common themes we have observed in the past year. First of all, policy initiatives are gradually evolving to be more mature, both on climate change management, as well as policy measures to support the development of green finance. Some regulators in the AP region are adopting TCFD recommendations in their regulations and supervisory frameworks. For example, the HK SFC issued ESG related disclosure requirements for fund managers in 2021, in keeping with the regulators' plan to make TCFD disclosure mandatory by 2025. In Australia, APRA finalised its prudential practice guide CPG 229 *Climate Change Financial Risks*, adopting TCFD recommendations with its own analysis and experience. Secondly, more FS firms are taking proactive actions to manage climate risk, for example by examining their carbon footprint and implementing voluntary disclosure, in preparation for anticipated mandatory disclosure requirements. Thirdly, international convergence on rules and taxonomies is being achieved with standards produced by IFRS-ISSB, NGFS, and FSB. Successful adoption of these rules together with compliance and assurance would make substantial inroads into addressing common and legitimate concerns of greenwashing.

On top of these achievements, a key milestone event in sustainability and climate change took place in November 2021 at COP26 in Glasgow. Apart from national pledges to phase out coal, a number of other action items were also high on the list of priorities, including reducing methane and new rules on carbon markets, financial pledges to support developing countries to achieve sustainability goals, and development of sustainable technology. The COP26 Glasgow Climate Pact called out to FS firms and urged them to play a bigger role. The Pact:

"Calls upon multilateral development banks, other financial institutions and the private sector to enhance finance mobilisation in order to deliver the scale of resources needed to achieve climate plans, particularly for adaptation, and encourages Parties to continue to explore innovative approaches and instruments for mobilising finance for adaptation from private sources".<sup>98</sup>

During COP26 the NGFS published a declaration committing to actions on enhancing climate scenarios, bridging data gaps, and stepping up its efforts on capacity building.<sup>99</sup> Ten AP jurisdictions represented in the NGFS announced their respective roadmaps to green the financial system. Together, these central banks and financial regulators reiterated their support for actions taken by the global society and their national governments to reduce carbon emissions and avoid the severe consequences of rising temperatures.





## What has been achieved at COP26?<sup>100</sup>

1. Mitigation: More countries made commitments on net zero to keep the 1.5 degree target alive, lifting the portion of world GDP covered by net zero commitments to 90%. By the end of COP26, a total of 153 countries put forward new 2030 emission targets. Countries will re-convene in 2022 for strengthened commitments. 190 countries have now agreed to phase out coal power. Reduction of methane emissions was also brought into a focus at COP26.
2. Adaptation: COP26 saw boosted efforts to deal with climate impacts. Climate finance providers made specific commitments to enhance support for adaptation.
3. Finance: Focusing on the prevention of climate change and economic opportunities arising from the transition to a low-carbon economy. The public sector, multilateral development banks as well as the private finance sector made commitments on financial support as well as net zero transition.
4. Collaboration: Collaboration between the public and private sectors will be accelerated. A new set of standards and mechanism is set up for international carbon markets.

It is imperative that FS firms take action now to align with these commitments and proposals. More importantly, it is time for FS sectors to act proactively to weave sustainability into their business models, their product offerings, as well as their culture to manage climate risk and to unlock economic potential for themselves, their clients, as well as the wider economy. This includes accessing their value chain to detect hot spots of climate risk exposure, and addressing these risk concerns in governance, risk management, strategy and matrix and targets as recommended by TCFD.

As AP governments ramp up their sustainability agenda in parallel with their global counterparts, regulatory fragmentation will continue to escalate. For example, ASEAN released the first version of its sustainability taxonomy in November 2021, taking a different approach compared to the EU. Thus, for FS firms within the AP region, and in particular, those with a global presence, the cost and complexity associated with climate-related compliance is likely to increase in 2022.

### Navigating the sustainability journey with a bottom-up approach: setting a target for FS firms

A theme for industry efforts on sustainability in 2022 is 'from compliance to proactive actions'. As the Deloitte EMEA Centre for Regulatory Strategy suggested in a November 2021 article, the sustainability expertise built in FS firms' risk and compliance functions could help these firms set net zero targets for themselves and push forward industry-led initiatives to net zero.<sup>101</sup> For instance, the Glasgow Financial Alliance for Net Zero is a platform for FS firms that have committed to net zero to collaborate efforts on this objective; focus areas include aligning the FS sector pathway with other global industries, driving convergence on sector-wide best practices on transition plans, supporting development, implementing portfolio alignment metrics, and mobilising private capital.

For FS firms that would like to set their own greenhouse gas emission targets, there are a number of organisations dedicated to helping firms set science-based targets, such

as the Science Based Targets initiative (SBTi). The SBTi is an initiative driven by the Carbon Disclosure Project, the United Nations Global Compact, the World Resource Institute and the World Wide Fund for Nature. By providing criteria and validations on net zero targets for firms, the SBTi helps align actions of individual firms with national commitments on net zero.

Looking across the FS sectors in the AP region, firms are taking necessary steps to navigate the sustainability agenda set out by national governments and financial regulators. For a successful transition journey, Deloitte laid out a five step framework in its paper *Five Steps to Accelerate to Zero*<sup>102</sup>:



As the FS sector gears up its sustainability agenda and prepares to implement climate-related regulatory requirements, major hurdles in disclosure, taxonomies, and data remain.

**Key regulatory developments to watch in 2022 for banks, insurers and asset managers**

**i. Banking: climate-related financial risk on the horizon of 2022**

**01. Climate related financial risk management on the horizon**

In addition to disclosure and reporting requirements, banking standard-setters and regulators will continue to progress on other measures such as stress testing and scenario analysis. In the ACRS 2020 paper *Climate Related Risk Stress Testing*, we discussed the scenarios being used, and modelling techniques being leveraged for climate stress testing.<sup>103</sup> In 2021,

regulators took various initiatives to explore stress testing models. For example, on 3 September 2021, APRA released the information paper on *Climate Vulnerability Assessment*. The assessment will measure the potential financial impact of plausible climate scenarios on individual institutions and the financial market, with results to be published later this year.<sup>104</sup> On 30 December 2021, the HKMA published results from its stress testing pilot program, concluding that while climate change pose adverse impacts on the banking sector, banks are currently well-capitalised to withstand these impacts.<sup>105</sup> The HKMA will continue to support banks' capacity building in climate risk stress testing and enhance the stress testing framework.

In 2022, regulators and standard-setters such as the NGFS will continue to improve the relevant stress testing scenarios and tackle challenges in implementation. Additionally, regulators will expect

firms to start to incorporate climate-related aspects into broader financial risk management frameworks. In November 2021, BCBS published a consultation paper on *Principles for the Effective Management and Supervision of Climate-related Financial Risks*. The consultative paper proposed 12 principles on how FS firms should take climate-related risks into account with respect to their financial risk management, including capital and liquidity risk management, internal controls, etc.<sup>106</sup> These principles require banks to understand, measure and address material impacts of climate change on credit, liquidity, market, operational and other risks in its financial risk management framework. In the AP region, some jurisdictions have already incorporated these principles into their climate risk management guidelines.

Although the scope of this consultation paper does not go beyond measures already taken by some AP regulators, such as the HKMA proposed *Supervisory Policy Manual on climate risk management* and APRA's *CPG 229 Climate Change Financial Risk*, it is generally perceived as a major step the BCBS is taking towards establishing a globally consistent framework on climate-related financial risk. Its final form will be an important reference point for AP regulators that have not yet incorporated climate-related financial risks in their regulatory frameworks, and thus should be closely monitored by regulators and FS firms in the region.

Looking beyond the scope of the BCBS consultative principles, other leading supervisory practices in this area include consideration of capital charges on climate-related risk. The UK PRA published the *Climate Change Adaptation Report 2021* that focused on climate-related financial risk management and the role of capital requirements.<sup>107</sup> In the report, the UK PRA concluded that climate-related financial risks are currently only partially captured by existing regulatory and supervisory frameworks, and that a gap still exists. The report also indicated that in 2022, the UK PRA will be switching from assessing implementation of climate-related supervisory expectations to actively supervising against them. Regarding management of financial risks, the UK PRA report goes one step further to indicate that in addition to requiring banks to take climate-related risks into account when assessing their own capital requirements, the UK PRA may consider imposing “an additional capital charge or scalar where appropriate”.

Developments in this space are worth paying close attention to by the FS sector in the AP region as a potential direction of travel by regulators.

## 02. Supporting net zero by helping clients to transform

The journey to sustainability is an effort to be made by all sectors in the economy. How actions by different sectors are aligned with net zero commitments will be an important topic for the FS sector. To achieve net zero targets, banks and their clients will need to work closely together—particularly for clients in the supply chain of carbon-intensive sectors. While a small number of the world's largest energy companies have announced their commitment to net zero emissions, the transition will undoubtedly take time. As banks are under increasing pressure to stop financing carbon-intensive sectors, what reduced financing means to the energy sector, and what this means for the economy in the near and medium term, remains to be seen.

### ii. Insurance: Assessing and managing climate-related risks on both sides of the balance sheet

As discussed earlier in this *Regulatory Outlook*, insurers are urged to actively address climate-related risks on both sides of their balance sheet. On the liability side, risks such as extreme weather events, or physical loss associated with climate change, could cause material financial loss. In recent years, increased frequency of natural disasters has led to large pay-outs for insurers in the AP region. On the asset side, as insurers are usually large institutional investors, climate-related risks on investment assets could also have a material impact on the insurer. In addition to physical risk and transition risk, insurers face liability risk that involves climate-related claims under certain insurance policies.

The IAIS *Application Paper on the Supervision of Climate-related Risks in the Insurance Sector* serves as a background document and guidance on how the IAIS ICPs could be implemented to manage climate-related risks.<sup>108</sup> While the Application Paper covers a number of ICPs, regulators retain the flexibility to implement these recommendations in a manner suitable to their own jurisdiction and in a proportionate manner.

Due to the differences in business lines and products offered, some insurers have already had significant experience in natural catastrophe modelling and stress testing on scenarios such as extreme weather events as part of their ORSA. The IAIS noted in the Application Paper that while this experience is helpful in understanding climate-related risks' impact on the insurance sector,

some climate risks manifest over a period of time longer than the time horizons used in ORSAs. It is therefore recommended that in addition to assessing the long-term impact of climate change, insurers should consider appropriate scenarios with extended time horizons.

In terms of disclosure, insurers in the AP region are generally behind peers in Europe. However, with the efforts being made by national regulators to adopt TCFD recommendations, we believe it is imperative that insurers in the AP region prepare for and begin implementing TCFD disclosure standards.

**Table 3: Supervisory practices mapped to IAIS recommendations**

Elements to consider as proposed by IAIS	HKIA <sup>109</sup>	MAS <sup>110</sup>	APRA <sup>111</sup>	UK PRA <sup>112</sup>
Business objectives and strategy of the insurer		✓	✓	✓
Role of the Board and senior management		✓	✓	
Remuneration				
Risk management	✓	✓	✓	✓
Compliance function				
Actuarial function				
Internal audit function		✓		
Outsourcing			✓	
Underwriting policy		✓	✓	
ORSA (stress testing and scenario analysis)		✓	✓	✓
Investments		✓	✓	✓
Disclosure	✓	✓	✓	✓

### iii. Asset management: Addressing greenwashing

The global asset management sector and securities regulators are also key players in a green financial system. In November 2021, IOSCO issued a set of recommendations on sustainability-related practices, policies, procedures and disclosure in asset management. The IOSCO report summarised milestones of local regulators' adoption of TCFD recommendations, and AP jurisdictions including New Zealand, Singapore, and Hong Kong SAR are among front runners, alongside European peers. For example, Singapore Exchange announced on 15 December 2021 that starting from 1 January 2022, all issuers must provide climate reporting on a 'comply or explain' basis.<sup>113</sup>

Greenwashing remains a key concern for regulators with the growth of ESG-linked bonds. IOSCO in its recommendation report defined greenwashing as "the practice of misrepresenting sustainability-related practices or the sustainability-related features of investment products".<sup>114</sup> There are a number of factors contributing to potential greenwashing. In a February 2021 speech, the CEO of HK SFC and Chair of IOSCO, acknowledged that taxonomies, reliable data, clear guidance on disclosure for asset managers, as well as enhanced supervision over third party data and rating providers can all make greenwashing more difficult.<sup>115</sup> To support this statement, IOSCO expressed strong support for the newly established ISSB and the work it is doing on the comprehensive global baseline for disclosure, and announced that it will work closely with the ISSB on this initiative and endorse the disclosure standard by the end of 2022. IOSCO, in its consultation report published in July 2021, also addressed the issue of ESG ratings and data service providers. In 2022, we will see standard setters and regulators working together on these areas and adopting relevant guidance and measures to 'tie up loose ends' in the FS system to help prevent greenwashing.

## Continuing on the sustainability journey: challenges to tackle for 2022 and beyond

### 01. Voluntary and mandated adoption of TCFD

In the AP region, a spectrum of approaches is being taken by regulators. While FS firms in some jurisdictions have only commenced efforts to prepare for TCFD adoption, other jurisdictions are already requiring mandatory climate-related disclosures. As we enter 2022, more FS firms will start to see the urgency of adopting TCFD recommendations, both to meet investor expectations as well as to comply with existing or upcoming regulatory requirements. At the global standard-setting level,

efforts are being made towards globally consistent TCFD disclosure standards. The IFRS-ISSB standards, when completed, will serve as a solid foundation for consistent TCFD adoption across jurisdictions. Firms that have not yet adopted TCFD should start doing so by performing maturity assessments for their own organisations.

### 02. Regional developments on green taxonomy

The lack of a globally consistent green taxonomy in sustainable finance has been an issue for policy makers in recent years. Taxonomies play a key role in reducing greenwashing and facilitating issuance of green bonds, and is therefore a priority for policy makers and standard setters. The first version of the ASEAN Taxonomy for Sustainable Finance, published in November 2021, is a significant effort made by jurisdictions in the AP region to harmonise standards. The ASEAN Taxonomy Board indicated that the first version of the taxonomy will be a basis for consultation and discussion, and that work will continue to develop a more comprehensive taxonomy.<sup>116</sup>

### 03. Addressing the data challenge

Availability and quality of data is an essential element of climate-related disclosure. However, the lack of available and reliable data remains an issue due to inconsistency in calculation and estimation methodologies. Furthermore, ESG assurance is still relatively limited and far behind the rigour of financial audits. This situation has been changing rapidly in recent years and firms need to stay on top of the latest and forthcoming reporting standards as well as best practices, and begin to implement and embed more robust data collection capabilities, and controls.

Another major regional development to watch for in 2022 is the Regional Comprehensive Economic Partnership agreement (RCEP), a free trade agreement among Australia, Brunei, Cambodia, China, Indonesia, Japan, South Korea, Laos, Malaysia, Myanmar, New Zealand, the Philippines, Singapore, Thailand, and Vietnam. The RCEP came into effect on 1 January 2022. Apart from facilitating cross-border trade and investment, the sharing of data on country of origin under RCEP will have a significant impact on sustainable financing across supply chains, regional foreign direct investment and responsible sourcing, and will play a central role in post COVID-19 resilience building in the region. By providing detailed and reliable data, the RCEP will also contribute to combatting greenwashing in the region.

### 04. Putting a price on carbon

The carbon market plays a crucial role in sustainability. One of the key achievements of COP26 is the development of an effective carbon market according

to Article 6 of the Paris Accord. In 2022 and beyond, carbon markets will play an important role in incentivising emission reductions and helping nations and individual firms achieve committed targets. In the AP region, carbon trading schemes are already being explored by jurisdictions such as China Mainland.

**05. Use of digital technology in sustainable finance**

Use of technology can help facilitate the sustainability journey. This is a cutting-edge area that the industry as well as regulators are both exploring. Examples in the FS sector include the use of technologies such as satellite imagery to collect data for building, calibrating and improving physical risk models, and use of ML to analyse companies' ESG performance. In the AP region, for example, the HKMA collaborated with the BIS Innovation Hub in Hong Kong SAR to develop digital platforms that ensure transparency and efficiency in the green bond lifecycle, leveraging blockchain, smart contracts, Internet of Things, and digital assets. The two prototypes delivered in November 2021 (one based on a permissioned distributed ledger platform, and the other based on public permissionless blockchain infrastructure) will also enable retail investors to access green impact data in real-time.<sup>117</sup> We expect digital tools to play a game-changing role in sustainable finance in the coming years.

**06. Realising sustainable economic opportunities for the AP region**

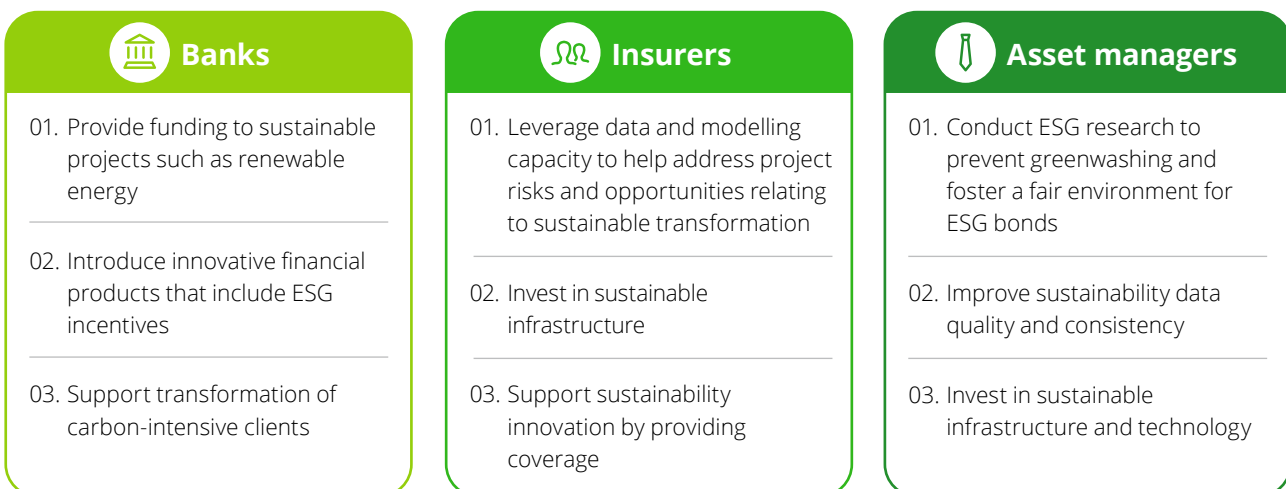
The Deloitte 2021 paper *Asia Pacific's Turning Point* illustrated the potential of the AP region in both economic growth opportunities, as well as its potential to lead in relevant discussions globally. According to the report, not taking action to address climate change would cost the region 96 trillion USD by 2070; In contrast, strong action would bring 47 trillion USD of economic gains within the same timeframe.<sup>118</sup> As indicated at COP26, the FS sector has a critical role to play in supporting both the top-down and bottom-up approaches to net zero, as well as unlocking economic opportunities for the AP region.

**07. Legal frameworks on sustainability**

As political momentum continues to grow on achieving net zero, legal frameworks supporting the net zero target is needed for successful implementation. In a number of jurisdictions in the AP region, the legislative process is underway but still lagging behind public policy developments. The FS sector is expected to play an important role in conducting to decarbonisation without enhanced legal incentives. To create greater synergy across all sectors in the economy to achieve net zero targets, legislative developments on sustainability will be crucial in 2022 and beyond.

For the FS sector, how firms help clients achieve sustainability goals through their business models, while remaining economically competitive and profitable themselves is key.

**Figure 3: FS sector's role in achieving net zero**





## Key considerations



FS firms should develop firm-wide strategies on sustainability, identify risks and opportunities arising from decarbonisation, and set up clear governance and management structure.



FS firms should look beyond their own business and review the entire supply chain.



FS firms should provide training, debriefing and educational sessions to Board and senior management on sustainability topics.



FS firms should provide training and debriefing to all staff members to make sure the firm's sustainable strategy is transparent and well understood throughout the firm, including climate risk management and sustainable financing strategy.



FS firms should have a clear understanding of climate-related impact on risks including credit, liquidity, underwriting, strategic, reputational, operational, and other relevant risks with a long-term perspective.



FS firms should adopt TCFD recommendations, and consider where further uplifts may be required to comply with new or forthcoming mandatory disclosure requirements from AP regulators.



Insurers should better understand the carbon footprint of their investment portfolios.



Insurers are expected to assess materiality of climate-related risks as part of scenario analysis and/or stress testing in their ORSA. Stress scenarios for climate-related risks should be commensurate with the characteristics of those risks, such as longer time horizons. Longer-term scenarios reflecting the different temperature increase levels should be used to capture the impact of climate change.



Rating agencies and data service providers should develop and publish robust, clear and transparent rating methodologies for ESG ratings and data products risk management.



Asset managers should review and enhance data availability and follow jurisdictional developments across AP and other regions to better prepare for mandatory disclosure requirements.

# Future of FSI Regulation





While current policy priorities focus on recovery, we believe it is imperative to look beyond 2022. What would policy makers be looking at in the next three to five years? Without a doubt, digitalisation will continue, and the world will progress its decarbonisation and sustainable development efforts. We may even see intersections between these two themes and the increased use of digital technology to achieve sustainable growth goals. As noted in this *Regulatory Outlook*, to maintain financial stability and ensure customer protection during this transformation, there will be a number of issues we need to pay attention to and address with caution.

We believe the following areas in the FS sector will experience significant change over the next five years:

01. The cost of managing a multilateral business will keep increasing, with economic dislocation and data localisation continuing to be key trends. Additionally, the Organisation for Economic Co-operation and Development's 'two pillar' tax reform, which sets a minimum tax for global corporates will also have a major impact on big global players.
02. Regulatory fragmentation will continue to exist due to multiple factors, including COVID-19 policy measures and uneven pace of normalisation, data protection laws aiming to ensure personal data protection and national security, geopolitical developments around the world, macroeconomic policies to address inflation, and rapid developments in sustainability and digital currency. The complexity of managing the fragmentation as well as cost of doing business for multinational firms will continue to increase as a result.
03. How FS firms operate will be changed by more advanced technological infrastructure such as cloud computing, and increasing sophistication of online communication and collaboration tools. Technology companies will have a bigger presence in the financial sector as infrastructure providers. Wide adoption of the cloud will foster digitalisation of products and services. We will see more innovative FS products in the market competing with digital banks and digital insurers. Improved infrastructure will also enable FS firms to better leverage AI to process large amounts of data. The importance of ethics considerations of AI and how to supervise it will be amplified, as it will have a major implication on customer outcomes. Robust operational resilience will be another area of focus for regulators and FS firms.
04. Accounting for 'double materiality', financial materiality and social and environmental impact materiality, in all parts of operations will be crucial for FS firms. Rather than treating sustainability as a corporate responsibility topic, a comprehensive view on how climate risk will impact on solvency, risk management, and operational resilience should be taken into account for FS firms. FS firms should consider sustainability through its financial and operational impact to the firm, as well as through its impact to the society and environment.
05. Culture and conduct will continue to be key areas of focus for FS firms. The increased attention on the 'S' and 'G' components of ESG will have a larger impact on culture and conduct frameworks.
06. The traditional role of FS firms as central intermediaries or risk pooling vehicles will be challenged with the advent of digital currencies and DeFi. FS firms will need to adapt and innovate their business models and services to continue to be relevant.
07. Regulators will continue to adopt technology in regulation and supervision, pushing for parallel investments by FS firms.
08. Regulators will look at new ways of regulation and supervision, shifting away from the current theme-oriented, entity-based approach to an activity-based approach, in order to apply consistent rules to the same business activities and risks, including financial services provided by tech firms.

Given these developments, trade-offs between financial regulations tailored to jurisdictional specificities and regulatory fragmentation will continue to challenge both regulators and the FS sector. In the meantime, initiatives on sustainability and innovation will advance full steam ahead, transforming the FS sector at an accelerated speed. As transformation takes place at the global level, local regulators and FS firms will need to lead or follow in a more collaborative manner to achieve the sustainable, inclusive and resilient recovery that is hoped for the region.

# Appendix

**Table 4: Policy priorities of global standard setters**

Standard setter	2021-2022 Policy priorities
<b>FSB<sup>119</sup></b>	<ul style="list-style-type: none"> <li>• Understanding interconnectedness and enhancing resilience across NFBI</li> <li>• Payments services that are fit for the future</li> </ul>
<b>BCBS<sup>120</sup></b>	<ul style="list-style-type: none"> <li>• Covid-19 resilience and recovery</li> <li>• Horizon scanning, analysis of structural trends and mitigation of risks</li> <li>• Strengthening supervisory coordination and practices</li> </ul>
<b>IAIS<sup>121</sup></b>	<ul style="list-style-type: none"> <li>• Assessing and responding to global market trends and developments which present opportunities, challenges and risks</li> <li>• Setting and maintaining globally recognised standards for insurance supervision that are effective and proportionate</li> <li>• Sharing good supervisory practices and facilitating understanding of supervisory issues</li> <li>• Assessing and promoting observance of supervisory material</li> </ul>
<b>IOSCO<sup>122</sup></b>	<ul style="list-style-type: none"> <li>• Financial stability and systemic risks of FI activities</li> <li>• Risks exacerbated by the COVID-19 pandemic—misconduct risks, operational resilience, and fraud</li> <li>• Sustainable finance</li> <li>• Passive investing and index providers</li> <li>• Market fragmentation in securities and derivatives markets</li> <li>• Crypto-assets (including stablecoins)</li> <li>• AI and ML</li> <li>• Retail distribution and digitalisation</li> </ul>

**Table 5: AP public policy priorities published as of December 2021**

Regulator	2021-2022 Priorities
<b>Australia</b> <sup>123,124</sup>	<ul style="list-style-type: none"> <li>• Promoting economic recovery</li> <li>• Reduced risk of harm to consumers exposed to poor product governance and design and investment scams</li> <li>• Driving industry readiness and compliance with standards set by law reform initiatives</li> <li>• Maintaining financial system resilience</li> <li>• Improving outcomes for superannuation members</li> <li>• Transforming governance, risk culture, remuneration and accountability across all regulated entities</li> <li>• Improving cyber resilience across the financial system</li> </ul>
<b>China Mainland</b> <sup>125,126</sup>	<ul style="list-style-type: none"> <li>• The 14th Five-Year Plan (2021-2025) focusing on innovation, topics such as digitalisation, green development, and dual circulation strategy.<sup>127</sup> In further support of the plan, the CBRIC released guidance in January 2022 to provide clarity to banks and insurance institutions on the process of digital transformation, and the mechanisms, methods, and actions that banks and insurance institutions will be required to take when undertaking a digital transformation program.<sup>128</sup></li> <li>• Cyber security 3-year Plan focusing on developing a high-quality cyber security industry.<sup>129</sup></li> <li>• PBOC 2022 Work Plan focusing on enhancing the macro-prudential framework, deepening financial reform, supporting target sectors including microfinance, green finance and innovation, etc.</li> </ul>
<b>Hong Kong SAR</b>	<ul style="list-style-type: none"> <li>• Integration into the Greater Bay Area</li> <li>• Fintech 2025 strategy</li> <li>• Cross-agency collaborative approach to support Hong Kong's Climate Action Plan 2050</li> </ul>
<b>Indonesia</b> <sup>130</sup>	<ul style="list-style-type: none"> <li>• Managing cliff effect risk from policy normalisation</li> <li>• Encouraging green economy development</li> <li>• Accelerating the transformation of digital economy</li> <li>• Improving financial inclusion</li> <li>• Strengthening Islamic finance</li> <li>• Reforming the NBFi sector</li> </ul>
<b>Japan</b> <sup>131</sup>	<ul style="list-style-type: none"> <li>• Overcoming the challenges of COVID-19 and bringing about a robust economic recovery</li> <li>• Development of a financial system that achieves a vibrant economy and society</li> <li>• Further developing the JFSA's financial policy</li> </ul>
<b>New Zealand</b> <sup>132</sup>	<ul style="list-style-type: none"> <li>• Delivering on regulatory reform and implementation</li> <li>• Ensuring products and services are true to label</li> <li>• Promoting good conduct</li> <li>• Responding to the increased retail activity in capital markets</li> <li>• Strengthening cyber and other operational resilience</li> </ul>
<b>South Korea</b> <sup>133,134</sup>	<ul style="list-style-type: none"> <li>• Orderly exit and normalisation from the pandemic-era policy measures while closely examining and managing the vulnerable and the so-called shadow banking sector</li> <li>• Promoting financial development, including digital innovation, and balance innovation with consumer protection</li> <li>• Supporting carbon zero commitment and sustainable growth</li> </ul>
<b>Thailand</b> <sup>135</sup>	<ul style="list-style-type: none"> <li>• Promoting digital transformation</li> <li>• Ensuring financial stability</li> <li>• Tackling cyber threats and technology risks</li> <li>• Promoting ESG as an integral part of all operations</li> </ul>

# Glossary

**AI**—Artificial Intelligence

**AMLab**—Anti-Money Laundering Regtech Lab

**AP**—Asia Pacific

**APRA**—Australian Prudential Regulation Authority

**ASEAN**—Association of Southeast Asian Nations

**ASIC**—Australian Securities and Investments Commission

**BCBS**—Basel Committee on Banking Supervision

**BCP**—Business Continuity Plan

**BIS**—Bank for International Settlements

**BOJ**—Bank of Japan

**BOT**—Bank of Thailand

**CBDC**—Central Bank Digital Currency

**CBIRC**—The China Banking and Insurance Regulatory Commission

**ComFrame**—The Common Framework for the Supervision of Internationally Active Insurance Groups

**COP26**—2021 United Nations Climate Change Conference

**COVID-19**—Coronavirus Disease

**DeFi**—Decentralised Finance

**DIHC**—Designated Insurance Holding Company

**EMEA**—Europe, Middle East and Africa

**ESG**—Environmental, Social and Governance

**EU**—European Union

**FAR**—Financial Accountability Regime

**Fintech**—Financial Technology

**FS**—Financial Services

**FSB**—Financial Stability Board

**FSI**—Financial Services Industry

**GDP**—Gross Domestic Product

**GFC**—Global Financial Crisis

**GSC**—Global Stablecoin

**HK SFC**—Hong Kong Securities and Futures Commission

**HKIA**—Hong Kong Insurance Authority

**HKMA**—Hong Kong Monetary Authority

**IAIS**—International Association of Insurance Supervisors

**ICS**—Insurance Capital Standard

**ICT**—Information and Communication Technology

**IFRS**—International Financial Reporting Standards Foundation

**IMF**—International Monetary Fund

**IOSCO**—International Organisation of Securities Commissions

**ISSB**—IFRS International Sustainability Standard Board

**IT**—Information Technology

**JFSA**—Financial Services Agency of Japan

**LAGIC**—Life and General Insurance Capital Standards

**MAS**—Monetary Authority of Singapore

**ML**—Machine Learning

**ML/FT**—Money Laundering and the Financing of Terrorism

**MMF**—Money Market Fund

**FATF**—Financial Action Task Force

**NBFI**—Non-bank Financial Intermediation

**NGFS**—Network of Central Banks and Supervisors for Greening the Financial System

**OCC**—Office of the Comptroller of the Currency

**ORSA**—Own Risk Self-Assessment

**P2P**—Peer-to-Peer

**PBOC**—The People's Bank of China

**PHI**—Private Health Insurance

**RBA**—Reserve Bank of Australia

**RCEP**—Regional Comprehensive Economic Partnership agreement

**Regtech**—Regulatory Technology

**SAR**—Special Administrative Region

**SBTi**—Science Based Targets initiative

**SK FSC**—Financial Services Commission (South Korea)

**Suptech**—Supervisory Technology

**TCFD**—Task Force on Climate-related Financial Disclosures

**UK**—United Kingdom

**UK PRA**—United Kingdom Prudential Regulation Authority

**US**—United States

**USD**—United States Dollar

**VPNs**—Virtual Private Networks

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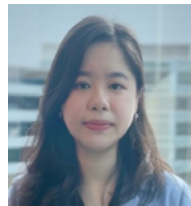
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