

# G20 Crypto-asset Policy Implementation Roadmap

Status report

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**Approved For Circulation  
By**

Tobias Adrian (IMF) and  
The FSB Plenary

Prepared by Staff of the IMF: Agnija Jekabsone and Yaiza Cabedo (MCM) and the FSB Crypto Working Group; with contributions from Gerardo Una (FAD); Nadine Schwarz and Marianne Bechara (LEG); Pamela Cardozo, Nobuyasu Sugimoto, and Parma Bains (MCM); Eugenio Cerruti (SPR) and Padma Hurree Gobin Sandhya (STA). We are grateful for very helpful input from the FATF and IOSCO. Overall guidance was provided by Dong He (MCM) and the FSB Standing Committee on Supervisory and Regulatory Cooperation.

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## Executive summary

**The International Monetary Fund (IMF) and the Financial Stability Board (FSB) have been promoting, supporting, and monitoring the effective implementation of a coordinated and comprehensive policy and regulatory response to address the risks of crypto-assets.** The 2023 IMF-FSB Synthesis Paper proposed a crypto-asset policy implementation roadmap (“Roadmap”) that seeks to: (i) promote the implementation of policy frameworks, (ii) build institutional capacity beyond G20 jurisdictions; (iii) enhance global coordination, cooperation, and information sharing; and (iv) address data gaps. This status report, prepared at the request of the Brazilian G20 Presidency, reflects the progress in taking forward the Roadmap. It also identifies and discusses experiences and challenges in the implementation process.

**While the financial stability risks arising from crypto-asset markets have not materially changed since the publication of the 2023 Synthesis Paper, the continued growth of these markets and their increasing interlinkages with the traditional financial system could present systemic risks.** Crypto-asset markets rebounded rapidly in late 2023 and early 2024 but remain a small portion of global financial assets. Use of stablecoins for payment and settlement continues to be limited. However, the linkages between crypto-asset markets and core financial markets continue to increase and may lead to risks to financial stability. This underlines the importance of continuing global efforts to implement comprehensive policy and regulatory responses consistent with the Synthesis Paper and closely monitoring developments in these markets.

**Jurisdictions have made progress to implement the policy and regulatory responses developed by the IMF, FSB, and standard-setting bodies (SSBs).** Nearly all FSB member jurisdictions have plans in place to develop new or revise their existing regulatory frameworks for crypto-assets and stablecoins, or they already have those frameworks in place. A majority of FSB member jurisdictions and about half of the non-FSB Regional Consultative Group (RCG) member countries expect to reach alignment with the FSB Framework by 2025.

**The IMF, FSB, SSBs and FATF have conducted outreach in a wide range of jurisdictions beyond the G20 to raise awareness of their policy frameworks.** Activities have included workshops, outreach sessions, knowledge sharing events, and capacity building programmes. The IMF has conducted regional training courses across their capacity development and training centres located globally. The FSB’s RCGs have discussed domestic implementation experiences and challenges and RCG Americas has taken stock of regional practices. The SSBs and FATF have also used various channels and tools to engage members and non-members to promote implementation of their standards.

**The FSB and SSBs continued to act as a hub for information sharing between their member authorities.** The FSB, jointly with the IMF, organised a workshop for authorities to share experiences and challenges in implementing the FSB Framework. In July, the FSB published a report on cross-border regulatory and supervisory issues of global stablecoin arrangements in emerging market and developing economies (EMDEs). The Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) examined potential challenges in implementing the Principles for Financial Market Infrastructures (PFMI) with a focus on cross-border cooperation and identified potential practical approaches that may be taken.

**The IMF has led the G20 Data Gaps Initiatives 3 Recommendation 11 on Digital money to address the data gaps on crypto-assets.** The IMF conducted a stocktaking exercise amongst the G20 and non-G20 FSB jurisdictions, which showed that notable efforts have been made among G20 countries to examine data collection options.

**Cross-border crypto-asset activities that originate from offshore jurisdictions present elevated regulatory and supervisory challenges for authorities.** Inconsistent implementation of the FSB Framework may hinder its effectiveness and lead to regulatory arbitrage. Implementation challenges are amplified when many such activities originate from non-FSB member jurisdictions. If the risks from cross-border crypto-asset activities originating from jurisdictions without appropriate regulation and supervision increase, international organisations (IOs), SSBs and jurisdictional authorities would need to consider whether additional tools to promote implementation beyond the G20 membership are needed.

**The prevalence of non-compliance with applicable laws and regulations significantly undermines efforts to implement the FSB Framework and other international standards on crypto-assets.** These efforts to undermine implementation of the FSB Framework may further encourage wider non-compliance and regulatory arbitrage, and can also exacerbate data gaps, require greater enforcement resources, and lead to heightened cross-border challenges for enforcement.

**Stablecoins should be subject to specific regulatory requirements due to their vulnerability to a sudden loss in confidence and to potential runs on the issuer or underlying reserve assets.** The FSB Framework recommends that jurisdictions require Global Stablecoins (GSCs) to provide a robust legal claim, to have an effective stabilisation mechanism, and to satisfy prudential requirements. Jurisdictions are developing detailed regulatory requirements based on the FSB Framework, and the approaches vary. Authorities should evaluate the benefits and costs of potential approaches when developing their regulatory frameworks.

**The IMF has strengthened coverage of macrofinancial issues and challenges associated with crypto-assets in its engagements with member countries.** The IMF has been providing targeted advice to countries on the implications for monetary and fiscal policy from crypto-assets as part of the IMF's lending, surveillance, and capacity development activities. Cross-border crypto-asset flows (CBCFs) are not systematically measured by statistical agencies. However, standard setters and jurisdictional authorities are developing methods to identify and measure CBCFs. For some EMDEs, foreign currency-pegged stablecoins purport to provide a store of value and potentially a medium of exchange that is insulated from domestic inflation or depreciation. This could amplify currency substitution and capital outflows and encourage circumvention of regulations. Challenges identified by EMDEs also include data collection, implementation challenges, complexity and difficulty of legislative and regulatory processes, persistent capacity constraints, lack of consumer awareness, and legal risks due to the varying legal treatment of crypto-assets.

**The IMF and FSB, together with the SSBs and other IOs, will continue to support and promote a globally coordinated and comprehensive policy and regulatory approach to crypto-asset markets.** The IMF will continue to support its member countries through capacity development and surveillance. The FSB will conduct a review of the status of implementation of the FSB Framework by end-2025. The SSBs will take measures to support their members to implement their relevant standards.

# 1. Introduction

Promoting, supporting, and monitoring the effective implementation of a coordinated and comprehensive policy and regulatory response to address the risks of crypto-assets is a priority of the G20. In September 2023, the G20 Leaders endorsed the crypto-asset policy implementation roadmap (“Roadmap”), which is included in the IMF-FSB Synthesis Paper: Policies for Crypto-Assets.<sup>1</sup> The Roadmap laid out both planned and ongoing initiatives by the IMF, the FSB, and relevant international SSBs. The Roadmap seeks to: (i) promote the implementation of policy frameworks, (ii) build institutional capacity beyond G20 jurisdictions; (iii) enhance global coordination, cooperation, and information sharing; and (iv) address data gaps. Since the publication of the synthesis paper, the IMF, FSB, and SSBs have taken forward work in the four areas included in the Roadmap. Jurisdictions, including FSB members and non-FSB members, have also taken initiatives to implement the relevant policy frameworks. The IMF and the FSB, together with the SSBs, have organised workshops and capacity building and technical assistance programmes to assist jurisdictional authorities in their implementation. Through these initiatives, the IMF and the FSB have identified implementation challenges and experiences in key areas common to many jurisdictions.

The implementation of policies and regulation for crypto-assets continues to be highly relevant. The linkages between crypto-asset markets and core financial markets are currently limited but increasing. In addition, the financial industry is evolving, with asset managers and banks experimenting with distributed ledger technology (DLT), including tokenisation, in ways that can potentially alter the market structure. At present, DLT-based tokenisation does not pose a material risk to financial stability, but has its own financial stability vulnerabilities.<sup>2 3</sup> These developments also could introduce complex regulatory and systemic risk challenges, as the interconnectedness between traditional financial systems and the volatile crypto-asset market could become more pronounced in the future. This evolving landscape demands robust regulatory frameworks to mitigate risks while harnessing potential benefits of increased efficiency, accessibility, and innovation in the financial sector.

Reflecting the importance of effective, flexible, and coordinated implementation of the comprehensive policy response for crypto-assets, the G20 asked the IMF and the FSB to deliver a Crypto-asset Roadmap Status Report in October 2024.

The rest of the report is structured as follows. Section 2 presents a brief overview of recent crypto-asset market developments. Section 3 provides a summary of progress made by the IMF and the FSB, as well as the relevant SSBs and other international organisations (IOs), in implementing the Roadmap. Section 4 identifies key implementation experiences and challenges. Finally, section 5 outlines next steps.

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<sup>1</sup> IMF-FSB (2023), *IMF-FSB Synthesis Paper: Policies for Crypto-Assets*. September.

<sup>2</sup> The FSB is assessing financial stability vulnerabilities associated with DLT-based tokenisation and will publish a report together with this report as a G20 deliverable.

<sup>3</sup> For instance, asset managers are leveraging blockchain technology to tokenise funds, similarly, banks are exploring tokenised deposits to streamline operations.

## 2. Market developments

**Financial stability risks arising from crypto-asset markets appear limited at present and have not materially changed since the publication of the 2023 IMF-FSB Synthesis Paper.**

Total crypto-asset market value rebounded rapidly in late 2023 and early 2024 (see Graph 1). After reaching a peak in March, it started to decrease, but still remains above 2023 levels. As of 30 August 2024, the estimated market value was \$2.2 trillion. This was largely driven by the price increases of bitcoin and ether – which represent almost 80% of the crypto-asset total market value.<sup>4</sup> Since then, the total market value has remained largely unchanged. It is now close to its previous peak, reached in November 2021, but remains a small portion (less than 1%) of global financial system assets. Further, crypto-assets are not widely used in critical financial services (including payments). Crypto-asset derivatives, traded on both regulated and unregulated/non-compliant markets, offer high leverage, and their trading volume has grown significantly to around \$6 trillion in May 2024, around three times the spot trading volume of crypto-assets.<sup>5</sup> So-called decentralised finance (DeFi) remains a niche market segment, although the total value of assets ‘locked’ (TVL) across DeFi protocols rose to a two year high of \$106 billion in May 2024 before falling back to \$87.5 billion in August, remaining well below its peak in late 2021.

**Stablecoins have rebounded and the value of total issuance has grown, but their use for payment and settlement purposes in the real economy continues to be very limited.**

The overall stablecoin market value increased to around \$160 billion, up from \$124 billion in mid-September 2023. The market value of Tether, the largest stablecoin, reached an all-time high of \$118 billion as of 30 August 2024. However, stablecoins to date are commonly characterised by uncertainty regarding their reserve assets caused by opaqueness of disclosures. The use cases seem to be mostly related to speculation in other crypto-assets, although concerns are increasing about stablecoins’ current and potential role in illicit finance.<sup>6</sup> The use of stablecoins for payments outside the crypto-asset ecosystem remains limited, as indicated by a recent BIS survey.<sup>7</sup> However, a recent FSB report notes that stablecoins may be used in emerging market and developing economies (EMDEs) for gaining USD exposure, depending on macroeconomic and demographic factors.<sup>8</sup>

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<sup>4</sup> Binance Coin’s purported market value, although smaller than that of ether and bitcoin, is already close to the sum of the market value of all stablecoins (see Graph 1). Given the link between the Binance Coin and the large multi-function crypto-asset intermediary behind it, its price fluctuation could be a source for risk in crypto-asset markets and beyond.

<sup>5</sup> Crypto-assets derivatives are negotiated both on regulated and unregulated/non-compliant trading platforms. This impedes a precise calculation of the full size of the market. Some trading platforms, mostly multi-function crypto-asset intermediaries offer products with a very high leverage (up to 125 times) even to retail clients. with no disclosure on the volumes of such transactions.

<sup>6</sup> A recent study by VISA suggests that stablecoins used for arbitrage, liquidity provision, and “market making” performed by bots and internal transactions of smart contracts may contribute to 99% of industry-reported transaction volumes. See Visa (2024) *Making sense of stablecoins*, April.

<sup>7</sup> BIS (2024). *Embracing diversity, advancing together – results of the 2023 BIS survey on central bank digital currencies and crypto*, June.

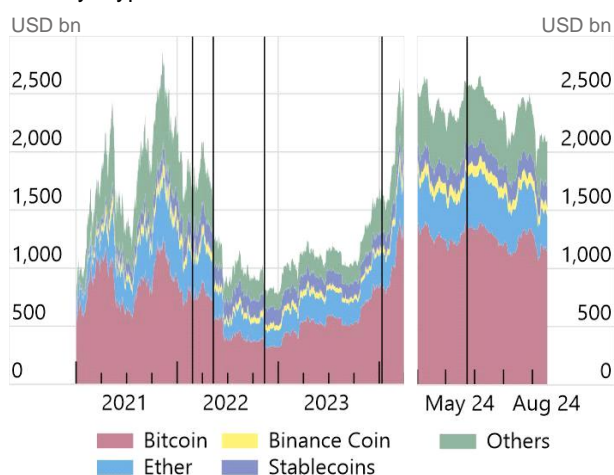
<sup>8</sup> FSB (2024), *Cross-border Regulatory and Supervisory Issues of Global Stablecoin Arrangements in EMDEs*, July.



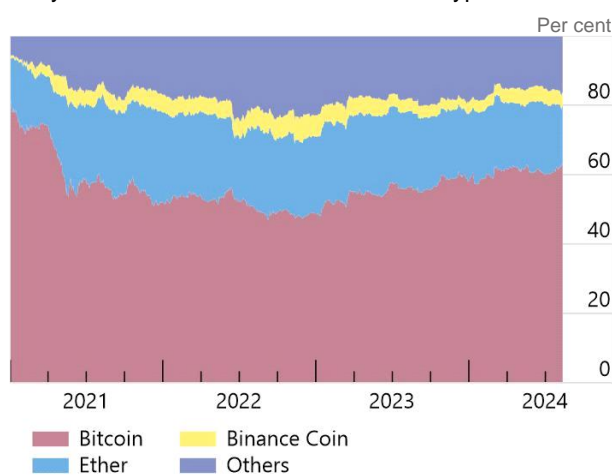
## Crypto-asset market size

Graph 1

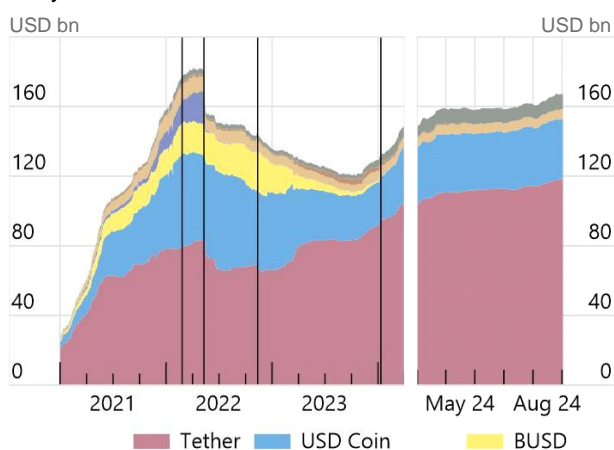
### 1. Daily crypto-asset total market value<sup>1</sup>



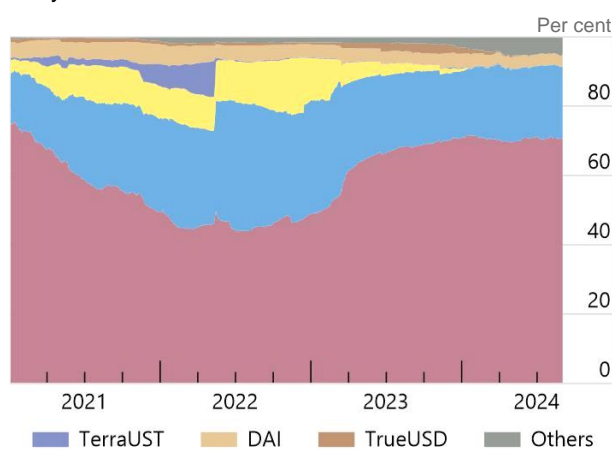
### Daily market share of certain unbacked crypto-assets



### Daily market value of stablecoins



### Daily market share of stablecoins



<sup>1</sup> The vertical lines indicate 23 February 2022, the day before the start of the Russia-Ukraine war, 9 May 2022, the day TerraUSD started to significantly decouple from its peg, 11 November 2022, the day FTX filed for bankruptcy, 10 January 2024, the day the SEC approved 11 spot bitcoin ETPs, and May 23, the day the SEC approved 8 spot Ethereum ETPs

Sources: CoinDance; CoinGecko; DefiLlama; FSB calculations.

**Nevertheless, the continued growth of the crypto-asset markets and their increasing interlinkages with the traditional financial system could present systemic risks, emphasising the importance of implementing the global policy and regulatory responses.**

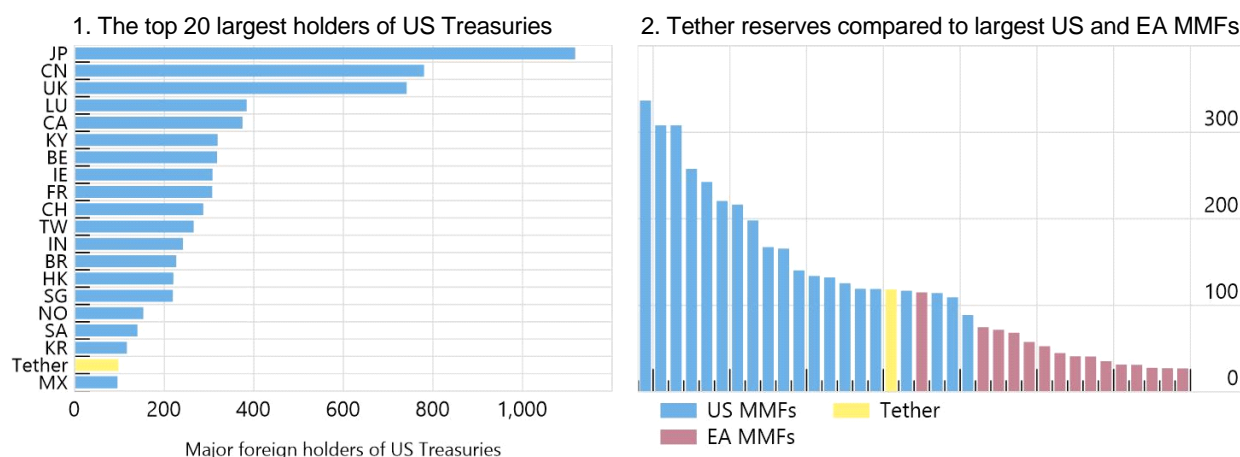
Although linkages with core financial markets and institutions appear to remain limited in scale, these linkages are increasing and may continue to do so. In particular, stablecoin issuers are becoming significant holders of mainstream financial assets through their increasing holdings of reserve assets. Unverified reports indicate that the stablecoin Tether has a large part of its reserves (\$97.6 billion) invested directly or indirectly in U.S. Treasuries, potentially making it one of the world's 20 largest holders of U.S. Treasuries (see Graph 2). In addition, institutional investors have increased their exposures to crypto-assets compared to a few years ago, in part because regulated crypto-asset investment products are becoming available in several jurisdictions. Since the publication of the Synthesis paper, total assets under management (AUM) of crypto-asset investment products, though remaining limited, have rapidly increased to \$85 billion. However, this may largely result from daily valuation changes, as net inflows have subsided (see Graph 3). The U.S. regulatory approval of the listing and trading of spot bitcoin

exchange-traded products (ETPs) could impact the ability of institutional and retail investors to gain exposure to bitcoin and other crypto-assets through regulated intermediaries and may have a role in the rising volume of AUM of crypto-asset investment products in 2024. The market developments are consistent with the assessment of the Synthesis Paper, which noted that, if the crypto-asset ecosystem were to grow in size, or its integration with the financial system were to expand, this could present risks to financial stability. Thus, the continuing global efforts to implement comprehensive policy responses outlined in the Synthesis Paper are necessary and important.

### Example of interlinkages between a large stablecoin and the mainstream financial assets

In USD bn (As of 30 June, 2024)

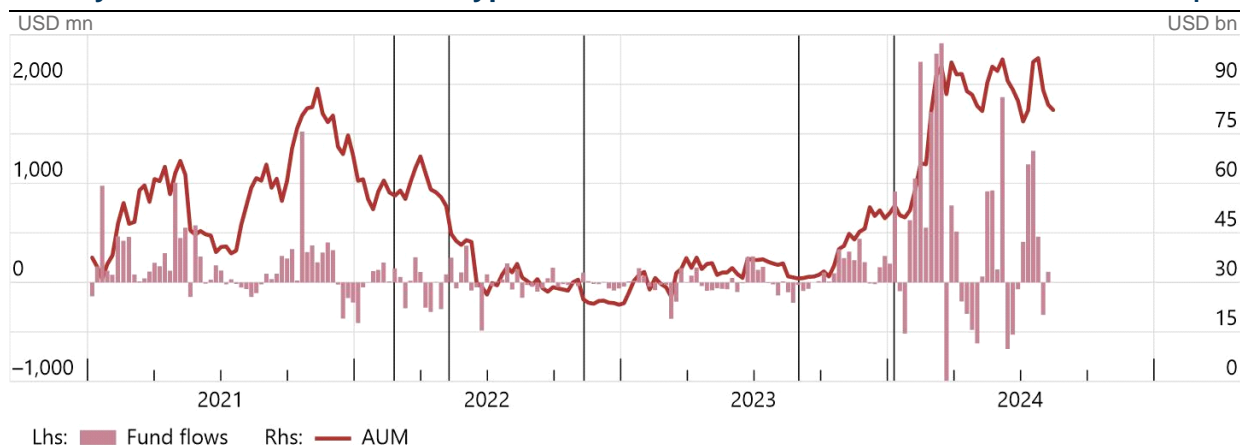
Graph 2



Sources: US Department of the Treasury; iMoneyNet; S&P; Tether (unaudited attestation report); FSB calculations.

### Weekly fund flows and AUM of crypto-asset funds<sup>1</sup>

Graph 3



The vertical lines indicate 23 February 2022, the day before the start of the Russia-Ukraine war, 9 May 2022, the day TerraUSD started to significantly decouple from its peg, 11 November 2022, the day FTX filed for bankruptcy, and 10 January 2024, the day the SEC approved 11 spot bitcoin ETPs.

<sup>1</sup> Flow means the amount of investments in and out of investment products.

Sources: Bloomberg; FSB calculations.

### 3. Roadmap progress updates

The Roadmap highlighted the need for international cooperation, as well as effective implementation of the recommendations and guidance developed by the IMF, FSB, and SSBs. The IMF, FSB, and SSBs have since taken forward work in the four areas included in the roadmap: (i) implementation of policy frameworks; (ii) outreach beyond G20 jurisdictions; (iii) global cooperation and coordination; and (iv) addressing data gaps. This section highlights the work completed in each of these areas.

#### 3.1. Implementation of policy frameworks

The first component of the roadmap includes initiatives by the FSB and the SSBs to implement their policy frameworks among their respective members. Since the publication of the Synthesis Paper, jurisdictions have made progress toward implementing policy frameworks, and the FSB and SSBs have supported implementation by continuing to monitor vulnerabilities in the crypto-asset market, conducting deep-dives into specific regulatory issues, and providing supplements to existing policies.

##### 3.1.1. High-level overview of jurisdictional legal and regulatory developments

Following the publication of the FSB Global Regulatory Framework for Crypto-asset Activities (henceforth the FSB Framework in this report),<sup>9</sup> consisting of high-level recommendations for crypto-asset markets and activities (CA recommendations)<sup>10</sup> and revised recommendations for global stablecoin arrangements (GSC recommendations),<sup>11</sup> the FSB conducted a survey in January 2024 on implementation status, as well as implementation challenges. The survey received 73 responses from 24 FSB members and 49 non-FSB members via the six Regional Consultative Groups (RCGs).

The survey results indicate that nearly all FSB members either have plans in place to develop new or revised frameworks for crypto-assets and stablecoins, or already have those frameworks in place (93% and 88%, respectively). A majority of FSB members expects to reach alignment with the FSB Framework by 2025 for crypto-assets and stablecoins (62% and 60%, respectively). However, there are still some FSB members (24% and 30% for crypto-assets and stablecoins, respectively) that are planning to implement the FSB Framework but have yet to commit to a timeline to reach alignment. Non-FSB members that are also EMDEs reported a lower percentage of alignment by 2025. 56% and 44% of them expecting to reach alignment with the FSB Framework by 2025, for crypto-assets and stablecoins, respectively.

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<sup>9</sup> FSB (2023a), *FSB Global Regulatory Framework for Crypto-asset Activities*, July.

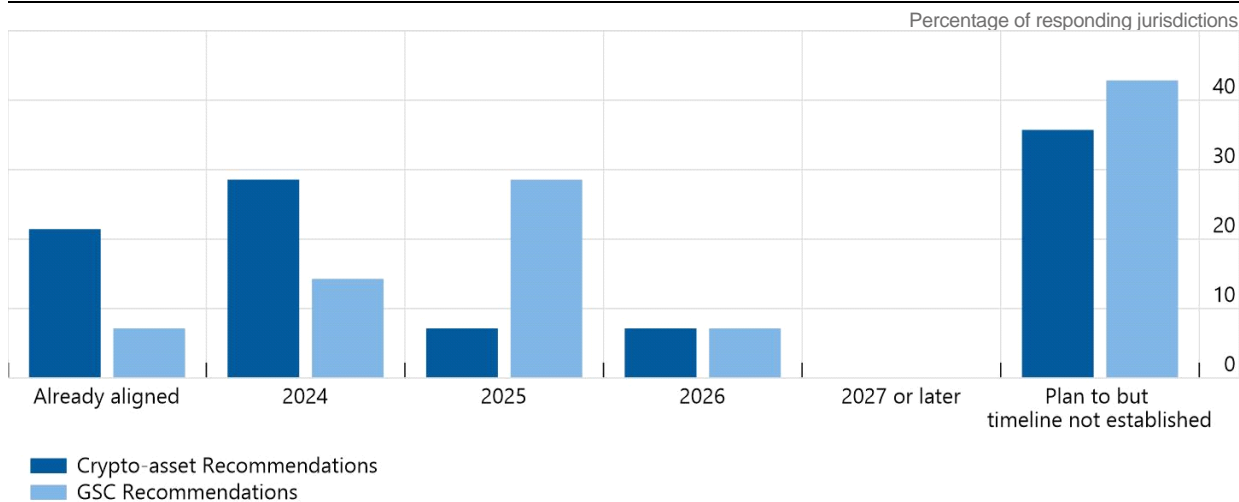
<sup>10</sup> FSB (2023b), *High-level Recommendations for the Regulation, Supervision and Oversight of Crypto-Asset Activities and Markets: Final report*, July.

<sup>11</sup> FSB (2023c), *High-level Recommendations for the Regulation, Supervision and Oversight of Global Stablecoin Arrangements*, July.

## Expected time to reach alignment with FSB Framework

FSB member jurisdictions measured by effective date of rules, at year ends

Graph 4

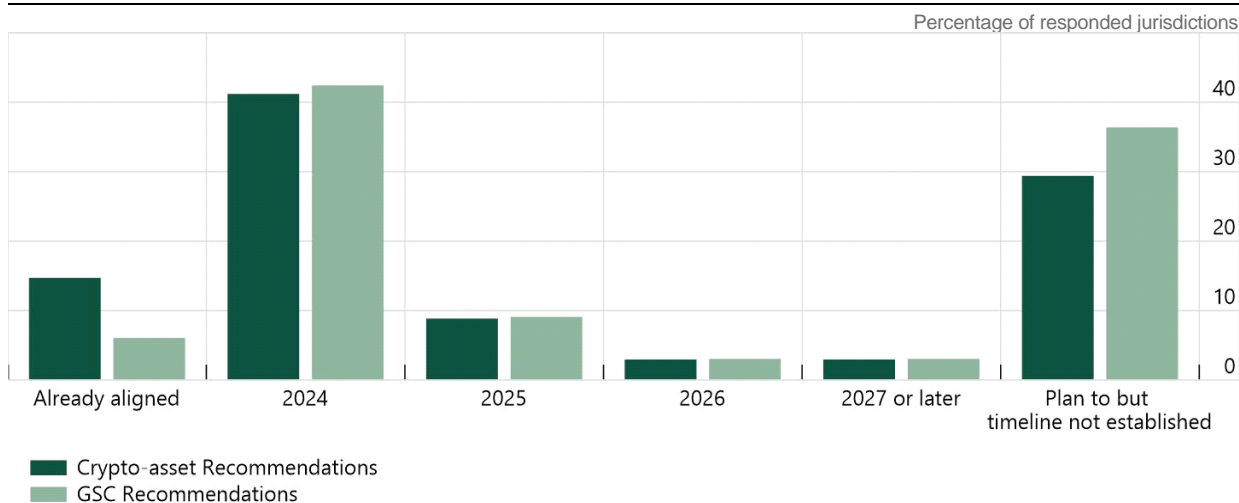


Source: FSB Survey

## Expected time to reach alignment with FSB Framework

Non-FSB member jurisdictions measured by effective date of rules, at year ends

Graph 5



Source: FSB Survey

All FSB members (100%) have existing laws and regulations applicable to at least part of crypto-asset activities, although applicability to stablecoins is generally lower (61%). However, most of these existing legal and regulatory requirements and tools are applicable in the context of AML/CFT and fraud rather than the financial stability requirements of the FSB Framework.

Non-FSB members reported a slightly lower percentage of applicability of existing laws and regulations. 63% and 39% of them have existing laws and regulations applicable to at least part of crypto-asset activities and stablecoins, respectively. The reporting also showed a slightly lower share, among non-FSB members than FSB members, that have confirmed plans to develop new or revised legal and regulatory frameworks for either crypto-assets or stablecoins (82% and 76%, respectively).

AML/CFT regulatory requirements are the most reported existing laws and regulations currently applicable to crypto-assets and stablecoins among FSB members (90% for crypto-asset activities and 57% for stablecoins). Risks to financial integrity are clearly a common concern and have been identified as a 'very important' risk by most FSB members (80%) as well as non-FSB members (77%).

Cross-border coordination and cooperation is identified by most FSB members (80%) as a 'very important' implementation challenge. Other challenges widely cited include off-shore service providers (75%) and regulatory perimeter (60%). Non-FSB members regard consumer education (64%), data gaps (60%), and capacity/expertise (56%) as their key challenges.

For a more detailed discussion of the survey results, see Annex 1.

### 3.1.2. FSB: implementation challenges for DeFi and MCIs

The FSB continued to assess financial stability risks and regulatory implications of specific areas of the crypto-asset market.

In November 2023, the FSB published a report on the financial stability implications of multifunction crypto-asset intermediaries (MCIs).<sup>12</sup> This report found that MCI vulnerabilities are not so different from those of intermediaries in traditional finance, such as leverage, liquidity mismatch, technological and operational vulnerabilities, and interconnections between entities, and that certain combinations of functions could exacerbate these vulnerabilities. Drawing on this report and a previous study on the financial stability risks of DeFi,<sup>13</sup> the FSB assessed the regulatory implications of DeFi and MCIs and confirmed that the CA recommendations address the vulnerabilities specific to DeFi and MCIs, though there may be several implementation challenges for regulatory and supervisory authorities.

Consistent with the CA recommendations regarding DeFi, persons and entities responsible for operating the DeFi activities should be appropriately regulated by authorities. The CA recommendations already emphasise that robust governance should be in place and should not be undermined by any complex structures set up to frustrate the identification of responsible entities and individuals. However, identification of the persons and entities responsible for operating DeFi activities may present challenges for supervisory and regulatory authorities. For example, some DeFi projects purport that they are seeking to evolve to a 'completely decentralised operation' by dissolving the legal entity/entities that operate or represent the projects, as an effort to evade regulation. Despite the decentralisation claims of industry, there often exist entities or individuals who own or exercise control over the operation of these projects, including through maintenance of DeFi protocols. This control can be achieved by individuals or

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<sup>12</sup> FSB (2023d), *The Financial Stability Implications of Multifunction Crypto-asset Intermediaries*, November. The MCI report provides that "(m)ultifunction crypto-asset intermediaries (MCIs) refer to individual firms, or groups of affiliated firms, that offer combinations of crypto-asset services, products, and functions that are typically conducted by separate legal entities in traditional finance."

<sup>13</sup> FSB (2023e), *The Financial Stability Risks of Decentralised Finance*, February.

entities wielding dominant holdings of voting powers or influence over the execution of important governance changes, including the authority to implement protocol updates.<sup>14</sup>

Given the range of different DeFi projects and arrangements, authorities should analyse the facts and circumstances to identify responsible persons and entities. Once the natural persons or entities (whether or not organised as legal entities) controlling the DeFi protocol have been identified, authorities can apply existing regulatory tools to address risks associated with DeFi, such as operational fragilities, liquidity and maturity mismatches, leverage, interconnectedness, and misconduct.<sup>15</sup> However, some jurisdictions may consider that should a fully decentralised structure with no identifiable intermediaries be truly possible, it may remain outside of the scope of regulations applicable to such services. Even in such a case, supervisory and regulatory authorities may still look to centralised intermediaries, such as centralised trading platforms, user-interface applications, and wallets, as an entry point for the regulation of DeFi activities.

MCIIs combine a broad range of functions that could lead to conflicts of interest. Many MCIIs have proprietary trading and investment functions, as well as client advisory services including asset management, while some are also involved in issuing, promoting, and distributing crypto-assets or related products, including so-called stablecoins. Such combinations are not typically permitted in traditional finance and may be subject to requirements to segregate such functions. When these combinations are permitted, strong regulations are typically applied to mitigate conflicts of interest and amplification of risk. Some MCIIs currently operate in non-compliance with such requirements and often lack the same level of controls and regulatory oversight. In practice, MCIIs have opaque organisational structures and may deliberately use such structures to evade regulation or hide their non-compliant nature.

The implementation of the FSB Framework can address these issues to a large extent. In particular, CA Recommendation 9 provides tailored expectations to address amplified vulnerabilities arising from service providers that combine multiple functions, including conflicts of interest.<sup>16</sup> However, non-compliance, together with ineffective regulation across some parts of the world, hinders comprehensive regulation of MCIIs, as MCIIs may intentionally choose to domicile their operations in jurisdictions whose regulatory framework is not consistent with the

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<sup>14</sup> FSB (2023e) emphasises that although DeFi protocols purport their governance structure to be decentralised by introducing a so-called DAO model, the actual degree of decentralisation varies widely, the kinds of decisions subject to voting may be limited, and decision-making is often centralised due to concentrated holdings of governance tokens or for other reasons. For example, a “core team” may exist in carrying out the execution of the accepted proposals.

<sup>15</sup> In June, 2023, the U.S. Commodities Futures Trading Commission (CFTC) issued a [statement on the outcome of its enforcement action against a DAO](#), which the CFTC charged with operating an illegal trading platform and unlawfully acting as a futures commission merchant (FCM). The DAO is ordered to pay monetary penalty and shut down the website. In September 2024, the SEC filed settled charges against a DAO and another entity for engaging in the unregistered offer and sale of crypto-assets that were so-called governance tokens, and charged others for operating as unregistered brokers in securities. See [SEC Charges Entities Operating Crypto Asset Trading Platform Mango Markets for Unregistered Offers and Sales of the Platform’s “MNGO” Governance Tokens](#). In December 2023, the SEC announced that a DAO and its two founders agreed to pay more than \$1.7 million to settle charges that they failed to register the offer and sale of structured crypto-assets known as SMART Yield bonds. See [BarnBridge DAO Agrees to Stop Unregistered Offer and Sale of Structured Finance Crypto Product](#). The SEC also charged the respondents with violations stemming from operating SMART Yield pools as unregistered investment companies. *Id.* See also [Report of Investigation Pursuant to Section 21\(a\) of the Securities Exchange Act of 1934: The DAO](#). It clarifies the application of the U.S. federal securities laws to the offer and sale of so-called “DAO” tokens.

<sup>16</sup> CA Recommendation 9, under the title ‘Comprehensive regulation of crypto-asset service providers with multiple functions’, sets out that “*Authorities should ensure that crypto-asset service providers and their affiliates that combine multiple functions and activities, where permissible, are subject to appropriate regulation, supervision and oversight that comprehensively address the risks associated with individual functions and the risks arising from the combination of functions, including but not limited to requirements regarding conflicts of interest and separation of certain functions, activities, or incorporation, as appropriate.*”

FSB Framework.<sup>17</sup> This can materially undermine the regulatory and supervisory effectiveness in other jurisdictions even if these other jurisdictions fully implement the FSB Framework. Significant data gaps can also arise when MCI operations are domiciled in jurisdictions that do not require granular disclosures or if MCIs are in non-compliance with applicable laws. Therefore, to address the challenges in regulating MCIs, consistent global implementation of the FSB Framework is crucial.

### 3.1.3. SSBs' work to support implementation of policy frameworks

#### IOSCO

The International Organization of Securities Commissions (IOSCO) finalised its Policy Recommendations for Crypto and Digital Asset (CDA) Markets in November 2023. This was followed by the publication of its Policy Recommendations for Decentralized Finance (DeFi) in December 2023.

Considering the global nature of the crypto-asset markets, the risk of regulatory arbitrage, and the significant risk of harm to which retail investors continue to be exposed, there is a strong case for a pro-active IOSCO program to monitor and promote timely implementation of the CDA Recommendations by IOSCO's broad membership.

IOSCO's initial focus on assessment of implementation is on the CDA Recommendations. This is mainly due to the more proximate risks to investor protection and market integrity posed by the growing size of the CDA markets and the increasing complexity and scale of centralised activities conducted by Crypto Asset Service Providers (CASPs). Nonetheless, IOSCO will continue to monitor growth in so-called DeFi markets and calibrate implementation work accordingly if such markets grow and scale rapidly.

IOSCO's implementation work in this context aims to:

- Support public awareness of the initiatives being taken in varying jurisdictions to develop new domestic regulatory regimes where gaps exist or to supervise and enforce existing securities regulatory regimes (where appropriate);
- Encourage dialogue within and across member jurisdictions to focus on the issues raised by IOSCO's CDA recommendations and work on steps forward, appropriate to each jurisdiction;
- Encourage member jurisdictions to move promptly towards meeting the CDA Recommendations, either through supervising and enforcing existing regimes, or where gaps exist, through developing new domestic regulatory regimes; and
- Complement the efforts of the FSB and the SSBs in delivering a global, holistic approach to regulation of CDA markets.

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<sup>17</sup> See section 4.2 for a discussion of the regulation of offshore crypto-asset activities.

As part of Phase 1 of IOSCO's Implementation Roadmap, a full stocktake survey of the current state of implementation across the IOSCO membership is currently being undertaken. This work is led by the Implementation Working Group of IOSCO's Board-level Fintech Task Force (FTF IWG).

The stocktake survey was issued to the full IOSCO membership in April 2024 to better understand the implementation progress of member jurisdictions. IOSCO is currently synthesising these findings into a stocktake note to provide a broad assessment of the current state of implementation.

The findings of the stocktake will provide an initial point-in-time assessment of domestic frameworks, where they exist, and a qualitative point-in-time self-assessment by IOSCO members on the level of implementation of the CDA Recommendations against their jurisdictional frameworks. The stocktake will be presented to the IOSCO Board in Q4 2024. Following this, the FTF IWG will support the IOSCO Assessment Committee (IOSCO AC) in conducting a pilot assessment of the implementation of the CDA recommendations in member jurisdictions in 2025. The IOSCO AC will be undertaking a full assessment in 2026.

#### *CPMI: analysis of tokenisation and monitoring stablecoin risks*

Upon request from the G20, the CPMI and BIS have produced a report to the G20 that examines the meaning of tokenisation in the context of money and other assets. Its purpose is to describe ways that tokenisation may affect the functioning of regulated financial markets, to analyse opportunities, challenges, and risks, and to identify relevant considerations for central banks. The considerations described in the report include those associated with settlement assets, including stablecoins used as such.

To support the work of the CPMI, BIS, and the FSB, the CPMI Secretariat is monitoring key trends in the stablecoin market on an ongoing basis. In addition, as part of its annual BIS global survey on Central Bank Digital Currency (CBDC) and crypto-assets, the CPMI Secretariat collected information from 86 jurisdictions regarding the use of stablecoins in payments outside the crypto-asset ecosystem and regulatory approaches to crypto-assets.<sup>18</sup> About two out of three responding jurisdictions have or are working on a framework to regulate stablecoins and other crypto-assets.

#### *BCBS: prudential standards for banks' exposure to crypto-assets*

In December 2022, the Group of Central Bank Governors and Heads of Supervision (GHOS), the oversight body of the Basel Committee on Banking Supervision (BCBS), endorsed a global prudential standard for banks' exposures to crypto-assets.<sup>19</sup> The GHOS also tasked the BCBS with continuing to monitor and assess bank-related developments in crypto-asset markets.

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<sup>18</sup> Di Iorio, A, A Kosse and I Mattei (2024), "[Embracing diversity, advancing together – result of the 2023 BIS survey on central bank digital currencies and crypto](#)", *BIS Papers* No 147, June.

<sup>19</sup> See [Basel Committee approves disclosure framework and capital standard for banks' crypto-asset exposures and amendments to interest rate risk in the banking book standard, and agrees to consult on third-party risk principles](#).



Over the course of 2023, the BCBS reviewed various elements of the prudential standard for banks' exposures to crypto-assets. In December 2023, the BCBS consulted on targeted revisions related to the criteria for stablecoins to receive a preferential "Group 1b" regulatory treatment. This included the criteria on the composition of the reserve assets that back stablecoins, covering issues such as the credit quality, maturity, and liquidity of reserve assets. The consultation also proposed various technical amendments to help promote a consistent understanding of the standard. The BCBS published the final revised standard in July 2024.<sup>20</sup> The GHOS agreed to defer implementation of the standard by one year to 1 January 2026, to ensure that all members can implement the standard in a full, timely and consistent manner.

In July 2024, the BCBS also finalised the disclosure standard for banks' crypto-asset exposures.<sup>21</sup> The standard requires banks to disclose qualitative information on their activities related to crypto-assets and quantitative information on their exposures to crypto-assets and the related capital and liquidity requirements. These disclosures aim to enhance information availability and support market discipline. The disclosure standard also has an implementation date of 1 January 2026.

In 2023 and 2024, the BCBS also reviewed other bank-related developments and activities in crypto-asset markets, including:

- **The risks arising from crypto-assets that use permissionless blockchains.** The BCBS concluded that the use of permissionless blockchains gives rise to several unique risks,<sup>22</sup> some of which could not be sufficiently mitigated at the time when the report was published. As such, the BCBS did not, at this time, propose any adjustments to its crypto-asset standard to allow for the inclusion of crypto-assets that use permissionless blockchains to qualify for the preferential "Group 1" regulatory treatment.<sup>23</sup> However, the BCBS acknowledged that technical solutions to many of the identified issues with permissionless blockchains may develop rapidly in the future.
- **The risks arising from banks providing crypto-asset custody services.** Such services raise various operational risks for banks, which reinforces the importance of full implementation of the BCBS *Principles for operational resilience* and *Principles for the sound management of operational risk*. The BCBS will continue to monitor the evolution of banks' crypto-asset custody activities and, taking account of market developments, will consider whether any additional work may be needed.<sup>24</sup>
- **The role of banks as issuers of stablecoins.** The scale and magnitude of financial stability risks from such products depend, in part, on their specific structures and jurisdictional laws and regulations. Based on current market developments, these risks

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<sup>20</sup> BCBS (2024), *Cryptoasset standard amendments*, July.

<sup>21</sup> BCBS (2024), *Disclosure of cryptoasset exposures*, July.

<sup>22</sup> BCBS (2023), *Cryptoasset standard amendments. Consultative Document*, December.

<sup>23</sup> *Ibid.*

<sup>24</sup> Press release: Basel Committee agrees to consult on targeted revisions to standards on crypto-asset and interest rate risk in the banking book and to take steps to address window-dressing in relation to the G-SIB framework (bis.org).

are broadly captured by the Basel Framework, but the BCBS will continue to monitor this area alongside other developments in crypto-asset markets.<sup>25</sup>

#### *CPMI-IOSCO: follow up work to the application of the PFMI to stablecoin arrangements*

In July 2022, the CPMI-IOSCO published “Application of the Principles for Financial Market Infrastructures (PFMI) to stablecoin arrangements”. The July 2022 guidance clarifies that if a stablecoin arrangement performs a transfer function and is determined by authorities to be systemically important, the stablecoin arrangement as a whole would be expected to observe all relevant principles of the PFMI. Given notable features of stablecoin arrangements, the July 2022 guidance elaborates on aspects related to: (i) governance; (ii) framework for the comprehensive management of risks; (iii) settlement finality; and (iv) money settlements.

As follow-up work to the July 2022 guidance, CPMI-IOSCO is analysing risks associated with multicurrency and asset-linked stablecoin arrangements and, if needed, will develop relevant policy considerations.

CPMI-IOSCO is taking stock of how jurisdictions are taking into account the July 2022 guidance as they develop or amend their regulatory, supervisory, and oversight frameworks in relation to stablecoin arrangements. CPMI-IOSCO’s stock-taking exercise focuses on the four FMI-related aspects highlighted by the July 2022 guidance (see the first paragraph above). In recent years, several jurisdictions have introduced legislation and regulation covering stablecoin activities whereas other jurisdictions are applying existing laws or are at various stages of developing or adopting legislation and regulations. Against this background, CPMI-IOSCO’s stock-taking exercise takes a high-level approach with a narrow scope and helps to share practical experience and challenges that jurisdictions face in further developing relevant frameworks.

#### *3.1.4. FATF roadmap to strengthen standards for virtual assets*

In February 2023, the FATF, which sets international standards for AML/CFT, adopted a Roadmap to accelerate implementation of the FATF Standards for virtual assets (VA) and virtual asset service providers (VASPs), in light of the slow and uneven progress globally and the resulting risks that VAs continue to be transacted in VASPs without AML/CFT regulations being imposed on them.<sup>26</sup> As part of the FATF Roadmap, the FATF published in March 2024 a table that sets out steps taken towards implementing the Standards by all FATF members and jurisdictions with materially important VASP activities.<sup>27</sup> The key aim of the table is to enable the FATF global network to best support these jurisdictions in regulating and supervising VASPs for AML/CFT purposes and to encourage full implementation of the FATF Standards in a timely manner. It should be noted that pursuant to a risk-based approach, focus is presently on jurisdictions with materially important VASP activities. The risk to financial integrity in the

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<sup>25</sup> Press release: Basel Committee approves disclosure framework and capital standard for banks' crypto-asset exposures and amendments to interest rate risk in the banking book standard and also agrees to consult on third-party risk principles (bis.org).

<sup>26</sup> FATF defines virtual assets (crypto-assets) as any digital representation of value that can be digitally traded, transferred or used for payment. It does not include digital representation of fiat currencies. For purposes of this report, virtual assets and virtual asset service providers are generally synonymous with crypto-assets and crypto-asset service providers. However, this paper does not change any term previously defined by the IMF, FSB, SSBs, and other international organisations (including FATF).

<sup>27</sup> FATF (2024) *Status of implementation of Recommendation 15 by FATF Members and Jurisdictions with Materially Important VASP Activity*

international monetary system posed by poor compliance in jurisdictions that do not have materially important VASP activities is considered significantly lower; however, regulatory arbitrage still remains a concern.

While a majority of FATF members and jurisdictions with materially important VASP activities have some measures in place (e.g., most have conducted a risk assessment covering VAs and enacted legislation/regulation requiring VASPs to be registered or licensed and apply AML/CFT measures), global implementation of the requirements of the Standards is still lagging.

In July 2024, the FATF published a fifth annual Targeted Update on implementation of the FATF standards on VAs and VASPs, including the Travel Rule. The report is based on the 2024 survey responses (147 responses were received from FATF and its global network members) and results from completed and published FATF mutual evaluation reports (MERs) and follow-up reports (FURs) that assess jurisdictions' compliance with Recommendation 15 (R.15) as of April 2024.<sup>28</sup> The report finds that despite some progress in introducing AML/CFT regulations globally, jurisdictions continue to struggle with the implementation of the fundamental requirements.

Based on 130 FATF MERs and FURs since the revised R.15/INR.15 was adopted in 2019, 75% of jurisdictions are only partially compliant or are not compliant with the FATF's requirements, an identical percentage to that of April 2023 (75% partially compliant or non-compliant jurisdictions; 73 of 98) and shows negligible improvement. However, the findings from the 2024 survey do identify some areas of progress since 2023, such as the number of jurisdictions that have registered or licensed VASPs in practice.

The report also notes the insufficient progress in implementing the Travel Rule, with nearly one third of the survey respondents, including some who assessed VAs/VASPs as high risk that have not yet passed legislation implementing the Travel Rule. Even among jurisdictions who have passed legislation implementing the Travel Rule, supervision and enforcement remains low.

The slow global progress in implementing the FATF Standards on VAs and VASPs, and in particular, gaps in jurisdictions with materially important VASP activity, is a serious concern as VAs continue to be used to support the proliferation of weapons of mass destruction, including by Democratic People's Republic of Korea (DPRK), as well as by scammers, terrorist groups, and other illicit actors who deploy increasingly sophisticated methods.

The report also recognises the increased adoption and use of stablecoins, including for illicit activities. While DeFi arrangements still account for a relatively low percentage of overall VA activity, the report notes the need to monitor such arrangements for illicit finance risks.

The FATF calls on all jurisdictions to rapidly implement the FATF's Standards on VAs and VASPs, including the Travel Rule, in line with the FATF Roadmap, in order to address the findings of the 2024 Targeted Update, the FATF will continue to prioritise closing the gaps and completing the global system of AML/CFT regulation for the VA sector.

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<sup>28</sup> FATF (2024) *Virtual Assets: Targeted Update on Implementation of the FATF Standards on VAs and VASPs*.

## 3.2. Outreach beyond G20 jurisdictions

The IMF and the FSB, together with the SSBs and FATF, have organised workshops, outreach sessions, knowledge sharing events, and capacity building programmes, with a focus on engaging a wide range of non-FSB member jurisdictions.

### 3.2.1. *IMF outreach activities*

In June 2024, the IMF held a knowledge exchange workshop in Africa with input from the FSB on helping regulatory authorities respond to both macroeconomic and regulatory challenges of crypto-assets. The knowledge sharing event targeted 13 ‘crypto-relevant countries’ from western, eastern, and southern regions of Africa targeting senior officials from regulatory authorities. The event highlighted that crypto-asset adoption remains low with some notable exceptions. In some instances, higher adoption is linked to macro-economic circumstances, such as rising inflation and higher exchange rate volatility, that may drive the use of crypto-assets for settlement of trade. Some participants perceived low adoption to be linked to technological impediments such as lack of communication infrastructure and technical know-how to obtain crypto-assets via exchanges/CASPs.

Participants noted that crypto-assets are largely used as a store of value, speculative investment, and for portfolio diversification. The use of crypto-assets for payments is low across all regions, although the participants noted that domestic currency-denominated stablecoins for payment purposes is gaining interest in some countries. Stablecoins were mainly used to access the crypto-asset ecosystem, as well as a store of value to hedge against weak domestic macroeconomic fundamentals. For a few countries crypto-assets are used for remittances and for settling foreign trade, though still to a very limited extent. All participants endorsed that robust monetary and fiscal policy, as well as having safe and efficient payment systems was key to limit cryptoisation.<sup>29</sup> A few countries prohibit the use of crypto-assets by institutional investors (pension funds and collective investment schemes), while in several countries crypto-assets are used by both types of investors.

The workshop participants found that financial stability risks are limited with banks and other financial institutions having a low exposure to crypto-assets, and a high awareness of risks including macro-financial implications. Some countries in the region are at an advanced stage of developing a domestic framework whilst many are in process and only a few are still in a “wait-and-see” mode. Several countries choose to mainly rely on existing frameworks to advance crypto-asset policies and a few countries may consider new stand-alone regulatory regimes. None of the countries aim to grant crypto-assets legal tender status.

Also, the IMF has conducted regional training courses across their capacity development centres and training institutions located globally. These week-long “Selected Issues in Fintech Regulation” courses cover several fintech regulation topics and include the regulation and supervision of crypto-assets. Since the publication of the FSB Framework, the IMF has delivered seven training courses, reaching more than 300 supervisors from over 70 different institutions. The FSB and IOSCO Secretariats have supported these courses by delivering a session on their

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<sup>29</sup> Substitution of currency and assets by crypto-assets.

respective recommendations. The IMF has also delivered several bilateral technical assistance programs that provides more targeted support, such as providing legislative reviews,<sup>30</sup> and identifying areas to strengthen existing regulatory frameworks.<sup>31</sup>

In addition, the IMF has integrated the work done on policies for crypto-assets as part of its surveillance activities through Financial Sector Assessment Programs (FSAPs) and through Article IV assessments, in jurisdiction where crypto-asset activity could impact financial stability or become macro-critical. Notably, the IMF assessed the regulatory framework and the impact of crypto-assets in the Bahamas FSAP, the Japan FSAP, and the Kazakhstan FSAP.<sup>32</sup> Annex 2 presents some boxes that showcase the work done in these FSAPs.

The IMF has worked on a guidance note to help country teams deciding on the coverage of crypto-assets in Article IV consultations. The note provides guidance on whether crypto-assets activities are material and should be covered, the key risks to be analysed, and possible policy recommendations. The note is complemented with a taxonomy of crypto-assets, a questionnaire, and some country examples. The IMF will organise in-reach sessions with country teams to raise awareness of when and how to include crypto-assets as part of the Article IV surveillance exercises.

The IMF has been advising member countries on the potential legal, financial stability, monetary stability and fiscals risks associated with granting legal tender status to crypto-assets. The IMF has also been recommending that member countries put in place sound and comprehensive legal and regulatory frameworks to adequately regulate and supervise crypto-assets in their markets.

The IMF also provides bilateral and regional training and bilateral technical assistance on AML/CFT considerations related to crypto-assets and crypto-asset service providers, covering, for instance, legislative review, conduct of money laundering and terrorism financing risk assessments, and AML/CFT risk-based supervision of crypto-asset service providers.<sup>33</sup>

Financial integrity issues relevant to the crypto-asset sector have also been highlighted in recent Article IV consultations (AIVs) and FSAPs, notably in countries where the sector presents material money laundering and terrorism financing risks.<sup>34</sup> IMF policy advice on these issues has called for aligning the domestic legal framework with the revised FATF standards on VAs and

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<sup>30</sup> See one example of technical assistance where the IMF provides legislative reviews. [Trinidad and Tobago: Technical Assistance Report–Technical Assistance on Fintech Regulation and Legislation](#).

<sup>31</sup> See one example of technical assistance where the IMF support to identify areas to strengthen existing regulatory frameworks. [Lao People’s Democratic Republic: Technical Assistance Report-Regulation and Supervision of Crypto Assets](#).

<sup>32</sup> See one example where a standalone FSAP Technical Note was dedicated to the regulation and supervision of crypto [Republic of Kazakhstan: Financial Sector Assessment Program-Technical Note on Regulation and Supervision of Crypto Assets](#)

<sup>33</sup> The IMF has conducted regional trainings in the Asia-Pacific, Central Asia, Middle East, North Africa, Sub-Saharan Africa, and Caribbean regions, while bilateral trainings were provided in Albania, Ukraine, Vietnam, and Zimbabwe. Bilateral technical assistance covered legal drafting support (Namibia and Suriname) and advice on risk assessment and AML/CFT risk-based supervision (Albania and Georgia). The IMF has also developed tools to guide jurisdictions in conducting money laundering and terrorism financing risk assessments and AML/CFT supervision of the crypto-asset sector.

<sup>34</sup> For examples of coverage of AML/CFT issues relevant to the crypto-asset sector, see the 2023 Central African Republic AIV [Central African Republic: Selected Issues Paper 2023](#), the 2022 Lithuania AIV [\(Republic of Lithuania: Selected Issues Paper, 2022](#), and the 2023 Sweden FSAP [\(Sweden: Financial Sector Assessment Program–Technical Note on Central Bank Digital Currency and Fintech, 2023](#). Financial integrity issues affecting the crypto-asset sector were also covered in AIVs in Slovenia (2024), Nigeria (2024), Palau (2023), Hong Kong (2023), El Salvador (2023 and 2021), Albania 2021, and Belize 2021 and in FSAPs in Kazakhstan (2024), Japan (2023), Ireland (2022), Hong Kong (2021), United States (2020), and Austria (2020), among others.

VASPs, updating the authorities' understanding of money laundering and terrorism financing risks associated with the sector, and ensuring effective risk mitigation (for instance, through adequate market entry controls for crypto-asset service providers and improved risk-based supervision of the crypto-asset sector).

The outreach initiatives have identified several challenges that are more relevant for the EMDEs in implementing the elements of the Roadmap (see Box 1).

#### **Box 1: Implementation challenges for EMDEs identified by the IMF**

- Data collection remains a serious challenge. Regulation is one option to collect timely, consistent and reliable data, but best practice data templates to guide collection are needed.
- Regulatory approach has shifted in many jurisdictions from a “wait-and-see” and restrictive approach to comprehensive regulations, but implementation remains challenging. Policy recommendations from the IMF, FSB and SSBs were very helpful in shifting the approach.
- Legislative and regulatory processes may be complex, difficult, and slow. National risk assessments have helped accentuate the impacts of crypto-assets and the need to bring them under oversight. However, the uncertainty of legislative process and complexity of technical details pose significant challenges for authorities to finalise initiatives, and may also delay the effective date of the regulation.
- Persistent capacity challenges remain and span beyond authorities to the wider industry, including banks and other financial institutions. Capacity and resource constraints are common concerns.
- Importance of consumer awareness and education should not be underestimated. Many retail consumers are still attracted by the potential wealth effects of crypto-assets without understanding the risks including market manipulation and investor protection issues.

#### **3.2.2. FSB outreach activities**

The FSB has five active RCGs representing 70 jurisdictions.<sup>35</sup> Each RCG meets twice a year and discusses financial stability topics. Since October 2023, five of the six RCGs discussed crypto-assets, with a focus on the implementation of the FSB Framework within their respective regions. The discussions have conveyed a clear common message that RCG members, including non-FSB member jurisdictions, have broadly recognised the need to take forward regulatory initiatives. Nevertheless, the discussions have also revealed notable variation of key implementation concerns and challenges across regions. For example, EMDE members in Asia and Africa have highlighted their resource constraints and expressed worries regarding the impact on their macro-financial stability if crypto-asset activities were to increase. In Europe, most EU members are preparing for the new EU regulation Markets in Crypto-assets Regulation (MiCAR) that applies to stablecoins since 30 June 2024 and will apply to other crypto-asset activities from 30 December 2024. The RCG Americas established a dedicated group of experts to take stock of developments and the current state of regulations within the region. In June 2024, RCG Americas members discussed this stocktake and ways to ensure effective, flexible,

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<sup>35</sup> The FSB established in 2011 six RCGs, one each for the Americas, Asia, Commonwealth of Independent States, Europe, Middle East and North Africa, and Sub-Saharan Africa region, to expand upon and formalise the FSB's outreach activities beyond the membership of the G20 and to reflect the global nature of the financial system. See <https://www.fsb.org/about/rcgs/>.

and coordinated implementation of a comprehensive policy and regulatory response for crypto-assets and global stablecoin arrangements.<sup>36</sup>

### **Box 2: RCG Americas Crypto-asset Working Group**

The RCG Americas working group<sup>37</sup> prepared a survey to build on the FSB's survey mentioned in section 3.1.1. Fifteen RCG Americas member jurisdictions submitted responses. The survey was prepared to gather information about the planned or ongoing status of each jurisdiction's regulatory framework. The working group also sought to understand the challenges to implementation of the FSB Framework across the jurisdictions. Finally, the information that was gathered will enable the RCG Americas to consider how to best promote the implementation of the FSB Framework.

A number of the participants have undertaken formal risk assessments of the industry and analysed the financial stability risk posed by crypto-asset activities. In general, the risk to financial stability is viewed as low due to relatively low adoption rates by consumers and the relatively low interconnection with traditional financial intermediaries. It was suggested, however, that there could be severe implications for the stability of financial systems in the event of significant growth in crypto-asset use, coupled with increased interconnectedness, without the appropriate regulation or adherence thereto.

Most surveyed jurisdictions rely on existing rules and regulations to regulate and supervise crypto-assets including stablecoin arrangements. Some jurisdictions have created separate regulatory regimes, many of which are subject to ongoing improvements. Some jurisdictions have carried out a formal gap assessment to ensure that their regulatory regimes are effective, robust and provide adequate supervision. It is clear from the data collected that even where certain authorities were unable to undertake a formal assessment, there is a commitment to better understanding the risks in the crypto-asset markets and, in time, to upholding the standards set by the FSB and SSBs.

In general, the surveyed jurisdictions noted many challenges in fully implementing the FSB Framework at this time, including: (i) a lack of institutional capacity and expertise, particularly given the constant evolution of the crypto-asset landscape; (ii) supervision and enforcement challenges, given the cross-border nature of crypto-asset activities (members highlighted that it is common for entities offering crypto-asset services to establish their operations in jurisdictions with limited or no regulation) and (iii) limited data collection or capability to obtain data.

To address these challenges, some participants pointed to the need for local and regional working groups to exchange information and ideas and were of the view that establishing Memoranda of Understanding would also assist with cooperation and the exchange of information.

### **3.2.3. SSBs outreach activities**

#### *CPMI*

The CPMI seeks to use various opportunities and channels (e.g., workshops and seminars at regional associations or groups of central banks and an e-learning platform for central banks and regulators) to engage with non-CPMI central banks and relevant authorities on the policy and standard-setting work of the CPMI and CPMI-IOSCO on stablecoin arrangements.

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<sup>36</sup> FSB (2024) *FSB Americas Group discusses risks associated with the sovereign bank nexus and crypto-asset arrangements*, June.

<sup>37</sup> The working group was co-chaired by Renee Caudeiron (The Cayman Islands Monetary Authority) and Stephen Murchison (Bank of Canada).

## BCBS

The BCBS leverages its outreach group – the Basel Consultative Group – to engage with non-Committee members on policy and supervision issues, including crypto-assets and DeFi.

## IOSCO

IOSCO makes extensive use of surveys and stakeholder roundtables to engage with a wide range of experts from academia, technology providers, market participants, and the broader industry on crypto-assets and DeFi. IOSCO also conducts outreach and undertakes capacity building through IOSCO Regional Committees. IOSCO also benefits from engagement and consultation with its Affiliate Members Consultative Committee (AMCC).<sup>38</sup>

### 3.2.4. FATF outreach activities

In line with the FATF Roadmap to improve R.15 implementation, the FATF has conducted outreach and its members have provided bilateral assistance to jurisdictions, particularly those with lower capacity, as well as those with materially important VASP activity to support and encourage compliance with R.15.

In December 2023, the FATF held the Virtual Assets Contact Group (VACG) symposium. More than 600 participants from FATF and FATF-style Regional Body (FSRB) members gathered for lectures and Q&A sessions led by VACG members on key issues to effectively implement R.15, including risk assessments, regulatory frameworks, and implementation of the Travel Rule. A further symposium is expected to take place later in 2024. In April 2024, the FATF also co-hosted a workshop with IOSCO Asia Pacific Hub to leverage collaboration with other IOs to further knowledge sharing and outreach on the implementation of R.15. The key objective of these initiatives is to support targeted capacity building and training on regulatory and supervisory issues and facilitate knowledge sharing on the development and implementation of AML/CFT frameworks for VAs and VASPs.

The FATF has also continued its close engagement with the industry. In April 2024, the VACG held a two-day hybrid meeting, which brought together VACG members, FSRB Secretariats, SSBs, and representatives from the private sector. The participants discussed a range of key topics, including regulatory and enforcement progress and challenges, emerging risks and trends, and additional ways to enhance outreach and assistance.

The FATF remains committed to working with jurisdictions and the industry to facilitate the implementation of R.15, including effective supervision and enforcement, and to mitigate abuse of VAs and VASPs by illicit actors. The FATF and its VACG will continue to support jurisdictions, particularly those with lower capacity, as well as those with materially important VASP activity, in collaboration with FSRB Secretariats and relevant IOs and SSBs that set the global standards or provide assistance and training.

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<sup>38</sup> IOSCO (2024) *Affiliate Members Consultative Committee*.



### 3.3. Global coordination, cooperation, and information sharing

#### 3.3.1. FSB-IMF workshop summary

In February 2024, the FSB organised, and, in co-operation with the IMF and U.S. Office of the Comptroller of the Currency, hosted a joint workshop on implementing the FSB Framework. The aim was to create a better understanding of the FSB Framework and to share implementation experiences and challenges. The workshop brought together policymakers and supervisors from both FSB and non-FSB jurisdictions and was attended in-person by 75 participants from 34 different jurisdictions and over 250 virtual participants from 52 different countries. The workshop consisted of targeted discussions on: (i) regulatory approaches for CASPs, (ii) cross-border enforcement, (iii) stablecoins, (iv) interlinkages between crypto-asset and traditional financial systems, (v) data gaps, (vi) cross-border activities, and (vii) IMF technical assistance and capacity building.

The workshop highlighted the importance of implementing the FSB Framework and the SSB standards. It confirmed that the FSB Framework and the SSB standards provide comprehensive coverage of key elements to regulate and supervise crypto-asset activities. The participants discussed services such as custody and operating an exchange, that are closely related to risk amplification and conflicts of interest; and shared experiences on jurisdictional practices in implementing the FSB Framework. In particular, jurisdictions exchanged views on various approaches they are developing to implement GSC Recommendation 9 dealing with redemption rights, stabilisation mechanism, and prudential requirements (see section 4.1 for more detail).

Workshop participants also discussed considerations to strengthen cross-border regulation, supervision, and enforcement, which remain a challenge. Participants stressed the importance of leveraging existing arrangements for cooperation and information sharing, such as the IOSCO Multilateral Memorandum of Understanding (MMoU) and Enhanced MMoU (EMMoU).<sup>39</sup> In addition, a few EMDE jurisdictions stressed the importance of implementing and enforcing AML/CFT requirements and noted that EMDEs should be vigilant to monitor offshore activities.

Direct connections between crypto-asset and traditional financial markets are still limited and some jurisdictions are seeking to develop a full understanding of crypto-asset functions or activities provided by traditional financial institutions, including direct/indirect crypto-asset holdings and provision of custody and payment services to CASPs and crypto-asset users. Several jurisdictions have introduced tailored requirements for banks to report their interlinkages with crypto-assets, and in some cases, formulated regulations for managing the relevant risks. Some noted that they are learning lessons from the 2023 bank turmoil, monitoring banks' exposures to crypto-assets.

Finally, EMDE jurisdictions shared their experiences with and benefits from technical assistance and capacity building projects, provided by IOs. One participant referred to their FSAP assessment, which helped them identify key issues that should be addressed in regulation and

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<sup>39</sup> The IOSCO MMoU and EMMoU are important tools used by signatories to consult, cooperate, and exchange information on enforcement related matters.

supervision. Benefitting from the FSAP, they drew out an action plan to build staff's capacity and set out steps to develop their crypto-asset regulatory framework.

### 3.3.2. *Cross-border regulatory and supervisory issues of stablecoins in EMDEs*

The FSB conducted an analysis of cross-border regulatory and supervisory issues of global stablecoin arrangements in EMDEs and published a report in July 2024.<sup>40</sup> The report shows that EMDEs could be exposed to macro-financial risks arising from the use of foreign currency-pegged GSCs, which can increase financial stability risks by destabilising financial flows and straining fiscal resources. Despite the persistence of data gaps, the report suggests a relatively higher level of interest in, and activities related to, stablecoins in EMDEs compared to advanced economies. The factors driving higher levels of activity related to stablecoins in EMDEs also vary depending on the macroeconomic and demographic factors of individual EMDE jurisdictions. EMDEs may consider taking additional measures that go beyond the global regulatory baseline to address specific risks, depending on their country-specific circumstances. The FSB will continue to explore whether any additional initiatives are needed to facilitate cross-border cooperation for EMDEs to address the identified challenges and will continue to promote the implementation of the FSB GSC recommendations.

### 3.3.3. *Cross-border coordination*

CPMI-IOSCO examined potential challenges that relevant regulatory, supervisory, and oversight authorities may face in implementing the PFMI Responsibilities for stablecoin arrangements primarily used for making payments, especially on Responsibility E (cooperation with other authorities), due to certain notable features of stablecoin arrangements. These features may challenge the ability of relevant authorities to observe the PFMI Responsibilities, particularly where there is a broader range of relevant authorities domestically and across jurisdictions, and where multiple entities within a service provider perform one (or more) critical roles. CPMI-IOSCO identified some potential practical approaches that authorities may take when addressing these challenges as they carry out their respective responsibilities.

## 3.4. Addressing data gaps

As part of the workplan of implementing the G20 Data Gaps Initiative 3 (DGI 3) Recommendation 11 (Rec 11) on Digital money, the IMF conducted a stocktaking exercise amongst the G20 and non-G20 FSB jurisdictions. The findings of the stocktaking exercise were discussed at the G20 DGI 3 Rec 11 workshop organised by the IMF in collaboration with the Central Bank of Türkiye, in Istanbul during 30 April – 2 May 2024.

The stocktaking survey was structured around three interconnected blocks: (i) regulation, (ii) data collection, and (iii) alternative data sources available on crypto-assets used as means of payments (given that official data is still limited). In some countries where regulations disallow the use and holdings of privately issued crypto-assets, no information is expected to be available.

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<sup>40</sup> FSB (2024), *Cross-border Regulatory and Supervisory Issues of Global Stablecoin Arrangements in EMDEs*, July

Notable efforts are being made among G20 countries to examine data collection options. These include: (i) regulatory, financial-stability focused reporting imposed on financial institutions; (ii) regulatory reporting imposed on issuers of stablecoins in the European Union; and (iii) data derived from the International Transaction Reporting System (ITRS) and from tax authorities.

Alternative and non-regulatory data sources, such as commercial data providers, are also providing data in some countries to estimate crypto-asset usage for macro-financial and financial stability analysis. Additionally, household surveys with a view to gaining detailed insights into investor profiles and behaviours, as well as blockchain monitoring tools to support AML/CFT efforts, are being considered.

A flexible approach to collecting data on stablecoins and other crypto-assets, on a best effort basis by the G20 and non-G20 FSB jurisdictions, and gradually emphasising data sharing, is currently under consideration. A potential cross-border data sharing model could exist in the future in which each participating country reports, as feasible and appropriate, its residents' holdings of foreign crypto-assets and holdings of domestic crypto-assets by non-residents. Data across countries might have different methodologies and sources. They might not be comparable. Therefore, further work is needed to develop precise and feasible methodologies to gather data and measure crypto-asset activity.

## 4. Key implementation experiences and challenges

To assist and promote global implementation, the IMF and FSB have conducted targeted follow-up work on four key areas identified as important or challenging through the FSB's survey of jurisdictional implementation progress. These include: (i) regulation of off-shore crypto-asset activities; (ii) non-compliance and enforcement; (iii) GSC recommendation 9 dealing with redemption rights, stabilisation mechanisms, and prudential requirements; and (iv) macro-financial issues. This section describes key experiences and challenges authorities should be aware of, accompanied by suggested tools and options to provide more clarity or to address the challenges.

### 4.1. Regulation of cross-border activities from offshore jurisdictions

#### 4.1.1. *Implementation gaps: risks and challenges*

The borderless nature of crypto-assets makes it possible for issuers and service providers to operate and provide cross-border activities from offshore jurisdictions<sup>41</sup> including from jurisdictions where the issuer or service provider is not licensed/registered, regulated, or supervised.<sup>42</sup> When global implementation is inconsistent, access to cross-border activities from offshore jurisdictions may hinder the effectiveness of the FSB Framework. Cross-border crypto-

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<sup>41</sup> Some such offshore jurisdictions are commonly referred to as "offshore financial centres". However, there is not a universal definition of an offshore financial centre.

<sup>42</sup> There is no universally agreed definition of an offshore jurisdiction. This paper uses a broad definition of the term offshore jurisdiction to refer to jurisdictions where crypto-asset service providers are located but those service providers have significant cross-border activities and operations.

asset activities may continue to grow in offshore jurisdictions that do not effectively regulate and supervise them to an extent that may threaten global financial integrity and stability.

More specifically, when an offshore jurisdiction does not fully implement a regulatory framework consistent with the FSB Framework and relevant international standards (such as the FATF International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation), jurisdictions where the activity takes place may face challenges in obtaining information or enforcing regulations against non-compliant issuers and service providers. This is especially the case when authorities in the offshore jurisdiction do not have comprehensive regulation or the capacity to enforce their regulatory framework or supervise all relevant issuers/service providers, or the ability to engage in cross-border cooperation arrangements.<sup>43</sup> Such a situation may also hinder aggregating data across jurisdictions, which is important for monitoring potential global financial stability risks. Data gaps arising from offshore jurisdictions with significant cross-border crypto-asset activities contribute to this challenge.

#### *4.1.2. Tools to address risks and challenges*

Implementation of the FSB Framework and SSB standards, including robust supervision and enforcement, is important to mitigate the risks arising from cross-border crypto-asset activities that originate from offshore jurisdictions. As set out in the Synthesis Paper and reiterated in section 3.2, the FSB and the IMF are prioritising engaging non-FSB members through various venues, including technical assistance by the IMF and engagement with the FSB RCGs.

The IMF has incorporated in its surveillance tools – Article IV consultations and FSAPs – the policy responses developed by the IMF, FSB, and SSBs. This integration allows the IMF to assess the advances made in the application of crypto-asset policies in jurisdictions where such assets may acquire systemic significance.

If cross-border crypto-asset activities continue to grow in offshore jurisdictions that do not regulate and supervise them to an extent such that it may threaten global financial stability, then jurisdictional authorities, IOs, and SSBs may need to consider whether additional tools are needed to promote implementation beyond the FSB membership. Based on past experiences, this section presents two types of potential tools that jurisdictional authorities, IOs, and SSBs may consider to mitigate the risks from implementation gaps:

#### *Disclosure-based approaches by IOs and SSBs*

IOs and SSBs have, in the past, published findings or data concerning the progress of jurisdictional regulatory initiatives. Such an approach may provide incentives for implementing relevant international standards and encourage jurisdictions that do not yet have a plan for implementing such standards to develop one. Such disclosures may also provide more transparency to the market and the public on implementation progress. In some cases, a disclosure approach can also incorporate an overview of the materiality of the activity under review and help to identify jurisdictions where this activity is occurring. Disclosure-based tools are commonly used by IOs and SSBs for the purpose of promoting the implementation of

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<sup>43</sup> Challenges can also arise in obtaining and sharing information from unregulated businesses.

international standards. Disclosure-based tools may take various forms, depending on the objective and available resources. Box 3 provides an overview of different forms of disclosure tools. In practice, these tools are not mutually exclusive, and may be applied in combination, including with the supervisory tools described in the next section.

### **Box 3: Various disclosure-based tools that may be applied by IOs and SSBs**

- **Independent assessment**

An independent assessment is conducted by an international organisation (or several jointly) to assess the status of jurisdictional implementation of the relevant international standards. The assessment generally leads to a published report. In certain cases, such assessment may be used to identify jurisdictions that materially deviate from international standards.

- **Self-assessment by jurisdictions**

This approach asks jurisdictions to self-assess the consistency of their regulatory and supervisory practices with relevant international standards based on a set of questions developed by the relevant international organisation(s). The country responses are published largely as submitted. The responses can be used to inform the collecting IOs and SSBs for further initiatives.

- **Non-assessment-based publications**

IOs and SSBs may also publish a report consisting of information on the activity and the market structure of an examined topic in various jurisdictions. This may provide information on overall adoption and level of activity, to indicate which jurisdictions have a material footprint related to that specific topic. This type of report may therefore help identify locations which may be a key source of risks and challenges. However, it does not include any assessment of jurisdictional implementation and consistency with the relevant international standard.

- **Entity-level publications**

Offshore issuers and service providers should disclose their home jurisdiction – i.e., where their head office is based. To facilitate authorities to use the information, IOs and SSBs may coordinate the publication of a list of issuers and service providers who are licensed and regulated in an identified home jurisdiction and, as appropriate, those who consistently seek to evade oversight by refusing to evidence where they are headquartered (and regulated).<sup>44</sup>

### *Specific supervisory tools by jurisdictional authorities*

Offshore issuers and service providers, in addition to directly approaching onshore customers, partner with onshore entities, which may be regulated financial institutions. There are a variety of approaches a jurisdiction could apply to supervised entities based on their dealings with offshore issuers or service providers located in jurisdictions that have not implemented the FSB Framework or other relevant international standards. Regulatory and supervisory frameworks differ from jurisdiction to jurisdiction and, therefore, the feasibility of each supervisory tool differs for each jurisdiction.

In supervisory practice, authorities may have available tools to address higher risks in certain activities. For example, supervisory authorities could consider whether heightened expectations on governance, risk management, AML/CFT preventive measures, and third-party risk

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<sup>44</sup> Some authorities already publish lists of entities they believe are operating illegally in their jurisdictions.

management by the supervised onshore entities are appropriate to address the risks of them dealing with offshore service providers. This could be in the form of tailored risk management or regulatory reporting requirements when domestic financial entities or regulated service providers deal with offshore service providers domiciled in jurisdictions that have not (yet) adopted the FSB Framework and/or relevant SSBs' standards.

#### *4.1.3. Data challenges in identifying priority areas*

The process to identify jurisdictions with material crypto-asset activities depends on comprehensive and accurate data. However, there remain significant challenges in obtaining comprehensive data due to non-compliance and varying degrees of implementation progress, which contribute to the lack of availability of relevant off-chain data. The reliability and accuracy of the data are also limited, given that data from service providers are now mainly self-reported, while supervisors at the moment do not have capabilities to verify the accuracy of the data. On the other hand, public blockchain data have underlying limitations and are not reliable. The pseudonymity of public blockchains can make identifying ultimate users or jurisdictions from which the activity is originating more difficult or, in some cases, impossible. Implementation of the FSB Framework and other ongoing initiatives (see section 3.5) can help to close these data gaps and improve the accuracy and comprehensiveness of data available to regulatory and supervisory authorities.

IOs are investing efforts to address these challenges. For example, FATF has produced a table, which identified twenty jurisdictions (non-FATF members) with materially important VASP activity and noted the status of their implementation of FATF's Standards on VAs and VASPs (Recommendation 15), alongside all FATF members. The jurisdictions were classified as having materially important VASP activity based on the following two criteria:

- Jurisdictions with a materially important VASP that contributes 0.25% or more of global trading volume; and
- Jurisdictions with a large virtual asset user base with over 1 million users.<sup>45</sup>

Although the data and methodology applied for the assessment may have their own limitations, the FATF publication provides an important starting point and demonstrates that work to assess crypto-asset activity locations is possible even without a comprehensive set of data.

## **4.2. Non-compliance and enforcement challenges**

In some jurisdictions, existing laws and regulatory frameworks apply, in whole or in part, to crypto-asset activities. Nonetheless, some issuers and service providers are operating in non-compliance. Intermediaries and MCIs, in particular, may fail to obtain required registrations, licenses or authorisations, and often exhibit weak governance and inadequate risk management practices accompanied by either absent or deficient disclosures. The prevalence of non-compliance significantly undermines the efforts to implement the FSB Framework and other

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<sup>45</sup> The trading volume and user base were first measured using an open-source dataset and later cross-checked against data from blockchain analytics companies to eliminate any anomalous results.

relevant international standards and may further encourage wider non-compliance and regulatory arbitrage. This underscores the need for supervising relevant issuers and service providers and enforcing applicable laws and regulations and promoting compliance as a key component of implementation. This will serve as a key step in addressing risks.

Authorities have initiated enforcement actions over the past several years to combat non-compliance, particularly by those operating without the appropriate authorisations.<sup>46</sup> Substantial progress in enforcement helps address risks, protects investors, provides clarity on the regulatory status of crypto-asset activities, and promotes a healthy market that imposes compliance pressure on market participants.

#### *4.2.1. Common challenges in enforcement*

Despite progress in enforcing applicable regulations, there still exist challenges in enforcement. These are associated with both market participants' behaviours and specific features of crypto-asset markets.

##### *Deliberate evasion of regulation*

Some crypto-asset issuers and service providers may deliberately label/mislabel or structure their activities in an attempt to evade regulation. First, as legal and regulatory classification of crypto-assets varies across jurisdictions, crypto-asset market participants may be tempted to exploit these differences by labelling/mislabelling their crypto-assets in a way that seeks to evade regulation, or seeks lighter regulation. Furthermore, some market participants may attempt to obfuscate their governance structure or operations to circumvent regulations. One typical example is that some service providers claim to be fully decentralised with no person or entity to assume any regulatory responsibility. However, in reality, there exists a centralised body controlling their governance as discussed in section 3.1.2.<sup>47</sup> Market participants may also intentionally obscure or hide the locations where they provide services. In response, authorities should carefully evaluate in each case the facts and circumstances of the activity and the governance and operations of the service provider. On that basis, jurisdictions can apply laws, regulations, and rules in line with the FSB Framework's principle of "same activity, same risk, same regulation" and technology neutrality.

##### *Commencement of operation before authorisation*

FSB CA recommendation 1 and GSC recommendation 10 provide that crypto-asset issuers and service providers should meet all applicable regulatory, supervisory, and oversight requirements of a particular jurisdiction before commencing any operations. However, crypto-asset market participants often fail to do so. In such cases, authorities need to consider bringing enforcement

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<sup>46</sup> The U.S. SEC has filed a number of actions alleging crypto-asset platforms have operated as unregistered securities exchanges, brokers, dealers, and/or clearing agencies. See, e.g., [SEC Charges Kraken for Operating as an Unregistered Securities Exchange, Broker, Dealer, and Clearing Agency](#); [SEC Charges Coinbase for Operating as an Unregistered Securities Exchange, Broker, and Clearing Agency](#); [SEC Files 13 Charges Against Binance Entities and Founder Changpeng Zhao](#); [SEC Charges Crypto Asset Trading Platform Bittrex and its Former CEO for Operating an Unregistered Exchange, Broker, and Clearing Agency](#); [SEC Charges Crypto Trading Platform Beaxy and its Executives for Operating an Unregistered Exchange, Broker, and Clearing Agency](#). The U.S. SEC maintains a list of crypto-asset-related enforcement actions, available on the [SEC website](#).

<sup>47</sup> *Ibid* FN 16

actions. For example, De Nederlandsche Bank (DNB) fined several companies for operating in the Netherlands without a legally required registration.<sup>48</sup>

Authorities should, in line with the FSB Framework, seek to enforce applicable regulations to ensure activities do not commence until compliance is reached. Authorities should also devote adequate resources to taking enforcement actions in cases in which a service provider has begun operations in non-compliant ways, as well as engaging early with firms that seek to become authorised before they begin their operations.

However, such enforcement actions may face several challenges. First, some service providers have significant gaps in their governance structure, risk management frameworks, and/or infrastructures, which require substantial corrections such as restructuring. These gaps can require additional supervisory attention and time to prepare and bring actions to enforce compliance. In particular, recent jurisdictional experiences indicate significant enforcement resources are needed for cases in which a service provider may need to discontinue or alter certain activities, establish separate subsidiaries for certain services in line with domestic regulations, or request multiple licences/registrations for different functions. Second, some service providers may not be aware of their regulatory obligations and may require even more intensive efforts from supervisory authorities to inform them and enforce these obligations. The challenge may be more acute when such a service provider begins activities or scales up activities rapidly while not in compliance.

#### *Lack of a culture of compliance*

The failures of the crypto-asset intermediaries highlight the lack of a mature compliance and financial risk management culture with the crypto-asset industry. With that gap, service providers may opt to maximise profitability at the expense of developing adequate risk management and compliance capabilities. Some crypto-asset start-up companies scale up quickly without proportionately developing compliance policies or allocating enough resources to compliance and risk management. Moreover, some service providers, as new entrants, may not have leadership with experience in engaging with financial regulatory and supervisory authorities. In some cases, the lack of compliance (or the lack of staff who can understand and create an internal culture of compliance) is intentional, and the cost-savings of not complying with applicable regulation are part of the value proposition to the market. In this context, authorities need to have adequate powers and tools to ensure, and where necessary enforce, sound compliance and risk management practices of market participants, especially those with rapid growth and/or large market share. This includes the ability to cause a non-compliant firm to cease operations.

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<sup>48</sup> See De Nederlandsche Bank (2023 and 2024), [DNB imposes administrative fine on Coinbase Europe Limited for providing crypto services without the legally required registration until 22 September 2022](#); and [Order subject to penalty imposed on Payward International Markets Limited for offering crypto services in the Netherlands without registration](#); see also *Ibid* FN 46.



#### 4.2.2. *Impact of non-compliance and enforcement challenges*

The non-compliance of crypto-asset issuers and service providers can lead to significant challenges for authorities in delivering on their mandates. It is therefore important for authorities to supervise and enforce applicable laws.

##### *Non-compliance exacerbates data gaps*

When crypto-asset service providers act in non-compliance with applicable regulations, they often do not fulfil applicable record-keeping and data reporting obligations. This will exacerbate data gaps and hamper effective oversight and monitoring of financial stability, misconduct, and financial integrity risks. Although it is purported that public blockchain data can complement official data, they have significant limitations.<sup>49</sup> Moreover, a large amount of crypto-asset market activity occurs off-chain on centralised service providers. When these data sources fall outside of regulatory purview, or service providers fail in their obligations to report data to authorities, the data will be unverified and unreliable. Therefore, this type of non-compliance contributes to opaqueness in the crypto-asset market and raises challenges for authorities to build a comprehensive picture of the ecosystem. This, in turn, makes it difficult for authorities to monitor, identify, and take action to mitigate risks.

##### *Resource needs for greater use of enforcement*

As authorities increasingly engage in enforcement activities against crypto-asset issuers and service providers operating in non-compliance, it will be necessary to devote sufficient resources towards enforcement. This might be especially challenging for smaller jurisdictions with less well-resourced authorities.<sup>50</sup> Some jurisdictions have specialised units dedicated to enforcing applicable laws, regulations, and rules for crypto-asset related activities. To address enforcement challenges, authorities may need to have access to data (including crypto-asset market data), tools (including analytical tools to analyse blockchain data), techniques, and personnel with adequate expertise for the purpose of conducting investigatory and enforcement activities. In cases in which authorities implement blanket bans that make all crypto-asset activities illegal, enforcement can be costly and limited. Prohibitions can be circumvented through various means, including underground markets, creating cross-border spill-over effects.

##### *Non-compliance and cross-border activities*

The borderless nature of crypto-asset markets, along with the pseudonymity and, in some instances, true anonymity of crypto-asset market participants, may exacerbate the problems of non-compliance.<sup>51</sup> Non-compliant service providers leverage this borderless nature of crypto-asset activities to move funds across jurisdictions easily and quickly. Transaction records are often obscured. Some service providers, especially MCIs, may distribute their operations,

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<sup>49</sup> See FSB (2024) section 2 for discussion on limitations of public blockchain data; see also section 3.1.2 of this report.

<sup>50</sup> See FSB (2024) section 5.2.1 for a discussion of capacity and resource constraints of EMDEs.

<sup>51</sup> For instance, these characteristics may be attractive for illicit activities. See e.g., Berwick, Angus & Foldy, Ben, *The Shadow Dollars That's Fueling the Financial Underworld*, WALL ST. J., (Sept. 10, 2024, 5:30 AM), (Bad actors using Tether to move dollars around the world to evade U.S. law enforcement).

personnel and entities at different locations in an attempt to evade enforcement efforts from any specific jurisdiction. For example, one of the largest CASPs, Binance, pleaded guilty to violating numerous U.S. laws through a deliberate and calculated effort to profit from the U.S. market without implementing controls required by U.S. law.<sup>52</sup>

The combination of non-compliance with the cross-border nature of crypto-asset activities heightens enforcement challenges. Authorities may face difficulties in assessing compliance, gathering evidence, and taking enforcement action against non-compliant entities that operate across multiple jurisdictions. In addition, as previously discussed in section 4.1, some non-compliant activities may operate from offshore jurisdictions that do not implement regulations consistent with the FSB Framework, or they do not have the powers or willingness to provide international cooperation in enforcement matters but remain accessible by onshore users.

Jurisdictions are making progress to address these cross-border challenges through international cooperation. For example, in September 2023, the U.S. Commodities Futures Trading Commission (CFTC) charged four individuals and one Seychelles company with operating a fraudulent digital assets trading scheme and misappropriation. The CFTC action relied upon cross-border cooperation with authorities from fourteen jurisdictions.<sup>53</sup> In September 2024, the U.S. Securities and Exchange Commission (SEC) charged multiple individuals and entities in relationship investment scams involving fake crypto-asset trading platforms where fraudsters misappropriated investors' crypto-assets. The SEC relied on cross-border cooperation in this and others of its crypto-asset related investigations.<sup>54</sup> As set out in FSB CA and GSC Recommendation 3, authorities may benefit from cooperation, coordination, and information sharing to support each other in fulfilling their respective mandates. Existing information sharing arrangements, such as memoranda of understanding, can help jurisdictions investigating cross-border operations to share information with jurisdictional counterparts. In particular, jurisdictions should continue to exercise their powers to cooperate in matters involving crypto-assets in the same way they provide cooperation on transactions and services conducted in traditional financial markets. Where a jurisdiction identifies limitations in their cooperation powers, they should seek to obtain those powers, including by adopting new laws, practices, and interpretations.

### 4.3. GSC recommendation 9 implementation experiences

The GSC recommendations seek to promote consistent and effective regulation of GSCs across jurisdictions while providing sufficient flexibility to implement domestic approaches. The continued growth of stablecoins may pose financial stability risks in the future and therefore, jurisdictions should continue to focus on implementation.

Stablecoins that purport to maintain a stable value relative to one or more fiat currencies (so called fiat-referenced stablecoins) are of particular interest, as the reference to fiat currencies

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<sup>52</sup> See U.S. Department of Justice (2024), [United States v. Binance Holdings Limited, d/b/a Binance.com.](#) and [United States v. Changpeng Zhao.](#)

<sup>53</sup> See CFTC (2023), [CFTC Charges Four Individuals and a Seychelles Company with Operating a Fraudulent Digital Assets Trading Scheme and Misappropriation](#), September.

<sup>54</sup> See [SEC Charges Multiple Individuals and Entities in Relationship Investment Scams](#); see also, e.g., [SEC Charges Three Media Companies with Illegal Offerings of Stock and Digital Assets](#); [SEC Emergency Action Halts ICO Scam.](#)

may enhance or facilitate their perceived usability as a means of payment and/or store of value. Because stablecoin arrangements may engage in similar maturity transformation as banks and money market funds, they may be similarly exposed to a sudden loss in confidence and the run on the issuer or underlying reserve assets. GSC recommendation 9 addresses these issues by recommending that jurisdictions require GSCs to provide a robust legal claim to all users, to have an effective stabilisation mechanism, and to be subject to appropriate prudential requirements. This section highlights the approaches FSB member jurisdictions are taking to implement GSC recommendation 9, including their considerations and rationale underlying these approaches.

#### *4.3.1. Redemption rights*

GSC recommendation 9 states that jurisdictions should require that GSC arrangements provide a robust legal claim to all users of stablecoins against the issuer and/or underlying reserve assets. User claims can generally be against the stablecoin issuer, the underlying reserve assets, or a combination of both. Some jurisdictions require that users have a legal claim against the issuer's reserve assets (and in some cases, a claim also on the issuer when reserve assets are insufficient). Other jurisdictions require that users have a claim against the issuer (thus liable with its own estate), with a claim on the reserve assets if the issuer cannot meet redemption requests, or they impose other requirements on the issuer to ensure there are always sufficient reserve assets. In many cases, approaches for user claims align with existing jurisdictional regulatory frameworks for similar instruments, such as those that apply to e-money issuers.

Some authorities are requiring that redemption processes and timing should be made clear and transparent to users. In this regard, some jurisdictions define a specific number of days within which redemption requests must be met, while others do not establish a specific number of days and provide discretion depending on the business model of the stablecoin issuer.

Regarding redemption costs, some jurisdictions are implementing an approach whereby stablecoin issuers are allowed to charge redemption fees, but these fees should only reflect the costs incurred by the stablecoin issuer to process the redemption. Other costs, such as those relating to compliance, can include those involved in the application of AML/CFT preventive controls (including customer due diligence, sanctions screening, and suspicious transactions reporting) to meet regulatory requirements. Some jurisdictions, however, have prohibited stablecoin issuers from charging redemption fees because such fees may create frictions across the redemption process and could encourage selling in secondary markets, risking the stablecoin de-pegging from its par value.

Most existing stablecoins rely on a model where stablecoin users who wish to cash out their tokens sell their stablecoins on secondary markets through trading platforms rather than directly redeeming from the issuer. Many jurisdictions are approaching the role of intermediaries in the redemption process through a combination of two related regulatory requirements for stablecoin issuers. First, jurisdictions are establishing requirements that all users can redeem directly with the issuer (even if the issuer's preferred operating model is to use trading platforms for the distribution and secondary trading of its stablecoin). Second, jurisdictions are establishing contingency planning and operational resilience requirements to ensure that stablecoin issuers can meet user redemption requests even if key parts of their infrastructure fail or the issuer becomes distressed. In addition, jurisdictions are establishing licensing or registration

requirements for stablecoin intermediaries, and in some jurisdictions, intermediaries must be licensed or registered as payment service providers.

#### *4.3.2. Stabilisation mechanisms*

For GSCs that use a reserve asset-based stabilisation mechanism, GSC recommendation 9 requires that reserve assets consist only of “conservative, high quality and highly liquid assets.” Jurisdictions are implementing different approaches that broadly consider three groups of eligible reserve assets for stablecoins that reference a single fiat currency. These are: i) central bank reserves; ii) commercial bank deposits; and iii) conservative, high quality and highly liquid securities. Each of these types of reserve assets have specific features that jurisdictions should weigh carefully. There are trade-offs between different risks, as addressing one risk (e.g., credit risk) may increase another risk (e.g., concentration or market risk).

Most jurisdictional eligibility rules for reserve assets include assets with some credit, market, and liquidity risk, making risk management requirements essential. To address credit risk, some jurisdictions are adopting a narrower set of asset types for stablecoin reserves compared to high quality liquid asset (HQLA) requirements for banks. However, as market risk could still be significant for assets with low credit risk, some jurisdictions are implementing duration limits for all assets included in the reserve assets. Concentration risk is also relevant for jurisdictions that allow some level of credit risk in the reserve assets, either through eligibility of non-government securities or commercial bank deposits. In these cases, jurisdictions are adopting concentration limits to ensure that no single counterparty is the issuer of a significant portion of reserve assets.

To ensure the safe custody of reserve assets, many jurisdictions are taking approaches that require stablecoin issuers to establish reserve asset accounts that are segregated from the issuer’s other assets, such as bankruptcy-remote legal structures. Some jurisdictions have established specific requirements on the location of segregated accounts and types of custodians that can hold reserve asset accounts, such as domestic banks or authorised financial institutions. Jurisdictions are also establishing rules for appropriate safeguarding of reserve assets, including reconciliation, audit, and reporting requirements.

#### *4.3.3. Prudential requirements*

Many authorities are establishing “own funds” requirements for stablecoin issuers to ensure there is sufficient capital to absorb losses related to the activities of the stablecoin arrangement. These jurisdictional own funds requirements include minimum fixed fiat currency amounts, incremental requirements that range from 0.5% to 3% of outstanding tokens or reserve assets, or a combination of both. Some jurisdictions are leveraging existing prudential frameworks, such as those for e-money issuers. Other jurisdictions apply more stringent capital requirements for business models with higher risk in their reserve assets. In most jurisdictions, supervisors can increase capital requirements based on the size, complexity, and risks of an individual stablecoin arrangement, as well as on the basis of the outcome of stress tests.

Several jurisdictions are imposing liquidity risk management requirements in addition to own funds requirements related to reserve assets. They consist primarily of liquidity buffers; “shortfall reserves” to cover unexpected outflows due to operational risks, fraud or mismanagement; and

contingency planning measures (e.g., planning to meet redemptions in the event there is a disruption to the underlying distributed ledger on which the stablecoin token is issued).

#### 4.4. Macroeconomic issues and challenges

In its ongoing commitment to assisting member countries, the IMF offers strategic guidance on crafting holistic regulatory frameworks for crypto-assets. The 2023 IMF paper "Elements of effective policies for crypto assets" delineated nine fundamental elements to address key policy objectives. These objectives focus on macroeconomic issues to ensure macroeconomic and financial stability, and extend beyond, to include safeguarding consumer protection, as well as enhancing market and financial integrity.<sup>55</sup>

##### 4.4.1. Implications for fiscal policy from crypto-assets

The spread of crypto-assets can increase risks for public finances. New fiscal risks can arise from the financial sector's exposure to the crypto-asset ecosystem, the lack of clarity of tax regimes, and the extra-territorial nature of crypto-assets. Moreover, granting a crypto-asset official currency or legal tender status would amplify fiscal risks.<sup>56</sup> Based on these considerations, targeted advice has been provided to country teams on the implications for fiscal policy from crypto-assets as part of the IMF's lending, surveillance, and capacity development activities. This advice has mainly focused on reinforcing mechanisms to avoid the generation of contingent liabilities from trust funds, special purpose vehicles, and/or state-owned enterprises linked to the promotion and adoption of crypto-assets as legal tender. For example, in the case of the Central African Republic, the current IMF program includes, as a conditionality, the preparation of a fiscal risk statement on the Sango platform, disclosing existing fiscal commitments and assessing how the platform's activities could affect the government's fiscal position. In a similar vein, support has been provided to the El Salvador IMF team to assess the possible fiscal risks generated by the government's crypto-asset ecosystem, composed of Fideitcoin (a public trust fund) and Chivo (an e-wallet).

In parallel, the IMF is carrying out analytical work on the implications for fiscal operations of digital money, including crypto-assets, which will provide more granular data on this topic to inform IMF policy advice and capacity development activities in this area.

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<sup>55</sup> The nine elements are: Safeguard monetary sovereignty and stability by strengthening monetary policy frameworks and do not grant crypto-assets official currency or legal tender status; Guard against excessive capital flow volatility and maintain effectiveness of capital flow management measures; Analyse and disclose fiscal risks and adopt unambiguous tax treatment of crypto-assets; Establish legal certainty of crypto-assets and address legal risks; Develop and enforce prudential, conduct, and oversight requirements to all crypto market actors; Establish a joint monitoring framework across different domestic agencies and authorities; Establish international collaborative arrangements to enhance supervision and enforcement of crypto-asset regulations; Monitor the impact of crypto-assets on the stability of the international monetary system; Strengthen global cooperation to develop digital infrastructures and alternative solutions for cross-border payments and finance.

<sup>56</sup> El Salvador granted legal tender status to crypto-assets. Central African Republic also passed a law providing legal tender status to crypto-assets and after amended it to repeal it. Marshall Islands issued a law to grant the crypto-asset named SOV legal tender status, however, SOV was never issued (and the law did not cover other crypto-assets).

#### 4.4.2. *Measurement of cross-border crypto-asset flows*

Despite the surge of crypto-asset transactions across the globe, CBCFs are not systematically measured by statistical agencies. According to Cardozo et al. (2024) and Cerutti et al. (2024),<sup>57</sup> there is substantial heterogeneity in the CBCF estimates across the various methodologies. A particular problem is that bilateral CBCFs can be very poorly estimated, as the pseudonymity and opacity in crypto-asset markets makes it difficult to trace the residency of market participants, rendering the methodologies too imprecise to accurately locate the receiver and sender countries. Official estimates obtained through the International Transaction Reporting Systems (ITRSs) can be more reliable, yet they are quite scarce, with the Brazilian case being a notable exception.<sup>58</sup>

The lack of official statistics has motivated standard setters, country authorities and academics to formulate a variety of methods to identify and measure CBCFs.<sup>59</sup> Concerted effort by the global community is still required to reach consensus on the measurement and monitoring of risks of CBCF.

#### 4.4.3. *Implications of foreign-denominated stablecoins for EMDEs*

Foreign currency-pegged stablecoins purport to provide a store of value and could potentially be used as a medium of exchange that is insulated from domestic inflation or depreciation. This could reduce holdings of domestic currency and deposits into domestic banks and amplify currency substitution and capital outflows in response to negative shocks. If capital flow management measures (CFMs) cover other flows but not crypto-asset-related transactions, this would encourage adoption of foreign currency-pegged stablecoins for the purposes of circumvention.<sup>60</sup>

The IMF has been advising member countries on the use of stablecoins and their potential adverse impact on monetary stability and financial integrity, the assessment of ML/TF risks and development of appropriate mitigating measures, and targeted measures for EMDEs. The IMF has also recommended member countries to carry out a full-fledged feasibility studies and engage with stakeholders to assess the benefits and risks of stablecoins with respect to alternative options prior to introducing such stablecoins. Similarly, the IMF has highlighted the need to apply the FSB GSC Recommendations and the CPMI-IOSCO principles for financial market infrastructures if a member country issues stablecoins that are marketed across borders.<sup>61</sup>

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<sup>57</sup> Cardozo, Fernandez, Jiang, and Rojas (2024) "On Cross-Border Crypto Flows: Measurement, Drivers and Policy Implications", Mimeo, IMF. Cerutti, M Eugenio; Chen, Jiaqian ; Hengge, Martina (2024) "A Primer on Bitcoin Cross-Border Flows: Measurement and Drivers", IMF Working Papers No. 2024/085.

<sup>58</sup> Another country that provides official Balance of Payment (BoP) data on CBCFs is El Salvador, but its coverage is quarterly and only from 2021Q3. The Central Bank of Brazil's data is monthly and from 2016. To measure CBCFs, the Central Bank of Brazil uses information from the universe of FX contracts in Brazil, which include the identification of the parties (resident and non-resident), a code identifying the purpose of the transaction, and a free text field for other information that the resident party or settling bank may wish to provide.

<sup>59</sup> For example, in the process of updating the Balance of Payments Manual, there will be coverage of the measurement of capital flows associated with crypto-assets.

<sup>60</sup> IMF (2024) *working paper 2024/133* "Crypto as a Marketplace for Capital Flight".

<sup>61</sup> See the Article IV Consultations 2023 for The Bahamas, Republic of Palau and Republic of the Marshall Islands.

## 5. Next steps

As many crypto-asset issuers and service providers are still operating without being subject to comprehensive regulation or in non-compliance with applicable jurisdictional regulations, it is important that all jurisdictions implement the FSB Framework and relevant international standards fully, consistently, and in a timely manner. EMDEs may want to take additional targeted measures that go beyond the global regulatory baseline to address specific risks. The IMF and the FSB, together with the SSBs and other IOs, will continue to support and promote a globally coordinated and comprehensive policy approach to crypto-asset markets.

The IMF will continue to support its member countries through regional training and bilateral technical assistance programs in close coordination with the SSB Secretariats. Furthermore, the IMF will continue to advance the integration of policies for crypto-assets in its surveillance work.

The FSB, by end-2025, will conduct a review of the status of the implementation of the FSB Framework at the jurisdictional level. Considering that many crypto-asset activities are being conducted in non-FSB member jurisdictions, the FSB will continue to engage with a wider set of jurisdictions beyond its membership, including through the RCGs.

IOSCO is taking a proactive approach to promote the prompt implementation of its policy recommendations to deliver critical regulatory outcomes for investor protection and market integrity in crypto-asset markets. Over the next several years, IOSCO will continue to focus on the implementation of its CDA Recommendations alongside targeted efforts on the DeFi Recommendations, including an assessment methodology to be piloted with a subset of IOSCO jurisdictions in 2025, and a full assessment of the CDA recommendations as part of IOSCO's longstanding AC processes.

The BCBS will continue to support its members in their efforts to implement the final prudential standard for banks' exposures to crypto-assets ahead of the 1 January 2026 implementation date. The BCBS will also continue to monitor and assess bank-related developments in crypto-asset markets, as well as monitor banks' exposures to crypto-assets through its bi-annual data collection exercise.<sup>62</sup>

The CPMI will continue to use various opportunities and channels (e.g., workshops and seminars at regional associations or groups of central banks) to engage with non-CPMI central banks and relevant authorities on the policy and standard-setting work of the CPMI and CPMI-IOSCO on stablecoin arrangements.

CPMI-IOSCO will continue to exchange practical experience and challenges that jurisdictions face in further developing relevant frameworks, with a focus on the July 2022 CPMI-IOSCO guidance.

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<sup>62</sup> BCBS Dashboards: <https://www.bis.org/bcbs/dashboards.htm?m=99>.

## Annex: Summary of implementation survey

### Responses to the FSB Survey

Region	FSB Members	Non-FSB members	Total Responses
RCG Americas	Argentina, Brazil, Canada, Mexico, United States	Bahamas, Bermuda, British Virgin Islands, Cayman Islands, Chile, Costa Rica, Columbia, Guatemala, Honduras, Panama, Paraguay, Peru, Uruguay	18
RCG Asia <sup>63</sup>	Australia, Hong Kong, India, Indonesia, Japan, Korea, Saudi Arabia, Singapore	Cambodia, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam	15
RCG Commonwealth of Independent States	N/A <sup>64</sup>	Armenia, Kazakhstan	2
RCG Europe	EU/EA <sup>65</sup> , France, Germany, Netherlands, Italy, Spain, Switzerland, UK	Austria, Belgium, Czech Republic, Denmark, Finland, Greece, Hungary, Iceland, Ireland, Luxembourg, Norway, Poland, Portugal, Romania, Sweden, Ukraine	24
RCG Middle East and North Africa	Türkiye, Saudi Arabia	Egypt, Jordan, Lebanon, Oman, UAE	7
RCG Sub-Saharan Africa	South Africa	Angola, BCEAO, Ghana, Mauritius, Zambia	6
<b>Total Responses</b>	<b>24</b>	<b>48</b>	<b>72</b>

### Status of implementation

A majority (87%) of FSB members have existing laws and regulations partially applicable to crypto-asset activities (Graph 1). The remaining three FSB member respondents reported that existing laws and regulations are consistent with the CA recommendations. In comparison, only

<sup>63</sup> China responded that it has banned all crypto-asset activities and is therefore not placed to provide answers to the survey questions.

<sup>64</sup> Russian authorities have agreed not to participate in FSB meetings at present.

<sup>65</sup> European Commission provided a consolidated answer on EU-level regulatory progress and the European Central Bank provided a consolidated euro area response on specific risks, while EU member countries provided responses reflecting their national frameworks and considerations.



one FSB member reported that existing rules and regulations are consistent with the FSB GSC recommendations. 57% of FSB members have existing laws and regulations partially applicable to stablecoins, while 39% of FSB members reported that existing laws and regulations do not apply. Non-FSB members reported a lower percentage of applicability of existing regulations. 63% of them have existing laws and regulations covering at least part of crypto-asset activities. The percentage decreases to 39% for stablecoins.

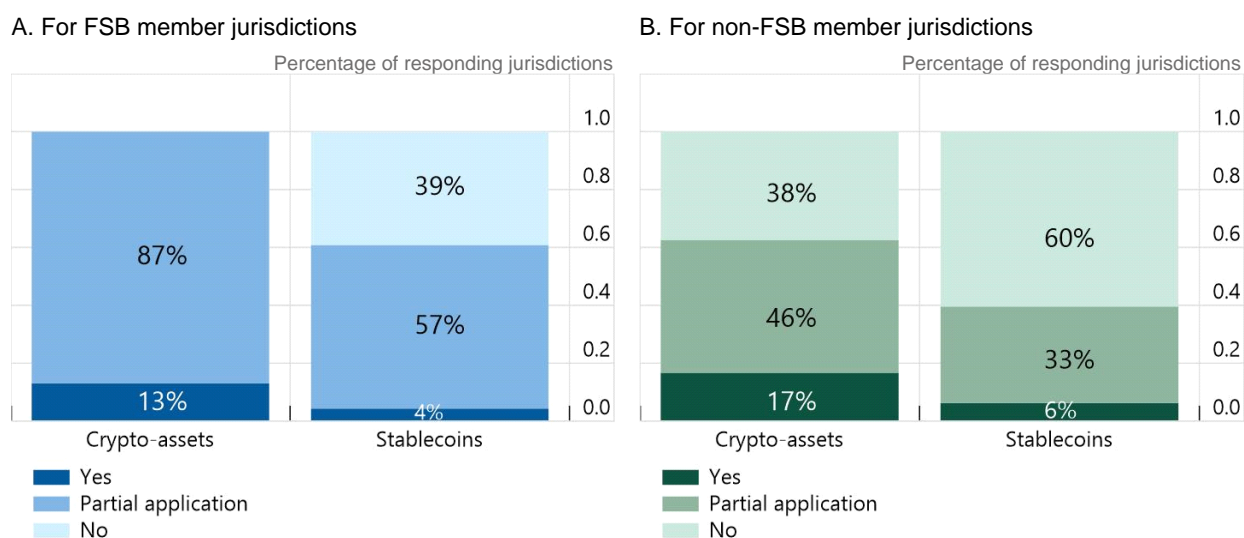
The results in graph 1 suggest two key findings. First, existing regulations are more likely to cover at least part of the broader crypto-asset activities, while for stablecoins, more regulatory gaps may exist. Second, FSB members have identified fewer regulatory gaps compared to non-members, suggesting non-members may need to take forward more comprehensive policy development initiatives for crypto-assets and stablecoins. This may lead to a prolonged implementation timeline for them.

The results in graph 2 suggest FSB members are on track to lead by example, with most members having plans in place to develop new or revised frameworks for crypto-assets and stablecoins (92% and 87%, respectively)<sup>66</sup>, or already have applicable frameworks in place. In comparison, that percentage is slightly lower among non-FSB members (84% and 75%, respectively). This finding confirms the importance of the FSB’s work to promote effective implementation beyond the G20 membership.

### Existing regulations consistent with FSB Framework

For FSB members and non-FSB member jurisdictions

Graph 1



Source: FSB Survey

<sup>66</sup> As European Union countries (in both FSB-member and non-FSB member group) will all apply the MiCA consistently, responses are counted as 1 consolidated answer in Graph 1 and 2.

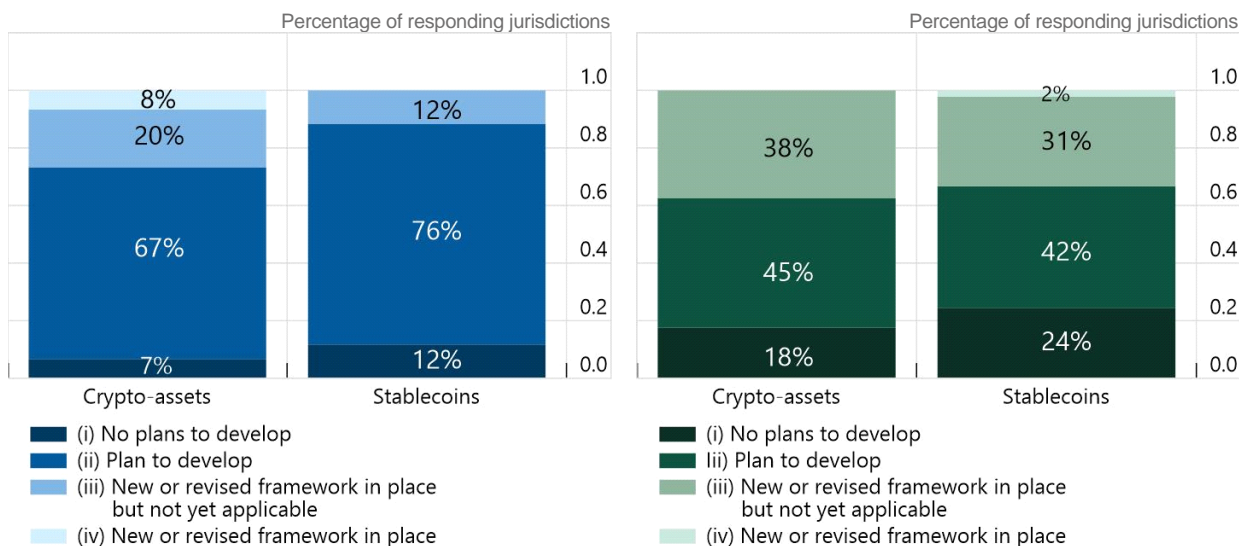
## Stage of policy development for new or revised crypto-asset regulations

For FSB members and non-FSB member jurisdictions\*\*

Graph 2

A. FSB member jurisdictions on crypto-asset activities and service providers and stablecoin arrangements\*\*

B. Non-FSB member jurisdictions on crypto-asset activities and service providers and stablecoin arrangements



\* (i) No plans to develop a new or revised regulatory framework for crypto-assets or plan has not been decided; (ii) Plan to develop a new or revised regulatory framework for crypto-assets, and work on the new or revised regulatory framework has started; (iii) New or revised regulatory framework in place but not yet applicable; and (iv) New or revised regulatory framework in place and applicable.

\*\* Combined EU jurisdictions include France, Germany, Italy, the Netherlands, and Spain.

Source: FSB Survey

When jurisdictions have plans to develop new or revise existing regulatory frameworks, most FSB members have entered the stage of publicly consulting on legislation or drafting detailed technical regulations and standards for broader crypto-asset activities (78%) and stablecoins (73%) (Graph 3). In comparison, non-FSB members are often still in the legislative drafting/debate period. Consequently, a smaller portion has started drafting detailed regulations, rules or technical standards.

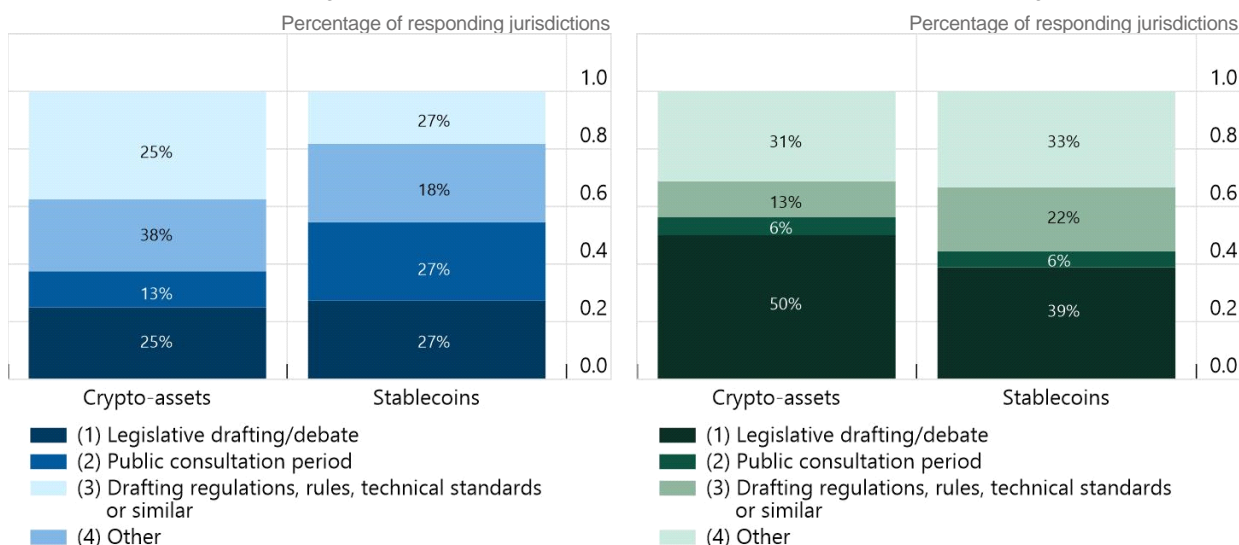
## Stage of drafting new or revised regulatory frameworks.

For FSB members and non-FSB member jurisdictions

Graph 3

A. FSB members on crypto-asset activities and service providers and stablecoin arrangements

B. Non-FSB members on crypto-asset activities and service providers and stablecoin arrangements



Source: FSB Survey

By 2025, a slim majority of FSB members expect to reach alignment with the CA and GSC recommendations (62% and 60%, respectively) (Graph 4). However, there are still some FSB members that, though already have a plan, have yet to commit a date to reach alignment (24% and 30% respectively).<sup>67</sup> Among those who aim at alignment by end-2025, alignment with CA recommendations is expected to be earlier than with GSC recommendations, as most of the members suggested full alignment will be reached by end-2024 whereas for GSC recommendations it is rather suggested for end-2025.

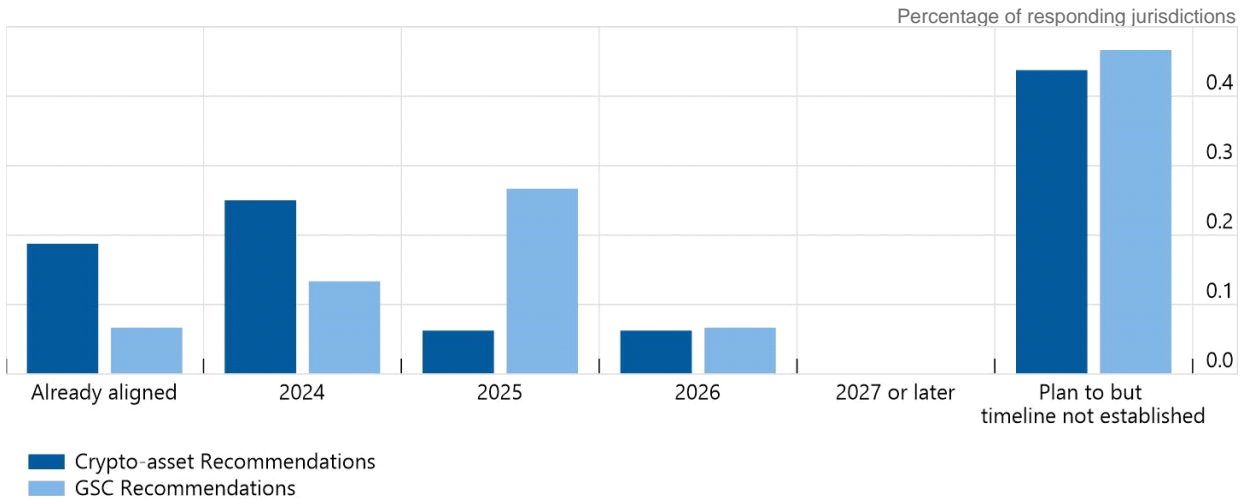
Meanwhile, most non-FSB members also expect to reach alignment by 2025 (graph 5), with 67% and 59% expecting to have regulations aligned with the CA and GSC recommendations, respectively. However, the interpretation of the results should take into account that a large number of non-FSB member responses come from members of the EU (13 out of 43), where MiCA will enter into force by 2025. Splitting the non-member responses by advanced economies and EMDEs reveals a slightly different picture, with 56% and 44% of EMDEs expecting to reach alignment with the CA and GSC recommendations by 2025, respectively, with these shares both lower than that of the whole non-member sample.

<sup>67</sup> Some jurisdictions need new legislation in order to reach alignment with the FSB framework. Typically, the legislation can come into force only after being passed in their legislative body, which is not within the control of the regulatory and supervisory authorities. This may be the reason why many FSB members cannot promise a date of alignment at the current stage.

## Expected time to reach alignment with FSB Framework

FSB member jurisdictions measured by effective date of rules, at year ends

Graph 4

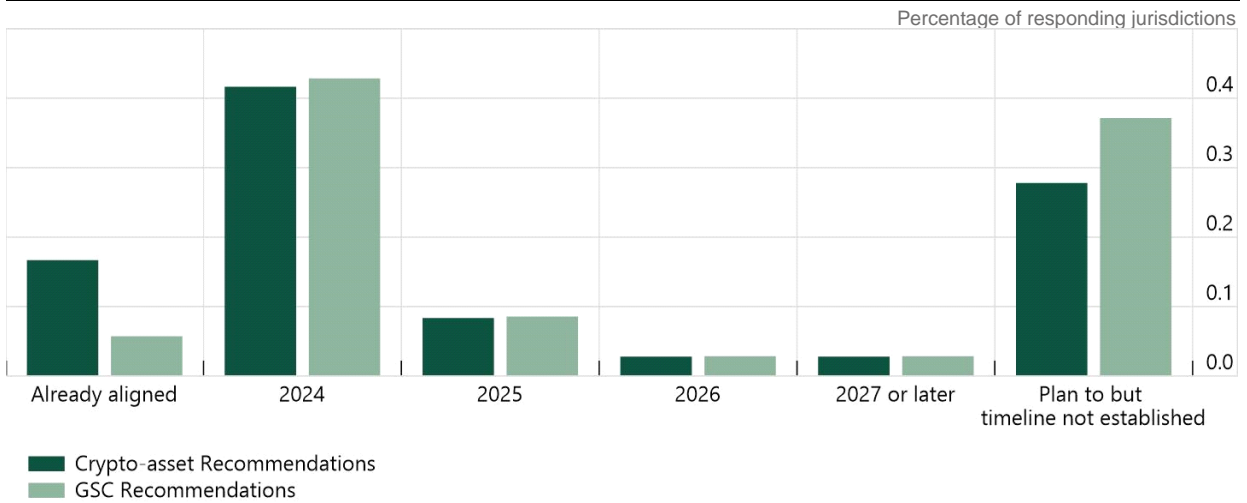


Source: FSB Survey

## Expected time to reach alignment with FSB Framework

Non-FSB member jurisdictions measured by effective date of rules, at year ends

Graph 5



Source: FSB Survey

## Regulatory tools and requirements

AML/CFT requirements are most frequently identified as the regulatory requirements that currently apply to crypto-asset activities and stablecoins (90% of respondents for crypto-assets and 57% of respondents for stablecoins), while regulatory tools and requirements are much more widely applicable to crypto-asset activities than to stablecoin arrangements. Other more commonly-available requirements among FSB members related to fraud (71%), licensing/registration/authorisation (71%) and consumer protection (67%). Those regulatory requirements identified least as being applicable are those related to recovery and resolution planning (24%), client funds protection (38%) and prudential requirements (38%). These results

suggest that most FSB members that report partial application of existing rules still have gaps to reach full alignment with the FSB Framework.

Responses from non-FSB members show similar distributions. This may indicate that AML/CFT compliance is a common concern to a wide range of jurisdictions. The FATF has adopted a roadmap to accelerate global implementation of their Standards on VAs and VASPs. Across all 14 types of regulatory tools and requirements listed in the survey, the applicability of AML/CFT requirements among FSB members is significantly higher than among non-FSB members. From a forward-looking perspective, both FSB members and non-FSB members estimate that their future planned framework will expand their applicable regulatory toolkits.

Existing regulatory requirements have been identified as less likely to be applicable to stablecoins than to broader crypto-asset activities. Except for AML/CFT, all other 13 listed requirements are applicable in less than 40% of FSB members and only less than 20% of non-FSB members. More specifically, 8 of the 14 listed requirements are applicable to stablecoins in only less than 10% of non-FSB members. This may strengthen the finding of the preceding section that non-FSB members need to develop more policies to bring activities into the regulatory orbit, especially for stablecoins.

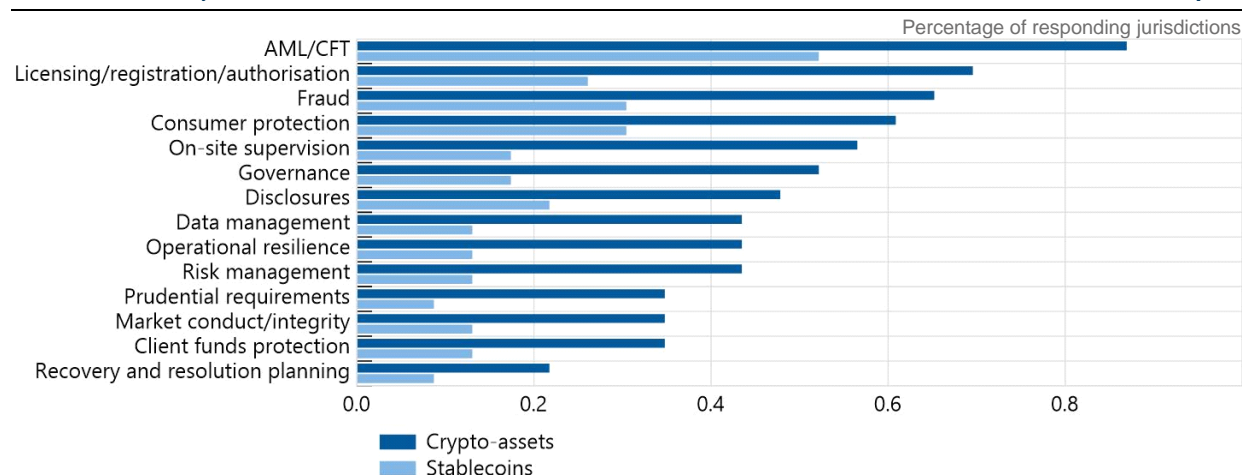
One FSB member noted that the regulatory requirements identified by them as applicable, except AML/CFT requirements, are only applied to custody services in their jurisdiction, while AML/CFT requirements can be applied to a wider range of activities. In another FSB member jurisdiction, service providers are required to register with AML/CFT regulators. One other FSB member noted crypto-asset trading in secondary markets is regulated, but an initial coin offering (ICO) is not within the scope of regulation in their jurisdiction.

A couple of non-FSB members noted that crypto-assets are subject to specific regulations when they qualify for certain types of instruments, such as those relating to e-money. One member currently prohibits service providers from facilitating payments using crypto-assets, and one other member has issued warnings to the public about the risks of crypto-asset activities.

### Regulatory requirements currently applied to crypto-asset activities and service providers and stablecoin arrangements

For FSB member jurisdictions

Graph 6

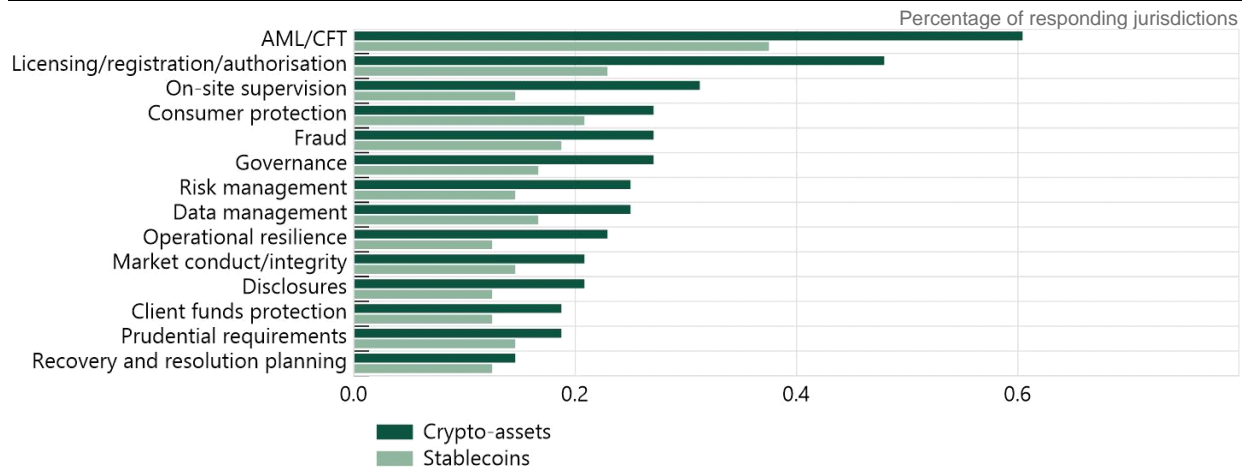


Source: FSB Survey

## Regulatory requirements currently applied to crypto-asset activities and service providers and stablecoin arrangements

For non-FSB member jurisdictions

Graph 7



Source: FSB Survey

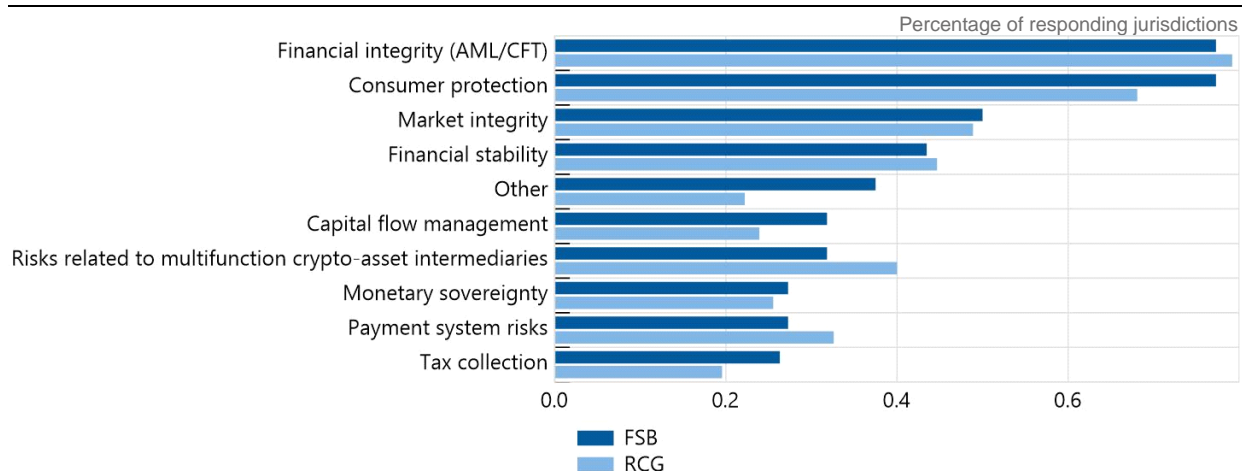
## Risks of crypto-asset activities

80% of FSB and 77% of non-FSB members reported risks to financial integrity (notably, relating to money laundering and terrorism financing) as ‘very important’ (Graph 10). The other most cited ‘very important risks’ were consumer protection, market integrity, and financial stability risks (this last risk was mentioned by 48% of FSB and 40% of non-FSB members). A number of non-FSB members emphasised the importance of risks related to infrastructure, including operational, technology, and cyber risk. This may suggest EMDEs are worried about the risks posed by the underlying distributed ledger technologies themselves.

## Most important risk jurisdictions consider in relation to crypto-assets and stablecoins

For FSB members and non-FSB member jurisdictions

Graph 10



Source: FSB Survey

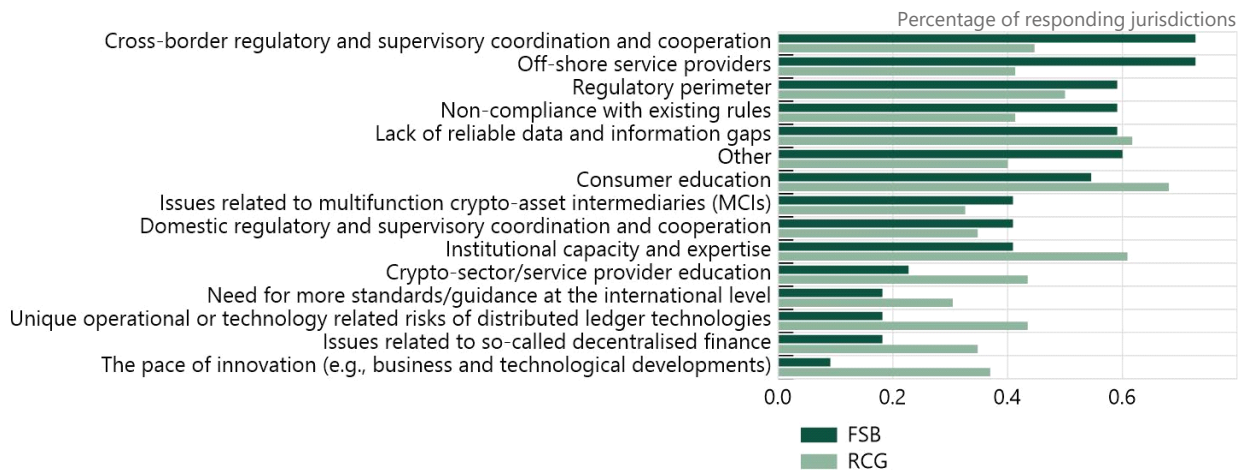
## Implementation challenges

Among FSB members, 80% reported cross-border coordination and cooperation as a ‘very important’ regulatory challenge, followed by off-shore service providers (75%) and regulatory perimeter (60%). Regulatory challenges reported by non-FSB members reflect different priorities, with consumer education (64%), data gaps (60%) and capacity/expertise (56%) being the most commonly-cited as the largest implementation challenges. This outcome may confirm that non-FSB members, most of which are EMDEs, generally face capacity constraints. They also find it difficult to initiate their regulation due to lack of adequate and reliable data.

### Most important challenges jurisdictions consider in implementation of FSB Framework

For FSB members and non-FSB member jurisdictions

Graph 11



Source: FSB Survey

## Abbreviations

BCBS	Basel Committee on Banking Supervision
CASP	Crypto-asset service provider
CBDC	Central Bank Digital Currency
CFMs	capital flow management measures
CPMI	Committee on Payments and Market Infrastructures
DeFi	Decentralised Finance
DGI	G20 Data Gaps Initiative
EMDE	Emerging market and developing economies
FATF	Financial Action Task Force
FASP	Financial Sector Assessment Program
FSB	Financial Stability Board
GHOS	Group of Central Bank Governors and Heads of Supervision
IMF	International Monetary Fund
IO	International organisation
IOSCO	International Organization of Securities Commissions
MCI	Multi-function Crypto-asset Intermediary
MiCAR	Markets in Crypto-assets Regulation
RCG	Regional Consultative Group
SSB	Standard-setting body
TVL	Total value of assets locked
VA	Virtual assets
VASP	Virtual asset service provider