Promoting Global Financial Stability

2021 FSB Annual Report

27 October 2021

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Executive summary

The outlook for financial stability continues to be dominated by the COVID event.

- The G20 reforms and a swift and broad-based policy response to the pandemic were key to stabilising the financial system and sustaining financing to the real economy.
- The global economy is recovering from the fallout of the pandemic, supported by easy financing conditions. But the recovery is uneven across economies and sectors.

The combination of pronounced economic uncertainty, easy financing conditions and sustained policy support is shaping asset valuations, and could test financial resilience.

- Asset valuations may be stretched in some segments. Given high uncertainty, the potential for sudden sharp movements in asset prices persists, and could be associated with heightened liquidity demands that lead to spillovers across the financial system.
- The economic impact of the pandemic and of policy responses to address it have led to a rise in indebtedness across sovereigns, non-financial corporates and households. There is a risk of higher insolvencies and credit losses as policy support is unwound.
- Different scenarios, such as a rapid tightening in financial conditions following a strong bounce-back in the global economy or a strong resurgence of the pandemic leading to another round of strict lockdowns, could trigger these financial vulnerabilities.

Structural changes are also affecting the nature of vulnerabilities in the financial system.

- Non-bank financial intermediation (NBFI) has grown considerably since 2008 and become more diverse and interconnected. NBFI's increasing importance for the real economy means that market liquidity has become more central to financial resilience.
- Accelerated digitalisation has improved efficiencies but also put the spotlight on operational resilience, including cyber risks that are becoming more frequent and sophisticated. Rapidly evolving crypto-asset markets may give rise to new risks to financial stability.
- Exposure to the physical and transition risks posed by climate change is a pressing emerging vulnerability. Climate-related events could lead to sharp changes in asset prices, and be concentrated in certain sectors or geographies. A disorderly transition to a low-carbon economy could have a destabilising effect on the financial system.

The FSB is carrying out analytical and policy work to foster global financial stability in response to the pandemic as well as to new and emerging risks, including:

- Work to enhance the resilience of the NBFI sector while preserving its benefits, building on the lessons from the March 2020 market turmoil. A key deliverable for this year is policy proposals to enhance the resilience of money market funds (MMFs).

- Work on regulatory and supervisory issues associated with financial institutions' reliance on third-party providers; cyber incident response and recovery; and to address specific risks arising from so-called "global stablecoin" arrangements.
- Analytical work on central counterparty (CCP) financial resources, given the increased shift to central clearing that has further increased the systemic importance of CCPs.
- The development of a roadmap to enhance cross-border payments, including the setting of quantitative global targets for cost, speed, transparency and access.
- Actions to promote the timely transition away from LIBOR to robust alternative rates.
- Work to assess and address climate-related financial risks, including the development of a roadmap to support internationally coordinated actions in this area.

There has been limited additional progress in implementing G20 reforms since last year, as financial authorities focused on responding to the impacts of the pandemic.

- Regulatory adoption of core Basel III elements has generally been timely to date, but implementation of the final reforms to the capital framework is still at a very early stage. Implementation of over-the-counter (OTC) derivatives reforms is also well advanced.
- More work is needed to close gaps in the operationalisation of resolution plans for banks and to implement effective resolution regimes for insurers and CCPs. The implementation of NBFI reforms continues but is at an earlier stage than other reforms.

The pandemic provides important lessons for the functioning of the G20 reforms.

- Effective implementation of those reforms meant that core parts of the financial system entered the pandemic in a more resilient state than during the 2008 crisis. Those parts of the system where implementation is most advanced displayed greater resilience and were able to cushion, rather than amplify, the shock.
- The pandemic highlighted differences in resilience within and across financial sectors, and areas that warrant further consideration at the international level. These include the functioning of capital and liquidity buffers; factors that may give rise to excessive procyclicality in the financial system; and the need to strengthen NBFI resilience. The FSB, working with SSBs, is examining the policy implications of these findings.

The COVID experience reinforces the importance of global regulatory cooperation and of completing the remaining elements of the post-crisis reform agenda with G20 support.

- The financial stability benefits of the full, timely and consistent implementation of G20 reforms remain as relevant as when they were initially agreed.
- Maintaining close monitoring and cooperation are critical given the impacts of the pandemic and the need to support the resilience of the global financial system and address long-term structural developments in the financial system.
- The FSB and SSBs will continue to promote approaches to deepen international cooperation, coordination and information-sharing, with the support of the G20.

1. Introduction

This revamped Annual Report describes the FSB's work to promote global financial stability.

- The FSB has published annual reports on the implementation and effects of the G20 financial regulatory reforms since 2015. Their main purpose was to highlight progress made by FSB members in implementing regulatory reforms to fix the fault lines that led to the 2008 global financial crisis and build a safer, more resilient financial system.[1]
- With the FSB's overall work shifting increasingly to new topics and the assessment of new and emerging risks, the report has been revamped to be more forward-looking and encompassing so that it describes the FSB's work to promote global financial stability.

The report is structured as follows:

- Section 2 presents the FSB's high-level assessment of current vulnerabilities in the global financial system, including with respect to COVID-19. The assessment is based the FSB's new financial stability surveillance framework (see Box 1).
- Section 3 describes the main findings of the FSB's ongoing financial stability work and their implications for the functioning and resilience of the global financial system. Annex 1 includes a list of all FSB reports published over the past year.
- Section 4 takes stock of progress by FSB members in implementing G20 reforms and reports on the findings of evaluations on the effects of those reforms. It is complemented by Annex 2, which includes the colour-coded table ('dashboard') that summarises the status of implementation across FSB member jurisdictions for priority reform areas.
- The report concludes with a section on the importance of promoting a resilient financial system and reinforcing global regulatory cooperation.

2. Financial stability outlook

2.1. The COVID Event continues to shape financial vulnerabilities

The outlook for financial stability continues to be dominated by the economic impact of, and the policy responses to, the COVID-19 pandemic.

- A swift, determined and broad-based policy response to the pandemic was key to stabilising the financial system and sustaining the supply of finance to the real economy.

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[1] The reform programme has four core elements: making financial institutions more resilient; ending too-big-to-fail (TBTF); making derivatives markets safer; and enhancing resilience of non-bank financial intermediation.

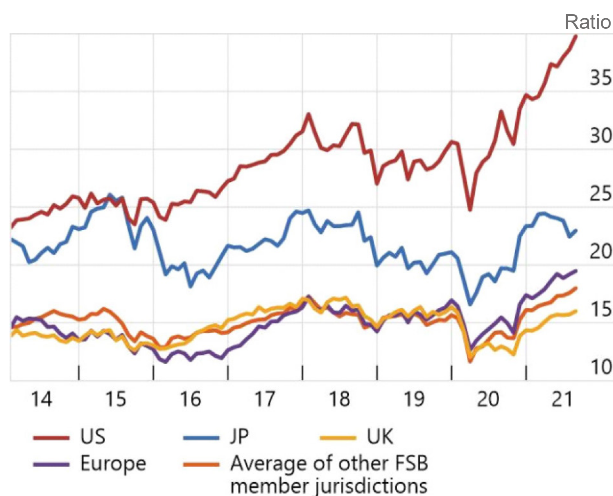
- The global economy is recovering from the fallout of the pandemic, supported by easy financing conditions. But the recovery is uneven across economies and sectors and the outlook remains uncertain.
- The combination of pronounced economic uncertainty, easy financing conditions and sustained policy support is shaping asset valuations and exposures.

Asset valuations may be stretched in some segments.

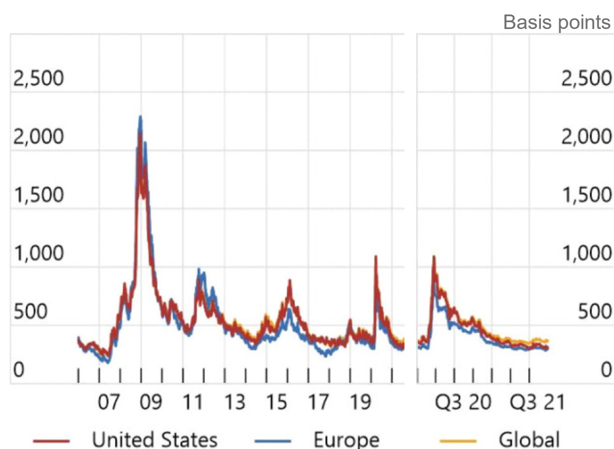
- Equity prices have recovered from the sharp decline in March 2020 and have high cyclically adjusted price to earnings ratios. Bond spreads continue to be tight for a number of sovereigns and corporates, while around one-third of bonds in the euro area and advanced Asia have negative yields (see Graph 1).
- In a context of persistent low interest rates, there is continued evidence of elevated risk taking among investors, which may add to existing vulnerabilities. The proportion of high-yield bonds outstanding is high and the amount of collateralised loan obligations remains high relative to the total amount of corporate debt. There are also signs of higher leverage being used in some markets, which could amplify market corrections.
- In an environment of high uncertainty, the potential for sudden sharp movements in asset prices persists.

Asset valuations may be stretched in some segments — **Graph 1**

Equity price CAPE ratios[1]



High-yield corporate bond spreads[2]



Notes: [1] CAPE = cyclically adjusted price-to-earnings ratio. Europe shows the CAPE ratio for 10 euro area countries plus Denmark, Norway, Sweden, Switzerland and the United Kingdom. [2] Option-adjusted spreads.

Sources: GFD; Bloomberg; ICE BofAML indices; FSB calculations

Liquidity mismatches and interconnections could be a source of vulnerability.

- The March 2020 market turmoil highlighted the need to strengthen resilience in the NBFI sector. The episode underscored issues associated with certain market activities and mechanisms that may have caused liquidity imbalances and propagated stress. These include: outflows from non-government money market funds (MMFs); similar dynamics – albeit not as widespread – in specific types of open-ended funds (OEFs); redistribution of liquidity from margin calls; the willingness and capacity of dealers to

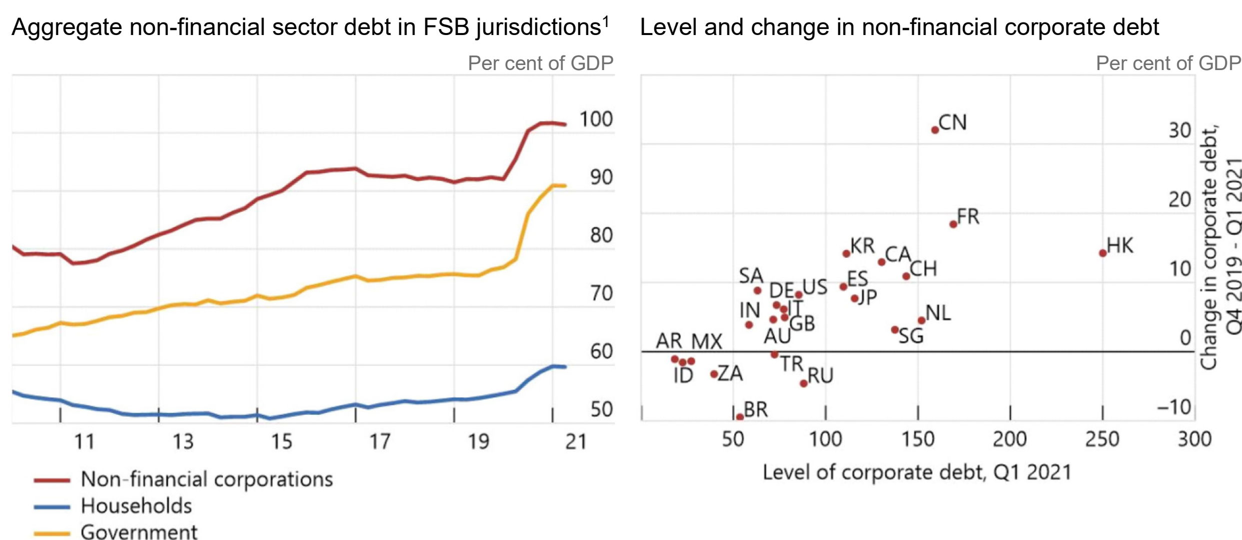
intermediate in core funding markets; and the role of leverage in amplifying stress.[2] Ongoing FSB work is analysing the impact and materiality of these mechanisms.

- Interconnections between institutions and markets could lead to spillovers in the financial system, if not managed appropriately. These include interconnections through derivatives exposures, securities financing transactions and short-term funding markets.

Rising non-financial sector indebtedness during the COVID Event may be a source of vulnerabilities going forward.

- The economic impact of the pandemic and of policy responses to address it have led to a rise in indebtedness across sovereigns, non-financial corporates and households (see Graph 2).

Non-financial debt has risen due to the COVID-19 pandemic **Graph 2**



Notes: [1] The chart shows debt-to-GDP ratios for individual FSB member jurisdictions, weighted by PPP-based GDP.
Sources: BIS; FSB calculations.

- Continued economic support has left its mark on sovereign balance sheets. For FSB member jurisdictions in aggregate, the sovereign debt-to-GDP ratio has increased by around 15 percentage points since end-2019 to 90% of GDP.

- Non-financial corporate indebtedness continues to be a concern. Corporate debt levels were already at high in several jurisdictions before the pandemic, and the COVID-19 lockdowns have reinforced this dispersion across economies. Countries with high corporate debt levels have tended to face a larger increase in indebtedness since 2019. The sudden stop in economic activity forced firms to borrow to bridge their cash-flow needs which, along with the contraction in GDP, pushed debt-to-GDP ratios higher.

- Household debt has been rising along with house prices. Median household debt and house price valuation metrics in G20 AEs are now at similar levels – or higher – than before the onset of the 2008 financial crisis. In several AEs elevated house prices now

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[2] See the *Holistic Review of the March Market Turmoil* (November 2020).

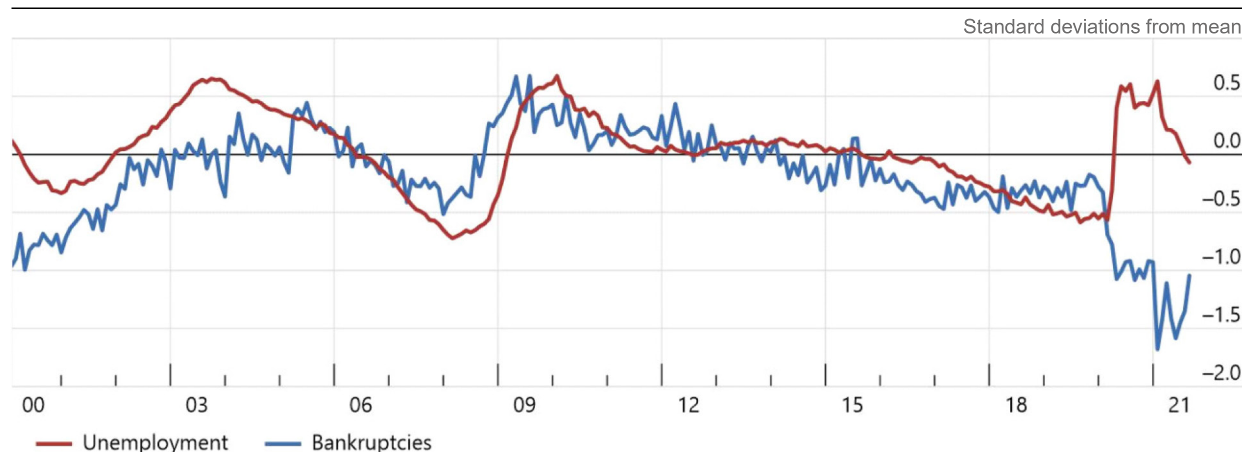
coincide with high levels of household debt. This could be problematic from a financial stability perspective if house prices were to fall sharply.

Insolvencies have remained low but may rise in future as support measures are unwound.

- Despite the sudden stop, and subsequent uneven recovery in economic activity as a result of the COVID-19 lockdowns, corporate insolvencies have so far been low in most jurisdictions. Government support has not just prevented a rise in company bankruptcies, but has kept their level below the long-term average (see Graph 3).
- However, there is a risk of higher insolvencies in the future as policy support is unwound, particularly for corporates with high debt burdens or for whom activity does not bounce back adequately or in a timely manner.

Corporate bankruptcies and unemployment trends have decoupled[1] **Graph 3**

Standard deviations from mean



Notes: [1] The mean and standard deviations are calculated over the period 2000-2019 on an individual country basis. The chart shows the average of the standard deviations from the mean across FSB member jurisdictions, where data are available.

Sources: Datastream; national statistical agencies; FSB calculations.

2.2. Financial system resilience could still be tested

Thus far, the global financial system has weathered the pandemic.

- This has been the result of greater financial system resilience, supported by the G20 reforms, and the swift, determined and bold international policy response. Effective implementation of those reforms meant that core parts of the system entered the pandemic in a more resilient state than during the 2008 financial crisis.
- The COVID Event also revealed differences in resilience within and across financial sectors. Key funding markets faced acute stress in March 2020, with particular activities and mechanisms causing systemic liquidity imbalances and propagating stress. Authorities needed to take decisive and unprecedented action to sustain the supply of financing to the economy and support market functioning.

Box 1: FSB financial stability surveillance framework

The discussion of financial system vulnerabilities and resilience has been informed by the new surveillance framework recently introduced by the FSB.[3] The framework aims to identify vulnerabilities in a proactive and forward looking manner. It is based on systematic analysis that spans all parts of the global financial system. To serve the mandate of the FSB, the new framework provides a global, cross-border, and cross-sectoral perspective on current vulnerabilities that draws on the collective perspective of the FSB's broad membership. At the same time, the framework aims to capture new and emerging vulnerabilities in an evolving global financial system.

The framework embodies four key principles:

1. Focus on vulnerabilities that may have implications for global financial stability.
2. Scan vulnerabilities systematically and with a forward-looking perspective, while preserving flexibility.
3. Recognise differences among countries.
4. Leverage the comparative advantages of the FSB while avoiding duplication of work.

The framework includes a common terminology – which defines key concepts such as vulnerabilities, shocks and resilience – as well as a common taxonomy of vulnerabilities. Providing a common basis for discussion, these elements aid shared understanding and consensus building around the identification and assessment of vulnerabilities in the FSB.

The framework focuses on vulnerabilities, the accumulation of imbalances in the financial system, as opposed to the shocks that may trigger those vulnerabilities. The framework also emphasises identifying vulnerabilities that are common across countries or that may engender cross-border spillovers, which could interact with other vulnerabilities.

The time horizon over which vulnerabilities materialise is important for policy, and therefore the framework also explicitly identifies global vulnerabilities that are currently material, those that may become material in the next 2 to 3 years, and those that may become material over a longer horizon.

The framework places particular emphasis on bringing multiple perspectives to bear in the assessment of vulnerabilities. Accordingly, the framework utilises several different sources, including:

1. Analysis of surveillance indicators.
2. Regular surveys of FSB members and regional bodies.
3. Ongoing analysis by relevant FSB working groups.
4. Periodic outreach to private sector participants.

Drawing conclusions from these key inputs necessarily requires judgment.

Resilience, the capacity of the financial system to absorb shocks, is a vital concept for assessing vulnerability. Gauging resilience enables the picture of gross vulnerabilities to develop into a view on material net vulnerabilities, and on the stability of the financial system.

Once identified, material global net vulnerabilities should be subject to more intensive monitoring and analysis, and, as appropriate, policy discussions within the FSB.

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[3] See the *FSB Financial Stability Surveillance Framework* (September 2021).

However, different scenarios could trigger the vulnerabilities discussed above.

- One could be a rapid tightening in financial conditions following a strong bounce-back in the global economy and inflation. The other could be a strong resurgence of the pandemic leading to another round of strict lockdowns.

- While banking sector resilience is stronger than at the time of the 2008 financial crisis, weaker banks could still come under pressure in either scenario. Banking sector non-performing loan and loan loss provisioning levels are already quite heterogeneous across jurisdictions. If the downside scenario was to impact an economy whose banking sector already had worse asset quality, weaker banks could come under particular pressure from higher credit losses. There may also be questions about banks' willingness to sustain real economy financing in such an environment.

- Certain non-bank financial institutions could also be affected in the downside scenarios. While work is ongoing under the FSB to analyse and address vulnerabilities in the NBFI sector, as of now the mechanisms and structures that operated during the March 2020 market turmoil remain and could amplify future shocks.

- Asynchronous economic cycles could lead to widening interest rate differentials between economies, potentially inducing disorderly capital outflows from EMEs.

2.3. Structural changes are affecting vulnerabilities

Technological innovations in finance may create vulnerabilities in the future.

- The boost that COVID-19 seems to have given to digital financial services has put the spotlight on operational resilience, including cyber risks.

- Cyber incidents are becoming more frequent and sophisticated. A cyber-attack that severely impairs the operational capability of a systemically important financial institution or critical part of the market infrastructure could spill over to other financial institutions, including as a result of a loss of confidence in the financial system.

- In addition, a cyber attack on a technology company that provides services to financial institutions – or their service providers – could also spread to the financial system. A high concentration of third-party service providers could magnify this risk.

Rapidly evolving crypto-asset markets may give rise to new risks to financial stability.

- Rapidly evolving crypto-asset markets may give rise to new risks to financial stability. Crypto-assets represent a small proportion of financial assets and are not widely used in critical financial services on which the real economy depends. However, their market capitalisation has increased dramatically and they have been used more by institutional investors, including in complex investment strategies. Links between crypto-assets and the mainstream financial system through trading platforms and custodial services are also growing. Increased participation by retail investors in speculative crypto-asset trading, facilitated by the use of so-called stablecoins, could also give rise to broader financial stability issues through an erosion of trust in the financial system.

- So-called “global stablecoins” (GSCs) may also create vulnerabilities if adopted widely. Yet, despite an increase in the use of existing stablecoin arrangements in the past year, the functions they perform remain limited. They are typically a by-product of demand for, and investments in, speculative crypto-assets, and are not yet being used for mainstream payments on a significant scale.[4] However, one or more of them may evolve over time and could have the potential to expand reach and adoption across multiple jurisdictions, posing greater risks to financial stability than existing stablecoins.

Exposure to the physical and transition risks posed by climate change is a pressing emerging vulnerability.[5]

- Climate-related events might impact the value of financial assets and liabilities through two main channels. First, these could be affected by the actual or expected economic effects of a continuation in climate change (physical risks). Second, their value could change by the adjustment towards a low-carbon economy (transition risks).

- Current central estimates of the impact of physical risks on asset prices appear relatively contained, but are subject to considerable tail risk. Climate events could lead to sharp changes in asset prices. Market and credit risks could also be concentrated in certain sectors or geographies.

- A disorderly transition to a low-carbon economy could have a destabilising effect on the financial system. The lack of reliable and comparable data might exacerbate the impact of this. Climate-related vulnerabilities might not be adequately incorporated into asset prices and this could lead investors to accumulate larger exposures than would otherwise be desirable. There is a danger of a climate-driven “Minsky moment” if investors perceive that policy or technological change may come more quickly than previously anticipated. This could bring about a disorderly adjustment in asset prices which could spill over to other markets or jurisdictions.

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4 For example, they act as a bridge between traditional fiat currencies and non-stablecoin crypto-assets, are used in decentralised finance structures, and may serve as collateral in crypto-asset derivative or other transactions.

5 See the FSB reports on *The implications of climate change for financial stability* (November 2020) and *The availability of data with which to monitor and assess climate-related risks to financial stability* (July 2021).

3. Priority areas of work and new initiatives in 2021

- The FSB is carrying out analytical and policy work to foster global financial stability in response to the pandemic as well as new and emerging risks, and to enhance the functioning of the regulatory reforms established after the 2008 global financial crisis.

- Key priorities include financial policy issues that have arisen in the context of COVID-19; work to address risks from structural changes to the global financial system, including non-bank financial intermediation, technological innovation, and climate change; and work to improve financial systems and arrangements (cross-border payments) and to complete ongoing financial stability initiatives (financial benchmarks).

3.1. Coordinating the financial policy response to COVID-19

The FSB continues to support international cooperation and coordination on the COVID-19 response.

- This work involves assessing vulnerabilities in the global financial system; sharing information on policy responses; assessing impact of measures taken; and monitoring, with the SSBs, the use of flexibility and consistency of responses with international financial standards. This coordination is underpinned by the FSB Principles.[6]

- The FSB and SSBs also took actions to support the efforts of firms and authorities to focus their resources on the COVID-19 response. This included extending deadlines for implementation of international reforms, where this could be done in a way consistent with the reforms' underlying objectives. The FSB and SSBs have also reprioritised, and in some cases, delayed implementation monitoring initiatives to maximise the value of their work during the pandemic and assist members in using their resources effectively.

A gradual and targeted future unwinding of COVID-19 support measures should support financial stability during the recovery.

- A gradual shift from general support measures to targeted measures for the hardest-hit sectors has been observed in jurisdictions as the health situation improves. But the asynchronous economic recovery across jurisdictions increases heterogeneity in adoption of new measures as well as extending or unwinding existing measures.

- The FSB issued a report with policy considerations relating to the unwinding of support measures.[7] The report noted that authorities may follow a flexible, state-contingent approach, adjusting and withdrawing gradually, by ensuring that measures are targeted; requiring beneficiaries to opt in; making the terms on which support is provided progressively less generous; and sequencing the withdrawal of support measures. Clear, consistent and timely communication about policy intentions can help the economy adjust to changes in policy.

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[6] See COVID-19 pandemic: Financial stability implications and policy measures taken (April 2020) for the FSB Principles.

[7] See COVID-19 support measures: Extending, amending and ending (April 2021).

3.2. Strengthening resilience of non-bank financial intermediation

Various conjunctural factors and structural changes in the financial system have increased the reliance on market-based intermediation to finance growing levels of debt.

- Underlying drivers for this growth include long-term demographic trends leading to asset accumulation; macro-financial factors such as accommodative monetary policies; and post-crisis reforms, which may have increased the relative cost of bank-based finance.

- NBFI has grown considerably – to almost half of global financial assets, compared to 42% in 2008 – and become more diverse.[8] NBFI's increasing importance for the real economy means that market liquidity has become more central to financial resilience.

The FSB is coordinating work to enhance the resilience of the NBFI sector while preserving its benefits.

- The FSB's NBFI work programme builds on the lessons from the March 2020 market turmoil.[9] Enhancing NBFI resilience will help ensure a more stable provision of financing to the economy and reduce the need for extraordinary central bank interventions.

- The programme includes work to examine and, where appropriate, address specific issues that contributed to amplification of the shock, enhance understanding and strengthen monitoring of systemic risks in NBFI, and assess policies to address them.

- The work is based on a framework that describes how large imbalances between the demand for and supply of liquidity may surface. If such imbalances are sufficiently pervasive, deteriorating market liquidity conditions can propagate through the financial system and result in fire sales, thereby creating risks to financial stability.[10]

The policy proposals to enhance the resilience of MMFs are a key deliverable for this year.

- MMFs are susceptible to sudden and disruptive redemptions, and they may face challenges in selling assets, particularly under stressed conditions. Taken together, these can contribute to a first-mover advantage for redeeming investors in a stress event and thus make individual MMFs, or even the entire MMF sector, susceptible to runs. In practice, these two types of vulnerabilities have been significantly more prominent in non-public debt MMFs.

- The FSB report[11] includes policy options to address these vulnerabilities by imposing on redeeming investors the cost of their redemptions; enhancing the ability to absorb credit losses; addressing regulatory thresholds that may give rise to cliff effects; and reducing liquidity transformation.

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8 See the FSB *Global Monitoring Report on Non-Bank Financial Intermediation 2020* (December 2020).

9 See the *Holistic Review of the March Market Turmoil* (November 2020).

10 See *Enhancing the Resilience of Non-Bank Financial Intermediation: Progress report* (November 2021).

11 See the FSB's *Policy Proposals to Enhance Money Market Fund Resilience* (October 2021).

- FSB members are assessing, or will assess, MMF vulnerabilities in their jurisdiction and will address them using the framework and policy toolkit in the report, in line with their domestic legal frameworks. In addition, the FSB will, working with IOSCO, review progress made by member jurisdictions in adopting reforms to enhance MMF resilience. IOSCO plans to revisit its 2012 *Policy Recommendations for Money Market Funds* in light of the framework and policy toolkit in this FSB report. Finally, the FSB and IOSCO intend to carry out follow-up work, complementing MMF policy reforms, to enhance the functioning and resilience of short-term funding markets.

Work is ongoing to assess and address vulnerabilities in other specific NBFI areas.

- These include work to: assess liquidity risk and its management in open-ended funds; examine the structure and drivers of liquidity provision in core bond markets during stress; examine the frameworks and dynamics of margin calls in centrally cleared and non-centrally cleared derivatives and securities markets, and the liquidity management preparedness of market participants to meet margin calls; and assess fragilities in USD cross-border funding and their interaction with vulnerabilities in EMEs.

- Building on the findings from this work, the focus of the FSB going forward is to develop a systemic risk perspective in NBFI by deepening the understanding of those risks and developing policies to address them where appropriate.

3.3. Responding to the challenges of technological innovation

COVID-19 highlighted the importance of effective operational risk management and reinforced the need to promote resilience amidst rapid technological change.

- Work-from-home arrangements propelled the adoption of new technologies and accelerated digitalisation in financial services.

- Supporting operational resilience and business continuity was a major objective of temporary support measures at the onset of the COVID event. These measures allowed financial institutions to continue functioning in remote mode and to focus on the immediate issues facing them.

While outsourcing to third-party providers, such as cloud services, may have enhanced operational resilience at financial institutions, increased reliance on such services can give rise to new challenges and vulnerabilities.

- Financial institutions have relied on outsourcing and other third-party relationships for decades. However, in recent years, the extent and nature of interactions with a broad and diverse ecosystem of third parties has evolved, particularly on technology.

- The FSB has analysed regulatory and supervisory issues associated with financial institutions' reliance on third-party providers.[12] Identified challenges include the design of contractual agreements with third parties on appropriate rights to access, audit and

[12] See Regulatory and Supervisory Issues Relating to Outsourcing and Third-Party Relationships (November 2020).

obtain information from third parties; management of sub-contractors and supply chains; and the possibility of systemic risk arising from concentration in the provision of some outsourced and third-party services to financial institutions.

- In light of the feedback received from external stakeholders, the FSB is launching further work to develop common definitions and terminologies related to third-party risk management and outsourcing, as well as expectations for financial authorities' oversight of financial institutions' reliance on critical service providers.

The increased use of technology and digitisation, propelled by the rapid move to work-from-home arrangements, opened up new possibilities for cyber attacks.

- Efficient and effective response to and recovery from a cyber incident is essential to limiting any related financial stability risks. The number of cyber attacks has increased significantly, especially since the pandemic. Financial institutions need to consider enhancements to their cyber risk management processes, cyber incident reporting, response and recovery activities, as well as management of critical third-party service providers (e.g. cloud services).

- The FSB published a toolkit of effective practices for financial institutions to respond to and recover from a cyber incident.[13] In addition, it has taken stock of regulatory reporting of cyber incidents by financial institutions to their financial authorities, and identified areas of fragmentation across jurisdictions and sectors.[14] Based on the findings from the stocktake and follow-up discussions with external stakeholders, the FSB is planning to take forward further work to achieve greater convergence in cyber incident reporting.

Work is ongoing to monitor FinTech developments and assess the regulatory and supervisory implications of so-called "global stablecoins".

- The COVID-19 pandemic appears to have accelerated the trend toward digitalisation of retail financial services. While comprehensive data are lacking, proxies and market outreach suggest that the market shares of BigTech and larger FinTech firms increased. The FSB is examining the financial stability implications of changes in market structure.

- The FSB conducted a comprehensive stocktake in early 2021 of the implementation of its October 2020 high-level recommendations on the regulation, supervision, and oversight of so-called "global stablecoin" arrangements.[15] Several jurisdictions have been reviewing and updating their legal and regulatory regimes to ensure that they have the ability to identify and address specific risks arising from stablecoin operations.

- Authorities identified several issues that warrant further consideration at the international level. These include conditions for qualifying a stablecoin as a GSC; prudential, investor protection, and other requirements for issuers, custodians, and providers of other GSC functions (e.g. wallet providers); redemption rights; and cross-

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[13] See *Effective Practices for Cyber Incident Response and Recovery: Final Report* (October 2020).

[14] See *Cyber Incident Reporting: Existing Approaches and Next Steps for Broader Convergence* (October 2021).

[15] See *Regulation, Supervision and Oversight of "Global Stablecoin" Arrangements – Progress Report on the implementation of the FSB High-Level Recommendations* (October 2021).

border and cross-sectoral cooperation and coordination. SSBs are also continuing to assess whether and how existing international standards may apply to stablecoin arrangements and, where appropriate, adjust their standards in light of the FSB recommendations.

3.4. Enhancing cross-border payments and financial benchmarks

The G20 has made enhancing cross-border payments a priority.

- Faster, cheaper, more transparent and more inclusive cross-border payment services, including remittances, while maintaining their safety and security, would have widespread benefits for citizens and economies worldwide, supporting economic growth, international trade, global development and financial inclusion.
- Enhancing cross-border payments requires addressing frictions in existing processes. These frictions include: fragmented data standards or lack of interoperability; complexities in meeting compliance requirements, including for anti-money laundering and countering the financing of terrorism, and data protection purposes; different operating hours across different time zones; and outdated legacy technology platforms.

The FSB has developed a roadmap, in coordination with the CPMI and other relevant international organisations and SSBs, to enhance cross-border payments.

- The roadmap sets out actions and indicative timelines in five focus areas.[16]
- A foundational step in the roadmap consists of setting quantitative global targets for addressing the challenges of cost, speed, transparency and access in cross-border payments. Following a public consultation, the FSB has prepared recommendations for endorsement by the G20 on quantitative targets for addressing these challenges.[17] Progress towards meeting the targets will be monitored and publicly reported over time.

As we approach the end of 2021, the transition away from LIBOR is a significant priority for the FSB.

- Continued reliance of global financial markets on LIBOR poses clear risks to financial stability, and the majority of LIBOR panels will cease at the end of this year. With clear cessation dates now confirmed, progress needs to accelerate to achieve a timely transition. This requires, at a minimum, steps to stop issuance of new products linked to LIBOR and efforts to transition away from LIBOR in legacy contracts wherever feasible.

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[16] These are: committing to a joint public and private sector vision to enhance cross-border payments; coordinating on regulatory, supervisory and oversight frameworks; improving existing payment infrastructures and arrangements to support the requirements of the cross-border payments market; increasing data quality and straight-through processing by enhancing data and market practices; and exploring the potential role of new payment infrastructures and arrangements. See the FSB's report on *Enhancing Cross-border Payments: Stage 3 roadmap* (October 2020).

[17] See *Targets for Addressing the Four Challenges of Cross-Border Payments* (October 2021).

- Given the limited time available, the FSB strongly urges market participants to complete the steps set out in its Global Transition Roadmap and June 2021 statement in order to transition away from LIBOR to robust alternative rates.[18]

- The FSB has encouraged authorities to set globally consistent expectations and milestones that firms will rapidly cease the new use of LIBOR, regardless of where those trades are booked or in which currency they are denominated. It has also shared solutions to benchmark transition issues common to many jurisdictions and provided a guide for authorities in determining appropriate alternative benchmark rates.[19]

3.5. Addressing financial risks from climate change

The FSB has continued to promote globally consistent and comparable disclosures by firms of their climate-related financial risks.[20]

- Such disclosures are increasingly important to market participants and financial authorities as a means to give investors and other market participants the information they need to manage risks, and seize opportunities, stemming from climate change.

- In an environment with a proliferation of third-party frameworks for climate-related disclosures, the FSB calls for an acceleration of progress in the implementation of climate-related disclosures, using a framework based on the Task Force on Climate-related Financial Disclosures (TCFD) Recommendations, in line with jurisdictions' regulatory and legal requirements.

- The FSB welcomes the IFRS Foundation's programme of work to develop a baseline global sustainability reporting standard under robust governance and public oversight, built from the TCFD framework and the work of an alliance of sustainability standard-setters, involving them and a wider range of stakeholders closely, including national and regional authorities.

The FSB, in consultation with SSBs and other international bodies, developed and delivered to the G20 a roadmap for addressing climate-related financial risks.[21]

- The increased attention to financial risks posed by climate change is evidenced by the large and growing number of international initiatives underway on this topic. The interconnected nature of these risks and the growing body of work to address them reinforce the need for coordinated action.

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[18] See *Global Transition Roadmap for LIBOR* (June 2021) and *FSB statement on smooth and timely transition away from LIBOR* (June 2021). See also IOSCO's Statement on Benchmarks Transition (June 2021) and Statement on Credit Sensitive Rates (September 2021).

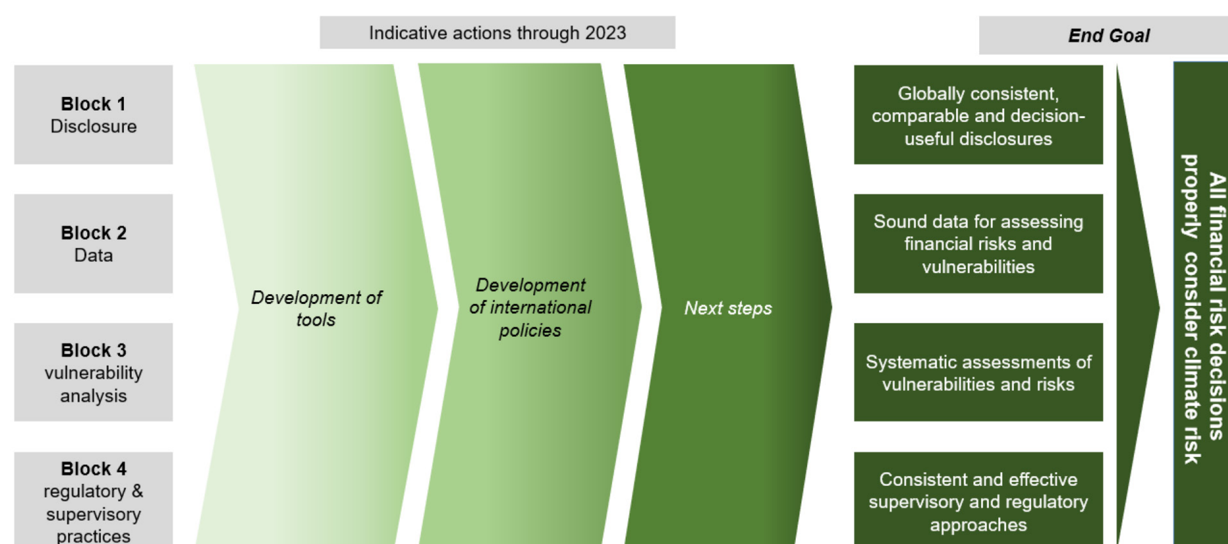
[19] See *Progress report to the G20 on LIBOR transition issues: Recent developments, supervisory issues and next steps* (July 2021).

[20] See the *Report on promoting climate-related disclosures* (July 2021).

[21] See the *FSB roadmap for addressing climate-related financial risks* (July 2021). The FSB's roadmap will be complementary, and mutually reinforcing, to the G20 Sustainable Finance Working Group's broader remit.

- To this end, the FSB has developed a roadmap to support international coordination for addressing climate-related financial risks (see Figure 1 below). The roadmap focuses on work to assess and address financial risks through four main, interrelated areas: firm-level disclosures; data; vulnerabilities analysis; and regulatory and supervisory tools. This roadmap supports the consistency of actions to be taken in the coming years, enhances authorities' ability to address financial stability risks and reduces the risk of harmful market fragmentation. The FSB will report to the G20 each year on progress under this roadmap.
- As part of the roadmap, the FSB will work on: promoting consistent approaches among national and regional climate disclosure initiatives; the availability of high quality data to monitor climate-related financial stability risks, and the development of forward-looking metrics on the financial impacts of climate change and transition; monitoring and assessment of climate-related financial vulnerabilities; and promoting, where appropriate, consistent regulatory and supervisory approaches to addressing climate-related risks at financial institutions.

Stylised overview of the FSB roadmap for addressing climate-related financial risks[1] **Figure 1**



Notes: [1] The steps set out in this graphic are indicative and each step described to be taken is subject to outcomes of necessary prior steps being satisfactorily completed.

Source: *FSB roadmap for addressing climate-related financial risks* (July 2021).

4. Implementation and effects of reforms

4.1. Implementation status

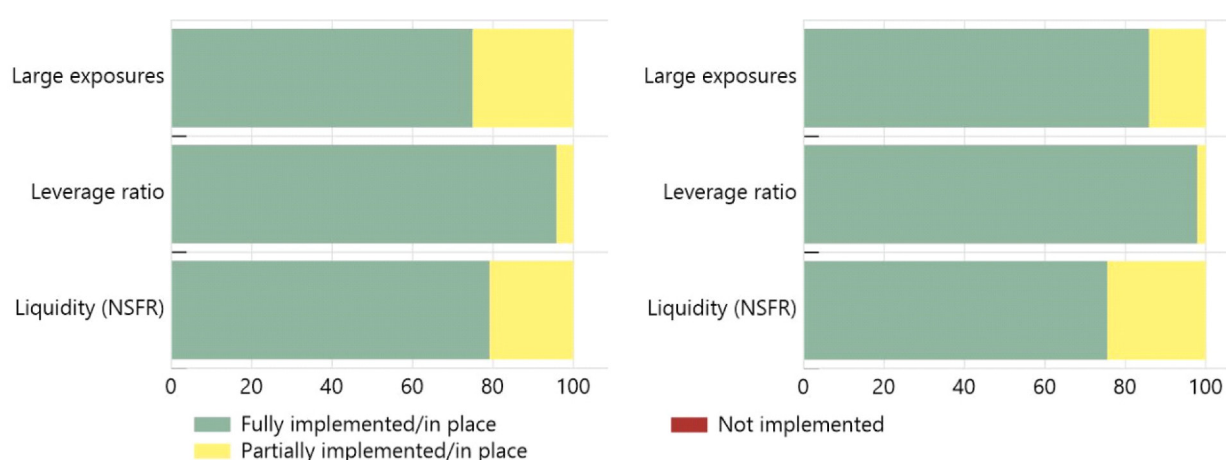
Building resilient financial institutions

Jurisdictions' adoption of core Basel III elements has generally been timely to date, but implementation of the final reforms to the capital framework is still at a very early stage.[22]

- The leverage ratio[23] and the Net Stable Funding Ratio (NSFR), which took effect in 2018, and the supervisory framework for measuring and controlling large exposures, which took effect in 2019, are in force in several jurisdictions (Graph 4). However, adoption of other Basel III standards whose implementation deadline has passed is not complete.[24]
- Implementation of the finalised reforms to the capital framework, which were agreed in 2017 and will take effect from January 2023, is still at a very early stage.

Implementation is advancing on core Basel III standards Graph 4

As percent of number of FSB jurisdictions[1] As percent of market size[2]



Notes: [1] The five EU members of the FSB are presented as separate jurisdictions. [2] Market size based on assets of banks domiciled in each FSB jurisdiction at end-2019.

Authorities in many jurisdictions have taken regulatory and supervisory measures to alleviate the economic impact of COVID-19 on the banking sector.

- Most measures taken by members are capital or liquidity-related, and aim to support banks' ability to continue lending and providing liquidity to the real economy. Some of

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[22] See the BCBS progress report on adoption of the Basel regulatory framework (October 2021).

[23] Based on the 2014 exposure definition. Implementation based on the revised exposure definition, agreed in December 2017, is due by 2022.

[24] These include interest rate risk in the banking book, the standardised approach for counterparty credit risk exposures, and equity investments in funds.

these are tailored to enable banks to continue lending to specific sectors and types of firms, provide consumer forbearance and support targeted government programs.

- The large majority of these measures make use of the flexibility embedded in the Basel III framework, and most measures taken are temporary in nature, ending by Q4 2021. A few measures could remain in place to extend the regulatory relief further, such as the treatment of expected credit loss provisions, central bank reserves and liquidity facilities.
- Certain other measures were taken over and above this flexibility. Such measures include reducing certain credit risk capital, leverage ratio or liquidity requirements; and postponing the entry into force of the large exposures framework. Most of these measures are temporary in nature and several have already expired.

Progress continues towards a global Insurance Capital Standard (ICS).

- The IAIS completed the first year of monitoring of the ICS for internationally active insurance groups. Recognising the resource challenges to insurers participating in the reporting of ICS, the IAIS had provided additional time for submitting the results.
- Actions by insurance supervisors in response to COVID-19 aim to: monitor insurers' liquidity, solvency and profitability risks; preserve their solvency positions; ensure that fair treatment of customers remains a priority; and ensure that the sector remains operationally resilient, including by providing operational relief where appropriate.

Implementation of the FSB Principles and Standards for Sound Compensation Practices is more advanced for banks than for the insurance and asset management sectors.

- Firms are increasingly using non-financial measures to enhance the effectiveness of performance assessments and determine variable compensation. While deferral and in-year adjustments are still commonly used, clawback continues to face obstacles to its effectiveness due to legal and practical barriers and its use is still not widespread.[25]
- To ensure that banks preserve the capital needed to support lending in response to COVID-19, authorities in some jurisdictions had taken compensation-related measures. No new actions are reported in the past year, and most jurisdictions have withdrawn or not extended their measures relating to compensation and dividends.

Ending too-big-to-fail

Implementation of the policy framework for global systemically important financial institutions has advanced the most for G-SIBs.

- Implementation of Higher Loss Absorbency as well as of reporting and disclosure requirements for G-SIBs is proceeding on a timely basis.

[25] See the FSB's progress report on Effective implementation of FSB Principles for Sound Compensation Practices and Implementation Standards (forthcoming).

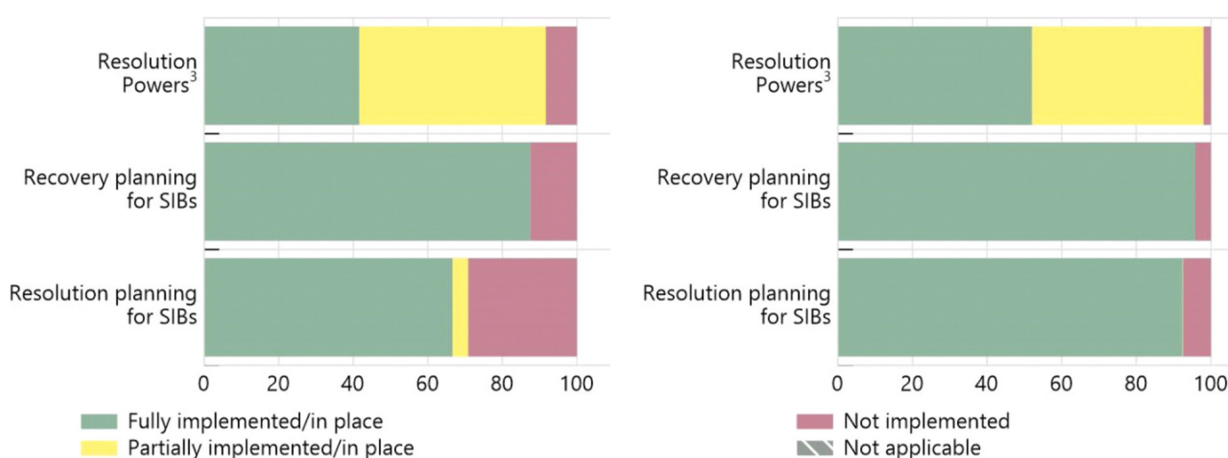
- All relevant G-SIBs already meet the final 2022 minimum external Total Loss-Absorbing Capacity (TLAC) requirements. TLAC issuance has continued through the pandemic. The identification of material subgroups for internal TLAC requirements has been completed and is relatively stable across relevant G-SIBs. The FSB continues technical work on the availability and deployment of unallocated TLAC resources within groups.

More work is needed to close gaps in the operationalisation of resolution plans for SIBs and to implement effective resolution regimes for insurance companies and CCPs.

- Almost all G-SIB home and key host jurisdictions have in place comprehensive bank resolution regimes that align with the FSB *Key Attributes of Effective Resolution Regimes for Financial Institutions*[26] (see Graph 5). However, implementation of the Key Attributes is still incomplete in some FSB jurisdictions. The powers most often lacking are bail-in and to impose a temporary stay on the exercise of early termination rights.

Work remains to implement comprehensive bank resolution regimes **Graph 5**

As percent of number of FSB jurisdictions[1] | As percent of market size[2]



Notes: [1] The five EU members of the FSB are presented as separate jurisdictions. [2] Market size based on assets of banks domiciled in each FSB jurisdiction at end-2019. [3] Composite indicator on extent to which jurisdictions have transfer, bail-in and temporary stay powers in their regime.

- Crisis management groups (CMGs) continue to make progress on G-SIB resolvability. Given the advanced stage of resolution planning, some CMGs are shifting their focus to resolution readiness testing activities between authorities, including dry-runs and simulation exercises, in order to further enhance crisis management preparedness.

- Operationalisation of resolution plans for banks shows some remaining gaps, in particular regarding cross-border bail-in, and access to loss-absorbing resources and liquidity in a cross-border context.

- Jurisdictions are at different stages of building up their resolution framework for insurers and developing approaches to mapping and assessing internal financial and operational interconnectedness in insurance groups. The FSB has taken stock of

[26] See *Key Attributes of Effective Resolution Regimes for Financial Institutions*

current practices and will issue practices papers to provide authorities with current examples.

- The FSB has published a framework that seeks to help FMIs better understand which information client banks and their resolution authorities may need from them to support their resolution planning and ensure that banks can continue performing their critical functions or critical services under all circumstances, including in cases where banks need to be resolved.[27] The first experience with the framework will be evaluated in the course of 2022. The FSB has also updated its 2020 template for FMIs to streamline the provision of information to firms and authorities to support their resolution planning.[28]

- The home authorities of CCPs that are systemically important in more than one jurisdiction[29] have launched a first resolvability assessment process and started to evaluate the adequacy of resources for CCPs in resolution in application of the FSB Guidance.[30] At the same time, further analytical work is ongoing, in cooperation with CPMI and IOSCO of the adequacy of existing resources for recovery and resolution, considering both default and non-default loss scenarios.

Resolution authorities have continued recovery and resolution planning consistent with the Key Attributes.

- Most actions that jurisdictions took in 2020 to alleviate the burden on firms, such as extending information submission deadlines for resolution planning and for meeting certain requirements regarding resolution capabilities, were not extended in 2021.

- The powers and capabilities established over time to implement the Key Attributes have served authorities well during these times of stress. For example, CMG coordination and information capabilities have supported the monitoring of liquidity position and more frequent and granular sharing of information in the current environment.

Making derivatives markets safer

Overall implementation of the G20's OTC derivatives reform agenda is well advanced (see Graph 6), though progress in recent years has been limited.

- There has been no increase over the past two years in the number of FSB jurisdictions with comprehensive[31] trade reporting requirements, central clearing frameworks,

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[27] See *Continuity of access to FMI services (FMI intermediaries) for firms in resolution: Framework for information from FMI intermediaries to support resolution planning* (August 2021).

[28] See *Continuity of access to FMIs for firms in resolution: Streamlined information collection to support resolution planning (revised version 2021)*, (August 2021).

[29] These CCPs were reported as systemically important in more than one jurisdiction by agreement between home and host authorities on the basis of a set of criteria set out in the FSB *Guidance on CCP Resolution and Resolution Planning* (July 2017).

[30] See *Guidance on Financial Resources to Support CCP Resolution and on the Treatment of CCP Equity in Resolution* (November 2020).

[31] For the purposes of this sub-section, "comprehensive" means that the standards, criteria or requirements apply to over 90% of OTC derivatives transactions as estimated by that jurisdiction. In the case of margin requirements, "comprehensive" means that the standards, criteria or requirements in force in a jurisdiction would have to apply to over 90% of transactions covered, consistent with the BCBS-IOSCO Working Group on Margin Requirements phase in periods.

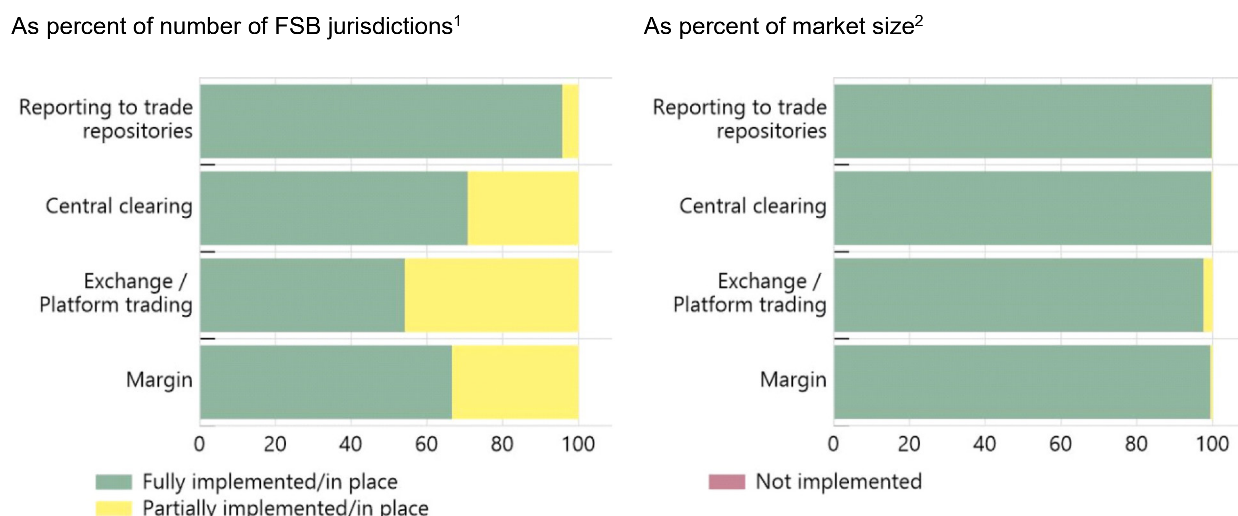
margin requirements for non-centrally cleared derivatives (NCCDs), or platform trading frameworks. Two more jurisdictions expect to have margin and capital requirements for NCCDs in effect in the first half of 2022.[32]

- A CPMI-IOSCO assessment found that all surveyed FMIs have business continuity plans, reviewed at least annually and tested regularly, that included pandemic scenarios prior to COVID-19. However, some FMIs do not fully meet expectations with respect to recovery from operational incidents, such as natural disasters or IT systems outage. CPMI and IOSCO expect the relevant FMIs and their supervisors to address this as a matter of the highest priority.[33]

Some regulatory or supervisory measures for derivatives markets that were introduced in response to COVID-19 are winding down, while others are becoming permanent.

- Most jurisdictions have withdrawn or have not extended measures previously introduced to alleviate the operational burden for OTC derivatives market participants in response to COVID-19. For example, some jurisdictions had relaxed trade reporting requirements.
- However, some other measures continue. Changes to market and counterparty credit risk frameworks and margin practices to limit and mitigate excessive procyclicality have been embedded into supervisory frameworks.

Implementation is most advanced in the largest OTC derivatives markets **Graph 6**



Notes: [1] The five EU members of the FSB are presented as separate jurisdictions. [2] Market size is proxied by single currency interest rate derivatives' gross turnover in April 2019 (Bank for International Settlements (BIS) 2019 Triennial Survey).

Enhancing resilience of non-bank financial intermediation

Implementation of NBFI reforms continues but is at an earlier stage than other reforms.

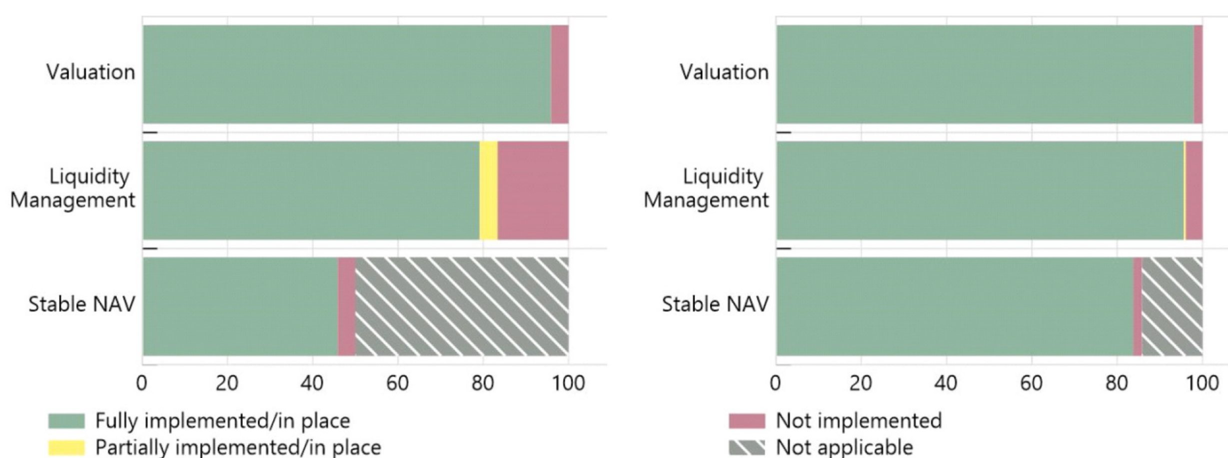
[32] See the FSB OTC Derivatives Markets Reforms Implementation Note (forthcoming).

[33] See CPMI-IOSCO Implementation monitoring of PFMI: Level 3 assessment of FMIs' business continuity planning (July 2021).

- Adoption of IOSCO recommendations to reduce the run risk of MMFs is most advanced in 19 FSB jurisdictions (see Graph 7), three more since 2020. The fair value approach for valuation of MMF portfolios is adopted in all but one FSB jurisdiction. Progress in liquidity management is less advanced, with 19 jurisdictions having reforms in effect (three more since 2020). 12 FSB jurisdictions do not permit MMFs offering a stable NAV.
- An IOSCO review found that the policy measures in nine jurisdictions representing about 95% of global net MMF assets are generally in line with the IOSCO recommendations.[34]
- Adoption of the IOSCO recommendations on incentive alignment approaches for securitisation has been completed by 17 FSB member jurisdictions (see Graph 8).
- Implementation of the FSB policy recommendations for securities financing transactions (SFTs) continues to face significant delays in some jurisdictions. These delays stem mainly from the new date for implementing the minimum haircut standards on bank-to-non-bank SFTs into banking regulation as part of Basel III, which is January 2023. The FSB similarly adjusted the implementation timelines for its recommendations related to minimum haircuts standards for non-centrally cleared SFTs.
- Work is underway on global securities financing data collection and aggregation. Four jurisdictions are currently submitting data (one more since 2020), although the coverage for three of them is limited to only one out of three segments (repos) and granularity is limited. Some other jurisdictions expect to report data in late 2021 or in 2022.
- Implementation of the FSB and IOSCO recommendations to address structural vulnerabilities from liquidity and leverage in asset management activities is ongoing.

Implementation progress is most advanced in the largest MMF markets **Graph 7**

As percent of number of FSB member jurisdictions[1] | As percent of market size[2]

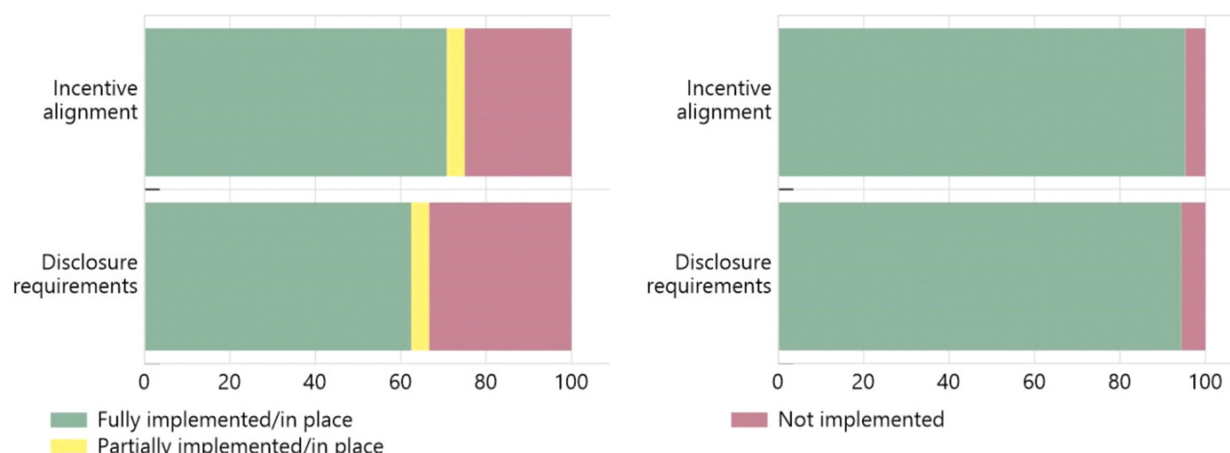


[1] The five EU members of the FSB are presented as separate jurisdictions. [2] Market size based on assets under management (AUM) in FSB jurisdictions at end-2019.

[34] See the IOSCO *Level 2 Peer Review of Regulation of Money Market Funds* (November 2020).

Implementation of incentive alignment reforms for securitisation is uneven Graph 8

As percent of number of FSB member jurisdictions [1] As percent of market size[2]



[1] The five EU members of the FSB are presented as separate jurisdictions. [2] Market size based on value of securitisation issuance (collateralised debt obligations, mortgage-backed securities and asset-backed securities) in FSB jurisdictions during 2014.

Progress in other reform areas

- Significant progress has been made in implementing the second phase of the G20 Data Gaps Initiative (DGI-2), which aims to address data gaps identified in the 2008 crisis by enhancing the collection and dissemination of accurate and timely data for policy use. Areas of progress include: financial soundness indicators; NBFI data; derivatives data; sectoral accounts and international banking statistics. Participating economies and international organisations recognise the need for a new international cooperation initiative on data gaps after the conclusion of the DGI at the end of 2021.[35]

4.2. Effects of reforms

Financial system resilience during the COVID-19 shock

The COVID-19 pandemic is the first major test of the global financial system since the G20 reforms were put in place following the 2008 financial crisis.

- While significantly different in nature from the 2008 crisis, this real-life test may hold important lessons for financial policy, including the functioning of the G20 reforms.
- Any analysis at this stage needs to bear in mind that the pandemic is not yet over and that its economic and financial impact has been greatly mitigated by bold policy actions.

Thus far the global financial system withstood the stress from the pandemic thanks to greater resilience, supported by G20 reforms and the swift and bold policy responses.

[35] See *G20 Data Gaps Initiative: The Sixth Progress Report – Countdown to December 2021* (October 2021).

- Effective implementation of those reforms meant that core parts of the system entered the pandemic in a more resilient state than during the 2008 financial crisis.

- Large banks hold more capital, have more liquidity and are less leveraged, which allowed them to cushion, rather than amplify, the macroeconomic shock. BCBS analysis indicates that more strongly capitalised banks showed higher increases in lending to businesses and households than other banks.[36]

- FMIs, including CCPs, functioned as intended. The increased use of CCPs and bilateral margining for OTC derivatives helped mitigate counterparty risks, unlike in 2008.

- The insurance sector also demonstrated resilience, aided by significant progress in the adoption of enhanced IAIS standards on group-wide supervision and macroprudential policy measures.

- Authorities broadly used the flexibility within international standards to support financing to the real economy. In a few cases, individual temporary measures have gone beyond the available flexibility, in order to respond to extreme financial conditions and provide additional operational flexibility to financial institutions. Monitoring and coordination, guided by the FSB COVID-19 Principles, has discouraged actions that could distort level playing field or lead to harmful market fragmentation.

The pandemic also highlighted differences in resilience within and across financial sectors, as well as areas that warrant further consideration at the international level.[37]

- As described in section 3, the March 2020 market turmoil underscored the need to strengthen resilience in the NBFI sector. The findings from various initiatives under the FSB's NBFI work programme – such as, for example, on the resilience of MMFs, liquidity risk and its management in open-ended funds, and margining practices – may have a bearing on the relevant international standards in these areas.

- The functioning of capital and liquidity buffers may warrant further consideration. Banks generally did not need to use their capital and liquidity buffers to meet loan demand thus far. However, some evidence suggests that banks may have been hesitant to dip into their buffers had it been needed, in spite of the flexibility embedded in the regulatory framework. Authorities released countercyclical capital buffers quickly, but were not always available or of sufficient scale to provide substantial additional macroprudential space. And while banks did not face large liquidity pressures overall, some took defensive actions to maintain their liquidity levels well above regulatory minima.

- Some concerns about excessive procyclicality in the financial system remain. These include mechanistic use of credit rating agency ratings in some areas, and the impact of the new expected credit loss accounting framework on bank capital and lending.

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[36] See the BCBS report on Early lessons from the Covid-19 pandemic on the Basel reforms (July 2021).

[37] See *Lessons Learnt from the COVID-19 Pandemic from a Financial Stability Perspective – Final Report* (October 2021).

The FSB, working with SSBs, is examining the implications of these findings for international standards.

- Work is ongoing by the FSB and its members to assess and address vulnerabilities in specific areas that may have contributed to liquidity imbalances and their amplification during the March 2020 market turmoil. The focus of the FSB's NBFI work programme in 2022 is to develop a systemic approach to NBFI, by deepening the understanding and monitoring of associated risks and by developing policies to address them where appropriate. The FSB, working with SSBs, will report to the G20 in 2022 on the main findings and policy implications of these initiatives.
- The BCBS plans to publish in late 2022 a comprehensive evaluation report covering the Basel reforms implemented over the past decade. This evaluation work will serve as an input to the FSB report to the G20 in 2022 on how to improve functionality of international financial standards and reduce pro-cyclicality to safeguard global financial stability and support an equitable recovery from the COVID-19 pandemic.
- The FSB and SSBs will continue to monitor COVID-19 policy responses and to evaluate the functioning of the reforms, to draw lessons about the flexibility embedded in international standards. As measures are wound down, FSB members will also share experiences on their effects.

Evaluation of the effects of TBTF reforms

The FSB completed in early 2021 its evaluation of the effects of TBTF reforms for SIBs.[38]

- The evaluation examined the extent to which the reforms have reduced the systemic and moral hazard risks associated with SIBs, as well as their broader effects on the financial system.
- The final report included updates to some of the analysis, based on high-frequency data, following the outbreak of the COVID-19 pandemic.

The evaluation finds that TBTF reforms have made banks more resilient and resolvable, and produced net benefits to society, although there are still some gaps to be addressed.

- Indicators of systemic risk and moral hazard moved in the right direction, suggesting that market participants view these reforms as credible. Moreover, significant progress has been made in establishing and operationalising frameworks for the resolution of SIBs. These reforms give authorities more options for dealing with banks in distress.
- Increased bank resilience and greater market discipline have been tested by the pandemic. The TBTF reforms helped ensure greater resilience of the banking sector.
- At the same time, the evaluation identifies areas in which TBTF reforms can be further developed. They include addressing obstacles to resolvability; improving reporting and

[38] See *Evaluation of the effects of too-big-to-fail reforms: Final Report* (March 2021).

public disclosures of resolution-related information, including information for public authorities to assess the potential impact of resolution actions on the financial system and the economy; and monitoring the application of the reforms to domestic SIBs. Closing these gaps should continue to be a priority in the current environment.

5. Looking ahead

Authorities are continuing to monitor developments closely to ensure that the pandemic does not test the resilience of the global financial system.

- Uncertainty about the pace and nature of the economic recovery remains high against the backdrop of uneven vaccination progress, the spread of new variants and the continuation of some containment measures.

- The current low level of corporate insolvencies may be predicated on continued policy support. Banks and non-bank lenders could face additional losses as these measures are unwound, revealing the extent of economic scarring across sectors and jurisdictions.

One of the legacies of the pandemic is the build-up of debt in the non-financial sector.

- Rapid and large credit support has increased debt levels, especially in hard-hit sectors. This may lead to underinvestment, resource misallocation to unviable corporates, and productivity loss, with knock-on effects on the economy and financial system.

- Addressing debt overhang, including by assessing companies' viability, facilitating the market exit of unviable companies and promoting an efficient reallocation of resources to viable firms, may be a key task for policymakers going forward. The FSB is working on possible approaches to dealing with debt overhang issues from a financial stability perspective and will publish in early 2022 a thematic peer review on experience with out-of-court corporate debt workouts.

The COVID-19 experience reinforces the importance of completing remaining elements of the post-crisis reform agenda, in particular implementation of the final Basel reforms.

- Overall, those parts of the global financial system where implementation of post-crisis reforms is most advanced displayed greater resilience. The financial stability benefits of the full, timely and consistent implementation of the G20 financial regulatory reforms remain as relevant as when they were initially agreed.

- At the same time, it will be important to evaluate the functioning of implemented reforms during COVID-19 and evaluate whether they are effectively working as intended.

The pandemic and need to address long-term structural developments in the economy and financial system underscore the critical importance of global regulatory cooperation.

- Authorities worked together in developing the G20 reforms, recognising the benefits of international standards in promoting confidence in the financial system and the resumption of cross-border financial activity in the aftermath of the 2008 crisis.

Maintaining this level of cooperation is critical, given the uncertainty about the evolution of the pandemic and the implications for economic activity and the shape of the recovery.

- The growth of NBFI, accelerated adoption of technology in the financial system, and the increased materialisation of financial risks from climate change have cross-border implications and may require international policy responses.
- The FSB and SSBs will continue to promote approaches to deepen international cooperation, coordination and information sharing on these issues.

Annex 1: FSB reports published over the past year

Month	Report
November 2020	Guidance on Financial Resources to Support CCP Resolution and on the Treatment of CCP Equity in Resolution COVID-19 pandemic: Financial stability impact and policy responses Holistic Review of the March Market Turmoil 2020 Resolution Report: "Be prepared" Reforming Major Interest Rate Benchmarks: 2020 Progress report The implications of climate change for financial stability OTC Derivatives Market Reforms: 2020 Note on Implementation Progress
December	Global Monitoring Report on Non-Bank Financial Intermediation 2020 FSB Response to the IFRS Foundation's Consultation Paper on Sustainability Reporting
January 2021	FSB Work Programme for 2021
February	Peer Review of Indonesia
March	Evaluation of the effects of too-big-to-fail reforms: Final Report
April	COVID-19 support measures: Extending, amending and ending Global Securities Financing Data Collection and Aggregation: Frequently Asked Questions Peer Review of the United Kingdom
May	Targets for Addressing the Four Challenges of Cross-Border Payments: Consultative document
June	FSB statement on smooth and timely transition away from LIBOR FSB OSSG Supports Use of the ISDA Spread Adjustments in Cash Products Interest rate benchmark reform: Overnight risk-free rates and term rates Global Transition Roadmap for LIBOR Policy proposals to enhance money market fund resilience: Consultation Report
July	Progress report to the G20 on LIBOR transition issues: Recent developments, supervisory issues and next steps Report on promoting climate-related disclosures The availability of data with which to monitor and assess climate-related risks to financial stability FSB roadmap for addressing climate-related financial risks Lessons learnt from the COVID-19 pandemic from a financial stability perspective: Interim report
August	Continuity of access to FMIs for firms in resolution: Streamlined information collection to support resolution planning (revised version 2021)

	Continuity of access to FMI services (FMI intermediaries) for firms in resolution: Framework for information from FMI intermediaries to support resolution planning
September	FSB Financial Stability Surveillance Framework
October	Regulation, Supervision and Oversight of "Global Stablecoin" Arrangements: Progress Report on the implementation of the FSB High-Level Recommendations G20 Data Gaps Initiative: The Sixth Progress Report—Countdown to December 2021 Policy Proposals to Enhance Money Market Fund Resilience: Final report Targets for addressing the four challenges of cross-border payments: Final report G20 roadmap for enhancing cross-border payments: First consolidated progress report Cyber Incident Reporting: Existing Approaches and Next Steps for Broader Convergence Lessons learnt from the COVID-19 pandemic from a financial stability perspective: Final report Enhancing the Resilience of Non-Bank Financial Intermediation: Progress Report

Annex 2: Implementation of reforms in priority areas by FSB member jurisdictions

The table provides a snapshot of the status of implementation progress by FSB jurisdiction across priority reform areas, as of September 2021. The colours and symbols in the table indicate the timeliness of implementation. For Basel III, the columns do not include reforms finalised in December 2017 that take effect from 2023, while the letters indicate the extent to which implementation is consistent with the international standard. For trade reporting, the letters indicate to what extent effectiveness is hampered by identified obstacles.

Reform Area	BASEL III^						COMPENSATION	OVER-THE-COUNTER (OTC) DERIVATIVES				RESOLUTION				NON-BANK FINANCIAL INTERMEDIATION	
	Risk-based capital	Liquidity Coverage Ratio (LCR)	Requirements for SIBs	Large exposures framework	Leverage ratio	Net Stable Funding Ratio (NSFR)		Trade reporting	Central clearing	Platform trading	Margin	Minimum external TLAC requirement for G-SIBs	Transfer / bail-in / temporary stay powers for banks	Recovery and resolution planning for systemic banks	Transfer / bridge / run-off powers for insurers	Money market funds (MMFs)	Securitisation
Agreed phase-in (completed) date	*2013 (2019)*	*2015 (2019)*	*2016 (2019)*	*2019*	*2018*	*2018*		*end-2012*	*end-2012*	*end-2012*	*2016 (2022)*	*2019/2025 (2022/2028)*					
Argentina	C	C		C		C	△										**
Australia	C	C		C	&	C										*	
Brazil	C	C		C		C	△										**
Canada	C	C		C		C											
China	C	C	C, &	C		C	△	R, F									
France	MNC	LC	C														
Germany	MNC	LC	C														
Hong Kong	C	C		C		C											
India	C	LC		C		C											
Indonesia	LC	C		C		C										**	
Italy	MNC	LC	C														
Japan	C	C	C														
Korea	LC	C															
Mexico	C	C														**	*
Netherlands	MNC	LC	C														
Russia	C	C					△									**	
Saudi Arabia	C	LC		C		C		R					#	#	#		
Singapore	C	C		C		C											
South Africa	C	C					△										
Spain	MNC	LC	C														
Switzerland	C	C	C														
Turkey	C	C														**	
United Kingdom	MNC	LC	C			&											
United States	LC	C	C, &				△										

Legend

Symbol	Description
(green)	**Basel III:** Final rule published and implemented. Risk-based capital and leverage ratio are based on the initial reform package agreed in 2010 prior to Basel III finalisation in December 2017. Requirements for SIBs – covering both D-SIBs and higher loss-absorbency for G-SIBs (for G-SIB home jurisdictions) – published and in force. **OTC derivatives:** Legislative framework in force and standards/criteria/requirements (as applicable) in force for over 90% of relevant transactions. **Resolution:** Final rule for external Total Loss-Absorbing Capacity (TLAC) requirement for G-SIBs published and implemented. For the powers columns, all three of the resolution powers for banks (transfer, bail-in of unsecured and uninsured credit claims, and temporary stay) and insurers (transfer, bridge and run-off) are available. Both recovery and resolution planning processes are in place for systemic banks. **Compensation:** All FSB Principles and their Implementation Standards for Sound Compensation Practices (Principles and Standards) implemented for significant banks. **Non-bank financial intermediation (NBFI):** MMFs – Final implementation measures in force for valuation, liquidity management and (where applicable) stable net asset value (NAV). Securitisation – Final adoption measures taken (and where relevant in force) for an incentive alignment regime and disclosing requirements.
△	**Compensation:** All except a few (three or less) FSB Principles and Standards implemented.
(yellow)	**Basel III:** Final rule published but not implemented, or draft regulation published. **OTC derivatives:** Regulatory framework being implemented. **Resolution:** Final rule for external TLAC requirement for G-SIBs published but not yet implemented, or draft rule published. For the powers columns, one or two of the resolution powers for banks (transfer, bail-in of unsecured and uninsured credit claims, and temporary stay) and insurers (transfer, bridge and run-off) are available. Recovery planning is in place for systemic banks, but resolution planning processes are not. **Compensation:** FSB Principles and Standards partly implemented (more than three Principles and/or Standards have not yet been implemented) for significant banks. **NBFI:** MMFs – Draft/final implementation measures published or partly in force for valuation, liquidity management and (where applicable) stable NAV. Securitisation – Draft/final adoption measures published or partly in force for implementing an incentive alignment regime and disclosing requirements.
(red)	**Basel III:** Draft regulation not published. **Resolution:** Draft rule for external TLAC requirement for G-SIBs not published. For the powers columns, none of the three resolution powers for banks (transfer, bail-in of unsecured and uninsured credit claims, and temporary stay) and insurers (transfer, bridge and run-off) are available. Neither recovery nor resolution planning processes are in place for systemic banks. **NBFI:** MMFs – Draft implementation measures not published for valuation, liquidity management and (where applicable) stable NAV. Securitisation – Draft adoption measures not published for implementing an incentive alignment regime and disclosing requirements.
(grey)	**Resolution:** Minimum TLAC requirements not applicable for jurisdictions that are not home to G-SIBs or to a subsidiary of a G-SIB that is a resolution entity under a multiple point of entry resolution strategy.
C / LC / MNC / NC	**Basel III:** Regulatory Consistency Assessment Program (RCAP) – assessed "compliant" (C), "largely compliant" (LC), "materially non-compliant" (MNC) and "non-compliant" (NC) with Basel III rules. See the RCAP scale. The grade for SIB requirements relates only to the G-SIB requirements.
^	**Basel III:** Does not include reforms finalised in December 2017, which take effect from 2023. Risk-based capital column excludes certain technical standards that came into force in 2017. Leverage ratio column based on the 2014 exposure definition and not the 2017 definition.
&	**Basel III:** Australia's implementation status on the leverage ratio is based on the revised (2017) exposure definition. China's G-SIB requirements are in force, while its D-SIB requirements will come into force in December 2021. The UK NSFR requirements will apply as of 1 January 2022. The US does not identify any additional D-SIBs beyond those designated as G-SIBs; its framework was found to be broadly aligned with the D-SIB principles; see the US RCAP assessment (June 2016).
R / F	**OTC derivatives:** Further action required to remove barriers to full trade reporting (R) or to access trade repository data by foreign authority (F). See the FSB report on Trade reporting legal barriers: Follow-up of 2015 peer review recommendations (November 2018). Mexico issued a regulation in 2020 to allow the direct sharing of Mexican TR data with foreign TRs.
#	**Resolution:** Saudi Arabia issued The Resolution of Systemically Important Financial Institutions Law, which came into force in 2021 and will be followed by detailed rules and regulations to complete implementation.
*** / ****	**NBFI:** Implementation is more advanced than the overall rating in one or more / all elements of at least one reform area (MMFs), or in one or more / all sectors of the market (securitisation). The 2019 update was undertaken by IOSCO using the assessment methodology in its 2015 peer reviews in these areas.

Changes in implementation status over the past year

The table shows the changes in implementation status by FSB member jurisdiction across priority areas from October 2020 (left-hand cell) to September 2021 (right-hand cell).

Reform area / Jurisdiction	Basel III	OTC derivatives	Resolution	Non-bank financial intermediation+
Canada				MMFs
France	Large exposures, Leverage ratio, NSFR			
Germany	Large exposures, Leverage ratio, NSFR			
Indonesia				MMFs
Italy	Large exposures, Leverage ratio, NSFR			
Korea			Recovery and resolution planning for systemic banks	
Mexico	Large exposures		Minimum external TLAC requirement for G-SIBs	
Netherlands	Large exposures, Leverage ratio, NSFR			
Saudi Arabia				MMFs
South Africa				Securitisation
Spain	Large exposures, Leverage ratio, NSFR			
Switzerland	NSFR			MMFs
United Kingdom	Leverage ratio			
United States	NSFR			

+ The 2021 update on MMFs and securitisation was undertaken by IOSCO using the assessment methodology in its 2015 peer review reports in these areas.

Abbreviations

AEs	Advanced economies
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CCPs	Central counterparties
CMGs	Crisis management groups
CPMI	Committee on Payments and Market Infrastructures
D-SIBs	Domestic systemically important banks
EMEs	Emerging market economies
EU	European Union
FinTech	Financial Technology
FMI	Financial market infrastructure
FSB	Financial Stability Board
G-SIBs	Global systemically important banks
GSC	"Global stablecoin"
IAIS	International Association of Insurance Supervisors
ICS	Insurance Capital Standard (IAIS)
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
LCR	Liquidity Coverage Ratio (Basel III)
MMFs	Money market funds
NAV	Net asset value
NBFI	Non-bank financial intermediation
NCCDs	Non-centrally cleared derivatives
NGFS	Network for Greening the Financial System
NSFR	Net Stable Funding Ratio (Basel III)
OEF	Open ended fund
OTC	Over-the-counter (derivatives)
PFMI	Principles for Financial Market Infrastructures (CPMI-IOSCO)
RCAP	Regulatory Consistency Assessment Programme (BCBS)
SFTs	Securities financing transactions
SIBs	Systemically important banks
SSBs	Standard-setting bodies
TBTF	Too-big-to-fail
TLAC	Total Loss-Absorbing Capacity (FSB)
TRs	Trade repositories