BCC BOSTON CONSULTING GROUP

Digital Asset Classification Approach and Taxonomy

Overview and Next Steps

Global Markets Advisory Council Briefing - 03/06/2023



Overview | Approach for Classification and Understanding of Digital Assets

A clear, **consensus-driven approach** to classifying assets and the functions they serve **underpins robust markets and effective regulation.**

This Approach aims to set out **consistent language for participants in the digital asset ecosystem** to promote innovation, identify and address risk considerations, and enable effective regulatory understanding.

The Subcommittee recommends this Approach be considered an initial basis for a consensus-driven, functional taxonomy. However, as the digital asset ecosystem continues to evolve, so too will the terminology used to classify it. The Subcommittee will reassess any future developments to provide further recommendations to this Approach, based on the guidance of its members. The Subcommittee seeks to support effective rules and regulations for Digital Assets, and recommends continued collaboration between industry, standard-setting bodies, and the regulatory community.

This Subcommittee highlights that this taxonomy is **intended to be used as an aid to help draft future legislation, regulations, policies, procedures,** and other situations where a common approach to understanding Digital Assets is needed.

The Subcommittee recognizes the **importance to not classify digital assets by reference to the type of database or network type on which they are issued/recorded.** Doing so is inconsistent with how financial instruments (and non-financial instruments) today are classified and could have unintended consequences for the application of market regulations. **Further analysis of the infrastructure is outside the scope of this document at this current time and will be considered in further work by the Subcommittee.**

Definition | Digital Asset

A controllable electronic record, where one or more parties can exclusively exercise control through transfer of this record **and** where the controllable electronic record itself is uniquely identifiable. excluded from the definition of digital asset are those controllable electronic records that exist in and function solely as part of a financial institution's books and records.

Economic Functions

Digital Assets may serve a variety of economic functions such as a store of value, medium of exchange or payment, a means for investment or trading, or a utility to access other goods, governance, or other services.

Assets with Existing Regulatory Frameworks

Within those functions, when those assets have the characteristics of regulated instruments that do not qualify as Digital Assets, a specific regulatory framework may already apply, and the Subcommittee believes that digitization does not, as a legal or practical matter, alter the functioning of the product or service, with the result that it is unnecessary to look beyond the existing classification for the regulated instrument.

Caution About Classifying Asset by Network Type

The Subcommittee recognizes the importance to not classify digital assets by reference to the type of database or network type on which they are issued/recorded. Doing so is inconsistent with how financial instruments (and non-financial instruments) today are classified and could have unintended consequences for the application of market regulations.

Key Features Beyond Economic Function

Given the nature of Digital Assets, regulators and standard-setting bodies should consider key features beyond economic function to classify these assets and determine what regulatory framework, if any, is adequate. This is similar to how frameworks, such as those that are used for classifying a security or financial instrument, are applied today.

Features | The features of a Digital Asset include, but are not limited to:

How Digital Asset is Issued	How Digital Asset Holds Value	How Digital Asset Confers Rights	How Digital Asset has Fungibility	How Digital Asset can be Redeemed	How Digital Asset is Recorded in Books & Records
• Type of issuer, if any	PeggedUnpegged	 Existence of legally enforceable rights against the issuer 	FungibleNon-Fungible	RedeemableNon-Redeemable	Digital TwinDigital Native
Digital assets in this classification have at least one or more of the features captured in these categories, but it should be noted that		This is therefore intended as a starting point designed to support regulators and policymakers to take a use case driven approach			

there may be features developed in the future that have not yet been contemplated at this time.

to evaluate which types of regulations should apply to which types of assets.

Similarly, not all Digital Assets classified here have all these features.

As these assets evolve and new ones are created, this classification will need to be evolved

Categorization | Initial Categorization of Digital Asset & Proposed Next Steps

The purpose of the Classification is to help the GMAC and CFTC differentiate between different types of digital assets.

Digital Asset Type	Instrument Type	Instrument	Regulatory Status	Call to Action
Money & Money-Like Digital Assets	Central Bank Digital Currency	General Purpose of Retail CBDC		
	Central Bank Digital Currency	Wholesale CBDC		
	Bank Deposits	Tokenized Deposits		
	Bank Deposits	Deposit Tokens		
	Reserve Backed Digital Currencies	Reserve Backed Digital Currencies		
	Stablecoins	Stablecoins		
Financial Digital Assets	Tokenized Security	Digital Twin	To be completed as part of next steps for Taxonom	
	Security Token	Digital Native	Working Group	
	Tokenized Derivative	Digital Twin		
	Derivative Token	Digital Native		
Alternative Digital Assets	Tokenized Alternative Asset	Digital Twin		

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Digital Asset Type	Instrument Type	Instrument	Regulatory Status	Call to Action
Cruptossots (o. g. cruptocurrucios	Platform Cryptoassets (e.g. Bitcoin Ether)	Non-redeemable digital native token with no rights conferred by the issuer (if any)	To be completed as part of next steps for Taxonomy Working Group	
Cryptoassets (e.g. cryptocurrucies	Other Cryptoassets (e.g. meme coins)	Non-redeemable digital native token with no rights conferred by the issuer (if any)		
Functional Digital Assets	Functional Digital Assets	Cannot be exchanged for value, provides owner with a specific utility		
Settlement Controllable Electronic Record	Settlement Token	Solely to transfer or record ownership or perform other middle/back-office financial functions		

5

Money or Money-Like Digital Assets

For a Digital Asset to be classified as money or a money-like Digital Asset it must meet one of the following three conditions: reliable store of value, medium of exchange, and unit of account.

	Digital Money	Money-Like Digital Assets		
Central Bank	 Central Bank Digital Currencies (CBDC): digital tokens representing a claim on a central bank for a fixed amount of central bank money denominated in a single currency; also, a liability of a central bank, with no credit or liquidity risk. It may or may not be programmable. "General Purpose" or "Retail" CBDC "Wholesale" CBDC 	Stablecoins Stablecoins: privately-issued, money-like, digital tokens that aim to		
		maintain a stable value relative to a peg specified by a reference asset (s) and designed to minimize value fluctuations relative to these reference assets (s). They are not issued by a central bank.		
Bank Deposits	 Tokenized Deposits: digital tokens that represent an existing record of a traditional ownership claim for a bank deposit on the token-issuing bank or depository institution, for a fixed amount of commercial bank money denominated in a single currency. Deposit Tokens: transferable digital tokens issued by a licensed depository institution which evidence a deposit claim against the token-issuing bank or depository institution, for fixed amount of commercial bank money or fiat cash denominated in a single currency. 	 They must also be at least fully backed by one or more assets specified under the specific regulatory framework, including Cash: to one or a combination of fiat currencies Securities: low risk, highly liquid securities such as those classified as High-Quality-Liquid Assets ("HQLA") under the BCBS LCR30 framework (e.g., US Treasury Bills) To meet the classification standard of a Stablecoin, the issuer should provide for the timely redemption of the Stablecoin, including during times of market-wide or issuer-specific stress. 		
Reserve-Backed Digital Currencies	"Reserve-Backed" Digital Currencies: privately issued (e.g., by a financial market infrastructure provider digital tokens where the value of the issued token is backed by central bank reserves.	For issuers who hold higher-risk backing assets or no backing assets in the collateral reserve, such as Cryptoassets, the Subcommittee would not classify these as Stablecoins.		

Financial Digital Assets

Typical use cases include financial investment, financial return, and access to capital markets.

Securities (and other financial instruments)		Derivatives		
Tokenized Security	Tokenized Security: a Digital Twin token that represents an underlying security or financial instruments issued on a different platform (e.g., a traditional CSD or registrar), where such representation itself satisfies the definition of a security/financial instrument under local law.	Tokenized Derivative	Tokenized Derivative: a Digital Twin token that represents an underlying derivative instrument issued and recorded on a different platform, where such representation itself satisfies the definition of a derivative under local law.	
Security Token	Security Token: a Digital Native token that satisfies the applicable regulatory definition of a security or financial instrument under local law.	Derivative Token	Derivative Token: a Digital Native token that satisfies the applicable regulatory definition of a derivative instrument under local law.	

The Subcommittee highlights that traditional derivative contracts which provide exposure to an underlying Digital Asset (e.g., bitcoin futures) are out of the scope of this document and not considered here, regardless of settlement type (e.g., physically or net in cash)

9

Classification of Digital Assets

Alternative Digital Assets

Typical use cases include representation of interest in a good or non-financial asset

Crypto Assets (Cryptocurrencies)

Typical use cases include a network-specific medium of exchange, unit of account for transaction fees, speculative investment, and branded store of value.

Tokenized Alternative Asset

Tokenized Alternative Assets: Digital Twin tokens representing an interest in, entitlement to, or claim on, an alternative (or non-security) asset (or claim on the issuing entity for the asset, where applicable), where such representation itself satisfies the definition of such interest, entitlement, or claim under local law; these alternative digital assets may include:

- Tokenized Physical Commodities (e.g., wheat, oil, corn);
- tokenized Real Estate; or
- other Tokenized Assets of Goods (e.g., carbon credits, art, intellectual property rights, and intangible, discrete assets that only exist in digital form on a programmable ledger platform).

If certain activities are performed on a tokenized non-financial asset, **the classification category may change**. For example, in the case of Tokenized Real Estate, fractionalization may convert the Alternative Digital Asset to a Financial Digital Asset.

Platform Cryptoassets (e.g., bitcoin or ether tokens)

Platform Cryptoassets: non-redeemable Digital Native tokens, with **no rights conferred** against the **issuer** (if one exists), that may be exchangeable for specified value, are hard-coded into any underlying platform and must serve one or both of the following functions:

- Cryptographic economic incentive to maintain and secure to network or application infrastructure including preservation of processing throughput (e.g., through payment of "gas fees" or staking); or
- universal medium of exchange of the underlying network infrastructure.

Other Cryptoassets (e. g., meme coins)

Other Cryptoassets: non-redeemable Digital Native tokens, with no rights conferred against the issuer (if one exists), that are used as a speculative investment.

As all **Cryptoassets** are not pegged to the value of a reference asset, do not represent ownership or other legal claim against a company or other type of issuer, nor guaranteed by a regulated financial institution, their value is driven by market dynamics and/or supply and demand mechanics.

Functional Digital Assets

Typical use cases include governance or access to a specific infrastructure or app, and specific functional utility.

Functional Digital Assets

Functional Digital Assets: digital tokens that **cannot be exchanged for value** issued (where applicable) to provide the owner of the token with a specific utility such as:

- Application-specific governance rights, voting weights, or decision-making authority; and
- record of entitlement right to rewards or revenue from a specific application or community.

As the Digital Asset ecosystem continues to evolve, the Subcommittee recognizes that there may be additional functions or utilities that are not contemplated at this time, and as such expects this classification category to continue to evolve over time.

Settlement Controllable Electronic Records

Typical use cases include digital record-keeping, particularly in facilitation of financial transactions.

Settlement Tokens

Settlement Tokens: digital tokens where such representation itself does not satisfy the definition of a security bank deposit, nor financial instrument under local law and is used solely to transfer or record ownership or perform other middle/back-office financial functions (e.g., collateral transfer, recording of ownership); often exists temporarily, typically for the length of the transaction it facilitates. This may be called the "booksand-records" use case, and a Settlement Token would not be considered as Digital Asset as defined herein.