

**Centre for
Regulatory Strategy
Asia Pacific**

2023 Asia Pacific Financial Services Regulatory Outlook

Strengthening Resilience in Times of Uncertainty

Global Foreword	3
Asia Pacific Foreword	8
Macroeconomic Environment and Regulatory Agendas for 2023	10
Operational Resilience	16
Digital Assets	24
Sustainability and Climate	33
Future of FS Regulation in the AP Region	38

Global Foreword

Resilience, vigilance, and positioning for change

Financial services firms (FS firms) face challenging operating conditions worldwide: high inflation, interest rate volatility, disruptions to global supply chains, and slowing economies. The International Monetary Fund's (IMF) sobering assessment is that "the worst is yet to come."¹

These disruptive factors will understandably command attention in the near term. However, firms also face medium-term strategic challenges. The shift towards a multipolar geopolitical order creates new frictions and risks. Technology continues to transform the sector, creating new opportunities but also many challenges. The twin sustainability crises of climate change and ecological degradation demand enormous reallocations of capital, not to mention vigilance for the risks they entail.

As we enter 2023, boards and executive teams therefore face two major sets of questions. First, what steps are they taking to remain resilient and support customers through near-term economic pressures? Second, are their strategic plans aligned with the medium-term structural changes in the operating environment?

A strong grasp of the regulatory and supervisory environment must be central to how firms answer these questions.

In this global foreword, we set out our view of the major regulatory strategy issues facing the financial services industry worldwide, first in terms of the immediate pressures created by the gloomy economic situation, and then in terms of the major structural changes highlighted above: geopolitical, technology, and sustainability.

The economic outlook

Global growth is slowing and, although a global recession is not the central case, the IMF says 2023 will nevertheless "feel" recessionary to many, with perhaps a third of the global economy set for contraction.² Households and businesses in many parts of the world are feeling the squeeze of persistently high inflation Figure 1, particularly from commodity and energy prices, while sharply rising interest rates Figure 2 are increasing debt service ratios. Credit risks are consequently elevated, and market confidence is fragile. Monetary and fiscal policies will need to be carefully balanced, and policymakers will be wary of what the IMF refers to as policy "miscalibration."³ To weather the storm, firms should be vigilant on multiple fronts.

First, firms must manage their own financial resilience in the face of declining credit quality. The work of the last 10 years to build capital buffers means that, globally, the banking sector enters 2023 in a generally resilient position, although emerging market banks appear more vulnerable to a downturn than their advanced economy counterparts.⁴ Many non-banks will also need to be on alert given the volumes of credit risk that have migrated outside the banking system in the last 10 years, including most recently to providers of buy-now-pay-later finance. Supervisors will focus on credit risk management (especially in relation to real estate and leveraged lending) across all regulated firms and will also scrutinise exposures to and connections with unregulated lenders.⁵

Second, firms will need to continue to support their customers through a period of economic hardship. Conduct supervisory expectations are now substantially higher than in previous downturns. In some countries, how lenders treat customers facing financial hardship will be a supervisory (and in some cases a political) priority, and industry will need to proactively identify vulnerable customers and take measures to support them. Insurers are likely to see rising numbers of customers struggling to cover their premiums, creating the possibility of protection gaps that will also draw supervisory attention.

Third, firms should be vigilant for sudden bouts of market volatility. Even the archetypically stable US Treasury market will need to be watched closely given recent observations of low liquidity and volatility, combined with the uncertain impact of the Securities and Exchange Commission's (SEC) new dealer rule.⁶ Firms should be ready for regulatory and supervisory measures to address "unfinished business" around non-bank financial stability issues, with several recent episodes of market turbulence (such as the dislocation of the UK government bond market in autumn 2022) thrusting these issues back up the agenda.⁷ Open-ended funds are a particular focus, where market volatility has the potential to clash with market illiquidity to trigger asset fire sales. Although the Financial Stability Board's (FSB) latest progress report on addressing the risks from non-bank financial intermediation indicates an ongoing programme of work, it remains unclear how far and how fast national authorities will implement any resulting regulatory changes.⁸ We nevertheless expect central banks and regulators to be working hard to understand these vulnerabilities and other possible sources of market disturbance. This will likely manifest in a continued emphasis on stress testing for individual regulated firms and the system as a whole, revisions to fund liquidity rules, and a focus on

firms' and counterparties' margining practices and ability to meet margin calls, including through data requests where gaps have been identified by supervisors.⁹

These are regulators' near-term preoccupations. They demand strong board engagement supported by robust management information, clarity around risk appetites, clear processes for escalation, and continuous internal communication between and across business lines and support functions to ensure consistency in messaging and decision-making. But they are by no means the only challenges facing industry or its regulators, and we now turn to three major sources of structural change with which firms must grapple: geopolitics, technological change, and sustainability.

Structural change

Geopolitics

Rising geopolitical tensions are contributing to the fragmentation of markets, with nations and business leaders looking at how to build supply chain resilience and security through greater localisation of production and supply. Firms operating across what are in some cases tense political borders will be directly affected by these tensions.

The Russia-Ukraine conflict provides a stark reminder that firms should be vigilant and cautious of geopolitical risks that can manifest very rapidly through numerous channels, whether in terms of operational resilience, financial crime, cybersecurity, or reputational risks. Many of these issues are not amenable to statistics-based risk modelling and require the use of more qualitative information to develop sophisticated scenario analyses. Supervisors will expect firms to have carried out "lessons learned" exercises from their experiences this year – for instance around sanctions and geographic footprints – and to have reviewed and, in some cases strengthened, their "severe but plausible" scenarios for evaluating their ability to withstand and recover from operational shocks. They will also have to "think the unthinkable" through reverse stress testing and emerging risk assessments. Supervisors will also expect firms to examine their own supply chains, which may in turn lead to more requests for "localisation," for example of data, IT infrastructure or people.

This is not only about weathering short-term shocks: it is also an issue of medium-term strategy, particularly around firms' geographic footprints and shifting patterns of international trade. At a minimum, this means boards reviewing risk appetites for operating in specific countries and with particular clients, as well as the reputational risks that will inevitably surround decisions to operate in or exit certain markets.

Technology

The financial system continues to undergo major technological transformations. New technologies enable both old and new firms to provide new and better products and services, develop better insights, and to do so ever-more efficiently. But they have also complicated supply chains and service delivery models while creating new sources of competition.

In some areas, the regulatory regime has struggled to maintain pace with technological innovation, but so too have firms' risk management and control frameworks. This has been clearest in relation to the complex relationships between regulated FS firms and third-, fourth-, and even fifth-party technology service providers, including Big Techs. The regulatory framework around operational resilience is pushing firms to address the resulting risks, although different countries and regions are adopting different approaches. Regulated firms will need to get their houses in order by untangling (and where possible simplifying) networks of technological service suppliers and ensuring their operational resilience. And where firms are pursuing shared delivery models, boards need to have strong assurance around their reliance on third parties.

Big Techs are also increasingly active in financial services in their own right as competitors to and partners of incumbent firms. In the near term, technology firms should accept the reality of "extra-territorial" financial services regulation which will either bring them within the supervisory perimeter, subject them to other direct forms of oversight, or see regulated firms being used as conduits through which such oversight can be gained. Over time, we expect financial services authorities will feel the need to develop a more integrated approach to the regulation of Big Techs, recognising their multiple roles in financial services. This will require them to work with data protection regulators and competition authorities. In the meantime, individual regulators are pursuing their own national approaches. In turn, regulated firms should factor in these different national requirements as they develop their global strategies for their overall relationships with Big Techs and other critical service providers, complicating the contracting process.

The regulatory framework also continues to evolve in attempts to keep pace with innovation around digital (particularly crypto) assets. While issues have persisted concerning unregulated players seeking to organise themselves around developing regulatory regimes, regulated firms have increasingly been engaging with a developing ecosystem of digital asset technology providers to develop more credible and mature client offerings.¹⁰ However, recent turmoil has changed the outlook, creating a potential crisis of legitimacy and trust around the fledgling industry. A further regulatory

response seems inevitable, although we see little prospect of international convergence where rules are being put in place, with jurisdictions differing along all manner of issues, from regulatory classifications (as securities, currencies, and so on), through to the intersection with financial crime frameworks, further complicating industry efforts to grow the sector.

Cyber risks are ever-present for FS firms, but the increasing digitisation and use of third party providers for services and support functions, combined with the geopolitical tensions referred to above, means that the threat perimeter is becoming more complex. These risks cut across all sectors of financial services, and regulators are pushing firms to continue to invest in their capabilities. Insurers are doubly exposed, as potential targets of cyberattacks but also as providers of cyber risk insurance, in relation to which regulators continue to probe around the ambiguity of policy coverage and the risk of so-called “silent cyber.”¹¹ Reporting of cyber incidents remains a key pillar of the regulatory framework, with some regulators moving to tighten reporting windows, and the FSB currently looking at the possibility of delivering more consistency in reporting.¹²

Climate and nature

The politics of sustainability have become more difficult with the ongoing debate, especially in Europe, about how to reconcile environmental goals with renewed energy security concerns, along with the emergence of an “anti-ESG” faction, and the spilling over of disagreements over the binding nature of some climate targets within the Glasgow Financial Alliance for Net Zero.^{13,14} But 2022 also provided ample evidence of how disruptive sudden swings in food and energy prices can be, as well as the impacts of increasingly frequent and intense natural disasters. These risks will only become more pronounced as the climate transition unfolds, and they will increasingly shape the financial services operating environment. Insurers face particular challenges given the twin task of managing the solvency implications of exposures to physical risks while continuing to protect policyholders, many of whom may face escalating costs for coverage, creating the risk that protection gaps emerge or widen.

Regulation and supervision will be key determinants of how firms must respond to these risks. In some areas, there appears to be a degree of supervisory convergence, most notably around prudential risk management and risk governance. Climate-related stress tests and/or scenario analysis exercises are becoming features of supervisory frameworks in many major jurisdictions, being well established in the EU and UK, Japan and Hong Kong Special Administrative

Region (SAR), and emerging onto the agenda in the US. Elsewhere, however, despite shared ambitions to address issues such as greenwashing (with investment funds in particular in the crosshairs around fund names, labelling, disclosure practices, and the green credentials of their underlying assets), firms are finding themselves contending with differing national requirements, particularly in terms of sustainability taxonomies. Even where supra-national attempts have been made, such as with the Association of Southeast Asian Nations (ASEAN) taxonomy, national variants will persist.

There have been more ambitious attempts to develop international standards around disclosure, most notably the ongoing work of the International Sustainability Standards Board (ISSB), which is driving toward the development of a global baseline with the support of international regulators such as the FSB. Some countries are continuing to develop their own frameworks, and while such frameworks may converge over time, in the near term firms will need to be able to store and manipulate data flexibly in order that it can be moulded to meet the needs of different jurisdictions. Indeed, sustainability data quality and coverage remain significant challenges for firms and with the use of proxy data still widespread, regulators are expected to push industry to address this in 2023.

There is divergence in the technical detail of regulatory frameworks to address sustainability, for instance in terms of how risks are captured in prudential rules, how funds are labelled, how insurance products are underwritten or offered, and what firms must disclose to the market. But the issue is fundamentally one of risk management, and to fulfill their risk management obligations, boards need confidence that they understand their business footprints and risk exposures. This confidence will not be delivered through mere compliance with regulation, but through the development of better data, sophisticated modelling capabilities, plausible scenario analyses, and engagement with scientific expertise and judgment. The absence of harmonised rules should not be a barrier to action, and the onus will very much remain with firms to be able to meet multiple sets of expectations and reconcile them across their operations where necessary.

The need for risk management has its complement in the development of new opportunities for innovation and market development. The reallocations of capital required for the climate and nature transition are enormous, with trillions of dollars needing to be intermediated, invested, insured, and risk managed worldwide across virtually all areas of economic

activity. And, put simply, the better grasp firms have of the risk environment, the better placed they will be to identify and exploit the corresponding opportunities in the years ahead.

Taking the long view

Firms face many headwinds as we enter the new year. Our view for the last several years has been that global firms face increasing difficulties in maintaining common systems or controls across their geographic footprints as regulatory frameworks diverge. Last year confirmed our view further and, as we have suggested above, the deteriorating geopolitical situation compounds the problem. The obligation will be squarely on firms to accommodate local factors when designing and implementing processes, controls, reporting, and all manner of other requirements, with limited prospects for regulatory harmonisation.

The major challenge for the industry in the year ahead is to navigate the choppy near-term economic waters – including

by engaging with supervisors in their efforts to monitor and address financial stability risks – without losing sight of the importance of the longer-term processes of change we have highlighted here, all of which demand ongoing investment. Regulation continues to be a major force that influences these trends, and a strategic view of the regulatory environment, as well as an ability to connect such a view with the review and challenge of business strategy decisions, remains an imperative for firms looking to stay at the forefront of the industry.

As ever, this global assessment provides a broad setting for our more detailed regional Regulatory Outlooks. In what follows, you will find our analysis for the Asia Pacific region, but readers with an interest in understanding the landscape in the Americas, UK and Europe, the Middle East and Africa (EMEA) can find them in the corresponding reports from our teams in those regions.



Seiji Kamiya
Centre for Regulatory Strategy
Asia Pacific



Irena Gecas-McCarthy
Center for Regulatory Strategy
Americas



David Strachan
Centre for Regulatory Strategy
Europe, Middle East and Africa

Figure 1 Inflation at end - 2022¹⁵

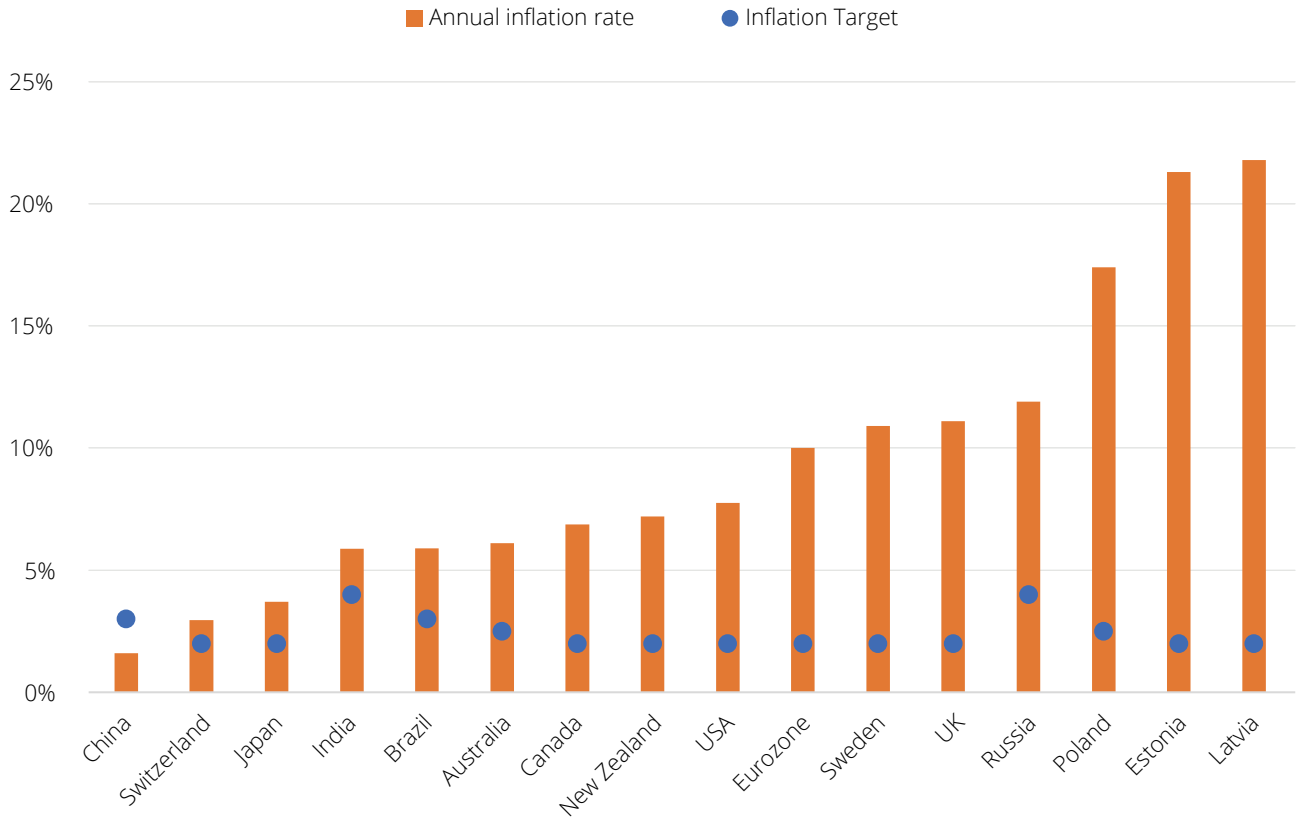
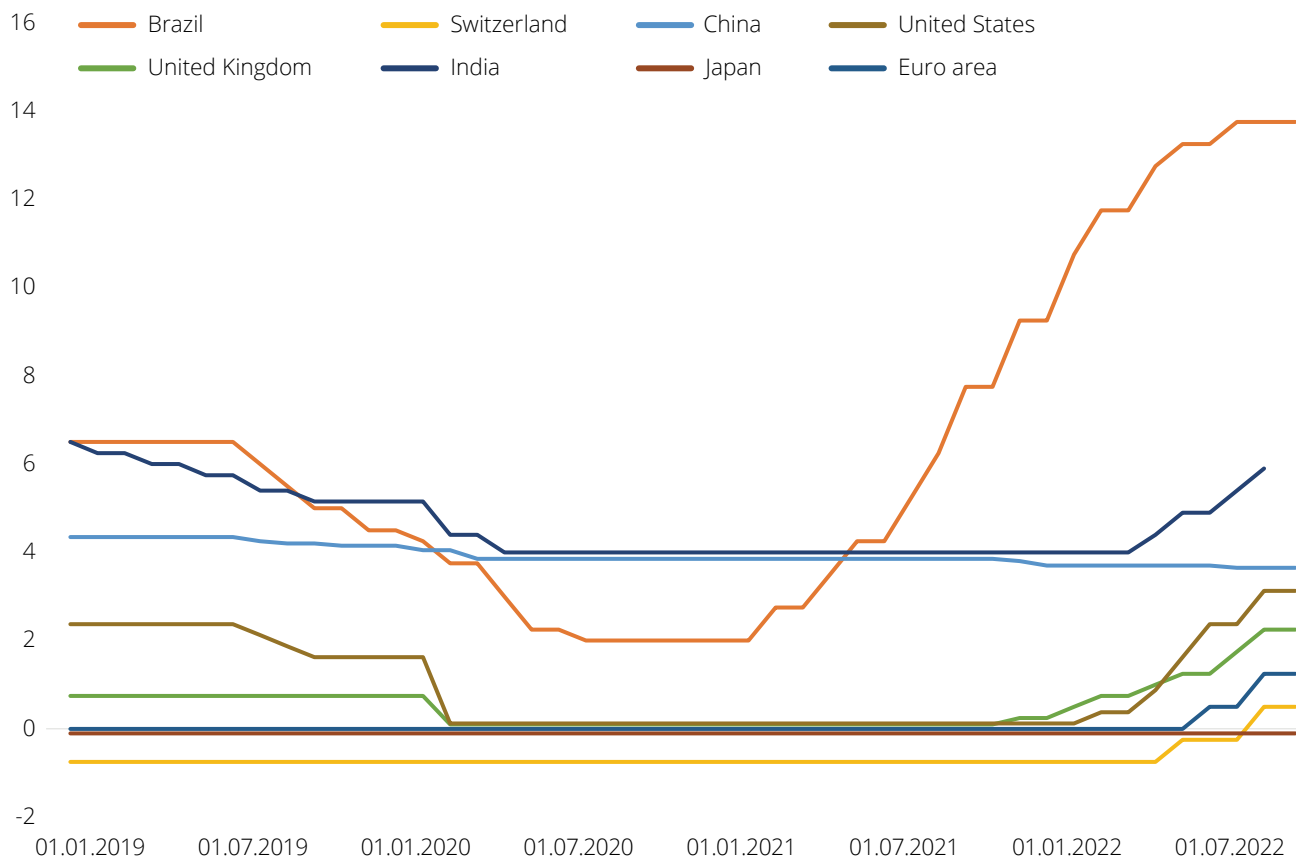


Figure 2 Interest rates¹⁶



Asia Pacific Foreword

As we begin 2023, it is instructive to reflect on our outlook at the start of 2022. Our perspective then was largely positive as we contemplated the end of the COVID-19 pandemic, with a level of confidence that Asia Pacific (AP) economies and firms were better prepared than their global counterparts to both withstand and respond to the scenarios that may emerge, and that the worst was behind us – with the exception of concerns around inflation, increasing credit risk exposures and the ongoing war for talent.

The Russia-Ukraine conflict, the continued significant shut-down to address COVID-19 in Chinese Mainland, as well as a host of other global challenges, led to a more muted outcome through 2022 than earlier anticipated. So, how then do we pivot to 2023 and the challenges and opportunities to be faced ahead? The IMF has started the year with a somewhat downbeat caution. Within our region, we see concerns around the level of economic growth due to a range of factors from property prices in Chinese Mainland through to the cost of energy in Japan, rising inflation, and elevated credit risk, balanced somewhat by green shoots with the reduction of COVID-19 restrictions in Chinese Mainland, and steadier growth in some jurisdictions including India and Indonesia.

Operational resilience and the management of external disruptions remain a strong theme for all firms and regulators in the region. Arguably, the AP region slightly lags the progress made in Europe in particular, however we see the pace picking up, and regulatory pressure leading to a greater focus on the topic in the region. In the face of COVID-19 and the Russia-Ukraine conflict, there is a broader recognition that supply chains extend well beyond immediate vendors, and that unless these are understood and controlled to a greater degree, security of supply would be difficult to achieve. The downstream systemic and customer impacts mean this issue continues to demand significant regulator and management time.

Another key development has been the rapid growth of digital asset markets, followed by the implosion of crypto, known as the 2022 'Crypto Winter'. A wave of high profile failures in recent months has triggered more intense regulatory scrutiny of the burgeoning digital asset market, with a particular focus on financial stability, financial crime and consumer protection. At the same time, AP regulators continue to explore digital asset technologies and business models, recognising their potential to transform financial

services fundamentally. This interplay of developmental and regulatory considerations will be a key dynamic for the digital asset ecosystem.

The development of the sustainability agenda in 2022 was significantly impacted by energy security concerns, leading to a re-examination of the transition paths and scenarios, as the risk of a disorderly transition remains significant. For regulators, a developing area of focus includes the role of capital requirements in the management of climate-related risks. Initial indications from the Bank of England have prompted other regulators to consider whether existing prudential frameworks can address environmental risk appropriately. This topic has also been explored in the US Federal Reserve with a staff paper indicating that a capital approach to climate risk requires careful assessment.¹⁷ No doubt the historic experience of operational risk capital modelling remains fresh in most regulators' minds.

Further developments in sustainability relate to disclosure, with the Taskforce on Nature-related Financial Disclosures (TNFD) publishing an updated version of its framework for disclosure requirements. With further beta editions to be published on a quarterly basis, the framework is rapidly evolving towards a final state in September 2023. The hope from the FSB is that once these standards are finalised regulators will quickly adopt and implement them.

Notwithstanding of the above developments, bridging data gaps remains the biggest challenge to producing Task Force on Climate-Related Disclosures (TCFD) and TNFD-aligned disclosure reports and managing climate risk. AP regulators are stepping up to help bridge the gap. This includes the development of data source repositories and a data catalogue, along with engaging technology providers to incubate and help scale climate tech solutions in the region.

In consideration of the above, we believe there are a number of key implications for FS firms operating in AP (and indeed globally):

- **Uncertainty remains a constant into 2023.** Continued geopolitical tensions, and the associated impact on energy and other markets will continue to impact global supply chains. This, along with the potential for new COVID-19 variants, and inconsistent approaches from jurisdictions mean FS firms in the AP region will continue to operate in an environment of high uncertainty.

- **Mixed regional economic outcomes will have implications for those firms whose business model is built on consistent growth.** Varying market conditions around property, credit and other factors, such as geopolitical tensions, all combine to challenge growth aspirations and market confidence.
- **Resilience is the new black.** From operational resilience, to climate resilience and cyber resilience – the imperative of transparency and understanding through the entire organisational value chain, along with the ability to control and influence input and output supply outcomes will be a major focus for regulators and FS firms in the region.
- **For insurers, a combination of climate risk, resilience and solvency will dominate the focus for 2023.** Insurers are clearly at the front end of climate exposures, and with similar dependencies to banks through extended value chains, they will be expected to have a sophisticated consideration of their ability to continue to operate and support all stakeholders in times of stress.

FS firms in AP have generally responded well to the pandemic, and the additional global stresses that came during 2022. The role of regulators will continue to be complex and challenging. As the Russia-Ukraine conflict continues, the impact of sustainability and climate change, increasing operational resilience and the impact of inflation

and interest rate rises remain areas of focus and compete for priority with AP regulators and FS firms alike. For FS firms, particularly those with a focus on growth, navigating 2023 and beyond will need a clearer focus and vision, including balancing growth objectives with consideration of social and economic inclusion. It is clear that we can't yet say we have emerged from the COVID crisis and its related impacts, in 2023, there are many moving parts that both regulators and FS firms alike will need to navigate – and there remains 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:

- [Macroeconomic Environment and Regulatory Agendas](#)
- [Operational Resilience](#)
- [Digital Assets](#)
- [Sustainability and Climate](#)
- [Future of FS Regulation in the AP Region](#)

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



Mike Ritchie
Australia Co-lead
Centre for Regulatory Strategy *Asia Pacific*



Nai Seng Wong
South East Asia Co-lead
Centre for Regulatory Strategy *Asia Pacific*



Shinya Kobayashi
Japan Co-lead
Centre for Regulatory Strategy *Asia Pacific*



Jaramie Nejal
Operations Lead
Centre for Regulatory Strategy *Asia Pacific*

Macroeconomic Environment and Regulatory Agendas for 2023

2022 saw some of the biggest economic challenges since the 2007/2008 financial crisis, such as high inflation, energy price volatility, and persistent supply chain disruptions. 2023 will continue to be a challenging year, with a complex mix of economic uncertainties across the AP region. In the face of a challenging year ahead, AP regulators will be focusing on the overall resilience of the financial system, while steaming ahead on agendas including sustainable finance and digitalisation.

Pivoting from 2022

After the reopening of a number of AP jurisdictions in 2021, a strong recovery of 6.5% GDP growth was achieved in 2021 according to the IMF *World Economic Outlook*.¹⁸ By the end of 2022, GDP growth is expected to have dropped to 4.0%¹⁹ due to several reasons:

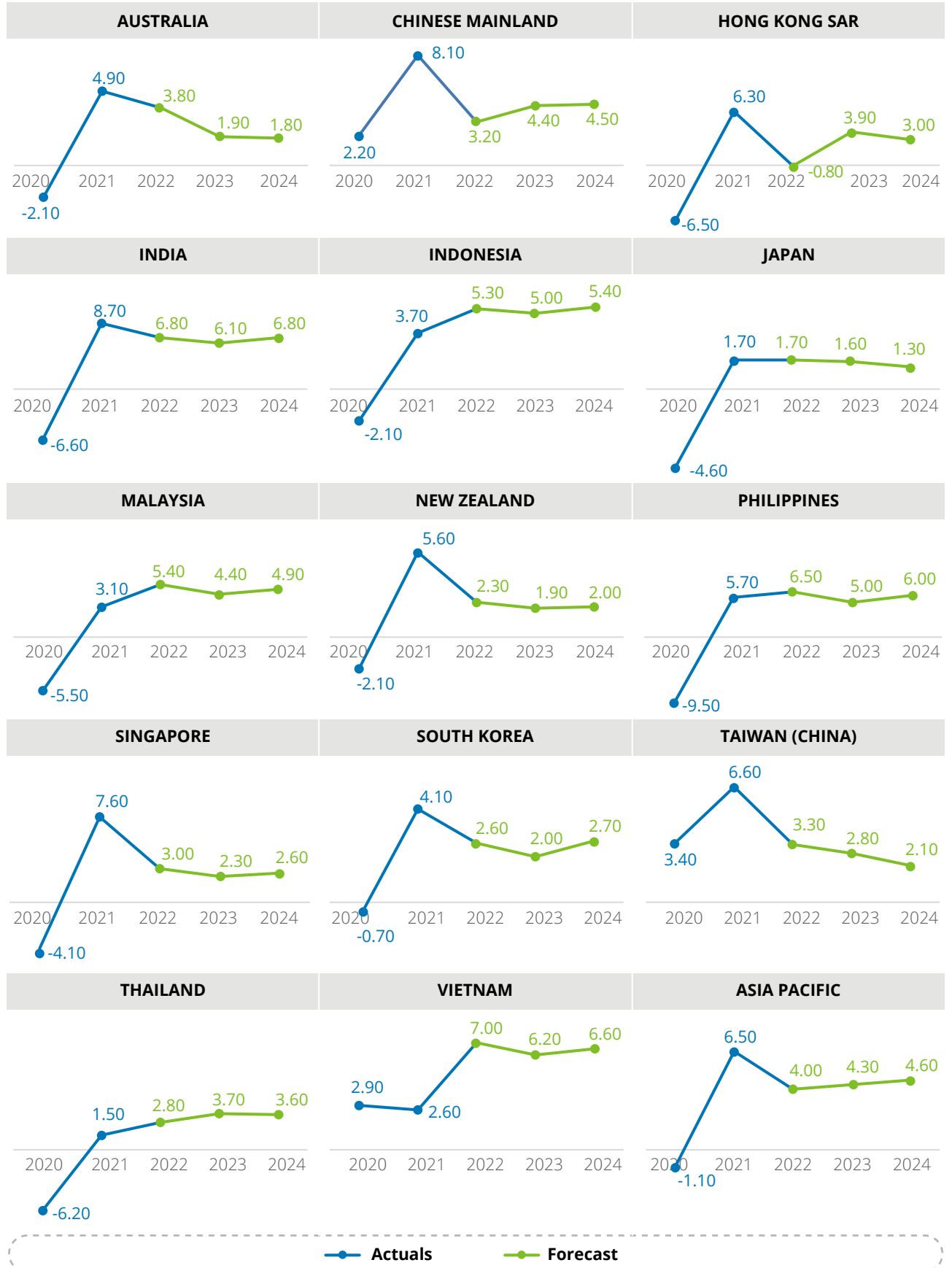
- The increase in COVID-19 cases in various parts of Chinese Mainland triggered a tightening of restrictive measures under the jurisdiction's zero-COVID policy, slowing down the domestic economic recovery and prolonging regional supply chain disruptions;
- The steep rate hikes of the US Federal Reserve and the European Central Bank in an effort to contain high inflation have dampened economic prospects. In 2022, the accumulated interest rate increases by the US Federal Reserve totalled 425 basis points. These rate hikes have contributed to capital outflows from some AP jurisdictions, and have contributed to some central banks in AP raising interest rates;
- The Russia-Ukraine conflict has caused turmoil in the energy markets, which together with the strong US dollar, has put further pressure on the economic recovery of AP countries that rely on energy imports.

Looking ahead at 2023

In 2023, the AP region will continue to recover, with headwinds from global economic challenges. In the face of these uncertainties, we expect the most important factors impacting the AP region in 2023 to be the following:

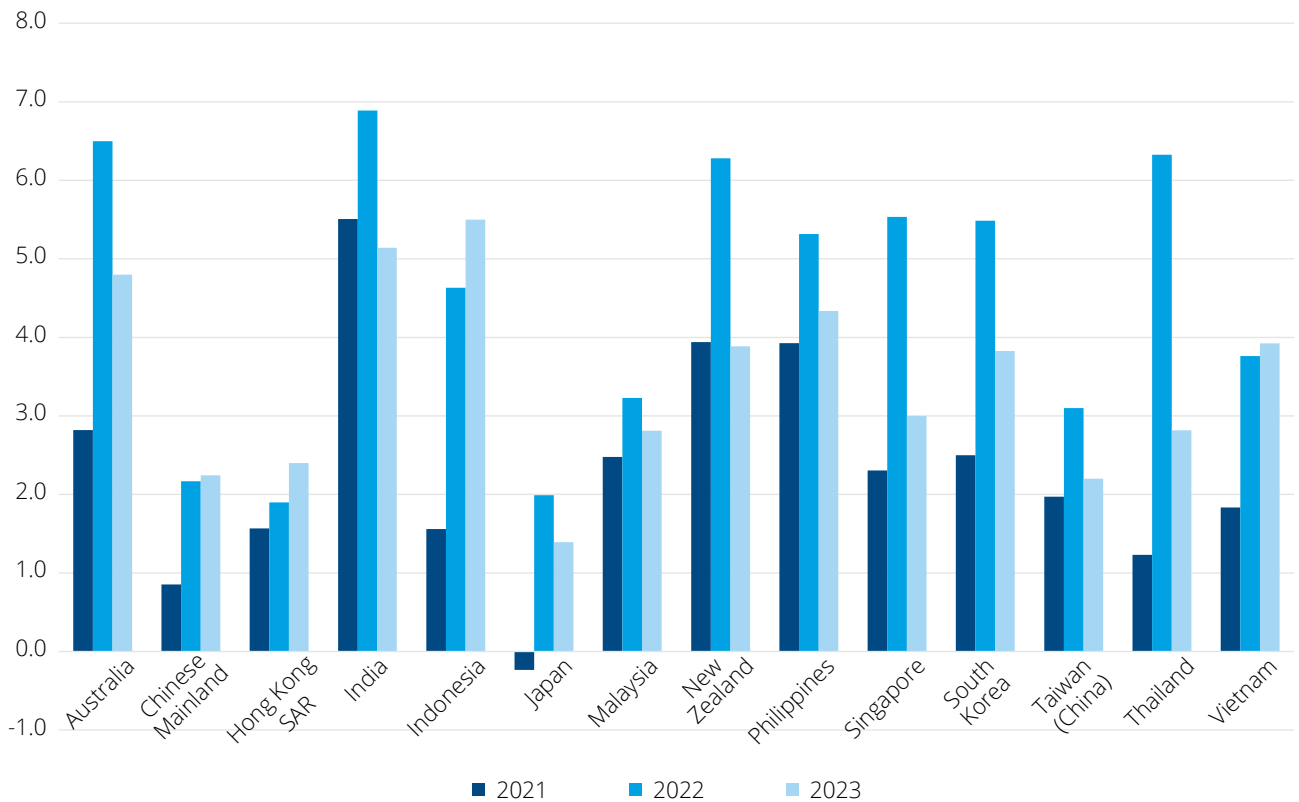
- **Economic recovery from the COVID-19 pandemic.** In the AP region, some jurisdictions such as Thailand and Singapore reopened to visitors in 2021. Others reopened in the second half of 2022, such as Japan and the Hong Kong SAR. As shown in Figure 3, we expect that jurisdictions which reopened in the second half of 2022 will see a stronger recovery in 2023, compared with those which reopened earlier. Late November 2022 saw the relaxation of COVID-19 restrictions in Chinese Mainland, such as the removal of domestic testing requirements, and the relaxing of quarantine requirements for positive cases and close contacts. On 8 January 2023, Chinese Mainland abolished all quarantine measures for international arrivals, marking a major step to reopening the nation to the rest of the world. The reopening of Chinese Mainland took place sooner and faster than previously expected, which has resulted in upward adjustments for the 2023 economic outlook of the jurisdiction. Further, there is an expectation that the relaxation of COVID-19 measures by the Chinese central government will also help to alleviate global supply chain pressures and boost growth for geographies that rely heavily on economic ties with Chinese Mainland, such as the Hong Kong SAR. However, uncertainties remain regarding the economic impact of any surge in COVID-19 cases post reopening.
- **Global economic uncertainties.** The projected global economic slowdown in 2023 will impact the AP region through channels such as weakened external demand and potential capital market volatility. The negative economic outlook has triggered risk aversion and will challenge the resilience of funding markets. The downturn will also impact the credit ratings of companies and credit quality for FS firms in the AP region. While inflation in the AP region is mild compared to the rest of the world and is expected to come down further in 2023 (Figure 4), it is still pushing up the cost of doing business. The higher cost of operations, together with the increased expectations on operational resilience (discussed in a [later section](#)), will pose challenges to FS firms in the AP region.

Figure 3 GDP growth movements of select AP jurisdictions²⁰



- Regional economic challenges.** According to the Deloitte China Economic Outlook published in December 2022, although supportive policy measures have been taken, a weak property market in Chinese Mainland is likely to persist beyond the short term,²¹ dampening China's economic recovery. In Japan, while consumer spending is expected to increase in 2023, elevated inflation and high energy prices will make consumer spending difficult to sustain.²² On the other hand, some jurisdictions will see a steadier growth, such as India and Indonesia, with predicted 2023 GDP growth at 6.8% and 5.3%.²³

Figure 4 Consumer Price Index projections for select AP jurisdictions²⁴



The longer-term view

From a longer-term perspective, continued geopolitical tensions and the shift from 'free trade' to 'secured trade' will impact the AP region in a number of ways. Geopolitical tensions have made governments prioritise national security over optimal economic outcomes in international trade. The *US CHIPS and Science Act* that came into effect in August 2022 is an example of this focus on national security. The global supply chain disruptions caused by COVID-19 have urged companies to rethink their supply chain strategies. For example, Vietnam's 7% projected growth in 2022/23 reflects the shift of some supply chains from Chinese Mainland to Vietnam.²⁵ The supply chain disruption caused by the pandemic has also pushed national governments to start bringing supply chains back home to build better resilience in response to future disruptive events. With the change in trade and economic drivers in the AP region, FS firms will need to closely monitor the trends and adjust their operations and decision-making process to accommodate the evolving financing demands in the AP region.

Priorities of regulators in 2023

The 2022 Annual Report of the FSB emphasised the importance of the resilience of FS firms and the stability of the financial sector. The FSB warned against the materialisation of existing vulnerabilities in a challenging environment in 2023, as regulators and central banks run out of policy space to intervene.²⁶ Resilience and stability will be a key theme for banks, insurers and asset managers in 2023. At the time of writing, a number of central banks, regulators and standard setters have published regulatory priorities for 2023, and we highlight some of the key themes from these in the section below:



Banking

In 2023, banking regulation will continue to focus on the following themes:

- The key focus of banking regulation and supervision centres around the resilience of banks.** In 2022, the banking sector in the AP region remained well-capitalised, with good liquidity positions. While many AP jurisdictions are still at the final stages of Basel III implementation, much of the focus is now switched to the overall resilience of banks. We will discuss developments in operational resilience in a [later section](#). In addition to firm-level resilience, assessing and managing systemic risk in the banking sector will be another key focus for regulators in 2023, including strengthening policy measures on domestic systemically important banks, ensuring their stable operation, and ensuring that contingency plans, as well as recovery and resolution plans, are in place to guard against any deterioration of the external environment. For example, the Australian Prudential Regulation Authority's (APRA) *Corporate Plan for 2022 -2023* announced key prudential reforms including adopting "unquestionably strong" capital ratios in January 2023, implementing Basel III requirements, and upgrading banks' operational risk, business continuity and contingency planning practices through the introduction of a number of new prudential standards.²⁷
- Banks will need to be climate resilient.** In the FSB *Roadmap for Addressing Financial Risks from Climate Change Progress Report*, it is indicated that the FSB will develop a data-driven methodology for monitoring climate-related financial risk, their transmission mechanisms, and feedback loops across financial sectors globally.²⁸ The Basel Committee on Banking Supervision (BCBS) will start monitoring the implementation of the *Principles for the Effective Management and Supervision of Climate-Related Financial Risks* in 2023. A number of AP regulators have adopted or indicated in their 2023 priorities that they will adopt the BCBS principles and ensure the banking sector is resilient to climate-related risks. We will discuss this in more in detail in a [later section](#).
- Banks will need to be cyber resilient. The increased number of cyberattack incidents since the start of the COVID-19 pandemic has been urging policymakers to focus on the cyber resilience of the banking sector. At the global level, the FSB issued a consultation paper on cyber incident reporting in October 2022. As an important component of the BCBS Principles for Operational Resilience and a critical step to achieve digital transformation in the FS sector, cyber resilience can be found in the 2023 priorities of many AP regulators. For example, in the Bank Negara Malaysia's (Malaysia BNM) *Financial Sector Blueprint 2022-2026*, strengthening cyber security readiness and responsiveness for banks and their third parties, and enhancing cyber intelligence is an important part of the strategy to advance digitalisation of the FS sector.²⁹



Insurance

In 2023, insurance regulation will continue to focus on the following themes:

- New solvency regimes underway.** While the International Association of Insurance Supervisors (IAIS) is on track to finalise the development of the Insurance Capital Standard (ICS) as a Prescriptive Capital Requirement in 2024, AP regulators have been making progress on their local insurance solvency regimes. For example, Korea will implement the Korean Insurance Capital Standard (K-ICS) starting in January 2023. The K-ICS is based on the IAIS ICS and four rounds of domestic quantitative impact study. Malaysia BNM is also aiming to finalise their new risk-based capital framework in 2023. Japan Financial Services Agency (JFSA) is working on their 'economic value-based solvency regulation',³⁰ which has been designed broadly in line with the ICS, with the aim of implementation in 2025.

- Focus on insurance resilience.** In October 2022, the IAIS published a draft of the issues paper on operational resilience in the insurance sector with the aim of identifying issues that impact operational resilience in the insurance sector particularly in terms of cyber resilience, third party outsourcing, and business continuity management.³¹ Global regulators consider that further work needs to be done to make resolution plans for insurers fully operational.³² At the AP level, APRA's draft *CPS 230 Operational Risk Management* proposes an operational resilience framework across financial sectors including insurance, covering key elements such as critical operations and oversight of third parties.³³ The FSB has taken a slightly different approach, with its announcement on 9 December 2022 of the discontinuation of the annual identification of the Global Systemically Important Insurers (G-SIIs) and the utilisation of information available through the IAIS' Holistic Framework to monitor systemic risk in the insurance sector. On the other hand, the FSB has made it explicit that it will, starting from 2023, publish a separate annual list of insurers that are subject to resolution planning and resolvability assessments consistent with the FSB's Key Attributes.³⁴ At a jurisdiction level, the Monetary Authority of Singapore (MAS) published a consultation paper in October 2022 to seek public feedback on a proposed domestic systemically important insurers (D-SII) framework that is expected to be implemented in 2024.
- Addressing climate risk in the insurance sector.** The IAIS will consider incorporating disclosure issues in the consultation on ICP supporting materials starting in Q3 of 2023. It is also undertaking a capacity building initiative to assist supervisors in their efforts to develop climate scenario analysis. In the AP region, some regulators, such as MAS, have published climate risk management guidelines for insurers, whilst others, such as APRA and JFSA have put it on their priority list, with a view to strengthen the sustainability of insurance products and enhance climate resilience of the insurance sector.



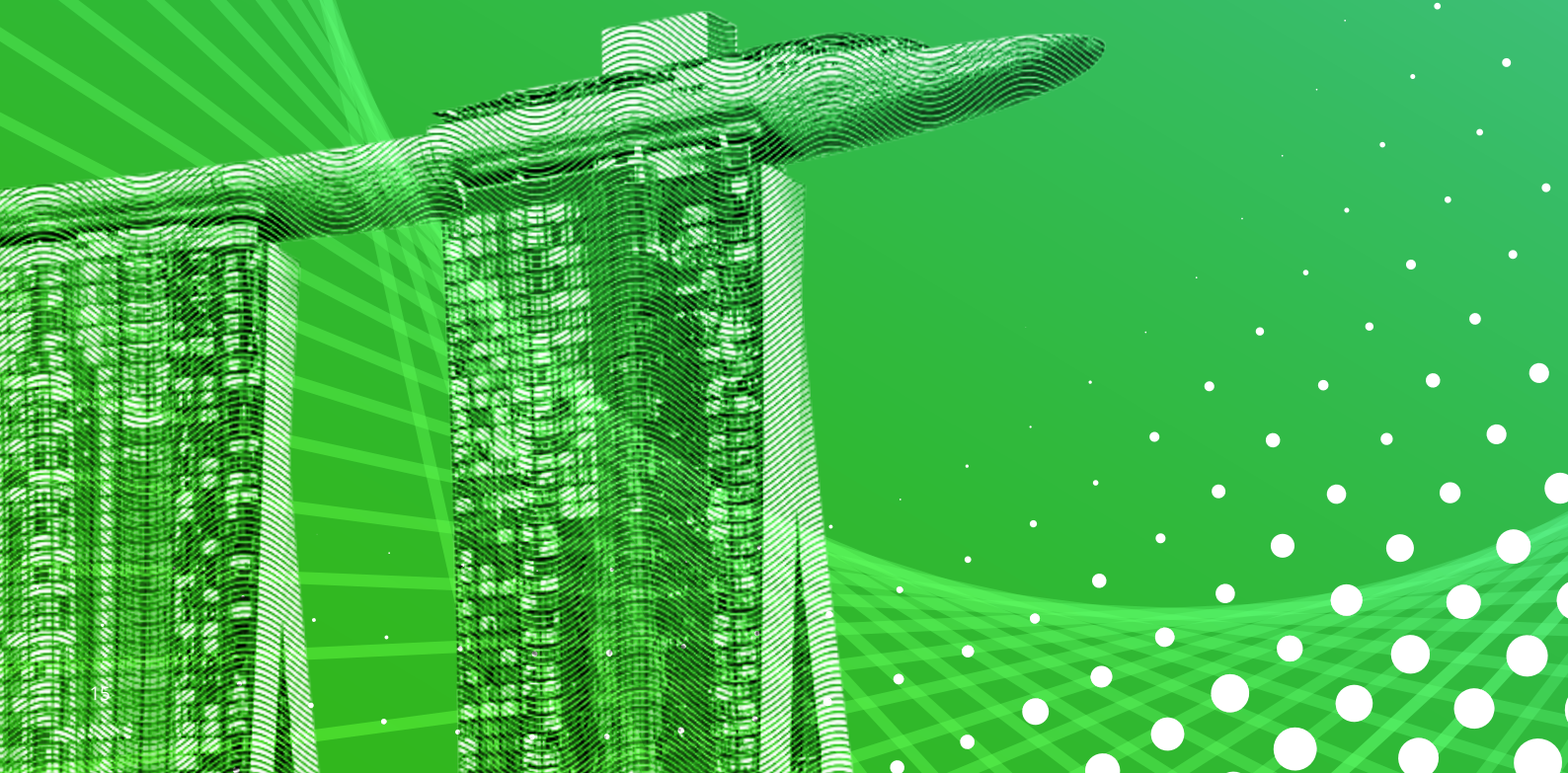
Asset and wealth management

In 2023, regulations concerning asset and wealth managers will focus on the following themes:

- New developments in sustainable finance.** By the end of Q1 2023, the International Organisation of Securities Commissions (IOSCO) will develop guidance to assist regulators implement the ISSB standards in the local legal and regulatory regimes. It will also focus on promoting good industry and supervisory practices on the basis of the IOSCO 2021 recommendations on asset managers and ESG ratings and data providers. Additionally, IOSCO will undertake capacity building in this area by enhancing supervision of asset managers and the oversight of environment, social and governance (ESG) ratings and data product providers. At the regional level, AP regulators have started preparing for adopting ISSB standards, and providing guidelines for ESG data providers. We will discuss in more detail in a [later section](#).
- Addressing risks in crypto and other digital assets.** The IOSCO issued its Crypto-Asset Roadmap for 2022-2023 in July 2022. The board-level fintech taskforce, chaired by the MAS, will lead two work streams: crypto and digital assets led by the UK Financial Conduct Authority, and decentralised finance led by the US SEC. Reports from these two work streams will be published in Q4 2023. The FSB proposed a framework for the international regulation of crypto-asset activities in October 2022 and the BCBS published a second consultation document on a prudential treatment of crypto-asset exposures in June 2022. In the AP region, although it is still being debated how crypto assets should be regulated, regulators are taking steps to maintain market discipline and protect investors. For instance, Japan updated the *Payment Services Act* to strengthen regulation of stablecoins. In Australia, regulation on crypto asset secondary service providers will be a key strategic focus of the Australian Securities and Investment Commission (ASIC). More details will be discussed in a [later section](#).
- Improving outcomes of pension, superannuation and other retirement products.** In some AP jurisdictions, consumer protection will be strengthened by requiring product providers to fully access the consumer risk profile and their long-term planning in the retirement product decision-making process. For example, the Retirement Income Covenant of Australia which came into force on 1 July 2022, aims at improving outcomes of retirement products.³⁵

Key takeaways for FS firms:

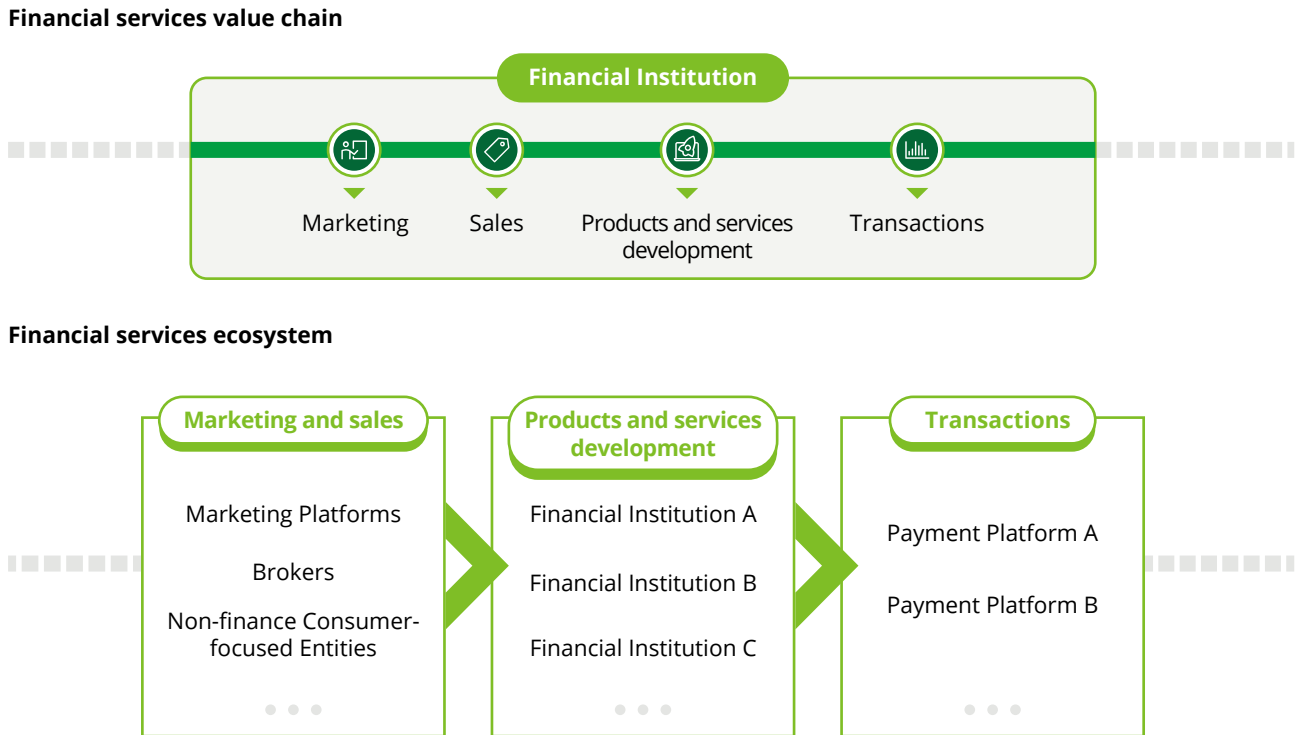
- Overall, 2023 will be challenging – some post-pandemic scars remain, whilst new headwinds emerge, such as tightening monetary policy and geopolitical tensions. Regional economic forecasts are divergent and based on moving targets such as the reopening schedule of Chinese Mainland.
- As the economic environment becomes more challenging in 2023, financial stability and operational resilience will be the key focus of financial regulators. Policy measures such as operational resilience frameworks, contingency planning, recovery and resolution planning will continue to be important areas of focus and uplift for FS firms and for service providers to the FS industry (such as technology companies).
- Climate resilience and cyber resilience will become increasingly critical to overall business operations of a FS firm, with firms required to incorporate climate resilience and cyber resilience more comprehensively in their governance, strategy, risk management, and products.



Operational Resilience

Operational resilience will continue to be a key theme in financial regulation for the AP region in 2023 and beyond. There are three key factors driving this trend: 1) accelerated digitalisation and increasing partnerships between FS firms and third-party vendors which may in turn have dependencies on their subcontractors and/or suppliers (i.e. fourth and fifth parties); 2) heightened and prolonged supply chain disruptions during the COVID-19 pandemic and the increasingly complex geopolitical environment; and 3) the potential economic downturn and systemic risk considerations. While some of the driving factors have had short-term implications on FS firms' operations, such as workplace disruptions during lockdowns, many of the impacts could manifest over a much longer timeframe. For example, the FS business model is transitioning from traditional 'value chains' to 'ecosystems' through partnerships with third parties, outsourcing vendors, and their subcontractors. This requires FS firms to determine where parts of the critical business function are being carried out by a third parties, and what actions the FS firm needs to take to ensure successful delivery of that part of the critical business function, even during times of disruption. In the situation where a third party is providing services to multiple FS firms, concentration risk, and based on the level of criticality of the business function or services provided, its potential systemic implications for the FS sector should be assessed. Another example is how the recent episode of supply chain disruption is prompting firms (including FS firms) to rethink their priorities between efficiency and resilience. Strengthening resilience to ensure fulfillment of obligations, especially during operational risk events, has become imperative for FS firms in order to meet customer expectations.

Figure 5 Stylised illustration of the FS value chain evolution



Given the above driving factors, regulators in the AP region are taking action to enhance the operational resilience of FS firms. The ACRS [2022 Asia Pacific Regulatory Outlook](#) noted that, in 2023, AP regulators would commence implementation of the BCBS' revised *Principles on Operational Resilience* and *Revisions to the Principles for the Sound Management of Operational Risk*, which was

released back in March 2021. Since the publication of the revised principles, as expected, several regulators in the AP region have released official or consultative versions of supervisory materials implementing the BCBS principles.

The Hong Kong Monetary Authority (HKMA) released one new supervisory policy manual (SPM) and two revised SPMs in 2022 to implement the BCBS *Principles for Operational Resilience*.³⁶ APRA has also published the consultative version of the *Prudential Standard CPS 230 on Operational Risk Management* to reflect the operational resilience requirements. In Japan, operational resilience, strengthening IT risk management, and managing the risks associated with outsourcing and third party risk management is a priority for JFSA. The JFSA published a draft of the Discussion Paper on operational resilience in December 2022.³⁷

In addition to operational resilience initiatives in the banking sector, insurance regulators are also moving in the same direction. The IAIS published a draft *Issues Paper on Insurance Sector Operational Resilience* on 13 October 2022, inviting public comments until 6 January 2023. The draft issues paper focused on cyber resilience, third party outsourcing, and business continuity management.³⁸ While the issues paper is limited by only providing background information and examples of supervisory practices without setting requirements or supervisory expectations, it indicates a potential regulatory focus of the insurance sector.

As shown in Figure 6, the current timeframe for FS firms to build up their operational resilience and comply with new regulatory standards lies between 2023 and 2026. Given the significance and scope of the undertaking, 2023 will be a crucial year for FS firms to assess their existing operational risk management and control frameworks, identify the gap between the status quo and new regulatory requirements on operational resilience, and implement strategic transformation where needed.

From traditional operational risk management to operational resilience

The BCBS *Principles for Operational Resilience* defines operational resilience as "the ability of a bank to deliver critical operations through disruption."³⁹ The objectives and measures of operational resilience differ from that of traditional operational risk management. Traditional operational risk management focuses on reducing the likelihood of operational incidents occurring, limiting losses in the event of severe business disruption, and ensuring sufficient capital is held to mitigate the financial impact of risks that materialise. On the other hand, operational resilience assumes that severe disruptions will happen, and that 'failure' will occur. Under this assumption, FS firms should ensure that they have thoroughly considered the impact of a wide range of 'severe but plausible' events on the firm's ability to provide critical operations that deliver services to customers, develop contingency plans to ensure that in the event of a severe disruption the firm can continue to operate through the disruption and provide critical operations and key services with minimum interruption, as well as develop recovery and resolution plans to respond to the severe crisis. From the experience of the post crisis reform after the 07/08 financial crisis, scenario planning and stress testing also play key roles in building a firm's resilience.

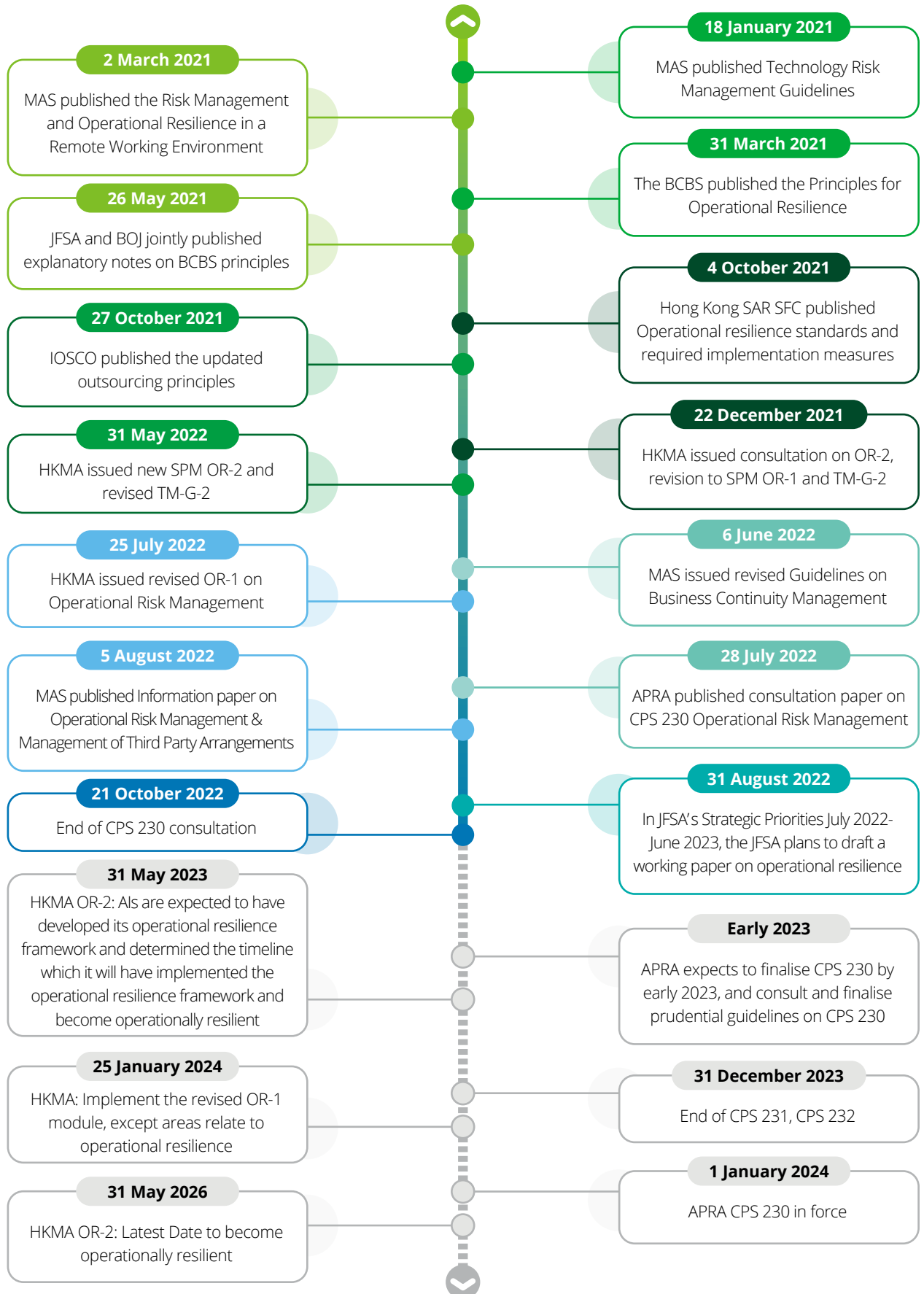
As part of uplifting their approach to operational resilience, FS firms should look beyond immediate threats and consider how they will become suitably agile, adaptive and robust to withstand the (as yet) unknown risks of the future. This will involve continuous assessment and improvement to identify and defeat new threats and develop new solutions.

Resilient organisations differ from their peers in the following areas:

- Better readiness (preventive control): they can avoid or prevent unforeseen incidents and disruptions better than their peers;
- More responsiveness (mindful action): they are flexible and better able to adapt their response, so the impact of disruption on their performance can be lower than their peers;
- Faster recovery (performance organisation): the speed of recovery of essential outcomes (not just assets) can be faster than their peers;
- Greater regeneration (adaptive innovation): the extent of recovery can be greater than their peers (transformational, not incremental change).

Operational resilience is as equally important as financial resilience, and should be a key aspect of a firm's overall resilience. Failure to quickly and adequately address operational risk incidents can also have financial consequences by undermining market and consumer confidence, which may lead to a loss of business, or even trigger a liquidity risk event. An operationally resilient firm can minimise the impact of financial loss and market and consumer confidence.

Figure 6 Timeline of key operational resilience regulation in the AP region



Examples of Operational Resilience Regulation from AP regulators:

Australia

In July 2022, APRA released the new draft prudential standard, *CPS 230 Operational Risk Management* for consultation. The proposed standard will replace and supersede five of the regulator's industry specific standards – *CPS/SPS/HPS 231 Outsourcing* and *CPS/SPS 232 Business Continuity Management*. Alongside the existing prudential standard *CPS 234 Information Security*, it is proposed that CPS 230 and 234 will form APRA's new operational resilience framework.

The overall aim of CPS 230 is to ensure resilience to operational risks. To help facilitate this, the draft standard will introduce both new and enhanced existing requirements including:⁴⁰

- **The role of the Board and senior management:** Under CPS 230, the role of the Board will be elevated, including ultimate accountability for the entity's operational risk management. The role of the Board in effectively overseeing an organisation's risks has consistently been highlighted, particularly with respect to a capacity to appropriately discharge responsibilities, challenge, and inform decisions.
- **Critical operations and tolerance levels:** Board-approved tolerance levels must be established for all critical operations to APRA regulated-entities. Regulated entities are expected to view this from a value-chain perspective, and place a focus on customers and outcomes when considering their critical operations and tolerance levels. As services provided by the financial services industry are increasingly critical to the day-to-day needs of businesses and customers, there is an expectation of consistent availability to meet these demands.
- **Greater oversight of third parties and beyond:** Regulated entities will be required to identify and maintain a register of material service providers (which may include fourth- and fifth- parties); which must be submitted to APRA on an annual basis. CPS 230 will also require regulated entities to engage service providers to review, renegotiate and update service provider agreements to meet new and enhanced requirements. APRA has recognised the potential for concentration risks due an increasing reliance on outsourced service providers. New and enhanced requirements for the oversight of material service providers will support how regulated entities and APRA are able to oversee and manage these risks, particularly those with potential systemic implications for the industry.

The new operational resilience framework is one of the many steps the regulator has taken in recent years to strengthen the overall resilience of the financial services industry.

Hong Kong SAR

The HKMA released the new SPM OR-2 on operational resilience, the revised SPM TM-G-2 on business continuity planning in May 2022, and the revised SPM OR-1 on operational risk management in July 2022 to implement the BCBS' revised *Principles on Operational Resilience* and *Revisions to the Principles for the Sound Management of Operational Risk*.

For SPM OR-2, HKMA expects all Authorised Institutions (AIs) to develop their operational resilience framework by 31 May 2023, and become operationally resilient by no later than 31 May 2026. Key components of the requirements are:⁴¹

1. Operational Resilience Parameters

A mechanism for determining operational resilience parameters, namely identifying critical operations, setting tolerance for disruption for critical operations, and identifying 'severe but plausible' scenarios.

2. Mapping interconnections and interdependencies

Identify and document: (i) the people, processes, technology, information, and facilities; and (ii) the interconnections and interdependencies among these factors that are necessary for the AI to deliver its critical operations.

3. Risk Management Policies and Frameworks

Leverage different risk management frameworks as appropriate, to offer holistic and comprehensive support to critical operations, and be prepared to manage all risks with the potential to affect delivery of critical operations.

4. Scenario Testing

Regular testing of the operational resilience framework to ensure the AI has the ability to continue delivering critical operations through disruptions, including under 'severe but plausible' scenarios

5. Incident Management

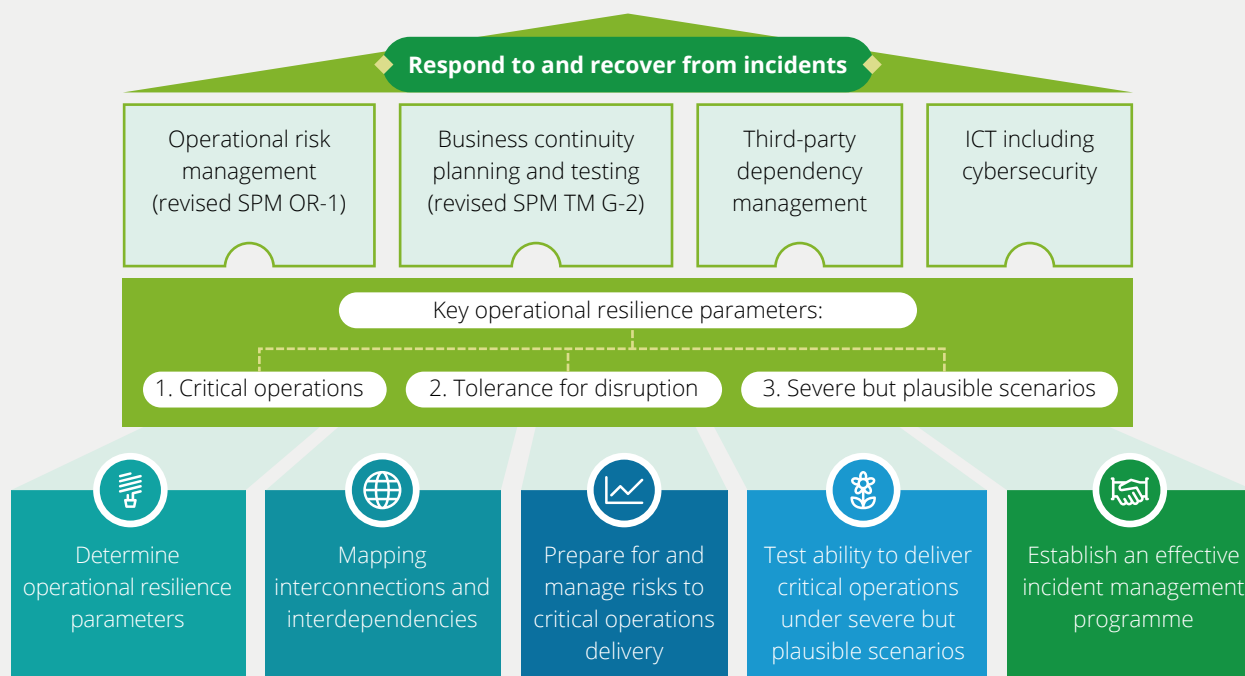
Establish an effective incident management programme to manage all incidents, especially those that may impact critical operations.

SPM TM-G-2 (Business Continuity Planning) has been updated to reflect the changes made to the operational resilience-related requirements. The updates are based on the key parameters laid out in the SPM OR-2 framework: critical operations, 'severe but plausible' scenarios, and tolerance for disruptions. The scope of business continuity planning (BCP) has been extended to cover the three parameters. For example, AIs are now required to take into account the tolerance for disruption in the business impact analysis. When testing the BCP, AIs are required to use a range of severe but plausible scenarios.⁴²

For the revised SPM OR-1, the HKMA expects AIs to implement the areas not covered by SPM OR-2 by January 2024, and follow the timeline of SPM OR-2 for the operational resilience-related requirements. Key revisions made in SPM OR-1 focus on the following areas:⁴³

1. **Risk governance:** The board should regularly review the risk appetite and tolerance statement, and consider the continued appropriateness of the operational risk limits.
2. **Three lines of defense:** a newly added section that requires AIs to adopt the three lines of defense model.
3. **Operational risk management (ORM) strategy, policies and procedures:** the matrix outlined in the *BCBS Consolidated Framework OPE 25.17* is used as a benchmark. If the internal classification system is different from the BCBS matrix, AIs should map and document their own criteria.
4. **ORM process:** AIs should be able to produce risk reports in both normal and stressed market conditions.
5. **Specific aspects of ORM:** AIs should have an integrated approach to information and communication technology (ICT) risk management under its ORM framework. The board should regularly oversee the effectiveness of its ICT risk management.
6. **Disclosure:** AIs should ensure full disclosure of new components listed under the operational risk governance.

The three SPMs together reflect the HKMA's approach to helping FS firms build their operational resilience. The identification of operational parameters serves as the building blocks of the framework. As shown in Figure 6, FS firms are required to follow the step-by-step process to integrate the three parameters into the four pillars, i.e. operational risk management, business continuity planning, third party dependency management and ICT and cybersecurity management, supporting operational resilience.

Figure 7 HKMA operational resilience framework ⁴⁴

Singapore

On 5 August 2022, MAS published an information paper on *Operational Risk Management – Management of Third Party Arrangements*.⁴⁵ The paper highlights observations from MAS' thematic inspections on the operational risk management standards and practices of selected banks, with a focus on third party risk management. While the focus is on banks, the good practices highlighted should be referenced by all FS firms that are exposed to the same set of risks. Non-bank FS firms are also encouraged to adopt the recommended practices where relevant and appropriate to the materiality of the risks posed by their third party arrangements.

'Outsourcing' per *MAS Guidelines on Outsourcing* is an arrangement in which a service provider provides the company with a service:⁴⁶

- that may currently or potentially be performed by the company itself;
- is dependent on the service on an ongoing basis;
- the service is integral to the core business of the company; or the service is provided to the market by the service provider in the name of the company.

Revisions and expectations regarding outsourcing arrangements are:

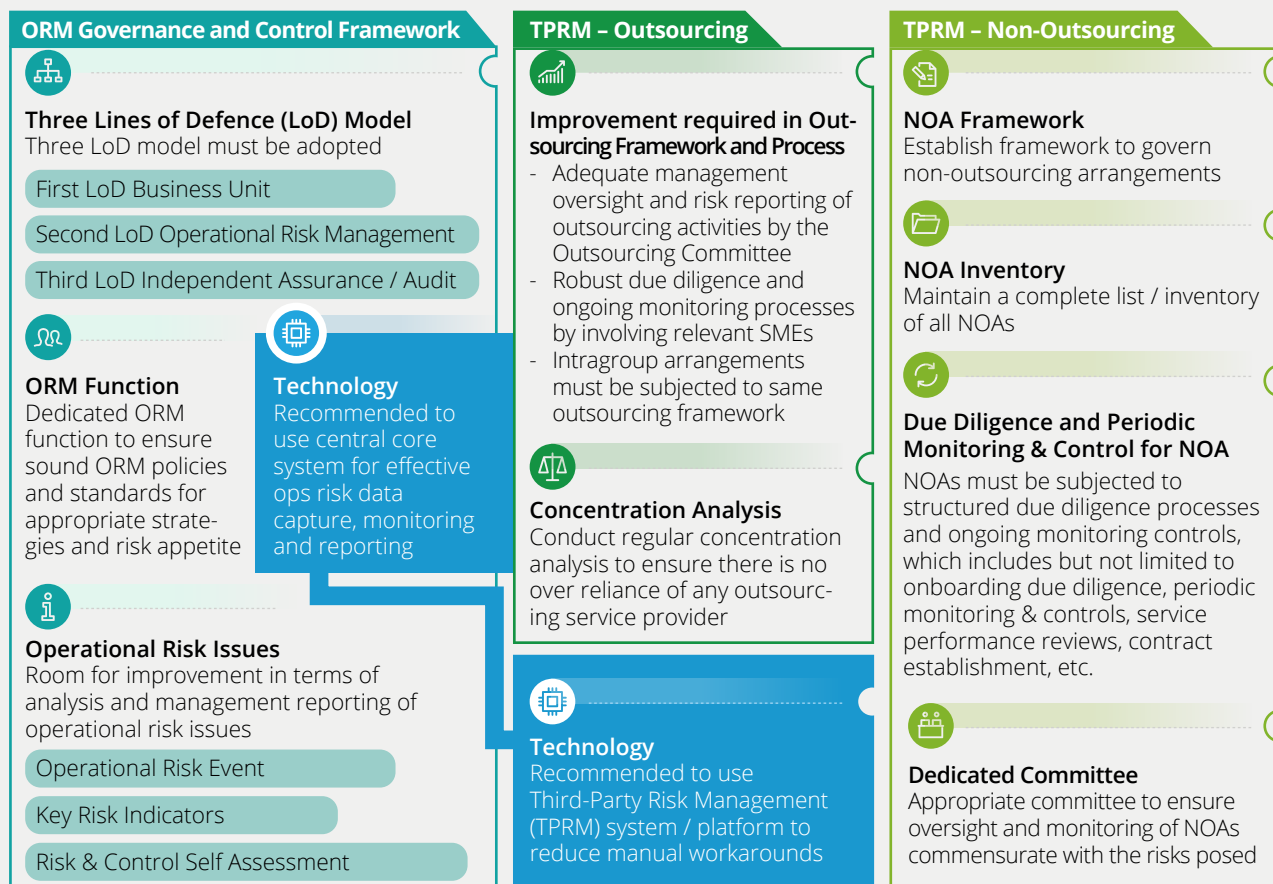
- No change to the existing requirements under *MAS Guidelines on Outsourcing*;
- New expectations and improvements required for outsourcing arrangements as per the MAS information paper on *ORM – Management of Third-Party Arrangements*.

Non-outsourcing arrangements (NOAs) are all other third party arrangements which are not classified as 'outsourcing' under *MAS Guidelines on Outsourcing*.

- Revised *MAS Technology Risk Management Guidelines* expects FS firms to have strong oversight of third party arrangements to ensure system resilience and maintain data confidentiality integrity.⁴⁷
- *MAS Guidelines on Business Continuity Management* expects FS firms to take into account third party dependencies to support the delivery of critical business services.⁴⁸
- MAS information paper on *ORM – Management of Third-Party Arrangements* expects third party arrangements that are not defined as outsourcing to be subjected to adequate risk management and sound internal controls as the risks introduced by NOAs may not be any less material than outsourcing arrangements.⁴⁹

Additional requirements arising from the information paper on *Operational Risk Management - Management of Third-Party Arrangements*.⁵⁰

Figure 8 MAS regulation updates to enhance operational resilience⁵¹



The updated requirements and supervisory expectations will impact FS firms in several ways.

For outsourcing arrangements:

- Introduction and integration of a robust three lines of defense model and centralised operational risk management will help to prevent potential conflicts of interest and help FS firms respond to or pre-empt emerging risk trends and concerns in a timely manner.
- Development and implementation of a proper outsourcing framework, including adequate oversight of the outsourcing committee and effective due diligence assessments will be needed to ensure effective monitoring and control of the firm itself and the service providers.
- An exercise to identify concentration risk relating to critical functions and operations will be needed to avoid over-reliance on certain service providers.

For non-outsourcing arrangements:

- Maintaining a complete list of inventory will be critical – this includes the inclusion of arrangements with third party service providers who are not considered outsourcing arrangements, as they may still be involved in critical functions or the delivery of critical operations.
- Timely and comprehensive reporting to the dedicated committee will help senior management to have a current and comprehensive view of third party risk trends and concerns.
- Conducting NOA due diligence and periodic monitoring of controls can enable the bank to gain assurance of the adequacy of controls by the third party.
- Leveraging technology to manage third party risk may help avoid reliance on large scale manual processes that are inaccurate and ineffective.

Key takeaways for FS firms:

- FS firms should elevate the importance of operational resilience to the Board and senior management, which should take responsibility and accountability for operational resilience of the firm.
- Senior leadership needs to instil a common approach to operational resilience and operating model design throughout the group by creating a common set of objectives, a clear accountability structure for designing operating models that deliver important business services and a unified set of outcomes that the operating model design choices should support.
- FS firms need to prioritise consideration of operating model design on critical business functions, operations and services.
- Teams across the FS firm need to understand how the applicable impact tolerance will affect the expected resilience of the service over time and be able to articulate how operating model changes made in that timeframe will support that impact tolerance.
- FS firms should have the ambition not only to test service resilience periodically, but to deploy this testing and to evaluate how proposed changes to the operating model could affect the firm's ability to remain within its impact tolerance. This could pinpoint where additional investment, such as building substitutability, back-ups and redundancies, will be needed in order to proceed with operating model changes.
- FS firms need to consider the critical operations of their ecosystem and they need to know and understand the operating model within the ecosystem.
- To implement better scenario analyses FS firms should think beyond the usual to identify 'severe but plausible' scenarios (e.g. the impact of pandemics).
- Consider the full spectrum of resilience – i.e. not just preventing, but operating through, recovering from the incident, and resolution. Recovery and resolution planning is just as important as prevention.
- FS firms should implement insights-based monitoring, to help management better anticipate and respond to incidents.

Digital Assets

In the last decade, the financial services sector has undergone rapid digitalisation. This industry trend has been accompanied by the emergence of digital assets that involve combining the technologies of distributed computing and cryptography.⁵² Market participants have been actively exploring different use cases for digital assets. Concepts like decentralised finance (DeFi) and Web 3.0 are now part of the industry vernacular.

These developments have in turn generated significant investor interest in digital assets. Apart from institutional investors participating in multiple funding rounds for fintech ventures spearheading digital asset experiments, many others (including retail investors) have bought into cryptocurrencies (crypto) like Bitcoin and Ether as a proxy for gaining exposure to the potential that digital assets present. As a result, the market capitalisation of cryptocurrencies has ballooned from less than US\$2 billion in 2013 to more than US\$800 billion in the last decade.⁵³

The AP region has been at the centre of this fervor for cryptocurrencies. The World Economic Forum reported that Vietnam, Philippines, China and Japan were amongst the top ten countries in the world in terms of cryptocurrency adoption.⁵⁴ In 2021, SG\$1.5 billion of funding in Singapore was invested in crypto and blockchain ventures, which is almost half of the funds raised by fintechs that year.⁵⁵

However, recent events have rocked the crypto world. The 2022 'Crypto Winter' has wiped out more than 70% of the market capitalisation of crypto assets from its peak.⁵⁶ More importantly, it exposed the vulnerabilities of business models that relied on leverage and ever rising valuations of crypto assets, leading to a number of high-profile collapses.⁵⁷

The expanding reach of the market for digital assets and the recent spate of failures have triggered increased regulatory scrutiny. Global standard setters such as the FSB, BCBS, the Committee for Payments and Market Infrastructures (CPMI) and the Financial Action Task Force (FATF) have either introduced, or proposed guidance to address the risks that digital assets could pose to the financial system.⁵⁸

Regulatory approaches in Australia, Hong Kong SAR, Japan and Singapore

AP regulators are also reviewing their regulatory approaches in light of these developments. The regulatory stance on digital assets adopted in Australia, Hong Kong SAR, Japan and Singapore can be characterised as one of balancing the potential benefits of the technologies underpinning digital assets against possible financial stability risks that these products can pose.

All four jurisdictions have acknowledged that digital assets have the potential to transform financial services, but are also taking steps to address the associated risks.

Examples of the regulatory approach to digital assets

Australia

The Australian Senate Select Committee on 'Australia as a Technology and Financial Centre' noted "the tremendous potential of blockchain technology and decentralised finance is becoming recognised by mainstream institutions and investors."⁵⁹ The Committee has made recommendations to promote innovation and attract investment while providing appropriate safeguards for investors and consumers in the digital asset ecosystem.

Hong Kong SAR

Hong Kong SAR is also supportive of developing a robust digital asset ecosystem.⁶⁰ The HKMA *Fintech 2025 Strategy* includes nurturing the digital assets ecosystem with funding and supportive policies.⁶¹ HKMA advocates an agile, risk based and proportionate approach that tackles key risks, while allowing room for financial innovation.⁶² This includes enhanced disclosure and liquidity management by stablecoin issuers.⁶³

Japan

In Japan, the government has established a Web 3.0 Policy Office to promote the business environment for Web 3.0 firms, including the digital asset industry.⁶⁴ The jurisdiction already hosts a number of crypto exchanges. In the face of these developments, the JFSA has been at the forefront of pioneering regulatory requirements for sustained development of the digital asset ecosystem.⁶⁵

Singapore

Singapore likewise aspires to create a Smart Financial Centre. Its regulatory stance can be summarised as "Yes to Digital Asset Innovation, No to Cryptocurrency Speculation", the title of a recent speech by MAS Managing Director, Ravi Menon.⁶⁶ Even as the central bank collaborates with industry and other authorities on sandbox experiments to test various use cases for digital assets, it has proposed new safeguards for digital payment token services and stablecoins.⁶⁷

The four jurisdictions have generally adopted a risk-based supervisory approach guided by the principle of 'same activity, same risk, same regulatory outcome'. The objective is to apply regulatory measures that are proportionate to the activities being undertaken and the risks that they pose. This in turn needs to take into account the type of digital assets under consideration.

Regulators in Australia, Hong Kong SAR, Japan and Singapore use broadly similar schemes to classify digital assets – distinguishing between security tokens and payment tokens. In general, digital assets that meet the definition of an investment product (i.e. security tokens) are regulated as such under existing securities laws. In contrast, the regulatory treatment for other types of digital assets, including those that may be used for payments (i.e. payment tokens) varies considerably. Some of these jurisdictions apply specific requirements for payment tokens, while others do not. Some of these regulators are also considering whether to apply differentiated requirements to a subset of payment tokens that are pegged to fiat currencies or pools of assets (i.e. stablecoins). Regardless of whether they deal with security or payment tokens, digital asset service providers across all four markets are subject to anti-money laundering and counter-terrorist financing (AML/CFT) obligations. Apart from privately issued digital assets, all four jurisdictions are studying whether and how to issue central bank digital currencies (CBDC) (i.e. publicly-issued digital assets), that are legal tender.

- In Australia, digital assets that meet the definition of a 'financial product' or 'derivative' under the *Corporations Act 2001 (Cth)* are subject to regulatory oversight by ASIC. A financial product is defined by ASIC as including a managed investment scheme, security, derivative or non-cash payment facility. A derivative refers to a product that derives its value from an underlying instrument, such as a share, a share price index, a pair of currencies, a commodity or a crypto asset.⁶⁸ However,

contracts for the sale or purchase of cryptocurrencies and stablecoins that are settled immediately are not classified as financial products or derivatives, and as such, not currently regulated by ASIC.⁶⁹

Further, the Australian Treasury is currently undertaking a token mapping exercise to review the classification of different types of digital assets and how they should be regulated.⁷⁰ It has proposed that all crypto asset secondary service providers serving retail consumers be licensed by ASIC. The proposed licensing scope will apply to brokers, dealers and market operators for digital assets other than financial products, since those dealing with financial products are already subject to regulation.⁷¹

- The Hong Kong Securities and Futures Commission (HK SFC) regulates digital assets that have the characteristics of a 'security' or 'futures contract', as defined under the *Securities and Futures Ordinance* (SFO). In addition, distributors of funds that invest in digital assets, irrespective of whether these assets constitute 'securities' or 'futures contracts', must be licensed or registered with the HK SFC. Stablecoin arrangements that fulfil the meaning of a stored-value facility are regulated by the HKMA in accordance with the *Payment Systems and Stored Value Facilities Ordinance*. In addition, the *Anti-Money Laundering and Counter-Terrorist Financing Ordinance* was recently amended to require all digital asset service providers to be licensed and subject to AML/CFT obligations.⁷²
- Japan regulates digital assets that grant investors the right to receive profit-sharing (i.e. security tokens) as 'electronically recorded transferable rights' under the *Financial Instruments and Exchange Act* (FIEA). Digital asset derivatives are also regulated under the FIEA. On the other hand, payment tokens are regulated as 'crypto assets' under the *Payment Services Act*, with specific requirements for stablecoins that are pegged to the value of fiat currency. For example, only licensed banks, fund transfer service providers and trust companies can issue stablecoins. Under the *Payment Services Act*, crypto asset exchange service providers are required to register with JFSA and manage their own assets separately from clients' assets. All digital asset service providers are required to implement appropriate AML/CFT measures.
- The MAS distinguishes between security tokens and payment tokens in its regulatory approach. Security tokens that replicate the economic substance of capital market products (including derivatives) are regulated under the *Securities and Futures Act*,⁷³ while payment tokens are subject to the *Payment Services Act*.⁷⁴ MAS is consulting on a differentiated regulatory framework for stablecoins, taking into account consumer protection and financial stability considerations. In addition, all digital asset service providers must be licensed and subject to AML/CFT obligations.

The common risk considerations among the regulators in the four jurisdictions include:

- Financial crime
- Technology and cyber risk
- Marketing and customer disclosures
- Safeguarding of assets
- Market integrity

Financial crime: money laundering and terrorist financing

From its infancy, there were concerns that cryptocurrencies could be exploited to bypass the regulated financial sector by parties engaging in illicit activities. These fears were realised in 2013, when the US Federal Bureau of Investigation seized Silk Road, an online black market that allowed users to buy guns and drugs using Bitcoin, and arrested its founder.

The FATF responded by reviewing the AML/CFT risks posed by cryptocurrencies and providing guidance on how to address them.⁷⁵ The FATF guidance was subsequently extended to cover other types of digital assets beyond cryptocurrencies.⁷⁶ As noted above, the regulators in Australia, Hong Kong SAR, Japan and Singapore have aligned with these international standards by requiring digital asset service providers to institute AML/CFT controls.

Examples of financial crime regulation for digital assets

Australia

In Australia, all digital currency exchange providers must register with the Australian Transaction Reports and Analysis Centre (AUSTRAC) and manage their AML/CFT risks.⁷⁷ AUSTRAC has issued a guide to digital asset exchange businesses on how to implement an AML/CFT programme, including a template of possible risks and potential treatments and actions.⁷⁸ Depending on the outcome of the Australian Treasury's 'token-mapping exercise', AUSTRAC's risk-based approach may be further refined.

Hong Kong SAR

In Hong Kong SAR, AML/CFT regulation is centrally coordinated by the Financial Services and the Treasury Bureau, with the support of law enforcement agencies like the HK SFC and HKMA. The recent amendment to the *Anti-Money Laundering and Counter-Terrorist Financing Ordinance* (AMLO) will require all digital asset service providers to be licensed by the HK SFC and implement AML/CFT controls. Prior to this legislative change, only security tokens regulated under the SFO and stablecoin arrangements that qualify as stored value facilities were subject to AML/CFT measures. Pending the commencement of the AMLO amendments,⁷⁹ digital asset service providers can 'opt in' to regulation by the HK SFC by including at least one security token in their product mix.

Japan

In Japan, the JFSA works closely with two self-regulatory organisations – the Japan Security Token Offering Association and the Japan Virtual Currency Exchange Association (JVCEA) to regulate the markets for security tokens and other crypto assets respectively. This extends to AML/CFT regulation, where, on JFSA's request, JVCEA issued self-regulatory rules in April 2022 to implement the FATF travel rule.⁸⁰ The Japanese Cabinet recently approved amendments to the *Foreign Exchange Act and the Act on Prevention of Transfer of Criminal Proceeds* to enshrine the FATF travel rule in law.⁸¹ All digital asset service providers are required to implement appropriate AML/CFT measures.

Singapore

Singapore likewise acknowledges that digital assets can pose high AML/CFT risks and so mandates that all market participants to be licensed and subject to AML/CFT controls, including the *FATF Travel Rule*.⁸² In particular, to address the risk of regulatory arbitrage, a new *Financial Services and Markets Act* was passed to require all digital asset service providers established in Singapore to be regulated even if they provide services purely outside of Singapore.⁸³

Technology and cyber risks

The digital asset industry has seen its share of cyber attacks. A reported US\$60 billion worth of digital assets have been stolen from crypto exchanges and personal wallets since 2012, with US\$44 billion of that loss occurring between June 2021 and June 2022.⁸⁴ Hackers have succeeded by exploiting unpatched vulnerabilities or flaws in smart contracts, as well as by stealing passwords with malware or phishing scams.

Regulators are therefore paying close attention to how the digital asset ecosystem addresses technology and cyber risks. Apart from safeguards against cyber attacks, regulators are also concerned about system outages that can disrupt customer access to services. Regulators in Australia, Hong Kong SAR, Japan and Singapore have all introduced technology and cyber controls for the industry, covering diverse topics such as risk governance, system and software design, security controls, vulnerability assessments and penetration testing, incident management, and disaster recovery. Of particular note, are the following:

- Singapore has proposed to empower MAS to regulate stablecoin arrangements as payment systems. Under the proposal, a systemic stablecoin scheme can be classified as a designated payment system and be subject to more stringent requirements on operational resilience and cybersecurity that are aligned with the *Principles for Financial Market Infrastructures* published by CPMI.⁸⁵

In addition, MAS has sought feedback on requiring all digital payment token service providers to implement the following controls in Q4 2022:⁸⁶

- Identify their critical systems;
 - Ensure the maximum unscheduled downtime for each critical system does not exceed 4 hours within any 12-month period;
 - Establish a recovery time objective of not more than 4 hours for each critical system;
 - Notify MAS within 1 hour upon the discovery of a system malfunction or IT security incident that has a severe and widespread impact on the service provider's operations or materially impacts services to its customers, and submit a root cause and impact analysis report to MAS within 14 days;
 - Implement IT controls to protect customer information from unauthorised access or disclosure;
 - Ensure proper management of private keys that control the movement of customers' assets, including segregation of duties, access controls and implementation of the 'four-eye principle' for sensitive tasks;
 - Control the transfer of digital assets between hot, warm and cold wallets; and
 - Store a suitably high proportion of customers' digital assets in cold wallets.
- To protect customers against cyber attacks, JFSA requires crypto asset exchanges to maintain at least 95% of their customers' crypto assets in wallets that are not connected to the Internet (so-called 'cold wallets').⁸⁷ Any customer crypto assets that are maintained in a wallet other than a cold wallet (so-called 'hot wallets') must be matched by the crypto asset exchange maintaining the same type and amount of crypto assets in the exchange's own cold wallet (called 'Redemption Guarantee Crypto Assets'). Customers that suffer any loss from leakage of crypto assets from their hot wallets can seek recovery from the Redemption Guarantee Crypto Assets maintained by the exchange.
 - The Australian Treasury has recommended that the custodians of private keys used to access customers' crypto assets must have requisite expertise and infrastructure, and that the private keys should be generated and stored in a way that mitigates the risk of loss and unauthorised access. Service providers should also use signing approaches that minimises the risk of a single point of failure.⁸⁸

Marketing and customer disclosures

Fair and accurate disclosures are required for investors to understand the digital assets they are investing in and the associated risks. Digital asset issuers typically market their offering by publishing a white paper online setting out the terms of the digital asset being offered. Pricing information is published by the exchanges on which the digital asset is transacted. There are, however, no standardised formats for such disclosures. Regulatory bodies therefore have a key role to play to ensure that adequate, consistent, reliable and timely information is provided to the investing public.

In this regard, it is useful to return to the distinction drawn by regulators between security tokens and other types of digital assets, including payment tokens. Across Australia, Hong Kong SAR, Japan and Singapore, security tokens are subject to securities laws, which prescribe certain disclosure and marketing requirements. These include issuing a prospectus that contains information on the issuer and its business (or a product disclosure statement for a structured product or derivative) when marketing a product, unless the issuer qualifies for an exemption from such disclosures. Securities laws would also generally prohibit the making of false or misleading statements and hawking (i.e. making unsolicited approaches) to investors. Under securities laws, market operators are expected to operate fair and efficient markets by facilitating timely disclosures as well as fair and transparent price discovery.

Regulatory practices are more diverse for other types of digital assets.

- In Australia, digital assets that do not meet the definition of 'financial product' under the *Corporations Act* are protected under the *Australian Consumer Law*. The law prohibits the use of misleading and deceptive conduct to market the product.⁸⁹ The Australian government has sought public feedback on a proposal to disallow hawking or pressure selling of digital assets in Q3 2022.⁹⁰ This means that crypto asset secondary service providers cannot make unsolicited contact with retail consumers to offer crypto assets for sale. In addition, crypto asset secondary service providers will need to have adequate dispute resolution arrangements in place to address consumer complaints and disputes. They will also be expected to ensure that products are not falsely described or misrepresented and that scams are not sold through their platforms. Market operators need to ensure that their markets are fair, transparent and orderly.
- Since 2017, MAS has been warning consumers on the risk of speculating in cryptocurrencies, as their prices are subject to sharp swings. In early 2022, MAS issued a set of guidelines to discourage licensed financial institutions from promoting digital payment token services to the general public,⁹¹ including:
 - Advertisements on public transport;
 - Public websites;
 - Social media platforms;
 - Broadcast and print media;
 - Provision of physical auto-teller machines; and
 - Engaging third party websites or social media influencers.

The guidelines also warn that service providers should not promote payment token derivatives contracts as an unregulated substitute for digital payment tokens nor downplay their risks. In addition, service providers must provide customers and potential customers with risk warning statements highlighting the risks associated with trading in digital payment tokens.⁹²

In an October 2022 consultation paper, MAS proposed mandating digital payment token service providers to assess if their retail customers in Singapore have sufficient knowledge of the risks of digital payment token services before providing any digital payment token services to them.⁹³ MAS also proposed to prohibit digital payment token service providers from offering incentives or credit facilities (including leveraged transactions) to retail investors to participate in digital payment token services or accepting payments for digital payment token services from retail customers using credit or charge cards. Digital asset trading platforms will also be expected to disclose their governance and listing policies, including:

- Criteria for listing a digital asset;
 - Conditions and processes for suspending or removing a digital asset from trading;
 - Settlement procedures;
 - Measures to address unfair or disorderly trading; and
 - Rights of customers.
- In Hong Kong SAR, digital asset service providers authorised by the HK SFC are permitted to provide digital asset dealing services and distribute digital asset derivatives and funds only to professional investors. An exception is made for a limited suite of digital asset derivatives that are traded on regulated exchanges and authorised for offer to retail investors.⁹⁴ All individual investors (including individuals who are professional investors) must undergo a virtual asset knowledge test before transacting in digital asset derivatives or funds. If the customer does not possess the necessary knowledge, the service provider can proceed only if it has provided training to the customer on the nature and risks of the digital asset, ascertained that the customer has sufficient net worth to assume the risks involved and assessed that it would be in

the best interests of the customer. Digital assets that are not authorised for retail participation will be treated as complex products for which product suitability assessments, additional disclosures and warning statements will be required. Digital asset dealing services can be offered only in partnership with HK SFC licensed digital asset platforms, i.e. service providers cannot execute customer trades on non-HK SFC licensed trading platforms.⁹⁵

- In Japan, crypto asset exchange service providers must provide information on contract details and fees and explain the nature and risks of crypto assets to customers. They are also subject to advertising and solicitation regulations, including prohibition on making false or misleading statements.⁹⁶

Safeguarding of assets

A robust digital asset ecosystem must be built on the bedrock of safe custody of customer monies and assets. Trust in such safeguarding arrangements is necessary for customers to transact with confidence.

In the case of security tokens, the securities laws in most jurisdictions would generally require segregation of customer assets from the licensed entity's own assets. This often takes the form of establishing trust accounts for customer assets. Licensed entities will be subject to regular independent audits and be expected to provide periodic account statements and contract notes of transactions so that customers can keep track of their account portfolios.

The treatment of other forms of digital assets is less uniform.

- In Japan, the *Payment Services Act* requires crypto asset exchange service providers to maintain segregated accounts for their customers' assets and be audited. The JFSA is the only financial regulator in the world with this regulation on crypto asset exchange service providers. In addition, crypto asset exchange service providers must manage the bulk (at least 95%) of their clients' assets in offline 'cold wallets' as mentioned earlier.⁹⁷ Stablecoin issuers are required to ensure redemption at par. To achieve that, only banks, fund transfer service providers and trust companies may issue stablecoins. Trust companies that wish to issue stablecoins against trust beneficiary rights must hold all the trust assets in the form of bank deposits. Fund transfer service providers must secure their stablecoin liabilities with bank guarantees and/or by holding safe assets such as government bonds and deposits with banks and official depositories. Banks may issue stablecoins as tokenised deposits without holding reserve assets as they are already subject to stringent prudential requirements under the banking law.
- In Singapore, e-money issuers, merchant acquirers and money transfer agents licensed under the *Payment Services Act* are expected to safeguard client assets by obtaining an undertaking or guarantee from a safeguarding institution or depositing the assets in a trust account maintained with a safeguarding institution. However, this requirement does not extend to digital payment token operators in respect of payment tokens. MAS has sought public feedback on a proposal to require segregation of assets by digital payment token service providers in Q4 2022,⁹⁸ including whether to mandate the appointment of independent custodians. In addition, they will be expected to disclose whether a consumer's assets are co-mingled with those of other consumers and the risks of such co-mingling. They must also perform daily reconciliation of all consumer assets and provide consumers with statements of account on a monthly basis. Further, MAS has proposed that service providers should not mortgage, charge, pledge or hypothecate retail consumers' digital assets. For non-retail consumers, service providers should provide clear risk disclosures and obtain the consumer's consent before doing so.

For stablecoins, MAS has proposed that issuers must hold reserve assets in cash, cash equivalents or short-dated sovereign debt securities that are at least equivalent to 100% of the par value of the outstanding stablecoins in circulation.⁹⁹ Reserve assets would need to be denominated in the same currency as the peg currency for the stablecoin. Requirements on segregation of reserves, timely redemption at par value, and regular independent audits of reserves will also apply. MAS has proposed that a common label be applied to stablecoins that meet these requirements so as to provide clarity on their regulatory status vis-à-vis other products.

- Australia currently does not have safeguarding requirements for digital assets other than those deemed as 'financial products'. The Australian Treasury has proposed that crypto asset secondary service providers be required to hold digital assets on trust for customers in segregated accounts. Where the service provider uses a third party custodian, it should have the appropriate competencies to assess the custodian's compliance with the necessary requirements.¹⁰⁰
- Hong Kong SAR similarly does not apply safeguarding measures on digital assets other than those regulated as securities or futures contracts by the HK SFC or as stored-value facilities by the HKMA. However, a new licensing regime for virtual asset service providers will empower SFC to impose requirements on segregation and management of client assets.¹⁰¹ The HKMA has also proposed that stablecoin issuers should be required to maintain reserve assets of appropriate amount and quality to support and stabilise the value of the stablecoins. In addition, the legal rights of the holders of the stablecoins vis-à-vis the issuer and the reserve assets should be clear and enforceable. The process for redemption should similarly be clear, robust and timely.¹⁰²

Market integrity

The rapid growth of the digital asset ecosystem, and the often frenetic pace of transactions can expose the market to the risk of market manipulation. Both regulators and the industry have a common interest in ensuring market integrity – so that investors can trade with confidence and contribute to the ecosystem's growth. In September 2022, the US SEC initiated enforcement action against several parties for scheming to manipulate the trading volume and price of a crypto asset security called 'Hydro'.¹⁰³ The US SEC has also cited the potential for market manipulation as a key reason for refusing to register several crypto exchange-traded funds.¹⁰⁴ Earlier in the year, a group of industry players agreed to collaborate to crack down on market manipulation.

Market abuse regimes are well-established in securities laws in Australia, Japan, Hong Kong SAR and Singapore. There are requirements for adequate, accurate and timely disclosures of material information. There are also strict prohibitions against insider trading and manipulative practices, covering the gamut from cornering, wash trades, order spoofing, market rigging, churning to front running. Both regulators and regulated exchanges conduct ongoing surveillance of the markets to detect and investigate suspected cases of market abuse. While the existing safeguards bode well for the security token market, it is imperative to acquaint market participants with the requirements as many of the new market entrants may not be familiar with financial regulation and how it operates. Regulators will also need to develop a deep understanding of the digital asset market and the potential threats to market integrity.

Turning to digital assets other than security tokens, the prognosis is less sanguine. Among the four jurisdictions in focus, Japan is the only one that has a prohibition against unfair acts in its *Payment Services Act* that is intended to deter market abuse. Australia, Hong Kong SAR and Singapore do not currently have similar provisions, although both Hong Kong SAR and Singapore have considered introducing regulations to require digital asset service providers to implement policies and controls to prevent, detect and report any market manipulative or abusive trading activities.¹⁰⁵ It is, however, unclear if prohibitions against market abuse will be extended to all persons who trade digital assets (including non-licensed persons) as is the case currently for securities trading.

Key takeaways for FS firms:

Our review of the regulatory developments in Australia, Hong Kong SAR, Japan and Singapore highlight the key risk areas that these regulators are focusing on as they step up regulatory scrutiny of the digital asset ecosystem. FS firms that operate in the digital asset market, or are planning to do so, should consider the following steps to grow a sustainable business:

- Develop a clear understanding of the nature of the digital assets that they are dealing with and the associated risks, so as to align with the risk-based regulatory approach that authorities are adopting.
- Continue to grow digital asset expertise by investing in in-house capabilities, and/or partnering with external experts to keep pace with, and drive innovation in technology and business models.
- Strengthen their risk management and compliance capabilities – this will enable FS firms to not only address the increased regulatory scrutiny, but also to rebuild trust with their customers and other stakeholders after the 2022 'Crypto Winter'.
- Maintain an agile compliance approach, as regulatory settings may vary across markets and evolve rapidly during the current stage of market development.
- Engage regulators to monitor and influence the ongoing regulatory discourse and collaborate with the authorities to develop practical solutions to address risk concerns, e.g. incorporating certain technical features in the design of the digital assets, promoting global convergence of regulatory requirements.
- Continue to assess how digital assets, including the possible introduction of CBDCs, may transform financial markets, and develop strategies to exploit the opportunities and meet the challenges that may arise.



Sustainability and Climate

2022 was a challenging year for the sustainability agenda globally, overshadowed by energy security concerns stemming from supply chain issues and ongoing geopolitical tensions. These challenges have prompted the public and private sectors to re-examine the transition paths and scenarios, as the possibility of a disorderly transition increases. In 2023, both regulators and FS firms will continue to focus on building their capabilities in climate risk management, and broader sustainability topics.

Major global developments

Global regulators and standard setters are enhancing existing requirements on climate risk management, while broadening the scope of climate and environmental risk frameworks to cover a wider range of impacts on the environment driven by the FS sector. Regulators will expect FS firms to integrate climate risk into their risk management framework in a more comprehensive, and forward-looking way.

For example, a thematic review conducted by the European Central Bank in 2022 found that while 85% of participating institutions already implemented basic climate and environmental risk management, there is a need for participating institutions to develop "more consequential, granular, and forward-looking approaches" to managing climate and environmental risks.¹⁰⁶ Following the UK Prudential Regulation Authority's indication of exploring the role of capital requirements in managing climate risk,¹⁰⁷ other global regulators have also started to study the role of capital. For example, the European Banking Authority published a discussion paper on the *Role of Environmental Risks in the Prudential Framework* in May 2022 to initiate the discussion on whether the existing prudential framework can address environmental risks appropriately. The US Federal Reserve Board also published a staff paper on *Climate Change and the Role of Regulatory Capital* in October 2022, to explore a potential policy assessment framework. These two papers concluded that a capital requirement approach to addressing climate risk requires careful assessments of how climate risks change the distribution of losses,¹⁰⁸ and how the existing prudential frameworks could be enhanced to account for climate risks.¹⁰⁹ Based on these findings and industry inputs, regulators will likely take time and effort to further assess the feasibility of a capital requirement approach before making changes to the parameters or methodologies of current prudential frameworks.

On the other hand, the TNFD is developing a set of recommendations on a broader scope of disclosure requirements. The TNFD published the third beta version of the framework (v0.3) on 4 November 2022.¹¹⁰ This version of the framework provides several important updates, including additions to definitions such as stakeholder engagement, enhancements and additions to the Locate, Evaluate, Assess and Prepare approach, further development of metrics and targets, as well as additional guidance on the disclosure recommendations for FS firms.

Although the TNFD framework is still in the development and testing phase, the progress that has been made since its launch in October 2021 is significant, with a beta version update released every three to five months. According to the current pipeline, the v0.4 beta version will be released in March 2023, and is expected to include additional sector guidance and guidance on traceability and stakeholder engagement, before the release of the final task force recommendations in September 2023. In line with the TCFD framework, the TNFD beta v0.3 presents a draft set of recommendations on four parameters: 1) governance, 2) strategy, 3) risk and impact management, and 4) metrics and targets. Although the framework is still being developed, FS firms may consider using the latest beta version as guidance to understand the requirements and start getting ready for future implementation.

With regard to global sustainability disclosure standards, the ISSB conducted a 120-day consultation on the exposure draft IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* and IFRS S2 *Climate-related Disclosures* in July 2022. Currently, the ISSB is working on reviewing feedback received from stakeholders and has made tentative decisions on some areas of the draft requirements on November 3 2022.¹¹¹ The final ISSB requirements will serve as a global baseline for sustainability reporting.

The FSB is of the view that once the standards are finalised, it will be important that jurisdictions take early action to adopt, implement or otherwise make use of the ISSB standards.¹¹² Some regulators in AP will start considering whether, and how these developments will be reflected or adopted. This will be dependent on the implementation progress of existing climate risk initiatives, such as the TCFD recommendations, climate stress test and scenario analysis, as well as the BCBS *Principles for Effective Management and Supervision of Climate-related Financial Risks*. In addition, the mandates of regulators play a crucial role in the policy direction. For example, on top of consumer protection and maintaining financial stability, some regulators have the mandate to facilitate the jurisdiction's transition to net-zero, whilst others are mandated to ensure the resilience of the FS sector to climate risks. Regulators with a clear mandate in sustainability will likely take more proactive approaches to address climate risk and nature capital issues in the FS sector.

Regional trends in climate and sustainability regulation

Regulatory and supervisory developments in climate and sustainability continue to progress at diverging paces in the AP region. Five key themes identified for 2023 are:

Risk management and disclosure

TCFD implementation and integration of climate risk in a firm's risk management framework, including conducting stress tests and scenario analysis, will continue to be key focus for AP regulators. According to the *2022 TCFD Status Report*, the AP region ranks second in the average percentage of disclosure, with 36% of AP companies included in the review producing TCFD-aligned disclosures in the 2021 fiscal year. Among the 11 recommendations, the resilience of strategy (16%) and management's role (23%) are reported to have the lowest percentage of disclosure by AP companies.¹¹³ The resilience of strategy and scope 3 Green House Gas emissions have been identified as the most challenging recommendations to implement,¹¹⁴ due to the challenges in available data.

Despite the above AP, regulators are moving steadily ahead with implementing disclosure requirements and guidance on climate risk management, while the ISSB progresses on the global baseline reporting standards. Some AP regulators, such as the HK SFC and the Hong Kong Exchanges and Clearing Limited, have already started assessing how the draft ISSB standards can be adopted in the local context. Examples of how regulators in other AP jurisdictions are approaching this include Singapore and Japan. The Singapore Exchange (SGX) has publicly indicated their intention to align with the final version of the ISSB standards,¹¹⁵ whilst Japan set up the Financial Accounting Standards Foundation to participate in the development of global sustainability reporting standards and prepare Japan for adoption of these reporting standards.

Table 1: Recent Policy Developments in Climate Risk Management and Disclosures in AP

Jurisdiction	Risk management and disclosure	Effective date
Australia	On 26 November 2021, APRA released its final prudential practice guide CPG 229 on climate change financial risks which is designed to assist banks, insurers and superannuation trustees to manage the financial risks of climate change. CPG 229 imposes no new regulatory requirements or obligations but will instead assist APRA-regulated entities in climate-related risk management. ¹¹⁶	N/A
	On 12 December 2022, the Australian Treasury published a consultation paper on Climate-related financial disclosure. The purpose of this consultation is to solicit feedback on the design and implementation of a standardised set of climate disclosure requirements that are aligned with international standards. Feedback from this consultation will inform a further consultation in 2023. ¹¹⁷	N/A
Chinese Mainland	On 16 April 2022, the China Enterprise Reform and Development Society published the <i>Corporate ESG Disclosure Guidelines</i> . The guideline provides a basic framework for firms producing ESG disclosure, as well as infrastructure to promote green and low-carbon strategic transformation of enterprises. The guideline clarifies the principles and indicator systems for corporate ESG disclosure, and regulates disclosure requirements and applications. The guideline is applicable to enterprises of different types, industries, and scales. ¹¹⁸	1 June 2022

Hong Kong SAR	On 30 December 2021, the HKMA issued the SPM GS-1 – <i>Climate Risk Management</i> . The policy manual provides guidance to Als on building climate resilience and key elements of climate-related risk management. The manual also sets out HKMA's approach and expectations on reviewing Als' climate-related risk management. ¹¹⁹	30 December 2021
Japan	On 12 July 2022, the JFSA published the finalised <i>Supervisory Guidance on Climate-related Risk Management and Client Engagement</i> after a public consultation in April 2022. The guidance outlines supervisory viewpoints on the climate-related risk management of financial institutions. The guidance also includes viewpoints on financial institutions' engagement with clients in addressing climate-related opportunities and risks, including possible approaches and client engagement case examples. ¹²⁰	N/A
Malaysia	On 29 June 2022, the Joint Committee on Climate Change (JC3) released the <i>TCFD Application Guide for Malaysian Financial Institutions</i> . The guide aims to support the implementation of climate-related disclosures aligning with the TCFD recommendations and provides key recommendations together with relevant descriptions, guidance notes, considerations and examples to assist Malaysian financial institutions to implement TCFD recommendations. ¹²¹	N/A
	In addition, the Malaysia BNM published the policy document, supplementing the JC3 guidance and feedback statement on <i>Climate Risk Management and Scenario Analysis</i> on 30 November 2022. The policy document sets out specific requirements and 14 principles on climate-related risk management. Financial institutions are expected to have in place an effective risk management framework that incorporates all material risks, including climate-related risk and their linkages with other risk type. The policy document applies to all financial institutions. ¹²²	30 November 2022 with certain exceptions
New Zealand	In June 2022, the <i>Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021</i> was introduced. The new law will impact financial institutions who are covered by the <i>Financial Conduct Act 2012</i> , and will require them to make climate related disclosures from financial year commencing in 2023. These regulations were developed to provide the financial services industry with guidance and information on what climate change will mean for financial institutions, as well as to improve consistency in existing reporting. Approximately 200 financial institutions will be required to provide climate-related disclosure. The reporting standard will be set based on External Reporting Board standards, and in line with TCFD recommendations. ¹²³	January 2023
Singapore	The SGX issued its roadmap for SGX-listed financial sector issuers to produce mandatory climate reporting starting on 1 January 2023. The MAS is also setting out a roadmap for mandatory TCFD reporting aligned with the global sustainability reporting standards. ¹²⁴	January 2023

Bridging the data gap

In 2023, closing data gaps and strengthening data infrastructure for the purpose of climate-related disclosure, climate risk management, and green finance will continue to be key agenda items for AP regulators, as the availability and quality of data remain the biggest challenge to producing TCFD-aligned disclosure reports. This is noted in the 2022 TCFD status report and TCFD reports issued by FS firms to date. It is also indicated in the FSB *Progress Report on Climate-related Disclosures* published in October 2022, which concluded that more work needs to be done to ensure the availability of high-quality, sufficiently granular and comparable data, including the establishment of data repositories.¹²⁵

AP regulators are taking action to help bridge the data gap, including actively considering adopting future international reporting standards. According to the NGFS *Final Report on Bridging Data Gaps*, gaps exist when raw data items cannot be linked to a data source. The main gaps are biophysical impact, emissions, and geospatial data types.¹²⁶

In March 2022, the Hong Kong Centre for Green and Sustainable Finance, launched by the Green and Sustainable finance Cross-Agency Steering Group in 2021, announced a data source repository to help identify data sources for climate risk management purposes. The JC3 of Malaysia has also published a data catalog on 16 December 2022, together with a report on recommendations to bridge data gaps.

Regulators continued to explore tech solutions to enhance the ESG data infrastructure. MAS and a big tech cloud provider have launched the *Point Carbon Zero Programme* to drive incubation and scaling of climate fintech solutions in Asia. The Programme seeks to use climate fintech solutions to bolster financial sector access to accurate climate-related data, for more efficient deployment of capital towards green and sustainable projects. Key features of the program are mentorship and funding, access to data, managing carbon footprint and facilitating data sharing

Focusing on the social and governance aspects

In addition to the 'E' aspect of the ESG discussions, AP regulators continue to elevate the importance of the 'S' and 'G' when considering regulatory issues. For example, the JFSA has made significant progress on social bond issuance. Following the publication of the *Social Bond Guidelines* in October 2021, the JFSA published a set of indicator and social benefit examples in November 2022, enhancing transparency and clarity of social bond issuance.

Some jurisdictions, such as New Zealand, are paying close attention to modern slavery as a major social challenge. The New Zealand Ministry of Business, Innovation and Employment launched a consultation in June 2022, on a legislative proposal that aims to tackle the modern slavery and worker exploitation issues in the operations and supply chains of entities.¹²⁷

In 2023, we will continue to see regulators elevate their focus on the governance aspect of ESG. For example, Australia's *Prudential Standard CPS 511 Remuneration*,¹²⁸ finalised by APRA in August 2021, has become effective for significant financial institutions on 1 January 2023, and will apply to all APRA-regulated financial institutions starting on 1 January 2024. CPS 511 aims at enhancing requirements on remuneration and accountability for FS firms in Australia.

Addressing greenwashing

As sustainable finance gains more traction with investors, the issue of greenwashing is becoming a more pressing problem. Therefore, regulators, and other key bodies, such as the IOSCO, have identified addressing greenwashing to ensure investor trust as one of its key policy priorities at COP27.

The potential regulatory, legal, and more importantly, reputational risks associated with greenwashing are growing for FS firms. Apart from adopting consistent ESG disclosure standards, building better data access to increase transparency, and developing green taxonomy, regulators in the AP region have taken various measures to help FS firms avoid greenwashing.

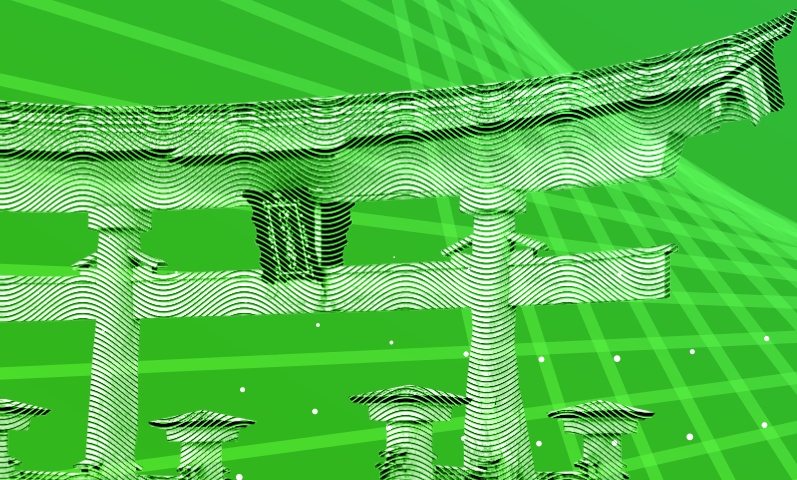
In June 2022, ASIC released an information sheet (INFO 271) for superannuation and managed funds to avoid 'greenwashing' when offering or promoting sustainability-related products.¹²⁹ INFO 271 also provides guidance to product issuers to ensure the information that is included in publications is sufficient to help current and prospective investors to make informed decisions. Some of the guidance includes using clear labels, defining the sustainability terminology which is used, and clearly explaining how sustainability considerations are factored into the investment strategy. In addition to providing information on how to avoid greenwashing, ASIC has also issued infringement notices to asset management firms that were found to be misleading consumers on environmental and ethical claims.

Capability building

The successful implementation of the various climate and sustainability initiatives taken by regulators and FS firms is dependent on the capability of both the regulators and the FS industry. Whether talents are available to deliver the strategies and transformation will be a key focus in 2023. MAS's *2021/2022 Sustainability Report*¹³⁰ highlighted the efforts made by both the public and private sectors in capability building, including the forming of three Centres of Excellence to undertake research and talent development. The MAS has also launched a sustainable financial skill and training roadmap to help the FS workforce obtain the skills and knowledge needed to perform specific roles in the sustainable finance journey of FS firms. The HKMA will also include a new module, in September 2022, on sustainable finance under its *Enhanced Competency Framework for Bank Practitioners*, which serves to enhance the risk management capability of banks in Hong Kong SAR.¹³¹

Key takeaways for FS firms:

- FS firms should build a robust governance structure early on to facilitate the climate risk integration with the risk management framework. The governance framework should clarify responsibilities of the board and senior management, with a channel for ESG-related issues and risks to be reported to the board and senior management in a timely manner. Associate incentives and accountability of the board and senior management with the firm's sustainability strategy.
- FS firms should train employees throughout the firm on climate risks to enhance the sustainability capabilities of all functions.
- To gain recognition with investors and other stakeholders and avoid being perceived as greenwashing, FS firms should prepare for the taxonomies in the jurisdictions that they operate, and assess impacts at portfolio and counterparty levels.
- If they haven't already, FS firms should start the sustainability journey and share their strategy with regulators now. In addition to the environmental and climate impacts, social impacts such as labor rights aspects should be taken into account when establishing goals and strategies. Moreover, conducting strategic assessment, enhancing engagement with wider stakeholders and taking a long-term view are also key elements to developing sustainability strategies.
- FS firms should embed climate risk management by progressing from top-down materiality assessment to granular risk identification, scenario analysis, stress testing, risk appetite assessment, and control and mitigation.
- FS firms should evaluate their data systems and validate the quality of their data and make both of these part of a well-implemented data strategy. FS firms should start preparing TCFD reports as early as possible, in line with local TCFD adoption timelines. Developing a roadmap to comply with local TCFD requirements can help the firm stay on track to achieving the target.



Future of FS Regulation in the AP Region

In the 2022 Regulatory Outlook, we discussed the future trends and topics in financial regulation in the next 3 to 5 years. We identified emerging topics in the FS sector, such as sustainability and the use of new technologies such as artificial intelligence for a wide variety of applications across the operating spectrum. As the market evolves, regulators have also been transforming their regulatory and supervisory approaches to address these new topics (and associated emerging and/or evolving risks), as well as building their own capacity. In this Outlook, the following three areas are identified as key themes in how the regulatory and supervisory approaches will change.

Regulators will take new roles and build capacity to address evolving and emerging risks and activities

The emerging risks are not 'new', for example, physical climate risk has been a key risk for natural catastrophe insurance, and cyber risks have also been measured and managed by FS firms for decades. However, the risks are evolving – materiality and magnitude of existing risks have been amplified, or in some cases the transmission channels of these risks to the resilience of an FS firm have been modified by new developments in the market, leaving larger implications for FS firms. To address these evolving and emerging risks, regulators will leverage existing regulatory frameworks as a starting point, instead of reinventing the wheel. In considering what may need to be updated, regulators will be reflecting on the objectives and outcomes the regulation is seeking to achieve.

The role of regulators will also be evolving with the emerging risks and activities. In the case of digital technology and the entry of new market participants such as big tech firms, buy-now-pay-later providers, or cryptocurrency service providers, there are debates on whether, and how, financial regulators should play a role. Regardless of the different approaches taken, the regulatory and supervisory focus will remain on consumer protection and incentivising good behaviours in the market, and, to the extent possible, leverage existing frameworks to achieve these objectives.

On the basis of existing regulatory frameworks, AP regulators are building their capacity to address the new challenges and obtaining more evidence-based insights on how emerging risks impact the FS sectors. Some regulators will collect more data from FS firms. With sufficient capacity and capability to analyse the data collected to drive regulatory decisions, and the appropriate data protection in place, regulators will be able to take a more risk-based approach to regulation. Similar to the FS industry, regulators will continue to acquire talent that is equipped with knowledge and experience in emerging topic areas, such as sustainability and digitalisation, to ensure the continuity of resources, and support agile responses to new market developments.

Principle-based and rules-based regulation will continue to co-exist in different jurisdictions

The approach taken by regulators as they introduce new regulation and guidance will have a significant impact on the FS industry and related participants outside of the regulatory perimeter (such as technology firms who provide services to the FS industry) in the coming years. On some emerging topics, we are seeing differing approaches to how new regulations are being introduced and adopted – some are being introduced with minimal changes to existing regulatory frameworks, whilst others are being introduced as new standards or guidance that comprehensively reframe how a subject matter will be regulated and/or supervised. For example, APRA's proposed prudential standard *CPS 230 Operational Risk Management* will replace five existing cross-industry standards, is largely principles-based, rather than rules-based, and was written in line with their approach to 'Modernising the Prudential Architecture'.¹³²

The difference between principles-based and rules-based regulation has long been debated. In the case of the AP region, both approaches have been taken by different regulators and have been proven to work well in the local context. Principles-based regulation is more outcomes focused, and is usually implemented with the complexity and structure of the FS firm taken into account. Rules-based regulation, on the other hand, provides more prescriptive detail on how exactly FS firms are expected to comply with the regulation. Both approaches have pros and cons. While rules-based regulation may provide more certainty for FS firms, it means more responsibility for the regulator, as it will be perceived as having greater accountability when there are failures, or disruption occurs that was not able to be anticipated by the rules-based regulation.

In the AP region, APRA and JFSA serve as good examples of more principles-based regulation, while the MAS have presented effective rules-based regulation. When regulators adopt new regulations to address emerging risks, they will continue to follow the approach that is proven to work best for the local market, as long as the regulation is guided by the right objectives and drive appropriate behaviours.

Fragmentation will continue to exist in the AP region with the adoption of new regulations

Fragmentation has long been, and will remain to be, a key feature of the regulatory landscape in the AP region. With the adoption of new regulations relating to the themes discussed in this Outlook, such as climate risk, digital assets, and operational resilience, regulatory fragmentation will continue to be a key challenge for FS firms operating in multiple jurisdictions in the AP region. For example, the different green taxonomies used and different decarbonisation targets in local markets can create a compliance burden for FS firms operating in multiple jurisdictions. In recognition of this, many of the global standard setters are making major efforts to drive more comparability across jurisdictions, such as the ISSB global reporting standards, and the FSB's efforts in achieving greater convergence in cyber incident reporting.

As we move into the new year, holistic regulatory frameworks will support the industry in navigating a changing operating environment and regulatory fragmentation. Given the interconnectivity of issues that regulators across the region are tackling, we are seeing regulators take into consideration both domestic and global requirements when updating their regulatory and/or supervisory practices. We expect to see this approach and the objective of delivering the 'right' regulatory outcomes to continue, with its incorporation into the standard 'ways of working' for regulators globally.

Key takeaways for FS firms:

○ To assist regulators in their capacity and capability building, FS firms should continue to actively and constructively engage with regulators in the rulemaking process, and be open to sharing insights on industry best practices with regulators, particularly for evolving topic areas such as digitalisation and sustainability.

○ In the fragmented regulatory environment, multinational FS firms should consider whether using a consistent, group-wide approach or framework will deliver the intended outcomes, or whether a jurisdiction-specific approach or framework is more appropriate. In assessing the right approach to implementation, firms should ensure local firms are mobilised and involved.

○ FS firms should stay abreast of new and evolving regulatory developments at both a global and local level with respect to key risk areas such as digitalisation, sustainability and operational resilience, including how regulators are seeking to monitor, supervise and enforce 'new rules', to manage these 'new and emerging risks'.

Appendix I

Regulators' Priorities: 2022 – 2023

Jurisdiction	Regulatory Authority	2022 – 2023 Priorities
Australia	APRA	<p>APRA Corporate Plan 2022 – 2023¹³³</p> <ul style="list-style-type: none"> • Theme 1: “protecting the community today” <ul style="list-style-type: none"> – Preserve resilience of banks, insurers and superannuation funds; – Modernise the prudential architecture; – Strengthen cyber resilience. • Theme 2: “prepared for tomorrow” <ul style="list-style-type: none"> – Respond to new financial activities and participants; – Find solutions to financial challenges, such as climate-related risk; – Adopt latest regulatory tools, techniques and practices.
	ASIC	<p>ASIC Priorities 2022 – 2026¹³⁴</p> <ul style="list-style-type: none"> • Strengthen product design and distribution; • Proactive supervision of sustainable finance; • Ensure consumer protection in retirement-related products; • Address technology risks.
Chinese Mainland	The State Council of the People’s Republic of China	<p>20th Congress Meeting Outcome (FS Sector-related)¹³⁵</p> <ul style="list-style-type: none"> • Deepen financial structure reform; • Construct a modern central bank system; • Strengthen and improve modern financial regulation; • Strengthen the financial stability guarantee system.
	People’s Bank of China (PBC)	<p>PBC Holds 2023 Work Conference¹³⁶</p> <ul style="list-style-type: none"> • Pursue a sound monetary policy; • Increase financial support to the domestic demand and supply systems; • Continue to prevent and defuse financial risks; • Strengthen macro-prudential management system; • Continue to advance international financial cooperation and market opening up; • Continue to deepen financial reform; • Enhance financial services and management.

Chinese Mainland	China Banking and Insurance Regulatory Commission (CBIRC)	<p>CBIRC Holds 2023 Work Conference¹³⁷</p> <ul style="list-style-type: none"> • Strong support for the overall economic recovery; • Maintain a healthy interaction between the financial sector and the property sector; • Facilitate the reform of small and medium banks to mitigate risks; • Prevent malignant competition in the insurance sector and enhance insurance supervision; • Continue to prevent shadow banking in the non-bank financial sectors; • Manage credit risks and actively defuse risks associated with local government debts; • Strengthen governance frameworks of financial sector firms; • Consistently enhance the effectiveness of supervision; and • Broaden the scope of high-quality opening up of the financial sector.
	China Securities Regulatory Commission (CSRC)	Not yet released as of 18 January 2023.
Hong Kong SAR	HK SFC	Not yet released as of 18 January 2023.
	HKMA	Not yet released as of 18 January 2023.
Indonesia	Otoritas Jasa Keuangan (OJK)	<p>The Indonesian Financial Services Sector Master Plan 2021 – 2025¹³⁸</p> <ul style="list-style-type: none"> • Support national economic recovery; • Enhance FS sector's resilience and competitiveness; • Develop FS sector ecosystem; • Accelerate digital transformation in FS sector; and • Strengthen OJK's internal capacity.
Japan	JFSA	<p>The FSA Strategic Priorities July 2022 – June 2023¹³⁹</p> <ul style="list-style-type: none"> • Support economic stability and people's lives for future growth; • Construct a financial system that resolves social issues (including climate change, digitalisation and supporting start-ups) to achieve economic growth; • Further evolution of the JFSA's financial administration.

Malaysia	BNM	<p>Financial Sector Blueprint 2022 – 2026¹⁴⁰</p> <ul style="list-style-type: none"> • Support economic transformation of Malaysia; • Elevate the financial well-being of households and businesses; • Advance financial sector’s digitalisation; • Position the financial system to facilitate an orderly transition to a greener economy; • Advance value-based finance through Islamic finance leadership.
New Zealand	Financial Markets Authority (FMA)	<p>Annual Corporate Plan 2022 – 2023¹⁴¹</p> <ul style="list-style-type: none"> • Focus on building conduct maturity in the sectors the FMA already licenses and oversees; • Deliver core functions related to licensing, monitoring, and responding to egregious misconduct - especially in relation to consumer harm; and • Build capability to implement new legislation and take on newly stipulated responsibilities under the regulator’s expanding mandate.
Singapore	MAS	<p>Enforcement Priorities in 2022 – 2023¹⁴²</p> <ul style="list-style-type: none"> • Corporate disclosures – enhance effectiveness in pursuing corporate disclosure breaches; • Business conduct – step up focus on failure to comply with business conduct requirements of corporate finance advisory firms and fund management companies; • AML/CFT compliance – enhance enforcement actions against financial institutions for serious lapses in AML/CFT systems and controls; • Investor compensation – study options to improve investors’ recourse for losses caused by securities market misconduct; and • Senior Management accountability – strengthen focus on holding senior managers accountable for breaches by their financial institutions or subordinates.
Thailand	The Securities and Exchange Commission, Thailand (SECT)	<p>Strategic Plan 2022 – 2024¹⁴³</p> <ul style="list-style-type: none"> • Three objectives: <ul style="list-style-type: none"> – Enhance competitiveness; – Ensure inclusiveness; – Strengthen trust and confidence in the capital market. • Five key results – to achieve: <ul style="list-style-type: none"> – Mechanism to strengthen economic structure; – Capital market digitalisation; – Sustainable capital market; – Flexible and responsible ecosystem; – Financial well-being.

Appendix II

Selected Key Regulatory Requirements for Digital Assets in Australia, Hong Kong SAR, Japan and Singapore

	Financial Crime	Technology and Cyber Risks	Marketing and Customer Disclosures	Safeguarding of Assets	Market Integrity
Australia	<ul style="list-style-type: none"> ● Digital asset exchange providers must register with AUSTRAC and abide by the AML/CFT programme. 	<ul style="list-style-type: none"> ▲ The Australian Treasury has proposed that custodians of private keys used to access customers' crypto assets must have requisite expertise and infrastructure to mitigate cybersecurity risk. 	<ul style="list-style-type: none"> ● Australian Consumer Law prohibits the use of misleading and deceptive conduct to market digital assets. ▲ Proposed to disallow hawking or pressure selling of digital assets. 	<ul style="list-style-type: none"> ● Segregated accounts required only for financial products. ▲ Proposed for crypto asset secondary service providers to maintain segregated accounts. 	<ul style="list-style-type: none"> ● Market abuse prohibited for financial products.
Hong Kong SAR	<ul style="list-style-type: none"> ● Security token service providers and stablecoin arrangements that qualify as stored value facilities are subject to AML/CFT measures. ▲ New law will require all digital asset service providers to be licensed by HK SFC and implement AML/ CFT controls. 	<ul style="list-style-type: none"> ● HK SFC-licensed entities are subject to technology and cybersecurity requirements. 	<ul style="list-style-type: none"> ● Digital asset derivatives and funds can be offered only to professional investors, except for a limited suite of products traded on regulated exchanges and authorised by HK SFC for offer to retail customers. All individual investors must undergo knowledge test. 	<ul style="list-style-type: none"> ● Segregated accounts required for security tokens. ▲ Proposed new licensing regime for virtual asset service providers for HK SFC to impose requirements on segregation of client assets. Proposed for stablecoin issuers to maintain reserve assets of appropriate amount and quality. 	<ul style="list-style-type: none"> ● Market abuse prohibited for security tokens. ▲ Proposed to require digital asset service providers to implement controls to prevent, detect and report market abusive activities.
Japan	<ul style="list-style-type: none"> ● JFSA works closely with two self-regulatory organisations – JSTA and JVCEA – to apply AML/CFT measures to security tokens and other crypto assets. 	<ul style="list-style-type: none"> ● Crypto asset exchanges must maintain at least 95% of their customers' crypto assets in 'cold wallets'. Crypto assets maintained in 'hot wallets' must be matched by 'Redemption Guarantee Crypto Assets' maintained by the exchange. 	<ul style="list-style-type: none"> ● Crypto asset exchange service providers must provide information on contract details and fees and explain the volatile nature of crypto assets to customers. 	<ul style="list-style-type: none"> ● Segregated accounts required for all digital assets. ● Stablecoin issuers are required to ensure redemption at par. Only banks, fund transfer service providers and trust companies may issue stablecoins. The latter two must hold reserve assets for their stablecoin liabilities. 	<ul style="list-style-type: none"> ● Market abuse prohibited for security tokens. ● Payment Services Act prohibits unfair acts, which is intended to deter market abuse.
Singapore	<ul style="list-style-type: none"> ● All security token and digital payment token service providers are subject to AML/ CTF standards. ▲ New Financial Services and Markets Act requires all other digital asset service providers established in Singapore to be regulated and subject to AML/CFT controls. 	<ul style="list-style-type: none"> ▲ A systemic stablecoin arrangement can be classified as a designated payment system and be subject to more stringent operational resilience and cybersecurity requirements aligned with the Principles for Financial Market Infrastructures. 	<ul style="list-style-type: none"> ● Guidelines to discourage marketing of digital payment token services to general public ▲ Proposed additional safeguards for retail customers, including assessing whether they have sufficient knowledge of risks and prohibiting offering of incentives or credit facilities to such customers. 	<ul style="list-style-type: none"> ● Segregated accounts required for security tokens. ▲ Proposed for digital payment token service providers to maintain segregated accounts and perform daily reconciliation of all customer assets. Proposed for stablecoin issuers to hold 100% of par value of stablecoin liabilities in safe assets denominated in the peg currency of the stablecoin. 	<ul style="list-style-type: none"> ● Market abuse prohibited for security tokens. ▲ Proposed to require digital asset service providers to implement controls to prevent, detect and report market abusive activities.

● Existing requirement

▲ New/proposed requirement

Glossary

AI – Authorised Institution	IMF – International Monetary Fund
AML/CFT – Anti-Money Laundering and Counter-Terrorist Financing	IOSCO – International Organisation of Securities Commissions
AMLO – Anti-Money Laundering and Counter-Terrorist Financing Ordinance	ISSB – International Sustainability Standard Board
AP – Asia Pacific	JC3 – Joint Committee on Climate Change
APRA – Australian Prudential Regulation Authority	JFSA – Japan Financial Services Agency
ASEAN – Association of Southeast Asian Nations	JSTA – Japan Security Token Offering Association
ASIC – Australian Securities and Investments Commission	JVCEA – Japan Virtual Currency Exchange Association
AUSTRAC – Australian Transaction Reports and Analysis Centre	K-ICS – Korean Insurance Capital Standard
BCBS – Basel Committee on Banking Supervision	Malaysia BNM – Bank Negara Malaysia
BCP – Business Continuity Planning	MAS – Monetary Authority of Singapore
CBDC – Central Bank Digital Currency	NOA – Non-outsourcing Arrangements
CBIRC – China Banking and Insurance Regulatory Commission	OJK – Otoritas Jasa Keuangan
CPMI – Committee for Payments and Market Infrastructures	ORM – Operational Risk Management
DeFi – Decentralised Finance	PBC – People's Bank of China
EMEA – Europe, the Middle East and Africa	SAR – Special Administrative Region
ESG – Environmental, Social and Governance	SEC – Securities and Exchange Commission
FATF – Financial Action Task Force	SFO – Securities and Futures Ordinance
FIEA – Financial Instruments and Exchange Act	SGX – Singapore Exchange
FMA – New Zealand Financial Markets Authority	SPM – Supervisory Policy Manual
FS – Financial Services	TCFD – Task Force on Climate-related Financial Disclosures
FSB – Financial Stability Board	TNFD – Taskforce on Nature-related Financial Disclosures
HK SFC – Hong Kong Securities and Futures Commission	TPRM – Third-Party Risk Management
HKMA – Hong Kong Monetary Authority	
IAIS – International Association of Insurance Supervisors	
ICS – Insurance Capital Standard	
ICT – Information and Communication Technology	

ACRS Leadership



Seiji Kamiya
Partner, ACRS Executive Sponsor
AP Risk Advisory Regulatory and
Legal Support Leader
seiji.kamiya@tohmatu.co.jp
Tel: +81 80 3469 5275



Akihiro Matsuyama
Partner
AP Risk Advisory Client &
Industries Leader
amatsuyama@deloitte.com.hk
Tel: +852 2852 1287



Tony Wood
Partner
AP Banking and Capital
Markets Leader
tonywood@deloitte.com.hk
Tel: + 852 2852 6602



Ye Fang
Partner
China Financial Services Risk
Advisory Leader
yefang@deloitte.com.cn
Tel: +86 21 6141 1569



Kiyotaka Sasaki
Japan Senior Advisor
kiyotaka.sasaki@tohmatu.co.jp
Tel: +81 80 3480 7047



Mike Ritchie
Australia Co-lead
Partner, Risk Advisory
AP Financial Services
Industry Lead
miritchie@deloitte.com.au
Tel: +612 9322 3219



Nai Seng Wong
SEA Co-lead
Partner, Risk Advisory
SEA Regulatory Strategy
Leader
nawong@deloitte.com
Tel: +65 6800 2025



Shinya Kobayashi
Japan Co-lead
Managing Director, Risk Advisory
Financial Industry Risk &
Regulation
shinya.kobayashi@tohmatu.co.jp
Tel: +81 807 196 8915

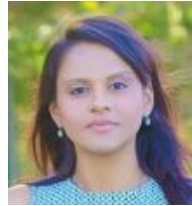


Jaramie Nejal
Operations Lead
Director, Risk Advisory
Financial Industry Risk &
Regulation
jnejal@deloitte.com.au
Tel: +61 419 566 798

Contributors



Ningxin Su
Manager
Hong Kong SAR
nsu@deloitte.com.hk



Radha Manogaran
Senior Manager
Singapore
rmanogaran@deloitte.com



Suleigh Huang
Manager
Australia
sulhuang@deloitte.com.au



Winifred Lu
Senior Consultant
Hong Kong SAR
winlu@deloitte.com.hk



Eugenia Hui
Consultant
Japan
eugenia.hui@tohatsu.co.jp



Jennifer Martiniak
Associate
Singapore
jemartiniak@deloitte.com

Acknowledgements

Paul Dobson
Partner
Australia

Rita Gatt
Partner
Australia

Caroline Hodgkinson
Partner
Australia

Daniel Houseman
Partner
Australia

Kenneth Leong
Partner
Singapore

Sean Moore
Partner
Australia

Tim Noad
Partner
Australia

Stephen Smith
Partner
Australia

Scott Stewart
Partner
United States

John Weaver
Partner
Australia

Chi Woo
Partner
Australia

Si Tao Xu
Partner
Mainland China

Edmund Bosworth
Principal
Australia

Chris Cass
Principal
Australia

Richard Rosenthal
Principal
United States

Shiro Katsufuji
Managing Director
Japan

Frankie Cheung
Specialist Director
Hong Kong SAR

Kreeban Govender
Director
Australia

Andrew Koay
Director
Singapore

Nicola Sergeant
Director
Japan

Amanda Vukovic
Director
Australia

Monika Wakeman
Director
New Zealand

Edmund Wong
Director
Singapore

Xiao Min Lim
Manager
Hong Kong SAR

Endnotes

1. International Monetary Fund, "[World Economic Outlook](#)", October 11, 2022.
2. Ibid.
3. Ibid.
4. International Monetary Fund, "[Global Financial Stability Report](#)", October 11, 2022.
5. Basel Committee on Banking Supervision, "[Newsletter on Credit Risk](#)", August 5, 2022.
6. Financial Times, "[The cracks in the US Treasury bond market](#)", November 15, 2022.
7. Financial Times, "[Bank of England says 'lessons must be learned' from pensions crisis](#)", October 12, 2022.
8. Financial Stability Board, "[Enhancing the Resilience of Non-Bank Financial Intermediation: Progress Report](#)", November 10, 2022.
9. See, e.g., "[BCBS-CPMI-IOSCO Review of margining practices](#)", September 29, 2022.
10. Financial Stability Board, "[Assessment of risks to financial stability from crypto assets](#)", February 16, 2022.
11. "Silent cyber" or "non-affirmative cyber exposure" relates to "instances where cyber coverage is neither explicitly included nor excluded within an insurance policy", creating the possibility of "potentially significant and unexpected losses" in the event of cyber attacks. See EIOPA, "[Supervisory Statement on Management of Non-affirmative Cyber Exposures](#)", September 22, 2022.
12. Financial Stability Board, "[Achieving greater convergence in cyber incident reporting – Consultative document](#)", October 17, 2022.
13. Financial Times, "[Anti-ESG ETF gets off to a roaring start](#)", September 9, 2022.
14. Financial Times, "[COP27: Mark Carney clings to his dream of a greener finance industry](#)", November 9, 2022.
15. Refinitiv Datastream.
16. Bank for International Settlements, "[Central bank policy rates](#)", accessed October 2022.
17. Michael Holscher, David Ignell, Morgan Lewis, and Kevin Stiroh, "[Climate Change and the Role of Regulatory Capital: A Stylized Framework for Policy Assessment](#)", Federal Reserve Board, October 18, 2022.
18. International Monetary Fund, "[World Economic Outlook](#)", October 11, 2022.
19. Ibid.
20. International Monetary Fund, "[Regional Economic Outlook Asia Pacific](#)", October 27, 2022.
21. Sitao Xu, "[China economic outlook, December 2022](#)", Deloitte Insight, December 7, 2022.
22. Michael Wolf, "[Japan economic outlook, October 2022](#)", Deloitte Insight, October 31, 2022.
23. International Monetary Fund, "[World Economic Outlook](#)", October 11, 2022.
24. Ibid.
25. International Monetary Fund, "[Regional Economic Outlook Asia Pacific](#)", October 27, 2022.
26. Financial Stability Board, "[Promoting Global Financial Stability: 2022 FSB Annual Report](#)", November 16, 2022.
27. Australian Prudential Regulation Authority, "[Corporate Plan 2022-23](#)", August 8, 2022.
28. Financial Stability Board, "[FSB Roadmap for Addressing Financial Risks from Climate Change: 2022 progress report](#)", July 14, 2022.
29. Bank Negara Malaysia, "[The Financial Sector Blueprint 2022-2026](#)", January 24, 2022.
30. Japan Financial Services Agency, "[The Advisory Council on the Economic Value-based Solvency Framework Final report](#)", June 26, 2020.
31. International Association of Insurance Supervisors, "[Issues Paper on Insurance Sector Operational Resilience](#)", October 13, 2022.
32. Financial Stability Board, "[2022 Resolution Report: Completing the agenda and sustaining progress](#)", December 8, 2022.
33. Australian Prudential Regulation Authority, "[Prudential Standard CPS 230 Operational Risk Management](#)", July 28, 2022.
34. Financial Stability Board, "[Global Systemically Important Financial Institutions \(G-SIFIs\)](#)", accessed December, 2022.
35. Australian Treasury, "[Retirement Income Covenant](#)", September 27, 2021.
36. Hong Kong Monetary Authority, "[Supervisory Policy Manual \(SPM\): New module OR-2 on 'Operational Resilience' and revised module TM-G-2 on 'Business Continuity Planning'](#)", May 31, 2022.
37. Japan Financial Services Agency, "[The JFSA Strategic Priorities July 2021 – June 2022](#)", August 31, 2022 ; Japan Financial Services Agency, "[Discussion Paper on Ensuring Operational Resilience](#)", December 16, 2022.
38. International Association of Insurance Supervisors, "[Issues Paper on Insurance Sector Operational Resilience](#)", October 13, 2022.
39. Basel Committee on Banking Supervision, "[Principles for Operational Resilience](#)", March 31, 2021.
40. Australian Prudential Regulation Authority, "[Draft Prudential Standard CPS 230 Operational Risk Management](#)", July 28, 2022.
41. Hong Kong Monetary Authority, "[Supervisory Policy Manual \(SPM\): OR-2 on 'Operational Resilience'](#)", May 31, 2022.
42. Hong Kong Monetary Authority, "[Supervisory Policy Manual \(SPM\): TM-G-2 on 'Business Continuity Planning'](#)", May 31, 2022.
43. Hong Kong Monetary Authority, "[Supervisory Policy Manual \(SPM\): OR-1 on 'Operational Risk Management'](#)", July 25, 2022.
44. Hong Kong Monetary Authority, "[Supervisory Policy Manual \(SPM\): OR-2 on 'Operational Resilience'](#)", May 31, 2022.

45. Monetary Authority of Singapore, "[Operational Risk Management - Management of Third Party Arrangements](#)", August 5, 2022.
46. Monetary Authority of Singapore, "[Guidelines on Outsourcing](#)", October 5, 2018.
47. Monetary Authority of Singapore, "[Technology Risk Management Guidelines](#)", January 18, 2022.
48. Monetary Authority of Singapore, "[Guidelines on Business Continuity Management](#)", June 6, 2022.
49. Monetary Authority of Singapore, "[Operational Risk Management - Management of Third Party Arrangements](#)", August 5, 2022.
50. Ibid.
51. Ibid.
52. This report defines digital asset as anything of value whose ownership is represented in the form of a digital token that can be stored, transferred or traded electronically.
53. CoinMarketCap, "[Global Cryptocurrency Charts](#)", accessed December 2022.
54. World Economic Forum, "[These are the countries where cryptocurrency use is common](#)", February 18, 2021.
55. Bloomberg, "[Singapore sees fintech funding tripling this year to \\$3 Billion](#)", November 8, 2021.
56. CoinMarketCap, "[Global Cryptocurrency Charts](#)", accessed December 2022.
57. Financial Times, "[FTX: inside the crypto exchange that 'accidentally' lost \\$8bn](#)", November 18, 2022.
58. (A) Financial Stability Board, "[FSB proposes framework for the international regulation of crypto-asset activities](#)", October 11, 2022. (B) Basel Committee on Banking Supervision, "[Prudential treatment of cryptoasset exposures](#)", December 16, 2022. (C) Bank for International Settlements' Committee on Payments and Market Infrastructures and International Organization of Securities Commissions, "[CPMI and IOSCO publish final guidance on stablecoin arrangements confirming application of Principles for Financial Market Infrastructures](#)", July 13, 2022. (D) Financial Action Task Force, "[Targeted update on implementation of the FATF standards on virtual assets and virtual asset service providers](#)", June 30, 2022.
59. Australian Senate, "[Select Committee on Australia as a Technology and Financial Centre: Final Report](#)", October 20, 2021.
60. Hong Kong Financial Services and the Treasury Bureau, "[Policy Statement on Development of Virtual Assets in Hong Kong](#)", October 31, 2022.
61. Hong Kong Monetary Authority, "[The HKMA unveils its Fintech 2025 strategy](#)", June 8, 2021.
62. Hong Kong Monetary Authority, "[Discussion paper on crypto-assets and stablecoins](#)", January 12, 2022.
63. Hong Kong Monetary Authority, "[An assessment of the volatility spillover from crypto to traditional financial assets: The role of asset-backed stablecoins](#)", November 21, 2022.
64. Japan Ministry of Economy, Trade and Industry, "[Web 3.0 Policy Office established in the Minister's Secretariat as a cross-departmental internal organization](#)", July 15, 2022.
65. Japan Financial Services Agency, "[A speech on 'Regulating the crypto assets landscape in Japan' at the crypto asset roundtable hosted by QMFIE](#)", December 7, 2022.
66. Ravi Menon (Managing Director, Monetary Authority of Singapore), "[Yes to Digital Asset Innovation, No to Cryptocurrency Speculation](#)", August 29, 2022.
67. (A) Monetary Authority of Singapore, "[Consultation paper on proposed regulatory measures for DPT services](#)", October 26, 2022. (B) Monetary Authority of Singapore, "[Consultation paper on proposed regulatory approach for stablecoin-related activities](#)", October 26, 2022.
68. Australian Securities and Investment Commission, "[Crypto Assets](#)", October 2021.
69. Australian Securities and Investment Commission, "[Submission to Senate inquiry into digital currency](#)", December 2014.
70. Australian Treasury, "[Work underway on crypto asset reforms](#)", August 22, 2022.
71. Australian Treasury, "[Crypto asset secondary service providers: licensing and custody requirements](#)", March 21, 2022.
72. Hong Kong Financial Services and the Treasury Bureau, "[Government welcomes passage of Anti-Money Laundering and Counter-Terrorist Financing \(Amendment\) Bill 2022](#)", December 7, 2022.
73. Monetary Authority of Singapore, "[A guide to digital token offerings](#)", May 26, 2020.
74. Monetary Authority of Singapore, "[How are digital payment token services regulated in Singapore](#)", November 2021.
75. (A) Financial Action Task Force, "[Guidance for a risk-based approach: Virtual currencies](#)", June 2015. (B) Financial Action Task Force, "[Virtual currencies: Key definitions and potential AML/CFT risks](#)", June 2014.
76. Financial Action Task Force, "[Virtual assets and virtual asset service providers](#)", October 28, 2021.
77. Australian Transaction Reports and Analysis Centre, "[Digital currency exchange providers](#)", updated August 2022.
78. Australian Transaction Reports and Analysis Centre, "[A guide to preparing and implementing an AML/CFT program](#)", updated August 14, 2020.
79. Expected in 2023. The amendments will also implement the FATF travel rule.
80. Japan Financial Services Agency, "[Notification of originator and beneficiary information upon crypto assets transfer](#)", March 31, 2021.
81. The legislative changes are expected to come into effect in 2023.
82. The FATF 'Travel Rule' requires additional information to be provided for both incoming and outgoing digital asset transfers to facilitate enhanced AML/CFT surveillance. See Financial Action Task Force, "[Targeted update on implementation of the FATF standards on virtual assets and virtual asset service providers](#)", June 30, 2022.
83. Monetary Authority of Singapore, "[Financial Services and Markets Bill - Second Reading Speech](#)", April 4, 2022.
84. Acronis, "[Acronis' Mid-Year Cyberthreats Report Finds Ransomware is the Number-One Threat to Organizations, Projects Damages to exceed \\$30 Billion by 2023](#)", Press Release, August 24, 2022.
85. Monetary Authority of Singapore, "[Consultation paper on proposed regulatory approach for stablecoin-related activities](#)", October 26, 2022.
86. Monetary Authority of Singapore, "[Consultation paper on proposed regulatory measures for DPT services](#)", October 26, 2022.

87. Japan Financial Services Agency, "[A speech on "Regulating the crypto assets landscape in Japan"](#)" at the crypto asset roundtable hosted by OMFIF", December 7, 2022.
88. Australian Treasury, "[Crypto asset secondary service providers: licensing and custody requirements](#)", March 21, 2022.
89. Australian Securities and Investment Commission, "[Crypto Assets](#)", October 2021.
90. Australian Treasury, "[Crypto asset secondary service providers: licensing and custody requirements](#)", March 21, 2022.
91. Monetary Authority of Singapore, "[Guidelines on Provision of Digital Payment Token Services to the Public](#)", January 17, 2022.
92. Monetary Authority of Singapore, "[Notice on Disclosures and Communications](#)", March 7, 2022.
93. Monetary Authority of Singapore, "[Consultation paper on proposed regulatory measures for DPT services](#)", October 26, 2022.
94. Hong Kong Securities and Futures Commission announced in October 2022 its framework for authorising exchange traded funds that invest in digital asset futures that will be accessible to retail investors. Two such funds were launched in December 2022. See Hong Kong Securities and Futures Commission, "[Circular on Virtual Asset Futures Exchange Traded Funds](#)", October 31, 2022.
95. Hong Kong Securities and Futures Commission, "[Joint circular on intermediaries virtual asset-related activities](#)", January 28, 2022.
96. Japan Financial Services Agency, "[A speech on "Regulating the crypto assets landscape in Japan"](#)" at the crypto asset roundtable hosted by OMFIF", December 7, 2022.
97. Ibid.
98. Monetary Authority of Singapore, "[Consultation paper on proposed regulatory measures for DPT services](#)", October 26, 2022.
99. Except for banks for which it is proposed that they can issue stablecoins as tokenised deposits without additional reserve backing as they are already subject to stringent prudential requirements under the Banking Act. See Monetary Authority of Singapore, "[Consultation Paper on Proposed Regulatory Approach for Stablecoin-Related Activities](#)", October 26, 2022.
100. Australian Treasury, "[Crypto asset secondary service providers: licensing and custody requirements](#)", March 21, 2022.
101. Hong Kong Financial Services and the Treasury Bureau, "[Public Consultation on Legislative Proposals to Enhance Anti-Money Laundering and Counter-Terrorist Financing Regulation in Hong Kong - Consultation Conclusions](#)", May 21, 2021.
102. Hong Kong Monetary Authority, "[Discussion paper on Crypto-assets and Stablecoins](#)", January 12, 2022.
103. US Securities and Exchange Commission, "[SEC charges the Hydrogen Technology Corp and its former CEO for market manipulation of crypto asset securities](#)", September 28, 2022.
104. Reuters, "[No spot Bitcoin ETFs approved so far - U.S. SEC official](#)", November 30, 2022.
105. (A) Hong Kong Financial Services and the Treasury Bureau, "[Public Consultation on Legislative Proposals to Enhance Anti-Money Laundering and Counter-Terrorist Financing Regulation in Hong Kong - Consultation Conclusions](#)", May 21, 2021. (B) Monetary Authority of Singapore, "[Consultation paper on proposed regulatory measures for DPT services](#)", October 26, 2022.
106. European Central Bank, "[Walking the talk - Banks gearing up to manage risks from climate change and environmental degradation](#)", November 2022.
107. UK Prudential Regulation Authority, "[Climate-related financial risk management and the role of capital requirements](#)", October 28, 2021.
108. Michael Holscher, David Ignell, Morgan Lewis, and Kevin Stiroh, "[Climate Change and the Role of Regulatory Capital: A Stylized Framework for Policy Assessment](#)", Federal Reserve Board, October 18, 2022.
109. European Banking Authority, "[The role of environmental risk in the prudential framework](#)", May 2, 2022.
110. Taskforce on Nature-related Financial Disclosures, "[Welcome to the TNFD Nature-Related Risk & Opportunity Management and Disclosure Framework v0.3 Beta Release](#)", accessed December 2022.
111. International Financial Reporting Standards Foundation, "[General Sustainability-related Disclosures](#)", accessed December 2022.
112. Financial Stability Board, "[Progress Report on Climate-Related Disclosures](#)", October 13, 2022.
113. Task Force on Climate-related Financial Disclosure, "[2022 TCFD Status Report](#)", October 13, 2022.
114. Ibid.
115. Financial Stability Board, "[Progress Report on Climate-Related Disclosures](#)", October 13, 2022.
116. Australian Prudential Regulation Authority, "[Prudential Practice Guide - CPG 229 Climate Change Financial Risks](#)", November 26, 2021.
117. Australian Treasury, "[Climate-related financial disclosure](#)", December 12, 2022.
118. China Enterprise Reform and Development Society, "["Guidance for Enterprise ESG Disclosure" Group Standard Conference and Chinese Enterprise Lecture \(Fifth Issue\) Successfully held in Beijing \(CN\)](#)", April 16, 2022.
119. Hong Kong Monetary Authority, "[Supervisory Policy Manual \(SPM\) GS-1-Climate Risk Management](#)", December 30, 2021.
120. Japan Financial Services Agency, "[Publication of 'Supervisory Guidance on Climate-related Risk Management and Client Engagement'](#)", July 15, 2022.
121. The Joint Committee on Climate Change, "[JC3 issues the TCFD Application Guide for Malaysian Financial Institutions](#)", June 29, 2022.
122. Bank Negara Malaysia, "[Climate Risk Management and Scenario Analysis](#)", December 30, 2022.
123. Ministry for the Environment - New Zealand Government, "[Mandatory climate-related disclosures](#)", November 22, 2022.
124. Monetary Authority of Singapore, "[Sustainability Report 2021/2022](#)", July 28, 2022.
125. Financial Stability Board, "[Progress Report on Climate-Related Disclosures](#)", October 13, 2022.
126. Network for Greening the Financial System, "[Final Report on bridging data gaps](#)", July 2022.
127. New Zealand Ministry of Business, Innovation & Employment, "[Consultation on modern slavery and worker exploitation](#)", September 15, 2022.
128. Australian Prudential Regulation Authority, "[Final Prudential Standard CPS 511 Remuneration](#)", August 27, 2021.
129. Australian Securities and Investments Commission, "[How to avoid greenwashing when offering or promoting sustainability-related products](#)", June 2022.

130. Monetary Authority of Singapore, "[Sustainability Report 2021/2022](#)", July 28, 2022.
131. Hong Kong Monetary Authority, "[Enhanced Competency Framework for Bank Practitioners](#)", September 27, 2022.
132. Australia Prudential Regulation Authority, "[Discussion paper - Strengthening operational risk management](#)", July 28, 2022.
133. Australian Prudential Regulation Authority, "[Corporate Plan 2022-2023](#)", August 8, 2022.
134. Australian Securities and Investment Commission, "[Corporate Plan 2022-26](#)", August 22, 2022.
135. The State Council – The People's Republic of China, "[Report to the 20th National Congress of the Communist Party of China](#)", October 25, 2022.
136. The People's Bank of China, "[PBC Holds 2023 Work Conference](#)", January 4, 2023.
137. China Banking and Insurance Regulatory Commission, "[CBIRC Holds 2023 Work Conference](#)", January 13, 2023.
138. Otoritas Jasa Keuangan, "[The Indonesian Financial Services Sector Master Plan 2021-2025](#)", January 15, 2021.
139. Japan Financial Services Agency, "[The JFSA Strategic Priorities July 2022-June 2023](#)", September 26, 2022.
140. Bank Negara Malaysia, "[The Financial Sector Blueprint 2022-2026](#)", January 24, 2022.
141. Financial Market Authority, "[Annual Corporate Plan 2022/23](#)", August 25, 2022.
142. Monetary Authority of Singapore, "[Enforcement Report July 2020 to December 2021](#)", Page 33, April 27, 2022.
143. The Securities and Exchange Commission, Thailand, "[SEC Strategic Plan 2022-2024](#)", March 25, 2022.



The Deloitte Centre for Regulatory Strategy is a source of critical insights and advice, designed to assist the world's largest financial institutions manage the strategic and aggregate impact of regional and international regulatory policy. With regional hubs in Asia Pacific, the Americas and EMEA, the Centre combines the strength of Deloitte's network of experienced risk, regulatory, and industry professionals — including a deep roster of former regulators, industry specialists, and business advisers — with a rich understanding of the impact of regulations on business models and strategy.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities (collectively, the "Deloitte organisation"). DTTL (also referred to as "Deloitte Global") and each of its member firms and related entities are legally separate and independent entities, which cannot obligate or bind each other in respect of third parties. DTTL and each DTTL member firm and related entity is liable only for its own acts and omissions, and not those of each other. DTTL does not provide services to clients. Please see www.deloitte.com/about to learn more.

Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax and related services. Our global network of member firms and related entities in more than 150 countries and territories (collectively, the "Deloitte organisation") serves four out of five Fortune Global 500® companies. Learn how Deloitte's approximately 415,000 people make an impact that matters at www.deloitte.com.

Deloitte Asia Pacific Limited is a company limited by guarantee and a member firm of DTTL. Members of Deloitte Asia Pacific Limited and their related entities, each of which are separate and independent legal entities, provide services from more than 100 cities across the region, including Auckland, Bangkok, Beijing, Hanoi, Hong Kong, Jakarta, Kuala Lumpur, Manila, Melbourne, Osaka, Seoul, Shanghai, Singapore, Sydney, Taipei and Tokyo.

This communication contains general information only, and none of DTTL, or the Deloitte organisation is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No representations, warranties or undertakings (express or implied) are given as to the accuracy or completeness of the information in this communication, and none of DTTL, its member firms, related entities, employees or agents shall be liable or responsible for any loss or damage whatsoever arising directly or indirectly in connection with any person relying on this communication. DTTL and each of its member firms, and their related entities, are legally separate and independent entities.

Liability limited by a scheme approved under Professional Standards Legislation. Member of Deloitte Asia Pacific Limited and the Deloitte organisation.