
Consultation response

Basel Committee on Banking Supervision - Designing a Prudential Treatment for Crypto-Assets

March 2020

The Global Financial Markets Association¹ (GFMA) welcomes the opportunity to respond to the Basel Committee on Banking Supervision (BCBS) discussion paper on “**Designing a Prudential Treatment for Crypto-Assets (referred to hereafter as “the Discussion Paper”)**”. The industry stands ready to assist the BCBS as it refines its approach to these technological innovations, which have the potential to bring new benefits to financial markets and consumers.

Executive Summary

GFMA supports policymakers’ objective of putting in place a regulatory framework that encourages responsible innovation by regulated financial institutions. An agile and fit for purpose regulatory framework that facilitates responsible innovation will not only promote strengthened operational resilience of the financial system, but it will help enable these institutions to transform the way financial services are provided, bringing benefits to both financial institutions and end users. We believe it is important that the BCBS does not assign a punitive prudential treatment to all crypto-assets; regardless of the asset’s risk profile or the bank’s activities, as this may make it onerous and / or costly for banks to provide any meaningful crypto-asset related services for end users. Rather, we encourage the BCBS to take the necessary time to develop and implement a risk-based methodology for determining the prudential treatment of high-risk crypto-assets, which are not currently subject to prudential regulation.

As we will set out throughout this response, the BCBS should clearly differentiate the prudential treatment it applies to various types of crypto assets including:

- (i) Traditional financial activity, assets, or products, which currently are subject to prudential regulation, that use new technologies, such as blockchain; and
- (ii) Financial activities related to higher-risk crypto-assets, such as bitcoin, which are not currently subject to prudential regulation.

On the first point outlined above, there is already an existing and robust prudential framework that applies to the various stages and processing throughout a traditional asset’s lifecycle. This framework should continue to apply to traditional financial assets / products, regardless of whether those assets / products use new technology such as encryption (which is also used in traditional banking activities) or distributed ledger technology (DLT). For example, leveraging DLT to facilitate the post-trade processing of a bond does not change the nature of the bond nor impact the material risks traditionally associated with that bond. Credit and market risk will remain key risks driven by the issuer and existing market dynamics such as interest rates, respectively. As with all new technologies and digitization more generally, firms will need to continue to assess any possible additional risks such as cybersecurity and operational risk, and reflect that analysis as

¹ GFMA represents the common interests of the world’s leading financial and capital market participants, to provide a collective voice on matters that support global capital markets. We advocate on policies to address risks that have no borders, regional market developments that impact global capital markets, and policies that promote efficient cross-border capital flows to end users by efficiently connecting savers and borrowers, benefiting broader global economic growth. The Association for Financial Markets in Europe (AFME) in London, Brussels and Frankfurt, the Asia Securities Industry & Financial Markets Association (ASIFMA) in Hong Kong and the Securities Industry and Financial Markets Association (SIFMA) in New York and Washington are, respectively, the European, Asian and North American members of GFMA.

SIFMA is not engaged on policy or business issues involving crypto assets and crypto currencies. Therefore, SIFMA does not formally endorse any positions contained in this letter.

outlined in the current prudential framework. The industry stands ready to work with policymakers to ensure that best practices are applied with respect to the creation or new technology that support traditional financial assets / products.

On the second point, we believe that financial activities related to higher-risk crypto-assets, such as bitcoin, where there is currently no regulatory framework in place, will require appropriate regulatory scrutiny due to the potential risks associated with higher-risk crypto-assets. Furthermore, these higher-risk assets remain at an early stage of development and many of the activities outlined in the Discussion Paper are theoretical, and do not in fact occur today. For this reason, it is important to implement a dynamic, risk-based approach to regulation that leverages existing prudential frameworks to account for any future technological evolutions in the market. We support the following four key guiding principles:

- **Taxonomy for classifying assets** – Prudential treatment of crypto assets should be underpinned by clear methodology for identifying different types of crypto assets’ risk which will allow for tailored regulatory treatment as appropriate.
- **Same activity, same risk, same treatment** – Crypto-assets and traditional assets otherwise equivalent in economic function and risk profile should not be treated differently for prudential regulatory purposes, and banks should be permitted to use existing frameworks, including modelling exposures where a firm has permissions to model exposures of analogous traditional assets.
- **Existing regulatory framework** – The prudential treatment should build on the existing framework. However, there may be the need to close any gaps in regulation and ensure this is harmonised globally to mitigate prudential risks.
- **Technology agnostic** – Crypto-assets are evolving and the defining features of crypto-assets may change over time. It is therefore important to not define crypto-assets based on or dictate the use of a particular technology. Being technology agnostic will also accommodate future innovation without requiring regulatory reforms each time new technology is implemented.

Finally, we would like to highlight that many participants in the crypto-assets space may fall outside the jurisdiction of regulators and therefore will not be subject to any potential prudential treatment for their exposures. Accordingly, it is imperative to assess the risk of entities that may be participating in the same or similar activities as regulated banks or financial institutions and the potential risks to the overall system that such entities may entail. To keep markets safe for consumers and sound for the global financial markets, the regulatory framework to cover this type of activity should be applied to those currently outside the regulatory perimeter.

Designing a prudential treatment for crypto-assets is one of the most significant area of policy development following completion of Basel III post-crisis reforms and will influence the landscape of digital markets and innovation over the coming years. As such, we believe it is important that there is close engagement between the industry and the regulatory community on this topic and therefore recommend a joint industry-regulatory task force is formed to facilitate ongoing discussions in this area.

I. Responses to the Discussion Paper Questions

Q1: What features of crypto-assets should be considered in the context of developing any potential prudential regulatory definition? Please describe the features and their relevance for the prudential treatment of crypto-assets.

The “key features of crypto-assets” outlined in Chapter 2 of the Discussion Paper are useful in identifying the general characteristics of crypto-assets, though as the Discussion Paper notes, there is no widespread agreement on the definition of “crypto-asset.” Absent any such agreement, it is therefore critical to

consider features beyond those outlined in the Discussion Paper when determining the prudential treatment that should be applied. More specifically, crypto-assets should not be considered higher risk if only based upon its leveraging of cryptography and DLT. Instead, the underlying risks need to be analysed for crypto-assets, similar to the analysis already performed by regulated banks for traditional assets under the existing prudential framework. We outline a few additional considerations throughout the remainder of this response, including the economic function and other factors that should be considered when establishing the relative risks of such assets.

In devising a prudential framework for the treatment of crypto-assets we believe it is important that regulation remains technology agnostic. This will allow the market to evolve, innovate and capture risk appropriately.

Q2: What are the main economic and related functions and potential sources of value of crypto-assets that are relevant in the context of developing a prudential treatment? To what extent do these functions and potential sources of value affect the relative prudential risks of different crypto-assets for banks? Are there other potential sources of value that are relevant in designing a prudential treatment for crypto-assets?

GFMA finds that any prudential treatment of crypto-assets should be underpinned by a clear definition of what a crypto-asset is, as well as a methodology for classifying different types of crypto-assets. Moreover, GFMA supports the classification of crypto-assets by economic function as an important initial starting point for creating a crypto-asset taxonomy. To this end and for the purpose of this paper, GFMA has attached a potential approach to the classification and understanding of “crypto-assets” in Annex A (added as an addendum in April 2020). This is not intended as a recommendation on the legal or regulatory treatment of categories of crypto-assets, but may be useful as an input to assess the current universe of crypto-assets, coupled with an understanding of the various regulatory frameworks that apply to different types of financial instruments, in order to discuss appropriate existing or new regulatory frameworks for crypto assets.

Q3: What benefits do crypto-assets provide for the banking system, and the provision of financial services more generally?

While the benefit of high risk crypto assets to the banking system are yet to materialise crypto-assets do exhibit potential.^{2,3} GFMA believes that crypto-assets could bring significant benefits to both market participants and consumers, including increased efficiencies at various stages of the capital markets transaction lifecycle (from trading to settlement). Additionally, GFMA sees potential in using the technology to increase access to certain financial products, drive financial inclusion, improve the resiliency of market infrastructure and change the way market participants interact with one another.

Potential benefits that could be realized include (among others):

- Improved end-to-end processing speed and availability of assets and funds;
- Faster settlement times, reduced trade breaks and reconciliations required, which mitigates counterparty and settlement risk;
- Enhanced regulatory compliance, auditability, and transparency through a secured record of the transactions;
- Enables users of smart contracts to control the decision to automate the payment of interest or dividends⁴

² <https://www.bis.org/publ/arpdf/ar2018e5.htm>

³ <https://www.federalreserve.gov/econresdata/feds/2016/files/2016095pap.pdf>

⁴ See BIS Quarterly Review (Mar 2020)

- Increasing investor accessibility to certain asset classes through fractional ownership (i.e. the process of splitting ownership of an asset into smaller investment requirements).
- Enabling the creation of new asset classes to provide consumers with innovative financial products that align with, or enhance, the capital needs and capital deployment of consumers.

Q4: What additional factors affect the risk profile of different crypto-assets which are relevant in the context of determining a prudential treatment?

GFMA reiterates its view that crypto asset and traditional assets otherwise equivalent in economic function and risks they pose should not be treated differently for prudential purposes. The BCBS should not apply a different prudential framework to assets or products that already are subject to prudential regulation simply because they use new and innovative technology such as DLT as the underlying technology.

GFMA generally supports the additional risk factors listed in the Discussion Paper, but also notes that not all risks identified in the Discussion Paper or in this response are weighted equally or are material in every case. Accordingly, each crypto-asset’s risk profile should be determined on a case by case basis.

GFMA in particular supports the risk factor relating to the legal regime applied to the crypto-asset ecosystem and the extent to which various providers of services are subject to appropriate laws and regulations. GFMA believes that a robust legal framework which closes any gaps in regulation and is harmonized globally will help to mitigate prudential risks. This is particularly relevant given the potential cross-border nature of crypto-assets networks. GFMA also supports global standardization across compliance and licensing frameworks to continue to foster innovation and a fair marketplace fostering competition across market participants.

Q5: Do you agree with these general principles in guiding the design of a potential prudential treatment of crypto-assets? Are there additional principles that should be considered?

GFMA is highly supportive of the general principle “same risk, same activity, same treatment.” This is particularly important for traditional financial assets or products, where the existing, robust prudential framework should continue to apply, regardless of whether these assets or products use technologies such as blockchain. For example, leveraging DLT to facilitate the post trade processing of a bond does not impact the material risks traditionally associated with a bond and therefore this activity should receive the same prudential treatment. Wherever possible, it is important that current frameworks are leveraged - including modelling exposures where a firm has permissions to model exposures of analogous traditional assets - and that any new prudential measures for higher-risk assets are only introduced where needed to capture new risks.

While GFMA accordingly supports the intent of “simplicity” as a general principle, it is also important to create a framework that considers the unique incremental risks associated with the activity, which may include consideration of the relevant actors, or the crypto-assets. For example, an overly simplistic framework risks excessively punitive treatment being assigned to all crypto assets, regardless of the individual crypto-asset’s risk profile. Accordingly, GFMA supports the principle of a risk-based approach to ensure that the benefits of crypto-assets can be realized, and innovation is encouraged, while addressing new risks.

In addition to the principles outlined by BCBS, GFMA also emphasizes the following principles:

- **Taxonomy for classifying assets** – Prudential treatment of crypto-assets should be underpinned by clear methodology for differentiating between different types of crypto assets risk and their treatment.
- **Technology agnostic** – Crypto-assets are evolving and the defining features of crypto-assets may evolve over time. It is therefore important to avoid designing regulation on crypto-assets based on a particular technology and to avoid directly or indirectly dictating the use of any one type of technology for another. Technology-driven regulation may run the risk of subsuming technology used in traditional financial activities into incongruous regulatory perimeters. Being technology agnostic will also accommodate future innovation without requiring regulatory reforms each time new technology is created. Moreover, existing regulations that only permit certain technologies to be used should be updated to accommodate the changing technology landscape.

Lastly, many potential participants in the crypto-assets markets fall outside the jurisdiction of regulators and therefore will not be subject to any regulatory oversight. This is particularly relevant given the current emergence of new non-bank and non-financial institution participants that might leverage this new technology to provide products and services to businesses and consumers traditionally provided by banks and other financial institutions. To keep markets safe for consumers and sound for the global financial markets, any regulatory framework for crypto-asset activity should be applied to entities not subject to regulatory treatment that may nevertheless be participating in the same or similar activities as regulated banks or financial institutions.

Q6: Are there additional channels other than those listed above by which banks could be directly or indirectly exposed to crypto-assets? Which channels could potentially be the most material for banks? How do these exposure channels vary by different types of crypto-assets? What are the benefits and risks associated with banks' crypto-asset exposures through these different channels?

As with all channels of business, regulated banks and other financial institutions must make risk assessments and perform extensive due diligence of counterparties and transactions to assess direct and indirect risks. This type of analysis already exists and is performed on a daily basis by regulated banks and other financial institutions. While GFMA acknowledges there are unique risks associated with higher risk crypto assets and that material direct or indirect exposure to firms, entities or individuals may require heightened analysis to identify and mitigate risks, we support leveraging existing frameworks as a lens to make these assessments.

Q7: Are any exposure channels likely to change in response to ongoing or envisaged developments in cryptoasset markets?

New exposure channels are likely to emerge as the crypto-asset market develops. It is therefore critical that any regulatory approach is not overly prescriptive, and uses a dynamic risk-based approach to ensure that it remains agile over time. This framework should also not be overly simplistic and allow for analysis of underlying risks related to the activity.

Q8: Which risks would be the most material with respect to banks' exposures to crypto-assets? Are there additional risks other than those listed above which banks could be exposed to as a result of holding direct or indirect exposures to crypto-assets, or providing related services? To what extent do these risks differ based on the type and design of crypto-assets, and how do they differ to traditional asset classes?

Banks and other regulated financial institutions manage each of the risks outlined by the BCBS, but not all of these risks are relevant for a prudential framework. Where there are similar risks to existing activities and products, analogous treatment should be applied to crypto-assets. Depending on the risk of the activity and underlying asset, where there are incremental financial risks existing prudential frameworks (credit, market, and operational risk frameworks) are fully capable of encompassing these risks and should be applied.

There are different levels of mitigation that can be applied to the risks identified in the Discussion Paper. For example, third party risk is traditionally mitigated through the performance of ongoing due diligence, and the risk of loss (and any resulting systemic repercussions) mitigated through the imposition of capital requirements.

One risk which GFMA wishes to highlight about crypto assets that has historically been referenced and may pose unique considerations is related to the custody of crypto assets. Having custody of a crypto asset (e.g., being able to transfer the asset) is controlled through holding a digital “key”, which is commonly referred to as a private key. The activity of securing these private keys can raise unique risks. While the degree of risk varies based on conditions such as the type of crypto asset and network within which it functions, GFMA finds that financial institutions have been safekeeping all types of assets (both digital and non-digital) for centuries and continue to innovate and leverage processes to mitigate risks and ensure safety of asset. As the crypto asset market continues to develop the industry will continue to engage with regulators on best practices and implement technologies and processes that continue to mitigate possible emerging or unique risks related to crypto asset custody.

Q9: What are your views on the illustrative example of a prudential treatment for high-risk crypto-assets? Which crypto-assets would classify as high-risk based on the criteria set out above? What other features could be considered in specifying the scope for such a potential treatment?

The illustrative example proposes the most punitive possible treatment for “high-risk” crypto-assets under all existing Basel frameworks (i.e., a full deduction under credit risk, market risk and credit valuation adjustment (“CVA”) risk). We believe this approach is overly simplistic as it scopes a diverse array of underlying activities attributable to different crypto-assets into the definition (and therefore the punitive capital treatment) of high-risk. Without a well-defined definition of high-risk or any further details on the financial activities related to these crypto assets, this treatment ignores the fact that the risks associated with the activities a bank might engage in with regard to these crypto assets is diverse.

This would threaten the principle of same risk, same activity, same treatment where equivalent assets and activities have a different prudential treatment to the example provided. As such, more work is required on defining what is meant by high-risk to ensure the scope of assets captured is risk sensitive and appropriately calibrated. This is no different than the approach the Basel Committee has taken in the broader regulatory capital framework.

Other features such as the differentiation of the risks associated with the various activities utilizing crypto-asset and the extent of direct and indirect exposure to crypto-assets are also important in specifying the scope for any potential treatment. The definition should derive from robust empirical\data backed analysis, which should be updated over time to reflect the evolving nature of the crypto-asset landscape. A risk sensitive tailored approach, commensurate with the risks associated with the activity and the asset, should be adopted, as opposed to a “one-size fits all” prudential treatment with an overly broad scope of crypto-assets as high risk.

GFMA has attached hereto, in the Annex B, a robust framework for determining the prudential treatment for high-risk crypto-assets, based on the channels for bank exposures outlined in the Discussion Paper.

GFMA also notes that firms may have the intention to hold and use higher risk crypto assets (in de minimis amounts) to facilitate usage of permissionless networks (e.g., holding ETH to process a transaction in Ethereum). We ask the BCBS to remain flexible and continue to work with the industry on this topic.

Q10: What further supervisory measures could be considered in specifying a potential prudential treatment for crypto-assets?

The overall approach to prudential regulation of the crypto-asset market requires agility given this market is still in its early stages and the potential risks will continue to evolve over time. GFMA would suggest that banks engaging in this market be permitted to find an analogous asset and activity that they are currently undertaking and then with supervisory approval be permitted to use the same prudential treatment that is used for the analogous asset and activity to the particular crypto-asset or activity. Any incremental risk versus the analogous asset and activity should be subject to a risk-based approach leveraging the current regulatory framework (credit, market and operational risk). If no analogous asset is found then conservative treatment subject to a max loss cap may be appropriate.

Q11: What are your views on the disclosure requirements related to banks' crypto-assets? Should additional information related to banks' crypto-asset exposures be disclosed?

GFMA recommends that the disclosures should be based on materiality of the risks and that the disclosures should further differentiate between direct and indirect exposures.

Q12: What are your views on the appropriate prudential treatment of these types of crypto-assets (crypto-assets for intra- and inter-bank settlements)? Are there additional types of crypto-assets that would warrant a different treatment to the illustrative example outlined in this paper?

As GFMA has stated, it is critical that the BCBS differentiate between (i) the more traditional financial activity, assets or products, which currently are subject to prudential regulation, that use new technologies, such as blockchain; and (ii) financial activities that use higher-risk crypto-assets, such as bitcoin, which are not currently subject to prudential regulation. Leveraging blockchain technology to facilitate intra and inter-bank settlements should be analyzed using the existing prudential framework. For example, a bank that leverages blockchain technology to facilitate payments across its clients should be viewed no differently than the activity around current intra-bank settlement processes. Or, if a consortium of banks creates and begins to use blockchain for inter-bank settlements, the credit exposure of the settlement should be analyzed similar to how inter-banks payments are analyzed today. GFMA acknowledges that as with all new technologies and digitization generally, firms will need to continue to assess any possible additional or heightened risks, such as cybersecurity and operational, and reflect that analysis as outlined in the current prudential framework.

With the above in mind, in regards to BCBS questions around leveraging blockchain technology to facilitate intra and inter-bank settlements, GFMA supports an analysis based on 'same risk, same activity, same treatment.' In most instances, what GFMA has described is commonly referred to a form of stablecoin or a digital representation in blockchain of underlying currency. There are a variety of implementations of

crypto-assets for settlement, having within themselves several possible categorizations depending on their traits, such as their linkage to fiat currency, structuring mechanisms, types of underlying assets, valuation stability, type and levels of collateralization, asset supply controls, risk management and central hedging. Further, these settlement mechanisms could be issued by financial institutions (e.g., banks), private companies (e.g., technology companies), or a central bank—among other means. GFMA would encourage classifications and treatment of stablecoins akin to how digitized assets are classified outside of blockchain (along with associated risks).

GFMA therefore supports international cooperation in the development of regulatory treatment of stablecoins, given the cross-border nature of stablecoins (and crypto-assets more generally). Furthermore, any future and internationally consistent regulatory framework must be dynamic and sufficiently flexible to take into account any changes to the regulatory status of a stablecoin (or other crypto-asset) over time. GFMA acknowledges that as with all new technologies and digitization generally, firms will need to continue to assess any possible additional risks, such as cybersecurity and operational, and reflect that analysis as outlined in the current prudential framework.

Q13: What are your views on the potential prudential treatment of specific types of crypto-assets that bear economically equivalent risks to traditional asset classes? To what extent could the prudential treatment of such crypto-assets build on the existing framework?

GFMA believe that crypto-assets that bear economically equivalent risks to traditional asset classes should be subject to similar prudential treatment as their analogous traditional activities. If there are any incremental risks, they may be subject to additional risk-based requirements leveraging the existing framework.

Q14: What specific conditions and criteria are needed for different types of crypto-assets to be subject to a different treatment to the illustrative example discussed in this paper?

As GFMA has stated, it is critical that the BCBS differentiate between (i) the more traditional financial activity, assets, or products that use new technologies, such as blockchain, which are currently subject to prudential regulation and do not pose a higher risk to financial stability or to businesses and consumers; and (ii) financial activities that use higher risk crypto-assets, such as bitcoin, which are not currently subject to prudential regulation. Further GFMA believes that the criteria outlined by BCBS are a good starting point, but that the economic function and underlying risks of a crypto-asset should drive its classification and therefore differing treatment.

Q15: Do you have other suggestions regarding the design of a potential prudential treatment of crypto-assets?

In the context of the evolving landscape the assessment of “same risk, same activity, same treatment” should not be a point in time assessment, but banks should be able to make the case to their supervisors that they understand the risks of the crypto-asset by drawing on an analogous asset in order to consistently apply the current prudential framework (i.e., market risk, credit risk, etc.) accordingly. For instance, bitcoin may be considered as analogous to commodities activities and treated as a digital commodity. As crypto-assets become more frequently traded and additional risk mitigants are developed, the framework should be sufficiently agile to reflect the changed risk profile, rather than specific risk weights being prescribed that can only be updated periodically through the Basel Committee’s monitoring programme.

An agile framework will also allow for a harmonised approach to international implementation, rather than allowing jurisdictions to make unilateral adaptations due to the pace of change in their respective localities.

The market is likely to develop significantly over the coming year and we believe it is important that there is close engagement between the industry and the regulatory community on this topic. We therefore recommend a joint industry-regulatory task force is formed to facilitate ongoing discussions in this area and remain ready to engage with the Committee as required in the future.

Conclusion

GFMA supports the objective of developing a regulatory framework that encourages responsible innovation by banks. It is critical, however, that this framework not assign a punitive prudential treatment to all crypto-assets; regardless of the asset's risk profile or the bank's activities, as this may make it onerous and / or costly for banks to provide any meaningful crypto-asset related services for end users. In addition, designing a regulatory framework that is technologically agnostic will help mitigate the risk of applying incongruent or outdated regulations to existing or future uses of technology.

A regulatory framework should also embody the principle of "same risk, same activity, same treatment" and make available the ability for banks to demonstrate analogous treatment of traditional assets in order to consistently apply the current prudential framework to crypto-assets. This ability aligns with the Committee's principle of simplicity, particularly where the "prudential treatment should build on the existing framework, especially for crypto-assets with equivalent economic functions and risks as other asset classes."

Key to this regulatory framework is a taxonomy to clearly define the crypto-asset in question, followed by the development of a risk-based framework that looks to the particular crypto-asset and the various activities that banks engage in. Taken in its totality, this framework will therefore help to assign the appropriate capital and liquidity standards for the crypto-asset and involved activity.

The market is likely to develop significantly over the coming year(s) and we believe it is important that there is close engagement between the industry and the regulatory community on this topic. We therefore recommend a joint industry-regulatory task force is formed to facilitate ongoing discussions in this area and remain ready to engage with the Committee as required on this topic and others in the future.



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ANNEX A – Approach to classification and understanding of crypto-assets

Broadly, crypto-assets⁵ may serve a variety of economic functions, such as an agent for payments⁶, a vehicle for investment or trading⁷, or a utility to access other goods or services⁸. Within those functions, when those assets have the characteristics of existing regulated instruments, a specific regulatory framework may apply. However, given the features of crypto-assets, other key attributes beyond economic function, may need to be taken into consideration by regulators in order to classify those assets and determine what regulations should apply, if any (similar to how frameworks such as those that are leveraged for classifying a security/financial instrument function today). For this initial proposal⁹ we focused on defining features of crypto-assets such as:

- A. Issuer (e.g., central bank)
- B. Mechanism or structure underlying the asset value (e.g., pegged to or in reference to an underlying asset or access to a network product or service)
- C. Rights conferred (e.g., entitlement to cash flows, redemption rights, voting)
- D. Nature of the claim (e.g., claim on an issuer or claim on an underlying asset)

While not part of the feature set used in the proposal below to define a crypto-asset, there are additional features that should be assessed against each type of crypto-asset to help differentiate and evaluate the risk, including types of users/holders (e.g., retail versus wholesale), systemic importance, and if an asset is linked to a real or off-chain asset, who or what type of entity has custody of that asset, if any.

Many crypto-assets have functions and features spanning more than one of the categories identified herein (“Hybrid Crypto-Assets”) or may not even be contemplated at this time¹⁰. These types of crypto-assets may have characteristics that enable their use for more than one purpose (means of payment or investment) at any single point in the lifecycle of the asset, or have characteristics that change during the course of their lifecycle. Further consideration should be given to these types of assets as well as when and how the rules should apply to them. GFMA would encourage an approach that is agile and remains robust, providing the market clarity while also allowing innovation as market structures develop, uses evolve, and technology changes, or new assets are created.

While we have used the term “crypto-asset”, as the overarching category to group together a number of instruments, not all the categories (and associated uses and attributes) should be treated as instruments for which a new financial regulatory framework is necessary or appropriate. A robust regulatory framework (including customer/investor protection safeguards) may already exist for the instruments or activity represented by the “crypto-asset”.

The proposal below is an initial starting point for a classification of crypto-assets. It is designed to help regulators evaluate which types of regulations should apply to which type of assets. We note however that as these assets evolve and potentially new ones are created, this classification may need to be updated over time.

⁵ A crypto-asset is generally any digital asset whose provenance is tracked via a blockchain or DLT infrastructure, with ownership or control determined by a cryptographic key

⁶ Payment tokens may also be referred to as exchange tokens in some jurisdictions. Key uses may include, the crypto-asset being held and transferred primarily for the purposes of buying or selling other assets or being used as a store of value

⁷Security/ Investment/Financial instrument tokens provide entitlement to proceeds or a right to vote and could also meet the characteristics or definition of a financial instrument or equivalent regulatory classification

⁸Crypto-asset’s use as a means of accessing a DLT platform and/or a medium of exchange for the provision of goods and services provided on the DLT platform, and does not have value or application, outside of the DLT platform on which it was issued (Note that the crypto-asset may be used as a means for data and database management, data recordation, or other bookkeeping or recordkeeping activity. As these do not constitute financial instruments, they are intentionally excluded here)

⁹ This approach has not been formally endorsed by all GFMA members and is intended as a basis for discussion.

¹⁰ As the crypto-asset market evolves and the understanding of uses matures, additional uses beyond those identified as payment, investment, or utility may need to be addressed or identified

Types of Crypto-Assets^{11,12}

A. Cryptocurrencies

- Digital representations of value with no redemption rights against a central party and may function within the community (enabled through peer-to-peer networks) of its users as a medium of exchange, unit of account or store of value, without having legal tender status. They may also act as an incentive mechanism and/or facilitate functions performed on the network they are created in; their value is driven by market supply/demand therein

B. Value-Stable Crypto-Assets

1. Central Bank Digital Currencies (CBDC¹³) (e.g., e-Krona)
 - Digital form of money that represents a liability of a central bank in a single fiat sovereign currency that may or may not pay interest
2. Financial Market Infrastructure (FMI) Tokens (e.g., USC)
 - Digital form of money representing claims on an FMI and reflecting deposits held at a central or commercial bank in a single fiat currency that may or may not pay interest
3. Tokenized Commercial Bank Money¹⁴ (e.g., Signet)
 - Digital form of money that represents single fiat currency and is issued by/structured as a claim on a bank, credit institution or other similarly highly regulated depository institution. It may or may not pay interest
4. Stablecoins: Tokens designed to minimize/eliminate price fluctuations relative or in reference to other asset(s) which are not issued by a central bank, FMI, bank, credit institution or highly-regulated depository institution. May represent a claim on the issuing entity, if any, and/or the underlying assets
 - a. Asset Linked Crypto-Asset – value may be fixed or variable and in reference to individual structures or include a combination of:
 - Fiat currency linked (e.g., Tether, Paxos, USDC, Gemini)
 - Other real asset linked (e.g., Sendgold, Xaurum)
 - Crypto-asset linked (e.g., Maker)
 - b. Algorithmic Crypto-Asset: Typically not linked to any underlying assets and each token can be pegged to a price level or a unit maintained through buying, selling or exchange¹⁵ among assets¹⁶ or some other pre-determined mechanism¹⁷

¹¹ GFMA also notes that the term “coin” and “token” are synonymously leveraged below and are not intending to insinuate differences between the two terms.

¹² Some of those instruments may meet the ‘e-money’ criteria in those jurisdictions where that regulatory classification exists and be classified as such for regulatory purposes

¹³ CBDC can rely on non-DLT/blockchain technology, this taxonomy is intending to capture only those leveraging DLT/blockchain technology

¹⁴ Note: Deposits recorded via DLT may not be considered true crypto-assets as they do not create a new asset class with separate intrinsic value from the fiat currency they represent. However, we have included this in our response to be responsive to varying definitions of crypto-asset under consideration, and to comprehensively articulate when the use of distributed ledger technology would not require new regulatory treatment, but would be governed by an existing regulatory framework

¹⁵ “Buying, selling, or other exchange” may be facilitated algorithmically (pre-programmed) or through market practices (participant arbitrage)

¹⁶ Asset may involve the native stablecoin itself or other crypto-asset used for exchange or collateralization

¹⁷ Pre-determined mechanisms may involve pre-programmed economic policies, including, but not limited to, asset staking or exchange, dynamic transaction fees, seigniorage, asset supply control, recapitalizations and/or use of financial instruments

C. Security¹⁸ Token

- Token issued solely on DLT that satisfies the applicable regulatory definition of a security or financial instrument under local law (e.g., World Bank's "Blockchain Bond")
- Token that represents on DLT underlying securities/financial instruments issued on a different platform (e.g., a traditional CSD, registrar, etc.), where such representation itself satisfies the definition of a security/financial instrument under local law

D. Settlement Token

- Representation on DLT of underlying traditional securities/financial instruments issued on a different platform (e.g., a traditional CSD, registrar, etc.) where such representation itself does not satisfy the definition of a security or financial instrument under local law and is used solely to transfer or record ownership or perform other mid/back-office functions (e.g. collateral transfer, recording of ownership)

E. Utility Token

- A means of accessing a DLT platform and/or a medium of exchange which participants on that platform may use for the provision of goods and services provided on that platform (e.g. loyalty rewards programs/systems, gift card rewards, credit points that are only usable within the DLT platform, memory and network server space, and other utilities-based value); or
- Tokens that are not native to the underlying network but are used for accessing applications that are built on top of another DLT platform (dApp)

F. Other Crypto-Assets (not structured as value-stable crypto-assets)

- Representation on DLT of ownership in tangible or intangible underlying assets or of certain rights in those assets (such as interest, e.g. loans), which are not securities or financial instruments (e.g., real estate, art, intellectual property rights, precious metals, grains, or non-fungible assets that only exist in digital form on a DLT network); they may represent a claim on the issuing entity or the underlying assets

¹⁸ This category encompasses different regulated instruments from a legal perspective, which may attract different regulatory treatment amongst themselves and across jurisdictions

ANNEX B - Framework for determining prudential treatment of “high risk” crypto-assets

Below is a list of potential channels of bank exposures to crypto-assets as outlined by the BCBS in the discussion paper, with an assessment of level of exposure (direct or indirect), overall risks related to banks’ exposure to the activity for determining the prudential treatment, and recommended prudential treatment should banks engage in the activity with “high risk” crypto-assets. As discussed in the body of the letter, this framework for evaluation of prudential treatment should be dynamic, and the risks identified below may change as the crypto-asset market and the risks associated with activities evolve over time.

#	BCBS channels of bank exposures to crypto-assets	Exposure to “crypto-assets”	Overall risks related to banks’ exposure	Recommended prudential treatment
1	Issuing crypto-assets directly	Direct	<ul style="list-style-type: none"> Operational risk¹⁹ 	<ul style="list-style-type: none"> Operational risk framework
2	Validating crypto-asset block transactions	Direct	<ul style="list-style-type: none"> Operational risk 	<ul style="list-style-type: none"> Operational risk framework
3	Owning crypto-assets directly	Direct	<ul style="list-style-type: none"> Market risk (if Trading Book) or other price risk (if Banking Book) Operational risk 	<ul style="list-style-type: none"> Trading Book: Basel 2.5 / FRTB Allow modelling where applicable standards are met. If not able to model, establish risk bucket to capture primary risks and subject to residual risk add-on for incremental risks. This risk bucket could be subject to higher capital requirements than existing risk buckets based on final calibration Banking Book: Risk-weight commensurate with risk-profile of the crypto-asset. Alternatively consider capitalizing the risk from such exposures to crypto-assets under the Market Risk framework (as per the approach outlined above) regardless of whether the exposure is a Trading Asset/Trading Liability or not, similar to the approach for FX and Commodity risk to ensure a dynamic and risk-sensitive approach NSFR: Required Stable Funding (RSF) to be held against assets recognized on the balance sheet, per GAAP
4	Owning products with underlying crypto-assets	Indirect	<ul style="list-style-type: none"> Market risk (if Trading Book) or 	<ul style="list-style-type: none"> Trading Book: Basel 2.5/FRTB Allow modelling where applicable standards are met. If not able to model, establish risk bucket to capture primary risks and subject to residual risk

¹⁹ This analysis has included implementation, cyber, legal and other risks as a consideration for operational risk.

#	BCBS channels of bank exposures to crypto-assets	Exposure to “crypto-assets”	Overall risks related to banks’ exposure	Recommended prudential treatment
			<ul style="list-style-type: none"> other price risk (if Banking Book) Operational risk 	<p>add-on for incremental risks. This risk bucket could be subject to higher capital requirements than existing risk buckets based on final calibration</p> <ul style="list-style-type: none"> Banking Book: Risk-weight commensurate with risk-profile of the crypto-asset. Alternatively consider capitalizing the risk from such exposures to crypto-assets under the Market Risk framework (as per the approach outlined above) regardless of whether the exposure is a Trading Asset/Trading Liability or not, similar to the approach for FX and Commodity risk to ensure a dynamic and risk-sensitive approach NSFR: Follow GAAP treatment of asset recognized on balance sheet (without regard to underlying crypto-asset) LCR: Inflows/outflow treatment depends on the type of transaction/product (e.g., secured financing/derivatives, vs. trading inventory)
5	Lending to individuals, corporates or financial institutions to allow them to invest in crypto-assets	Indirect	<ul style="list-style-type: none"> Credit risk Operational risk 	<ul style="list-style-type: none"> Credit risk framework under uncollateralized credit exposure The risk weighting applied should be a function of Borrower type for Standardized and should depend upon PD and LGD for Advanced NSFR: Follow GAAP treatment of asset recognized on balance sheet (without regard to purpose of the lending activity) LCR: Loan inflows depend on nature of counterparty, rather than purpose of the proceeds
6	Lending and taking crypto-assets as collateral	Direct	<ul style="list-style-type: none"> Credit risk Operational risk 	<ul style="list-style-type: none"> Credit risk framework: High Risk Crypto Assets should not be used as an eligible risk mitigant to reduce capitalized credit exposure. Under advanced, PD and LGD would be modelled and High Risk Crypto Assets should be allowed to reduce LGD, although benefit expected to be minimal and any degree of wrong-way risk should be considered LCR: inflows depend on characterization of crypto-assets (non-HQLA) NSFR: RSF against lending based on volatility of crypto-assets and tenor of lending matters

#	BCBS channels of bank exposures to crypto-assets	Exposure to "crypto-assets"	Overall risks related to banks' exposure	Recommended prudential treatment
7	Lending to other entities dealing directly with crypto-assets	Indirect	<ul style="list-style-type: none"> • Credit risk • Operational risk 	<ul style="list-style-type: none"> • Credit risk framework under uncollateralized credit exposure. High Risk Crypto Assets should not be used as an eligible risk mitigant to reduce capitalized credit exposure. Under advanced, PD and LGD would be modelled and High Risk Crypto Assets should be allowed to reduce LGD, although benefit expected to be minimal and any degree of wrong-way risk should be considered
8	Proprietary trading of crypto-assets / crypto-asset derivatives	Direct	<ul style="list-style-type: none"> • Market risk • Counterparty risk • Operational risk 	<ul style="list-style-type: none"> • Under the Volcker Rule, banking entities cannot engage in impermissible proprietary trading • Treatment should be same as other high risk assets (Basel 2.5/FRTB). Allow modelling where applicable standards are met. If not able to model, establish risk bucket to capture primary risks and subject to residual risk add-on for incremental risks. This risk bucket could be subject to higher capital requirements than existing risk buckets based on final calibration • Treat under existing framework for Counterparty Party Credit Risk RWA
9	Trading crypto-assets/crypto-asset derivatives on behalf of clients	Direct / Indirect	<ul style="list-style-type: none"> • Market risk • Counterparty risk • Operational risk 	<ul style="list-style-type: none"> • Treatment should be same as other high risk assets (Basel 2.5/FRTB). Allow modelling where applicable standards are met. If not able to model, establish risk bucket to capture primary risks and subject to residual risk add-on for incremental risks. This risk bucket could be subject to higher capital requirements than existing risk buckets based on final calibration • Treat under existing framework for Counterparty Party Credit Risk RWA • LCR/NSFR: Client clearing of derivatives are generally exempt (not on balance sheet), but for LCR any margin related to client activity is captured in inflows/outflows (e.g., excess VM owed back to clients is day-1 outflows)
10	Clearing crypto-asset futures / crypto-asset derivatives		<ul style="list-style-type: none"> • Operational risk • Credit Risk 	<ul style="list-style-type: none"> • Cleared transactions framework

#	BCBS channels of bank exposures to crypto-assets	Exposure to "crypto-assets"	Overall risks related to banks' exposure	Recommended prudential treatment
11	Underwriting initial coin offerings ²⁰	N/A	<ul style="list-style-type: none"> Market Risk 	<ul style="list-style-type: none"> Trading book: For modelling, apply existing standards around other traded assets, but to the extent that the crypto asset doesn't meet the standards (e.g. insufficient data), establish risk bucket to capture primary risks and subject to residual risk add-on for any incremental risks. This risk bucket could be subject to higher capital requirements than existing risk buckets based on final calibration.
12	Providing custody / wallet services for crypto-assets	Direct	<ul style="list-style-type: none"> Operational risk 	<ul style="list-style-type: none"> Operational risk framework NSFR: Treatment would depend on balance sheet recognition of assets and liabilities/obligations to return those assets to clients.
13	Taking deposits of crypto-assets ²¹	Direct	<ul style="list-style-type: none"> Operational risk Legal risk 	<ul style="list-style-type: none"> N/A
	Extending loans denominated in crypto-assets	Direct	<ul style="list-style-type: none"> Credit risk Operational risk 	<ul style="list-style-type: none"> Credit risk framework: High Risk Crypto Assets should not be used as an eligible risk mitigant to reduce capitalized credit exposure. Under advanced, PD and LGD would be modelled and High Risk Crypto Assets should be allowed to reduce LGD, although benefit expected to be minimal and any degree of wrong-way risk should be considered. The risk weighting will be determined based on the end-user (retail vs wholesale). LCR: inflows depend on characterization the counterparty, rather than denomination of the loan (e.g., financial entity vs. wholesale customer) NSFR: RSF against lending based on volatility of crypto-assets and tenor of lending matters
14	Undertaking securities financing transactions involving crypto-assets ²²	Direct / Indirect	<ul style="list-style-type: none"> Credit Risk Operational risk 	<ul style="list-style-type: none"> If crypto-assets are not considered securities, should be treated as lending and taking crypto-assets as collateral, not as a Securities Financing Transaction. Therefore: Credit risk framework: High Risk Crypto Assets should not be used as an eligible risk mitigant to reduce capitalized credit exposure. Under advanced, PD and LGD would be modelled and High Risk Crypto Assets

²⁰ We do not believe banks would underwrite ICOs if they were not registered securities. If registered as securities, they would be treated as securities.

²¹ Deposit taking of crypto-assets should not be considered a deposit, given that it is not cash. The corresponding asset would be capitalized under another activity.

²² Undertaking securities financing transactions assumes that the asset is a security and would receive treatment as such.

#	BCBS channels of bank exposures to crypto-assets	Exposure to "crypto-assets"	Overall risks related to banks' exposure	Recommended prudential treatment
				<p>should be allowed to reduce LGD, although benefit expected to be minimal and any degree of wrong-way risk should be considered</p> <ul style="list-style-type: none"> • LCR: inflows depend on characterization of crypto-assets (non-HQLA). • NSFR: RSF against lending based on volatility of crypto-assets and tenor of lending matters
15	Exchanging crypto-assets for fiat currency, and vice-versa	Direct	<ul style="list-style-type: none"> • Market risk • Operational risk 	<ul style="list-style-type: none"> • No capital for the exchange event. Resulting fiat currency or high risk crypto-asset would be subject to capital treatment of those assets today
16	Providing insurance against the theft and/or loss of crypto-assets	Indirect	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A
17	Using crypto-assets for internal or inter-bank operational processes	Direct	<ul style="list-style-type: none"> • Operational risk 	<ul style="list-style-type: none"> • Operational risk framework
18	Acting as a custodian or taking deposits from a reserve backing crypto-assets	Indirect	<ul style="list-style-type: none"> • Operational 	<ul style="list-style-type: none"> • Operational risk framework