MARCH 2024

REGULATION AND SUPERVISION OF CRYPTO ASSETS

REPORT OF A SURVEY CONDUCTED BY THE SEACEN CENTRE

The SEACEN Centre

THE SOUTH EAST ASIAN CENTRAL BANKS (SEACEN) RESEARCH AND TRAINING CENTRE

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Executive Summary

Crypto assets have come under greater scrutiny from central banks as they are traded and held as any other financial assets in many jurisdictions, but they remain outside of the regulatory perimeter and supervisory oversight. The frauds and scams they are prone to, their ability to bypass capital controls and support money laundering, and their potential to adversely impact the functioning of traditional financial markets and infrastructure have raised the stakes for the global central banking community to take coordinated action on how to address these risks. These concerns are also widely shared by central banks in the Asia-Pacific region. To get a better understanding of the specific regional concerns and the associated risks, The SEACEN Centre conducted a survey on crypto assets to take stock of the regional policy views. A summary of the main findings is given below.

Different types of crypto assets are held, traded, and lent by individuals or legal entities in the region. Authorities sometimes become aware of certain crypto assets through the media, and they use a diverse range of media channels in their communications with the public on crypto assets. Description of the risks of buying, holding, trading, and lending crypto assets are the main subject of communication with the public. Several authorities or agencies are responsible for handling communications with the public regarding crypto assets. The main agencies are the securities commissions, anti-money laundering authorities, financial intelligence units, central banks, and other regulatory agencies. The crypto ecosystem is supported by the presence of a diverse range of entities or functionaries which may or may not be licensed or registered.

In jurisdictions where registration of crypto firms is needed for operations, a wide range of information is required to be submitted for registration and licensing. In some cases, crypto assets firms registered or licensed overseas are allowed to operate in the region without being locally registered or licensed. In some jurisdictions, banks and other financial institutions are permitted to provide banking and other financial services to crypto asset firms. This makes them vulnerable to adverse market developments in crypto assets and crypto firms.

There is broad consensus among central banks in the region that the proliferation of crypto assets and crypto asset service providers when left unregulated will pose serious threat to the integrity and safety of the financial system. The main channels through which the risks can propagate include frauds and scams, large price volatility, cyber risks and inaccurate or misleading representations and disclosures. The key priorities central banks see for addressing risks from crypto assets are: (i) protecting consumers and investors and preserving market integrity against fraud, manipulation, money laundering and the financing of terrorism; (ii) safeguarding financial stability; (iii) preserving the integrity of the monetary system; and (vi) protecting the monetary sovereignty and averting ‘cryptoisation’ – a process in which citizens of some countries begin to prefer cryptocurrency over sovereign money.

The views on how such risks can be mitigated, however, varies considerably among authorities across the jurisdictions. Some believe that crypto assets and cryptocurrencies lack intrinsic value and are fundamentally speculative assets. Moreover, they can lead to cryptoisation, disintermediation of bank credit, the potential loss of monetary autonomy, and difficulty in enforcing capital controls. Members with such a view are in favour of an outright ban on crypto assets. Others are of the opinion that introducing a robust regulatory framework that provides clarity and consistency can instil trust in the crypto asset ecosystem. The differing views, perhaps reinforced by the state of local financial markets and macroeconomic policy frameworks, clearly puts emphasis on the need for central banks to be mindful of the trade-offs of each option (be it ban, regulate or contain), while being clear on the policy objectives and the desired outcomes.

Introduction

Almost 15 years after the pseudonymous Satoshi Nakamoto paper created the source code resulting in the Bitcoin[1], attempts to regulate crypto assets have been receiving heightened attention among policy makers. In July 2023, the BIS submitted a report to the G20 Finance Ministers and Central Bank Governors reviewing the key elements of the crypto ecosystem, assessing its structural flaws, and discussing options for addressing them.[2] In September 2023, India's Finance Minister noted that discussions are underway on a global framework to regulate crypto assets, adding that cryptocurrencies could not be regulated efficiently without the cooperation of all countries. The Minister noted that India's G20 Presidency has put on the table key issues to be tackled that will allow us to better understand the risks from crypto assets and how those risks can be addressed through a global regulatory framework.

Crypto assets are digital assets that use public ledgers over the internet to prove ownership. They use cryptography to create, verify and secure transactions. They can have different functions and characteristics: they may be used as a medium of exchange; a way to store value; or for other business purposes. Crypto assets generally operate independently of a central bank or central authority. Cryptocurrency is a type of crypto asset, which can either be backed by a fiat currency like the US dollar or by some commodity (e.g., Tether) or remain unbacked (e.g., Bitcoin). Unbacked cryptocurrencies lack intrinsic value and have no backing reserves or price stabilisation mechanisms making them highly volatile and unsuitable as a means of payment.

The evolving innovations and different product offerings of crypto assets have led to increased issuance and transactions in these assets. At the same time, the correlation between the returns of Bitcoin and some benchmark stock indexes in Asia has risen significantly according to an IMF Blog.[3] The growing adoption of crypto assets, especially in emerging markets, and the increased correlation of its returns with those of the local stock market indexes, has raised concerns among authorities of the potential spillover risks to the traditional financial markets. This concern is informed by the dramatic bout of instability and losses in the crypto assets market in 2022 – dubbed by some commentators as the 'crypto-winter' triggered in part by global central banks synchronisation of raising interest rates to combat inflation. In particular, the global cryptocurrency market, which peaked at over US$2.9 trillion in November 2021, fell to a low of US$0.8 trillion as of end-2022. This widespread collapse of crypto asset valuations cascaded through the crypto ecosystem, producing a wave of bankruptcies that included high-profile names such as Terra/Luna, Three Arrows Capital, Celsius and FTX.

The failures of crypto issuers, exchanges, and hedge funds as well as a recent slide in crypto valuations have added impetus to the push to regulate crypto assets.[4] In October 2022, the Financial Stability Board (FSB) published a *Proposed Framework for the International Regulation of Crypto-Asset Activities* aimed to promote the comprehensiveness and international consistency of regulatory and supervisory approaches. These were finalised and published in July 2023.[5] The recommendations incorporate learnings from events of 2022 in crypto-asset markets and feedback received during the FSB's public consultation. While the proposed framework is based on the principle of "same activity, same risk, same regulation",

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[1] See Nakamoto, S., Bitcoin: A Peer-to-Peer Electronic Cash System, 2008.

[2] BIS, The crypto ecosystem: key elements and risks, July 2023.

[3] Choueiri, N., Gulde-Wolf, A.M., and Iyer, T., Crypto is More in Line with Asian Equities, Highlighting Need for Regulation, IMF Blog, August 2022.

[4] See Panetta, F., Paradise lost? How crypto failed to deliver on its promises and what to do about it, Speech at a panel on the future of crypto at the 22nd BIS Annual Conference, 23 June 2023.

[5] FSB, Global Regulatory Framework for Crypto-Asset Activities, July 2023.

the FSB acknowledges that the recommendations do not comprehensively address all specific risk categories such as: risks to monetary sovereignty, risks to data security and cybersecurity, consumer and investor protection rights, and other macroeconomic concerns.

The International Organisation of Securities Commission (IOSCO) also published recommendations for the regulation of crypto and digital assets.[6] The recommendations are principles-based and outcome-focused and are aimed at the activities performed by crypto asset service providers (CASPs) to address concerns related to market integrity and investor protection.

In February 2023, the International Monetary Fund (IMF) in its board paper on *Elements of Effective Policies for Crypto Assets* also proposed a broad policy framework for crypto assets.[7] The paper's objectives are in line with the IMF's mandate to support economic and financial stability across its membership. The paper addresses questions raised by IMF member countries on the benefits and risks of crypto assets and on how to structure appropriate policy responses. It operationalises the principles outlined in the Bali Fintech Agenda (IMF and World Bank 2018) and includes macrofinancial considerations such as implications for monetary and fiscal policies. The IMF also published a paper on the macrofinancial implications of crypto assets focusing on unbacked crypto assets like Bitcoin and Stablecoins.[8]

While the efforts to put in place effective policies for regulating crypto assets have gained traction, there is still a lack of consensus globally as many emerging market and developing economies worry about losing monetary sovereignty and the potential for crypto assets to divert resources away from the real economy. Cognisant of this differing views, the BIS in their Bulletin No. 66 published in January 2023 recognises that depending on a country's financial system, three policy options could be pursued which are not mutually exclusive:[9] (a) ban specific crypto activities (ban); (b) isolate crypto from the traditional finance and the real economy (contain); and (c) regulate the sector akin to the regular traditional finance (regulate).

About the Survey and Report Organisation

Given the interest among central banks to monitor developments and to assess risks from crypto assets, The SEACEN Centre designed a survey on the Regulation and Supervision of Crypto Assets to collect information on the state of regulation and supervision within SEACEN's stakeholder space. In designing the survey, The SEACEN Centre was mindful that globally and regionally, most economies are at an early discussion or embryonic stage of proposing or developing the regulation and supervision of crypto assets.

The survey, conducted using SurveyMonkey, was sent to all 19 SEACEN member central banks and monetary authorities plus 16 associate members and observers.[10] To ensure that there is a common understanding of the terminology as well as to be able to reduce potential errors from misinterpretation of the crypto terminology used in the questionnaire, some key definitions were provided to survey participants.[11] A total of 18 responses to the survey were received but some respondents did not provide answers to all questions. All figures reported in percent in the survey are evaluated relative to the total number of responses (18) received

[6] IOSCO, Policy Recommendations for Crypto and Digital Asset Markets, November 2023.

[7] IMF, Element of Effective Policies for Crypto Assets, Policy Paper, February 2023.

[8] IMF, G20 Note on the Macrofinancial Implications of Crypto Assets, February 2023.

[9] Aquilina, M., Frost, J., and Schrimpf, A., "Addressing the risks in crypto: laying out the options", BIS Bulletin No 66, January 2023.

[10] The survey questionnaire can be accessed through this link here.

[11] The definitions provided to survey respondents can be found here.

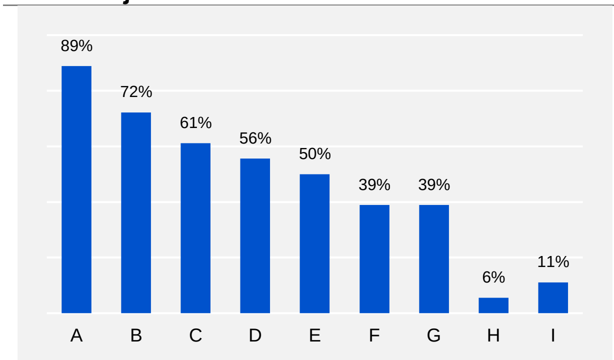
even if in some cases, the respondents did not provide an answer to the question. A list of the names of the contact persons and their institutions can be found in Appendix A.

The responses to the survey are organised under four parts. Part 1 of the report summarises the survey responses under the category taxonomy and communication. Part 2 discusses the criteria for licensing and regulation of crypto assets across jurisdictions. Part 3 examines restrictions on banks' provision of financial services to crypto firms and the regulatory requirements that service providers and exchanges need to comply with when offering crypto asset products. Part 4 of the report summarises the responses to the risks and policy questions that arise as crypto assets gain more traction. The final section of the report summarises the range of views that authorities across the jurisdiction hold on crypto asset risks and the policies to address them.

Part 1: Taxonomy and Communication

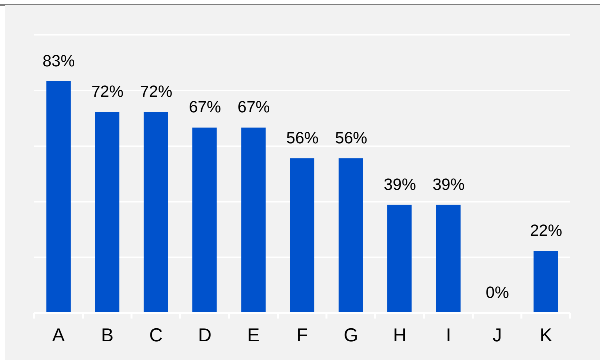
The first part of the survey sought information on the different types of crypto assets being held and traded in each jurisdiction and on how authorities communicate with the public to raise awareness of the risks involved in the holding and trading of crypto assets.

Chart 1: Types of crypto assets available in SEACEN jurisdictions



A : Cryptocurrencies (also known as payment tokens or unbacked crypto assets)
B : Stablecoins or asset-referenced tokens
C : Non-fungible tokens
D : Utility tokens
E : Tokens linked to DeFi projects
F : Security tokens
G : Asset tokens
H : None of the above
I : Other

Chart 2: Awareness channels for crypto assets activities



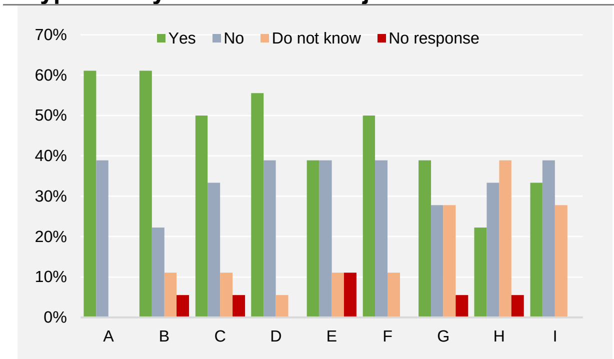
A : News media
B : Social media
C : Internet searches
D : Consumer complaints or requests for information from the general public
E : Inquiries or communication from other governmental bodies
F : Through supervisory activities of banks and other financial institutions
G : Inquiries from regulated financial institutions
H : Reports from law enforcement agencies, industry associations or trade groups
I : Self-reporting by crypto asset service providers (whether registered or not)
J : Not applicable
K : Other

Chart 1 shows the various types of crypto assets available in the jurisdictions that were surveyed. Unbacked cryptocurrencies are the most common types of crypto assets that are held and traded (89%), which can also be used as a payment instrument. This is followed by stablecoins that are backed by a fiat currency or commodity (72%). However, other types of crypto assets such as non-fungible tokens, utility tokens and tokens linked to decentralised finance (DeFi) projects were reported to be in use in more than 50% of the jurisdictions. One survey respondent indicated that there are other types of crypto assets present, including virtual asset-related investment products, i.e., investment products which (i) have an objective to invest in virtual assets; (ii) derive their value principally from the value of virtual assets; or (iii) track investment results which closely match virtual assets.[12] One jurisdiction noted that it does not allow the usage and transaction of crypto assets.

Considering that many types of crypto assets are being actively marketed by FinTech firms, the survey sought information on the sources through which authorities gather information on the various types of crypto assets being held or traded in their jurisdictions. Based on the responses, news media is the best source of information for authorities (83%), but social media and internet searches also remain important sources of information with 72% of respondents citing them. A variety of other channels such as consumer complaints, inquiries from other governmental bodies and supervisory activities of banks and other financial institutions also constitute a rich source of information on crypto assets used in their jurisdictions for authorities (Chart 2).

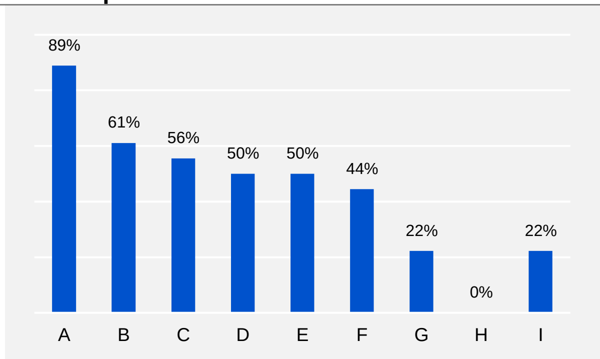
Survey participants were asked to report the type of entities or functionaries (both registered and unregistered) that operate in the crypto asset ecosystem in their jurisdiction. Based on the responses, a diverse range of entities in the crypto ecosystem are present (Chart 3). The top 3 are crypto wallet providers (65%), crypto asset exchanges (61%) and crypto brokers (56%). One respondent indicated the presence of crypto payments provider. Some respondents indicated that they do not know if certain entities or functionaries were present in their jurisdictions.

Chart 3: Type of entities and functionaries in the crypto ecosystem in SEACEN jurisdictions



A : Crypto asset exchanges
B : Crypto asset wallet providers
C : Validators and miners
D : Crypto brokers
E : Issuers
F : Custody and administration of crypto assets
G : Crypto market makers
H : Crypto lending firms
I : Crypto asset managers

Chart 4: Central banks' communication channels with the public



A : Formal bulletins or press releases
B : Posts on central bank website
C : Interviews with news media
D : Posts on social media
E : Appearances at conferences or community gatherings in our jurisdiction
F : Collaboration with other government agencies or departments to develop joint communications
G : Collaboration with industry associations or trade groups to develop educational materials
H : None of the above
I : Other

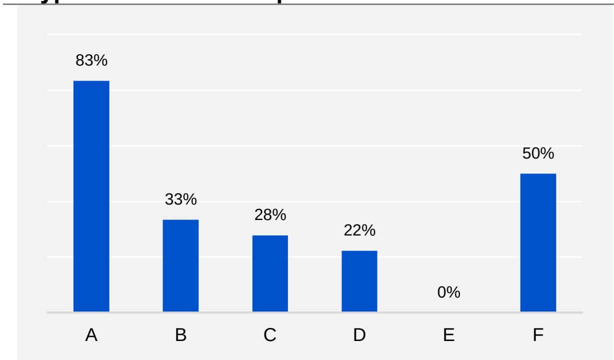
Central banks use a diverse range of communications channels to reach out to the public on matters related to crypto assets (Chart 4). Formal bulletins or press releases (89%) and postings on central bank and other regulatory bodies' websites (61%) are the most common form of communication channels used. Respondents indicated that communication is also done via speeches by central bankers, regulators and other public officials. Information is also

[12] The term virtual asset refers to any digital representation of value that can be digitally traded, transferred or used for payment. In this report, the term crypto asset is used generically to also include virtual assets.

published on other regulatory authorities' websites, for example, the securities commission and investment oversight authorities as well as on websites of financial intelligence and law enforcement agencies. One jurisdiction reported that communication on crypto assets is also done via public engagement, podcast recordings in collaboration with youth groups to educate the public on digital assets, as well as engagement with consumer groups in cooperation with other regulatory agencies such as the securities commission. The State Bank of Vietnam provided two examples of directives used to communicate with the public. They are Directive No.10/CT-TTg of the Prime Minister dated 11/4/2018 on enhancing the management of activities related to Bitcoin and other similar virtual currencies and Directive No.02/CT-NHNN of State Bank of Vietnam dated 13/4/2018 on measures to enhance control of virtual currency-related transactions and activities.

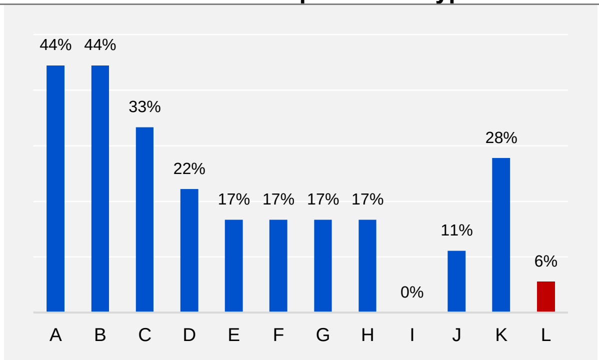
On the general subject matter of communication with the public (Chart 5), respondents cited the risks of buying, holding, trading, and/or lending crypto assets (83%) as the main subject of communication with the public followed by the category 'other' (50%). Beyond this, authorities also provide information on specific crypto asset service providers known to be operating in their jurisdictions even if they are not registered. Authorities also make referrals to trusted sources of information and flag the specific crypto assets known to be held and/or traded in their jurisdictions.

Chart 5: Subject matter of communications on crypto assets with the public



A : Description of the risks of buying, holding, trading, and/or lending crypto assets
B : Identification of specific crypto asset service providers known to be operating in our jurisdiction, whether registered or unregistered
C : Referrals to trusted sources of information about crypto assets
D : Identification of specific crypto assets known to be held and/or traded in our jurisdiction
E : None of the above
F : Other

Chart 6: Other govermental bodies handling communications with the public on crypto assets



A : Securities commission
B : AML authority or financial intelligence unit
C : Law enforcement bodies
D : Ministry of Finance
E : Other financial sector regulatory authority (not central bank, securities commission, or AML authority)
F : Consumer protection agency
G : Information and communication technology authorities
H : Tax authorities
I : Separate regulatory authority focusing solely on regulation and supervision of crypto assets
J : None of the above
K : Others
L : No response

Overall, the subject matters that are covered under communication with the public are quite broad and diverse across jurisdictions based on the survey responses. They include the following: (i) details of regulatory approach to banks' crypto asset-related activities including the regulatory treatment of banks' crypto asset exposure; (ii) risks involved in crypto-related activities including possible pyramid schemes and financial scams that employ crypto assets while drawing attention to what investor protection is available; and (iii) the risks from using unregistered/unlicensed CASPs as well as those from using cryptocurrencies as payment instruments. Authorities also provide guidance to the industry about offering products and services that may be within the jurisdiction's financial services regulatory regime and the anti-money laundering (AML) and the countering financing of terrorism (CFT) obligations and guidance for digital currency exchange providers in the jurisdiction. One jurisdiction indicated that it does not allow the usage and transaction of crypto assets, and another noted that use of cryptocurrency is illegal in their jurisdiction.

A variety of authorities or agencies, apart from the central bank, also handle communications with the public on matters related to crypto assets in all the jurisdictions (Chart 6). Based on the survey responses, these include: (i) securities commission (44%); (ii) anti-money laundering authority or financial intelligence unit (44%); and (iii) law enforcement agencies (33%). Central banks and other regulatory agencies also play a vital role (62%) if we aggregate other financial sector regulatory authority (not the central bank) (17%), consumer protection agency (17%) and 'other' (28%). We include the category 'other' because two respondents indicated that the central bank handles communication. Furthermore, one of these two respondents noted that it was an integrated regulatory body responsible for banking, securities, payments as well as CASPs. This central bank also regulates entities for money laundering risks. One respondent to the survey noted that the agency responsible for offshore financial services also communicates with the public. Another indicated that communication is also done via the ministry of technology and communication.

Part 2: Licensing and Regulation

In many jurisdictions, the issuance of crypto assets needs authorisation or registration and service providers for crypto assets must obtain a license to operate. The survey respondents were therefore asked to report on these requirements in their respective jurisdictions. While half of the respondents reported that crypto assets and CASPs are required to be either registered or licensed in their jurisdictions, another 33% of them noted that they are not required to register or get a license to operate in their jurisdictions (Chart 7). For the purposes of registration or licensing of crypto assets traded in the market, survey participants were asked if they have to be backed by a legal entity. To this question, 44% of respondents indicated that there must be a legal entity whereas 17% indicated that this is not required (Chart 8).

Chart 7: Are crypto assets and CASPs required to be registered/licensed?

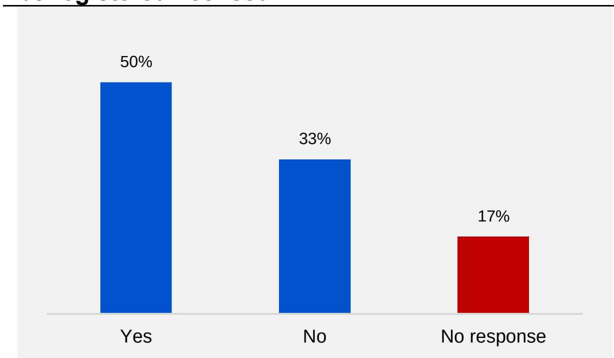
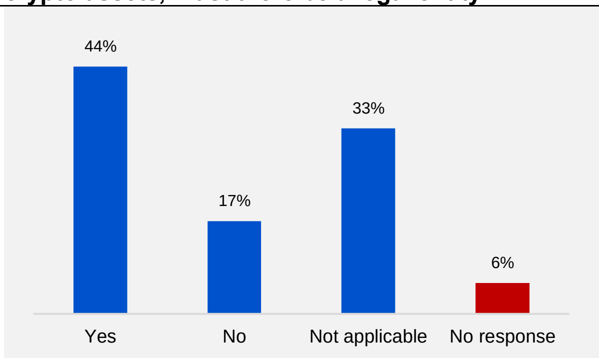


Chart 8: For the purposes of registering/licensing of crypto assets, must there be a legal entity?



In most jurisdictions, crypto asset firms registered or licensed overseas are not allowed to operate without being locally registered or licensed (67%) (Chart 9). In some jurisdictions, locally registered or licensed crypto firms are permitted to engage in business with foreign crypto asset firms that are not registered or licensed in their home jurisdiction (33%), while 28% noted it would not be permitted (Chart 10).

Chart 9: Are crypto asset firms registered/licensed overseas allowed to operate without being locally registered/licensed?

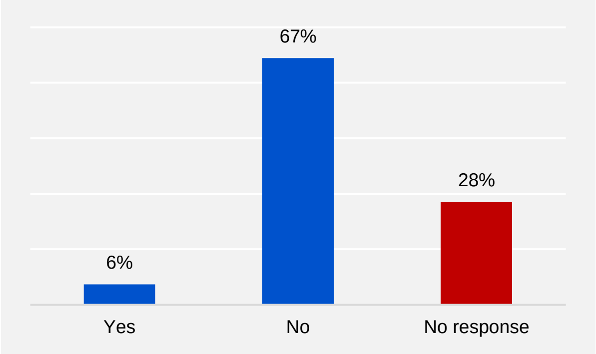
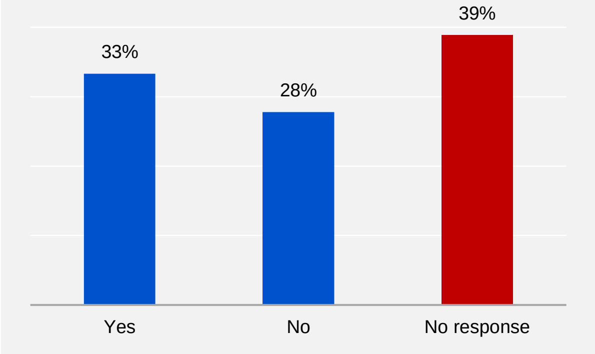
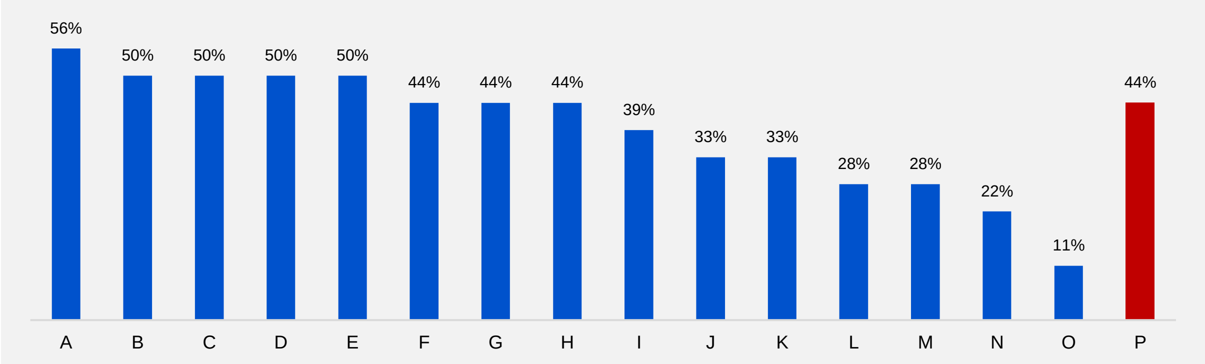


Chart 10: Are locally registered/licensed crypto firms permitted to engage in business with foreign crypto asset firms that are not locally registered?



Survey participants were asked to report what information crypto firms had to file during the registration and licensing process. While only 10 out of 18 respondents gave an answer to this question, those who responded indicated that the information to be provided by crypto firms is quite extensive and very broad (Chart 11).

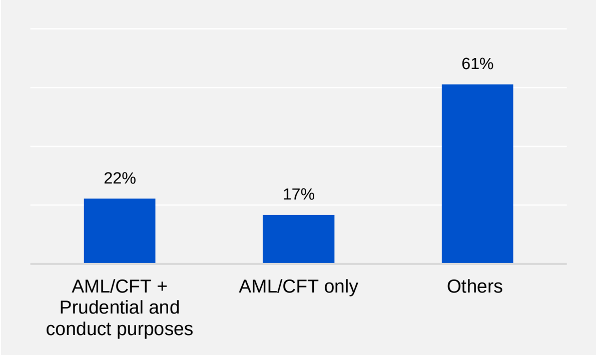
Chart 11: Required information in a crypto asset firm's application for registration and licensing



A : The address of the applicant
B : A programme of operations, setting out the business model that the applicant
C : A detailed description of the applicant's governance arrangements
D : Policies and procedures
E : A description of the internal control mechanisms and risk management procedures
F : The identity of the members of the management or management body of the applicant
G : A description of the contractual arrangements with any third parties
H : A description of the procedures and systems to safeguard the security, including cybersecurity, integrity and confidentiality of information
I : Proof that the persons referred as members of the management or management body of the applicant are of good repute and possess appropriate knowledge and experience to manage the applicant
J : The articles of association of the applicant
K : A description of the applicant issuer's complaint handling procedures
L : Proof that natural persons who either own, directly or indirectly, more than 20% of the applicant issuer's share capital or voting rights, or who exercise, by any other means, control over the said applicant, have good repute and competence, where applicable
M : A description of the applicant issuer's business continuity policy
N : A legal opinion on the nature of the product that will be offered and whether product qualify as financial instruments, deposits or security
O : A crypto-asset white paper
P : No response

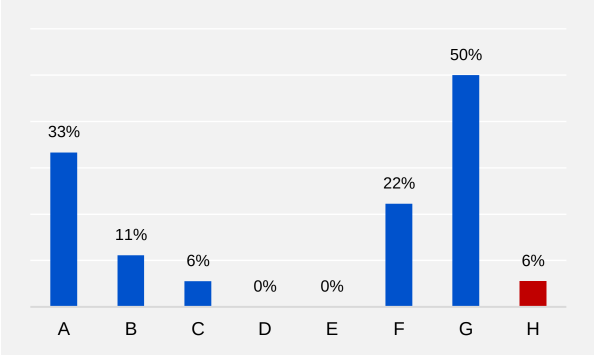
Regarding the purposes for regulating crypto assets and CASPs, 17% of the respondents cited AML/CFT requirements whereas 22% of respondents cited both AML/CFT requirements and prudential and conduct purposes for regulation (Chart 12). In one jurisdiction, where the crypto asset services providers are regulated both for AML/CFT and prudential and conduct purposes, they are required to obtain a primary license from the securities commission and a secondary license from the central bank to operate as CASPs. In this jurisdiction, the issuance of crypto assets is covered by a separate regulatory regime by the securities commission.

Chart 12: Purposes of regulating registered crypto assets and CASPs in SEACEN jurisdictions



A : AML/CFT plus prudential and conduct purposes
B : AML/CFT only
C : Others

Chart 13: Laws pertaining to crypto assets



A : Anti-money laundering / combating the financing of terrorism / combating proliferation finance law
B : Bespoke crypto law and regulation
C : Law on the payments system
D : Banking law
E : Central bank law
F : None of the above
G : Others
H : No response

In general, the purposes for regulating crypto assets and CASPs vary considerably across jurisdictions. In one jurisdiction, for example, CASPs are regulated for AML/CFT, technology and cyber risks. In this jurisdiction, the regulatory authority is currently reviewing the regulatory framework for CASPs to require them to comply with measures that address market conduct risks. In another jurisdiction, CASPs are required to be registered for AML/CFT purposes, and in cases where the crypto asset is considered a financial product, the CASP is required to be licenced for conduct regulation purposes if the CASP is providing a financial service in the jurisdiction. Some jurisdictions do not recognise crypto assets, and consequently, crypto assets and CASPs are not allowed to undertake crypto related business transactions. Another jurisdiction noted that crypto assets and CASPs are not required to be registered or licensed as legislative amendments will be necessary to undertake registration/licensing of these activities.

The survey sought to ascertain whether crypto assets (or digital assets, virtual assets, or some other term referencing crypto assets) have been specifically mentioned in laws or regulations (Chart 13). A third of the respondents indicated that crypto assets have been specifically mentioned in AML/CFT laws. This is in line with efforts by the Financial Action Task Force (FATF)[13] to address the risks from such assets being transferred or traded in its

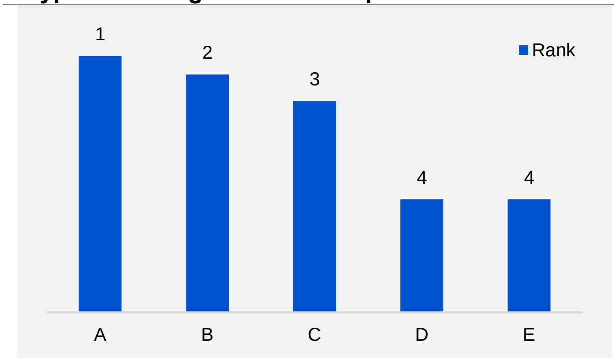
[13] In October 2018, the Financial Action Task Force (FATF) adopted changes to its Recommendations to explicitly clarify that they apply to financial activities involving virtual assets; FATF also added two new definitions to the Glossary: "virtual asset" (VA) and "virtual asset service provider" (VASP). In June 2019, the FATF adopted an Interpretive Note to Recommendation 15 to further clarify how the FATF requirements should apply in relation to VAs and VASPs. Additionally, Recommendation 16 for Wire Transfers, also known as the Travel Rule, which requires that transfers of funds must be accompanied by certain identifiable information on the payer and payee is also applicable to VASPs. The FATF also adopted a first version of [Guidance for Risk-Based Approach: Virtual Assets and Virtual Asset Service Providers](); which was subsequently updated in October 2021.

recommendations. About 11% of respondents indicated bespoke crypto law and regulations, while 50% of respondents indicated "other" laws, regulations, guidance and circulars.

In one jurisdiction, regulations on crypto assets and CASPs are covered by Circulars issued by the central bank and are codified in the *Manual of Regulations* for non-bank financial institutions. In several jurisdictions, crypto assets are specified in laws and regulations such as: (i) Securities and Futures Ordinance; (ii) Foreign exchange laws; (iii) Tax law; (iv) Capital Market and Services Act; and (v) Securities Regulations (security token). One respondent noted that crypto assets have not been specifically mentioned in any law or regulation because the central bank has not recognised crypto assets as security or commodity or a means of payment yet. One jurisdiction has regulation on crypto mining and crypto exchange while one central bank issued a notice saying, "Crypto currency is illegal".

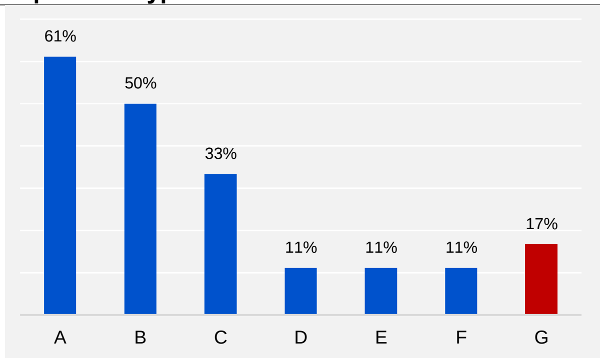
To ascertain the order of institutional priorities for the regulation and supervision of crypto assets, survey participants were asked to rank a given list in their respective jurisdictions. Based on the responses, consumer protection was ranked first, systemic regulation and supervision second, and prudential regulation third (Chart 14). Competition and financial inclusion were ranked at the lowest level.

Chart 14: Intitutional priorities with respect to crypto asset regulation and supervision



A : Consumer protection (focused on conduct-of-business arrangements designed to protect the consumer from factors such as incomplete information, bad practices by financial firms, unfair practices, etc.)
B : Systemic regulation and supervision designed to oversee the stability of the financial system as a whole and especially the banking and payments system
C : Prudential regulation focusing on the safety and soundness of an individual entity.
D : Competition (designed to ensure that there is an appropriate degree of competition in the financial system and that anti-competitive practices by financial firms are abandoned).
E : Financial Inclusion (designed to offer appropriate financial products to communities that are not well served by formal financial institutions).

Chart 15: Governmental bodies to regulate and supervise crypto assets



A : Securities commission
B : Central bank or monetary authority
C : Anti-money laundering authority or financial intelligence unit (FIU) (if not part of one of the bodies mentioned above)
D : Ministry of Finance
E : Existing prudential regulatory authority
F : Other financial sector regulatory authority (not central bank, securities commission, or anti-money laundering authority)
G : No response

Actual or intended use of crypto assets can attract the attention of multiple domestic regulators that oversee or supervise among others, financial institutions, payment systems as well as commodities and securities markets with fundamentally different frameworks and objectives. With this in mind, the survey sought to ascertain the government body that is central to or at the apex of the coordinating role in the regulation and supervision of crypto assets (Chart 15). A majority of respondents indicated that the securities commission would be the governmental body that plays or is likely to play the apex role or would have the most important coordinating role in the regulation and supervision of crypto assets in the future (61%). One-half of the respondents indicated that it would be the central bank or the monetary authority, while 33%

reported that the anti-money laundering authority or financial intelligence unit (FIU) would be responsible. One respondent indicated that the independent Consumer & Competition Commission and the Investment Promotion Authority would play the central role, while another responded that crypto assets and CASPs were declared illegal activities and therefore this question is not relevant.

On the question of whether the respondents' jurisdictions would consider creating a separate regulatory authority responsible for the regulation and supervision of crypto assets, the overwhelming answer of those who responded was that they are unlikely to do this.

Part 3: Financial Services and Regulatory Requirements

The business model of a crypto asset firm requires having access to banking services as well as the provision of liquidity from banks. This creates exposure to crypto firms in banks' balance sheets. To explore how these exposures are being treated under regulation and supervision of banks[14], survey participants were asked whether banks are permitted to offer financial services to crypto firms in their jurisdictions. More than half of the survey participants responded that financial institutions are permitted to provide banking and other services to crypto firms (Chart 16). On the question whether prudential standards to capture banks' exposures to crypto firms have been implemented, 61% of the respondents indicated that this has not been done (Chart 17).

Chart 16: Are banks and other financial institutions permitted to provide banking and other financial services to crypto asset firms in your jurisdiction?

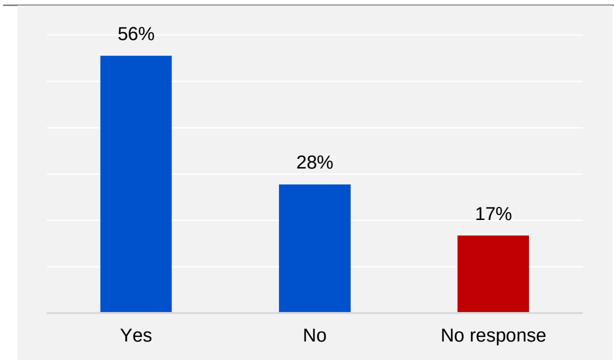
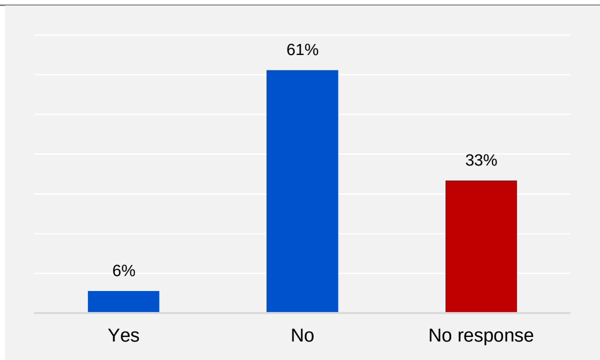


Chart 17: Are banks and financial institutions being issued with prudential standards to capture banks' crypto asset exposures?



Survey participants were then asked whether authorities in their jurisdiction are aware of banks' provision of financial services to crypto firms, even if there is no expressed authorisation to be granted for this activity. To this, 44% of respondents indicated that they are aware of banks offering financial services to crypto asset firms while 39% indicated that they are not aware. Three respondents did not provide an answer.

In their general remarks to this question, respondents indicated that banks are currently offering a wide range of financial services and products to crypto asset firms such as open bank accounts and facilitating crypto asset purchases by investors via e-payment services. Other products and services offered by banks that were listed include: bank accounts; lending and deposit products; domestic and international payments services; loans; derivatives

[14] The Basel Committee on Banking Supervision sets out the prudential treatment of banks' exposures to crypto assets, including tokenised traditional assets, stablecoins and unbacked crypto assets. The standard, published in December 2022, is in the form of a new chapter of the Basel Framework (SCO60: Cryptoasset exposures) that the Committee has agreed to implement by 1 January 2025. See (prudential treatment of cryptoasset exposures).

trading; trust accounts; payment and settlement services; and card payment, e-money and know-your-customer (KYC) services.

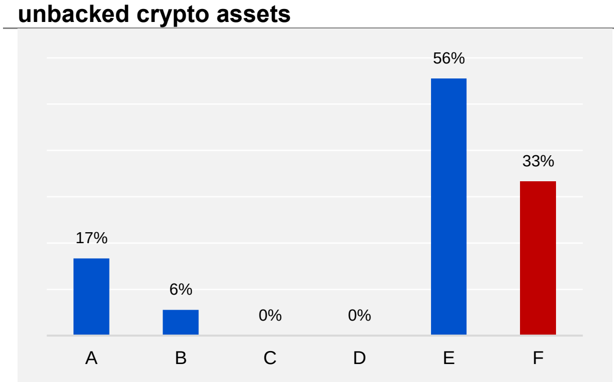
In one jurisdiction, banks can provide deposit and trust services (only in legal tender) to CASPs. But banks are required to conduct enhanced AML/CFT measures when dealing with CASPs. Beyond this, banks are prohibited from doing any crypto asset business (example, providing custody services for crypto assets) or investing in crypto assets. As a result, banks in this jurisdiction have no crypto-asset exposure. In another jurisdiction, all financial institutions are required not to participate in or provide, directly or indirectly, any financial services for crypto asset activities.

Several jurisdictions are now implementing better oversight and stricter rules that govern the issuers, service providers and custodians of crypto assets. To understand how various jurisdictions are moving on this front, the survey sought information on how regulatory requirements for these agents are progressing in different jurisdictions. The survey questions and responses are broken down under various categories as given below.

Unbacked Crypto Assets and Payment Tokens

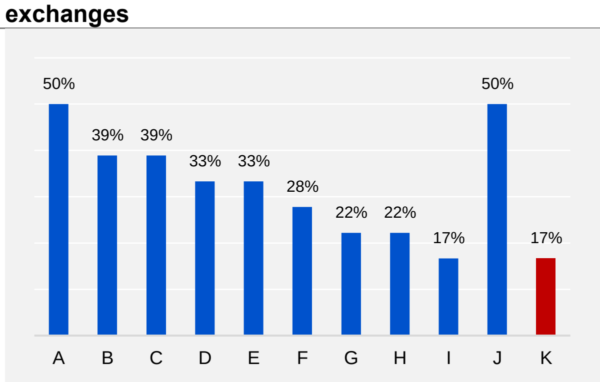
For unbacked crypto assets and payment tokens, 17% of respondents indicated that fair and accurate marketing is one of the items assessed under regulatory requirements (Chart 18). Requirements for the regulatory authorities to be notified of white papers or as part of the registration or licensing process is also needed. A significant percentage of the response (56%) referred to other provisions as one of the regulatory requirements. This reflects jurisdiction-specific requirements which one jurisdiction reported as required compliance with the *Unfair Trade Practices Regulation and Consumer Protection* rules. Another jurisdiction reported that CASPs are required to have in place a Coin/Token listing policy for due diligence purposes. This required providing information on the background of the issuer, publishing white papers, doing a product risk assessment, and disclosing on an ongoing basis, all material risks to their clients in a manner that is clear, fair and not misleading.

Chart 18: Regulatory requirements for offering unbacked crypto assets



A : Fair and accurate marketing
B : Requirements for the regulatory authorities to be notified of white papers or as part of a registration or licensing process
C : Requirements for publication of white papers
D : Requirements for ascertaining the suitability of end users
E : Other provisions
F : No response

Chart 19: Regulatory requirements for crypto asset exchanges



A : AML/CFT requirements
B : Requirements for the robustness, resiliency, and integrity of operating systems
C : Transparency requirements
D : Market integrity requirements
E : Requirements relating to conflicts of interest
F : Governance requirements for platform operators, including prudential requirements
G : Requirements regarding access to the platform.
H : Requirements for products offered in the platforms
I : Prudential requirements for off-chain transactions
J : Other provisions
K : No response

While in some cases there are no specific regulatory requirements to be met for unbacked crypto assets or payment tokens, the following responses were received: one jurisdiction does not allow the usage and transaction of crypto assets and one noted it is not regulated; and another jurisdiction noted that if the crypto asset or token is a financial product, then the financial services regime applies, whereas if the asset or token is not a financial product then the general consumer law applies.

Crypto Asset Exchanges

For crypto asset exchanges, some of the items assessed under the regulatory requirements are: (i) AML/CFT requirements; (ii) requirements for the robustness, resiliency, and integrity of the operating systems; (iii) transparency requirements; and (iv) market integrity (Chart 19). In five jurisdictions, there are either no specific requirements or the jurisdictions do not allow the usage and transaction of crypto assets. Under other provisions, respondents noted the following requirements: (i) measures for augmenting senior management accountability in the oversight of platform operators, staff competency, risk management and record keeping; and (ii) crypto asset exchanges and their key personnel are subject to fit and proper tests at the point of assessing their license application, and ongoing non-risk-based capital requirements. One respondent reported that if the exchange only offers trading in tokens for an exchange with fiat currencies, which are not financial products, then only AML/CFT obligations apply. If the platform offers trading in financial products, then the financial services regime including the need to have a market license would apply.

Custody and Administration

The survey sought feedback on the obligations and regulatory requirements to be met by providers of custody and administration services to crypto assets. Not surprisingly, compliance with AML/CFT requirement figures prominently (Chart 20). Beyond this, building safeguards for operational and cyber resilience and meeting regulatory reporting requirements are seen as important.

In one jurisdiction, the government and financial regulators are working closely to consider appropriate next steps in relation to the regulation and supervision of crypto asset activities (including but not limited to custody and administration). The respondent from another jurisdiction noted that if the crypto asset held by the custodian is a financial product, then the custodian would be subject to all the obligations listed in Chart 20 as they would be providing a financial service that requires a license. But prudential regulations and specific obligations for wind-down and resolution will not be applicable for this service provision. Some jurisdictions indicated that there are no specific regulatory requirements to be met for provision of custody and administration services of crypto assets.

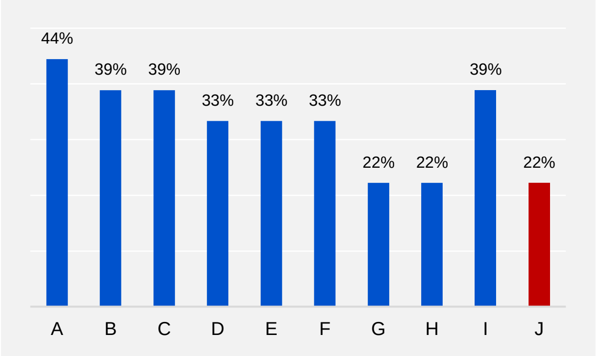
Stablecoins

The survey sought information on the regulatory requirements to be met for issuers of stablecoins and asset reference tokens in different jurisdictions. Only 3 out of 18 gave a response to this question. This may reflect either that such asset-referenced tokens are not issued in many jurisdictions or that authorities have yet to form a firm view on what requirements should be imposed.[15] As the list of items in the questionnaire was long,

[15] In December 2023, the Financial Services and the Treasury Bureau and the Hong Kong Monetary Authority (HKMA) jointly issued a public consultation paper on the legislative proposal for implementing the regulatory regime for stablecoin issuers in Hong Kong, inviting feedback from the public and stakeholders. Under the proposed regime, an issuer would be required to obtain a licence from the HKMA if it issues a stablecoin that references the value of one or more fiat currencies ("fiat-referenced stablecoin") in Hong Kong. The issuer would

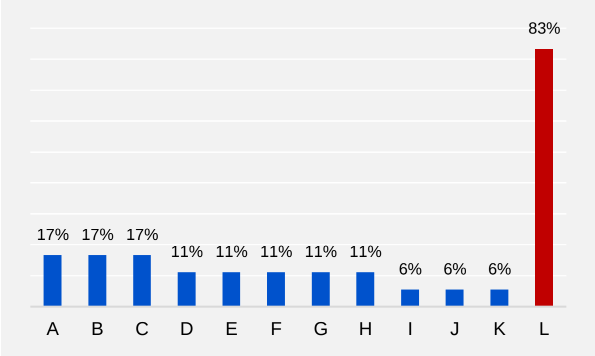
respondents to this question generally highlighted that most of the items in the list must be met by the issuers of stablecoins and asset-referenced tokens (Chart 21).

Chart 20: Regulatory requirements for the provision of custody and administration of crypto assets



A : Requirements for AML/CFT compliance
B : Operational and cyber resilience
C : Requirements for regulatory reporting and prudential regulations
D : Requirements for segregation and safekeeping of holdings
E : Requirements for systems
F : Requirements relating to conflicts of interest
G : Requirements for additional adequate safeguards
H : Requirements for wind-down arrangements and resolution
I : Other provisions
J : No response

Chart 21: Regulatory requirements for issuers of stablecoins/asset reference tokens



A : Must be a legal entity
B : Must provide details and description of the governance arrangements
C : Details and description on the liquidity management policy for issuers of significant stablecoins/asset-referenced tokens.
D : Must provide details and description on the reserve assets and the custody of the reserve assets
E : Must provide details and description the rights granted to the holders of stablecoins/asset-referenced tokens
F : Must provide details and description on the mechanisms to ensure the redemption of the stablecoins/asset-referenced tokens or to ensure their liquidity
G : Must provide details and description on the arrangements with third parties, including for managing the reserve assets and the investment of the reserve, the custody of reserve assets, and, where applicable, the distribution of the stablecoins/asset-referenced tokens to the public
H : Details and description on the compliance handling procedure
I : Must provide details and description the mechanism through which stablecoins/asset-referenced tokens are issued, created and destroyed
J : Must provide details and description on the protocols for validating the transactions in stablecoins/asset-referenced tokens
K : Must provide details on the functioning of the issuer's proprietary DLT, where the stablecoins/asset-referenced tokens are issued, transferred and stored on such a DLT
L : No response

Part 4: Risks and Policy Considerations

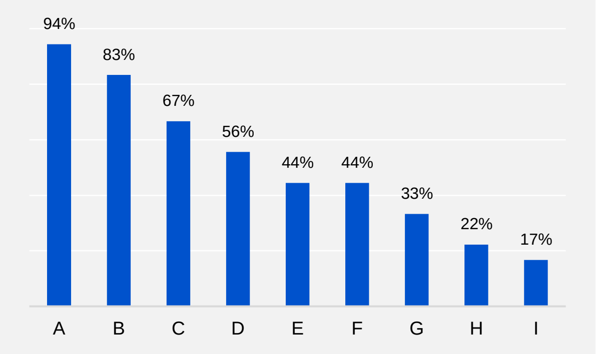
Risks from adverse market developments in the crypto asset space, including frauds and scams, can spill-over to the broader financial markets and the financial system. In view of this, the survey sought to get a better understanding of the risks from crypto assets as its adoption grows, and how policies to regulate and mitigate those risks should evolve in the near term. On risks, the survey participants were asked to highlight what they see as the main risks from crypto assets in their jurisdiction.

Respondent identified the main risks from crypto assets to be (Chart 22): (i) risk of fraud and scams; (ii) significant price volatility that can spillover to financial markets; (iii) cyber risks; (iv)

be required to put in place an effective stabilisation mechanism, such as maintaining a pool of high-quality and highly liquid reserve assets with proper custody arrangement, with a view to ensuring that users would be able to redeem the stablecoins for fiat currency at par should they wish to do so.

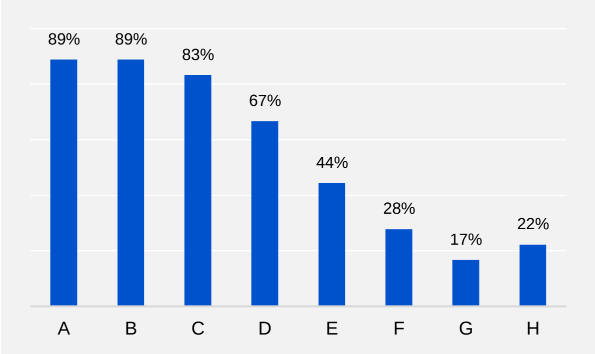
inaccurate or misleading representation and disclosures; (v) legal uncertainties related to custody practices, redemptions, and ownership rights; and (vi) inadequate risk management and governance practices. Interestingly, the susceptibility of stablecoins to runs and contagion risk (risk that turmoil in the crypto space will spill over into the traditional financial sector) were ranked relatively low. Additionally, adverse implications for monetary and financial stability and capital flow management as well as financial integrity (i.e., money laundering and terrorism financing) were also highlighted as risks that must be monitored.

Chart 22: Major risks from crypto assets identified in respondents' jurisdictions



A : Risk of fraud and scams
B : Significant price volatility
C : Cyber risks
D : Inaccurate or misleading representations and disclosures
E : Legal uncertainties related to custody practices, redemptions, and ownership rights
F : Inadequate risk management and governance practices
G : Susceptibility of stablecoins to run risk
H : Contagion risk (risk that turmoil in the crypto space will spill over into the traditional financial sector)
I : Other

Chart 23: Main priorities for addressing crypto assets risks in respondents' jurisdictions



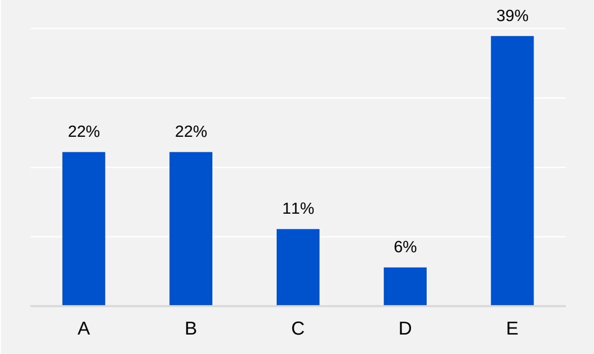
A : Appropriately protect consumers and investors
B : Preserve market integrity against fraud, manipulation, money laundering and the financing of terrorism
C : Safeguard financial stability
D : Offer legal certainty and clarity
E : Preserve the integrity of the monetary system
F : Protect monetary sovereignty and averting "cryptoisation"
G : Achieve cross-border cooperation
H : Other

On the question what the main priorities for addressing risks from crypto assets are, responses received and ordered based on the aggregate score are the following (Chart 23): (i) protect consumers and investors and preserve market integrity against fraud, manipulation, money laundering and the financing of terrorism; (ii) safeguard financial stability; (iii) offer legal certainty and clarity; (iv) preserve the integrity of the monetary system and (v) protect the monetary sovereignty and avert 'cryptoisation'.

One respondent noted that one of the policy objectives was to ensure market integrity in the operation of the crypto asset markets (e.g. orderbooks, best execution, pre- and post-trade transparency). The respondent also noted that measures to prevent fraudsters and their associates from owning, controlling, or managing digital currency exchange businesses were also important. Cybersecurity was mentioned by one jurisdiction as a risk. A few jurisdictions do not allow the usage and transaction of crypto assets.

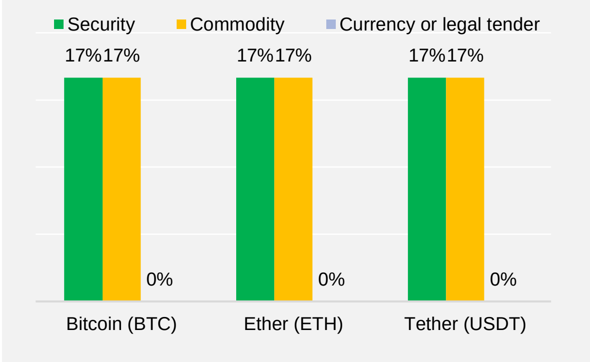
The final set of questions sought views from the central banks and monetary authorities responding to the survey on how policies can address the risks from crypto assets. While some felt that banning crypto assets in payments and for trading could be an option, others felt that containing the risks and regulating the sector in a manner similar to those of other financial sector activities should be pursued. But a majority of the respondents picked the response "other" to describe the policy position in their jurisdiction (Chart 24). Some insights on how policy on crypto assets might evolve based on these responses are summarised in the next section.

Chart 24: Policy stances on crypto assets regulation



A : Contain - Isolate crypto from traditional financial services and the real economy
B : Regulate the sector in a manner akin to traditional financial sector activities
C : Ban specific crypto activities
D : Ban advertisement but regulate CASPs
E : Other

Chart 25: Current and likely future treatments of selected crypto assets



The last question of the survey having a policy focus asked respondents how their jurisdictions might treat cryptocurrencies like Bitcoin, Ether and Tether in the future. That is whether they will treat them as security, commodity or legal tender as this could shift oversight and supervision to different authorities depending on the classification. Only six out of 18 responded to this question and the answers were evenly split between "security" and "commodity" (Chart 25). Again, respondents gave more explanatory answers on policy perspectives to tackle cryptocurrencies, and these are also summarised in the next section.

Policy Perspectives on Crypto Assets

There was broad consensus among survey respondents that the proliferation of crypto assets and CASPs if left unregulated, will pose serious threat to the integrity and safety of the financial system. The main channels through which the risks can propagate include frauds and scams, large price volatility, cyber risks and inaccurate or misleading representations and disclosures. Risk spillovers occur because banks and other regulated financial institutions provide financial services to crypto asset firms. The failure of Signature Bank in the United States in March 2023 is a stark remainder of the interlinkages between crypto firms and banks. Such interlinkages can also potentially manifest through cross-border channels. Therefore, jurisdictions that have restrictions on capital flows worry about the negative consequences for macroeconomic stability with the potential threat to the effective management of the capital account as cross-border transactions in crypto assets can bypass the traditional financial system.

The views on how such risks can be mitigated, however, vary considerably among authorities across the jurisdictions. Some are proponents of an outright ban on crypto assets and CASPs. Respondents that belong to this group are of the opinion that crypto assets and cryptocurrencies lack intrinsic value and are fundamentally speculative assets that pose serious risks to investors holding them and to the traditional financial system. Moreover, the growing use of cryptocurrencies can lead to a loss of monetary autonomy, reduce fiscal revenue through the loss of seigniorage income, and bypass the capital account controls regime which is of particular concern to emerging market and developing economies. Others are of the opinion that introducing a robust regulatory framework that provides clarity and consistency can instil trust in the crypto asset ecosystem, thereby providing sufficient investor protection and preserving market integrity. Along these principles, one jurisdiction has put in place a tailor-made regulatory regime for crypto activities based on the "same activity, same risk, same regulation" approach. But this approach was very different to the view from another jurisdiction that feels that prescribing regulatory guidance may end up providing legitimacy and a false sense of security to the public for a sector which is fundamentally speculative and has no real economic value.

The Monetary Authority of Singapore (MAS) is of the view that there are potential benefits of digital assets worth harnessing, however the risks must be well understood and addressed. The specific risks include, among others, risks relating to money laundering/terrorist financing, technology and cybersecurity, financial stability, market integrity and consumer harm. These views have been articulated in a speech given by the MAS' Managing Director in 2022.[16] Recognising that trading in cryptocurrencies is highly risky and not suitable for the retail public, MAS strongly discourages speculative trading in cryptocurrencies, especially for retail consumers. Since 2017, MAS has consistently issued warnings on the hazards of cryptocurrency speculation, and in 2022, MAS imposed advertisement bans of crypto services in public places. To further mitigate the risk of consumer harm, MAS has consulted on a broad range of measures on retail consumer access, enhanced business conduct requirements[17], and enhanced measures to address technology and cyber risks. These will be implemented in a phased manner from 2024.

A respondent from another jurisdiction noted that crypto assets and CASPs could present novel risks that are not currently covered by existing regulations. To address this, the central bank is leveraging on a regulatory sandbox framework to help determine new risk sources and drivers and to draft new regulatory rules to manage emerging risks. This approach ties in well with the response received from another jurisdiction which says that not having an outright ban on crypto-related activities could offer some leeway for future considerations when revisiting the central bank's stance in light of local and regional developments.

The differing views, perhaps reinforced by the state of local financial markets and macroeconomic policy frameworks, clearly puts emphasis on the need for central banks to be mindful of the trade-offs of each option (be it ban, regulate or contain), while being clear on the policy objectives and the desired outcomes. For instance, while prohibiting certain crypto assets functions may limit the interconnectedness with the broader economy (e.g., risk of cryptoisation), enforcing it may be a challenge given the borderless nature of crypto. Taking note of these challenges, one central bank suggests that regulating crypto activities may allow central banks to harness the benefits of innovation while mitigating the associated risks.

On the treatment of cryptocurrencies like Bitcoin, Ether and Tether, authorities across jurisdictions do not have a common position as to whether they should fall under the definition of security or commodity. But as most jurisdictions have very specific laws and regulations that govern and stipulate the issuance and regulation of legal tender notes, cryptocurrencies do not qualify as legal tender. Several jurisdictions are currently holding discussions on the regulatory treatment of cryptocurrencies but have not yet made any decision on which category they will fall under. However, one jurisdiction indicates that it might be possible for USD Tether (USDT) to be treated as currency or legal tender in the future. However, the respondent from another jurisdiction notes that if it should consider regulating crypto assets in

[16] Menon, R., Yes to digital asset innovation, no to cryptocurrency speculation, Speech at the Green Shoots Seminar, August 2022.

[17] MAS announced new segregation and custody requirements for crypto-asset service providers in July 2023. (link). Following SEACEN's survey, MAS has also finalised requirements relating to consumer access, business conduct, and technology and cyber risk in November 2023. (link).

the future, stablecoins like the USDT will be treated officially as security due to its nature of price stability rather than other unbacked crypto assets.

In another jurisdiction, Bitcoin, Ether and Tether fall under digital currency, and therefore, the AML/CFT rules will apply requiring the providers of exchange services for these crypto assets to register with the FIU. Another central bank feels that the benefits of cryptos and stablecoins can be achieved more responsibly using the underlying technologies through CBDCs. The efforts of the public authorities should therefore be directed towards this.

The results of the survey points to the fact that as the crypto asset landscape continues to evolve, central banks struggle to fully understand the risks they can bring to the financial system. The diversity of views of respondents on the issue of recognising crypto assets within their jurisdictions and regulating them suggests that building common positions on how to regulate and supervise them will be challenging. Market failures of various crypto-related entities will continue to provide important lessons going forward to build consensus. Many economies are at an early discussion or embryonic stage of proposing or developing the regulation and supervision of crypto assets. Efforts of global standard setters are also focused on this. The SEACEN Centre is uniquely positioned to build regional views on crypto assets and to facilitate dialogue among the central banks in the region through outreach programmes.

Appendix A: List of Institutions and Participants

Institution	Participant
Reserve Bank of Australia	Cameron Dark
Central Bank, Chinese Taipei	Yi-Hong Yang
Reserve Bank of Fiji	Praneel Prasad
Hong Kong Monetary Authority	Lawrence Tang
Reserve Bank of India	Vikas Singh
Bank of Korea	Hyun-Joo Na
Monetary Authority of Macao	Banking Supervision Department
Bank Negara Malaysia	Muhammad Naim bin Ramlee
Central Bank of Myanmar	Hnin Htet Htet Win
Bank of Papua New Guinea	Levi Siba
Bangko Sentral ng Pilipinas	Melchor T. Plabasan
Monetary Authority of Singapore	Pang Yan Wei
Central Bank of Sri Lanka	Director, Payments and Settlements
State Bank of Vietnam	Nguyen Thi Hoa

The SEACEN Centre team

Mark McKenzie

Masyitah Rosmin

Srichander Ramaswamy

Chart A1: Recipients of the survey

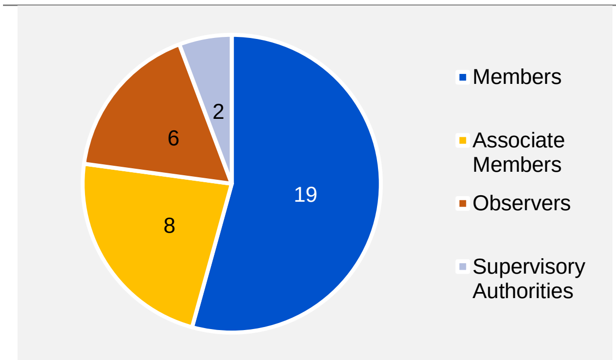


Chart A2: Respondents to the survey