

Managing the digital assets environment

Key considerations for traditional finance firms, crypto natives and policymakers

September 2022

Contents

Introduction	4
Context	5
Traditional finance firms	6
Crypto natives	7
Policymakers	9
Summary	12
Authors	13
Acknowledgements	14
Endnotes	14



Managing in the digital assets environment where the market and regulation are evolving quickly can be challenging for traditional finance firms, crypto natives and policymakers differently. How can understanding the current state of play and leveraging proven frameworks and approaches further responsible innovation?

Introduction

Digital assets hold the potential to disrupt financial services worldwide. Balancing associated risks and opportunities in a way that incorporates the perspectives of traditional financial firms, crypto natives, and policymakers can lead to more durable and effective regulatory outcomes that foster responsible innovation.

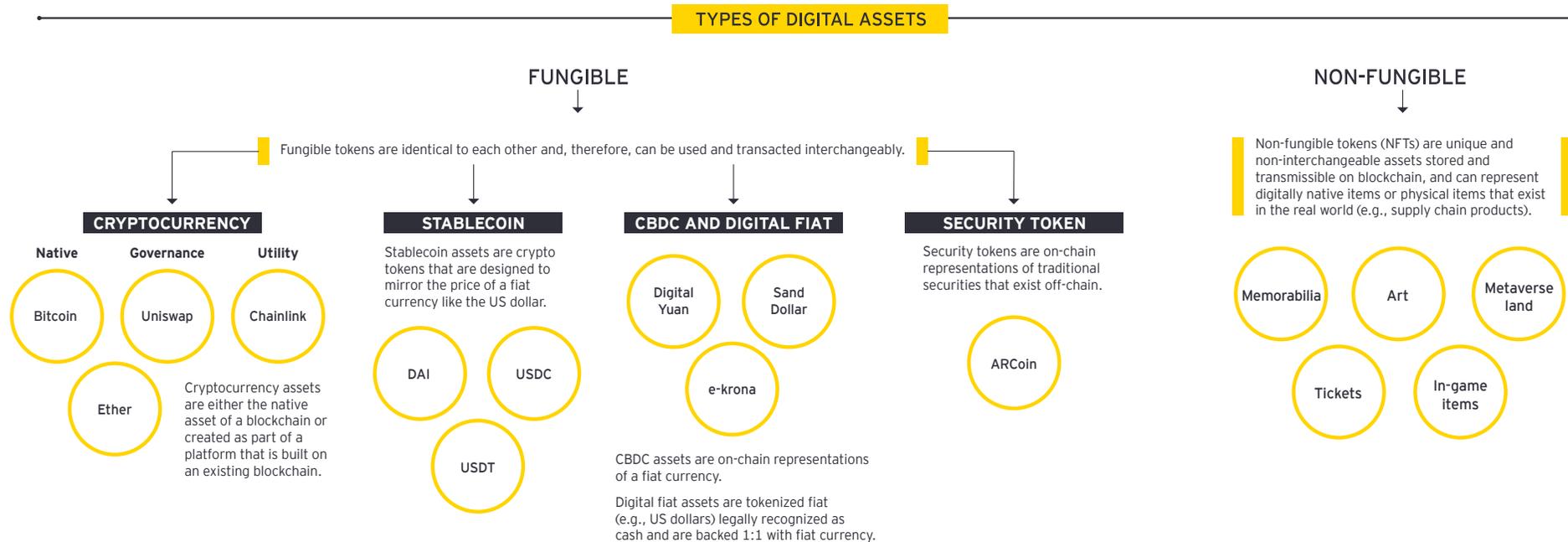
The market is evolving quickly, which impacts the balance between opportunities and risks. There is a growing variety of digital assets, ranging from several kinds of tokens that may or may not mimic securities,

to stablecoins, to Central Bank Digital Currencies (CBDCs). Another important evolution is the way such digital assets are used, including how they underpin the broader application of decentralized finance (DeFi) which is evolving to mirror financial markets.¹

Against this backdrop, traditional finance firms with well-established business models are seeking to grow their digital asset footprint responsibly due to customer demand. Crypto natives are designed around the technology and seeking clarity and guidance on how to get ahead of potential regulations. Meanwhile, policymakers are seeking to protect investors and financial stability.

In the current environment of uncertainty and growth, regulation can benefit from incorporating those different perspectives. This piece offers key considerations and actions for traditional finance firms, crypto natives, and policymakers to take, with a view of fostering responsible innovation in the digital asset market.

Figure 1 - Types of digital assets



Source: EY analysis

Context

The crypto market has seen both exponential growth and volatility. By one estimate, the total market value rose from \$620 billion in 2017 to nearly \$3 trillion in November 2021, with new tokens emerging in the marketplace at an unprecedented speed.² However, in May and June 2022, the market plunged significantly to a market value of less than \$1 trillion and saw the collapse of well-known tokens such as Luna and Terra.³ These events together with the collapse of Three Arrows Capital (a crypto-asset hedge fund) and Celsius (a crypto-asset lender) are fueling concerns about the risks that digital assets pose to consumers, investors and financial systems. Such risks include low levels of consumer understanding, balance sheet exposure to digital assets for the banking sector, institutional investor exposure to digital assets relative to the size of their portfolio, and regulatory fragmentation leading to regulatory arbitrage.⁴

In response to those risks, regulators, acting individually and collectively, are issuing statements in support of regulatory oversight – including the G7, the International Organization of Securities Commissions (IOSCO), the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the U.S. Securities and Exchange Commission (SEC), and others – with the goal of achieving responsible innovation through understanding and balancing of the downside risks and opportunities germane to digital assets. Many of the elements being considered in the crypto regulatory domain are not new, with parallels and lessons that can be drawn from the regulation of FinTech in some jurisdictions.

Meanwhile, regulators are also closely watching which will be the first major market to regulate digital assets and advance the deployment of CBDCs because it could give those jurisdictions a competitive advantage in crypto-asset innovation and economic development more broadly.

It will take some time before CBDCs and regulations materialize – particularly in major economies – but there are some actions traditional financial firms and crypto natives can take now to prepare, reduce risks, and improve regulatory confidence.



Traditional finance firms

Innovation brings risks. In the absence of specific regulation and authorization by regulatory and supervisory authorities (and, in some cases, cautionary messages from those authorities), traditional financial firms need to look to their overall risk and compliance frameworks in order to guide them through their innovation journey.

Currently, such firms appear to be cautious when it comes to using digital assets in their businesses, in light of heightened market volatility and increased regulatory scrutiny more broadly. Several factors could explain the apparent caution, including the need to:

- ▶ Better understand the technology among senior managers and board members.
- ▶ Identify opportunities to access crypto-related products and services within the ecosystem that align with existing offerings and related comparative advantages.
- ▶ Incorporate digital asset activity into existing risk management and compliance frameworks.
- ▶ Address regulatory considerations and inquiries.

Some traditional finance firms are implementing targeted digital asset strategies due to increased customer interest. Firms that seek to move forward will need to consider how to best access the ecosystem while embedding digital asset activities into their overall risk and compliance frameworks. These firms will also need to consider additional investments in people, process and technology to ensure that prospective digital asset activities remain aligned with risk and compliance frameworks, and consistent with the firm's risk appetite. Making these investments can help a firm better understand and mitigate these risks, such as liquidity, credit, market, compliance, and operational risks.



The U.S. Federal Reserve published guidance in August 2022 for banks, which was an important step in creating a supervisory process for banks engaging in activities involving digital assets.⁵ This guidance directed banks to establish adequate systems and controls to conduct activities safely. In our view, it is important for traditional financial firms to integrate digital asset activities into their existing risk and compliance frameworks and requirements, including:

- ▶ Deciding on an overarching strategy prior to further action. Some firms have started with research projects before confirming strategies in this area.
- ▶ Reviewing changes to business models and updates to operational infrastructure.
- ▶ Confirming the outcome that they are trying to achieve for their target customers.
- ▶ Understanding the expectations of their regulator(s) regarding the treatment of digital assets exposures under existing rules, including the need for explicit notifications or approvals and existing or different jurisdictional regulatory requirements.

- ▶ Evaluating whether their marketing and communications strategy allows their customers to make informed choices; and ensuring that they provide options to customers when their expectations differ from what the offering provides.
- ▶ Determining how to treat customers “fairly” and providing a degree of recourse that takes into consideration customer expectations.
- ▶ Providing services (e.g., safeguarding customer assets, trade execution, settlement) in a manner consistent with industry practices observed in more regulated markets.
- ▶ Verifying that risks (e.g., credit, conduct, operational and third-party risks), including those bespoke to digital assets, are identified and assessed comprehensively and embedded in the internal control environment.
- ▶ Providing informative, digestible and actionable internal reporting for senior management and the board regarding the inherent risk and effectiveness of internal controls.

Crypto natives

In contrast to traditional finance firms, crypto natives are designed around crypto based models. Examples of crypto natives include crypto exchanges, crypto custodians, cryptocurrency funds, digital wallet providers and crypto mining companies.

As such, crypto natives have management teams with significant technology expertise, but can lack experience with risk and compliance management - particularly those that are governed through decentralized means. They can also be more vulnerable during heightened market volatility, as evidenced by the recent failures of several high-profile firms. For crypto natives that are governed through decentralized means, a significant challenge is determining how to embed regulatory considerations related to risk management and compliance directly into a crypto-asset architecture which is rules-based and programmable via smart contracts. Such contracts are self-executing contracts with the terms of the agreement directly written into lines of code. They execute when the buyer and seller meet pre-determined conditions.

Existing regulatory rules relating to risk management and compliance are often principles-based and can require interpretation to tailor guidance or requirements to the risk-profile of the organization. Under this approach, senior management plays a significant role in applying regulatory rules to verify that their activities are both fit-for-purpose and reflective of the underlying

risks. These principles are not easily embedded as programmable code via smart contracts and it may not be feasible to do so given the complexity of digital assets and the proliferation of individual use cases. Some crypto natives have perceived the principles-based foundation of regulation as fostering regulatory uncertainty and therefore stifling to innovation. Given their lack of experience with risk and compliance management, a familiar refrain that is common among some crypto natives is: "Just tell us what to do and we'll do it," which speaks to the differences in expectations between some crypto natives and the regulatory community, with the regulatory community expecting proactivity and some crypto natives seeking more guidance.

In addition, there is a risk that interpreting regulatory compliance too narrowly or in isolation, at the expense of sound and prudent risk management and compliance principles, can create additional risks. For example, there could be scenarios where jurisdictional definitions of a security transaction may be used by crypto natives to classify their assets. This regulatory categorization of a crypto transaction as a securities transaction could result in crypto natives rejecting higher-quality asset offerings deemed securities as the compliance burden may be perceived to be too high. This in turn would not be the best path in terms of their portfolio as the crypto native could be left with lower-quality and riskier assets.

For these players, it's critical to understand that compliance with regulation is not a black-and-white exercise. It entails ongoing subjective decision-making and judgment calls amid ambiguity. In addition, many crypto native firms may not have institutional mechanisms in place to support compliance like traditional finance firms, such as governance and controls and a client acceptance methodology to mitigate potential risks, which could lead to challenges when new and existing regulations take effect.

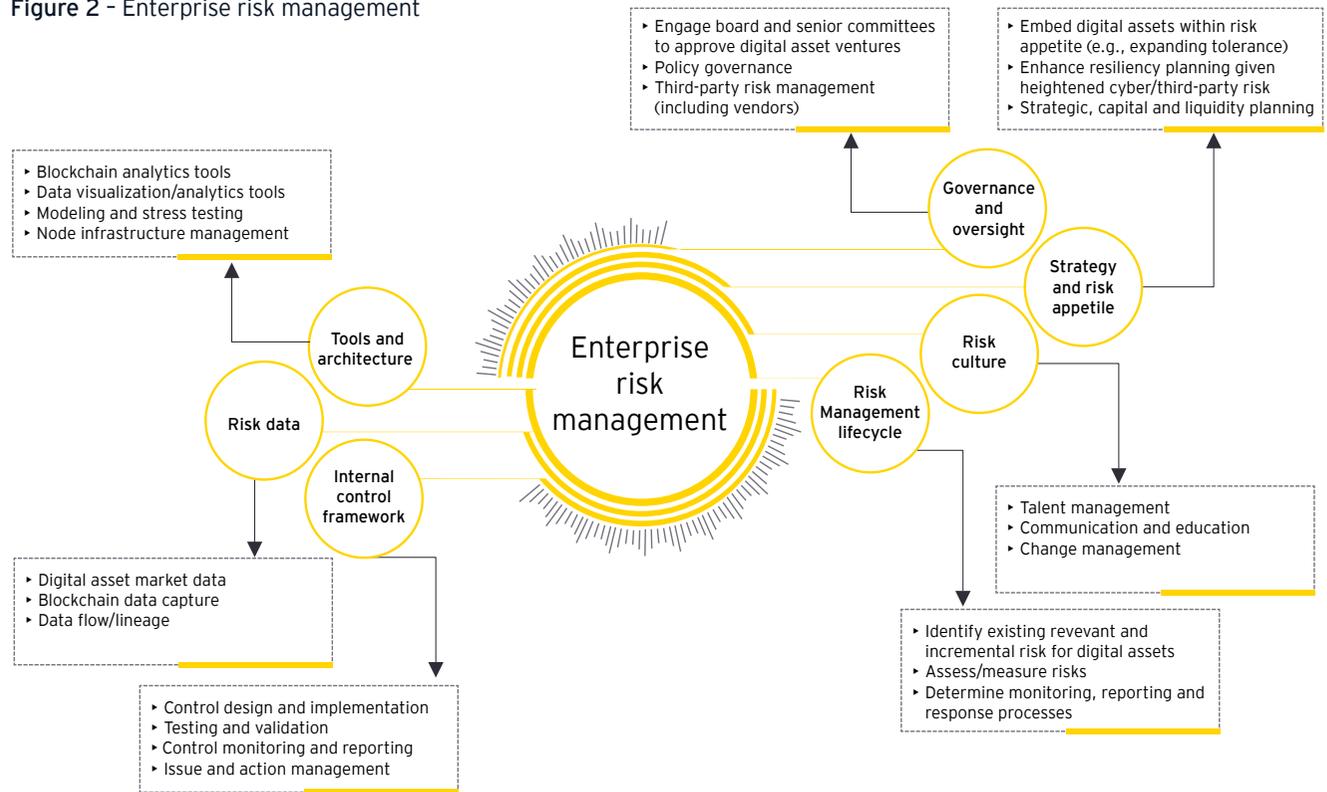
The FinTech industry offers some lessons in the importance of proactive risk management for new products and services. Many of the firms that resisted risk management or treated it as a burdensome cost of doing business ran into challenges. In the U.S., for example, a peer-to-peer lending firm grew extremely rapidly in the late 2000s and early 2010s, and drew significant institutional backing, leading to an IPO in 2014. But the company collapsed just two years later due to employee fraud, conflicts of interest among management, a lack of transparency, and poor credit risk management. (The company still exists under new management). In the UK, some FinTechs ran into similar issues, primarily because of poor risk management and failing to follow fair lending practices, and this ultimately required the UK Financial Conduct Authority (FCA) to intervene.

Increased regulation over digital assets is inevitable, and we believe that a proactive approach that embeds sound risk management and compliance into operating models, product design and execution can help crypto natives better anticipate regulatory change and strengthen their resiliency. A proactive approach is quickly becoming a comparative advantage especially in light of recent market volatility and the insolvency of several high-profile market players. Although it's impossible to make a precise forecast about crypto regulation, there are some baseline, no-regret moves that crypto natives can take to manage risk starting today, including:

- ▶ Considering supplementing technology with human intervention to ensure good governance and balance efficiency with safety and risk management.
- ▶ Evaluating and assessing the relevance and reliability of blockchain information evidencing the existence of digital assets held.
- ▶ Understanding, evaluating, and considering third party validation of an entity's exposure to vulnerabilities in smart contracts.
- ▶ Monitoring trends on the blockchain to help identify and mitigate risks such as fraud and money laundering.
- ▶ Establishing new product approval processes.
- ▶ Implementing "know your customer" (KYC) checks early in the product lifecycle.
- ▶ Disclosing the type and amount of digital assets held for consumers and customers.

- ▶ Undertaking due diligence and third-party risk management to monitor suppliers, particularly those providing critical business services.
- ▶ Developing extensive cyber controls and testing, particularly around smart contracts.

Figure 2 - Enterprise risk management



Source: EY analysis

Policymakers

I. Regulatory approaches

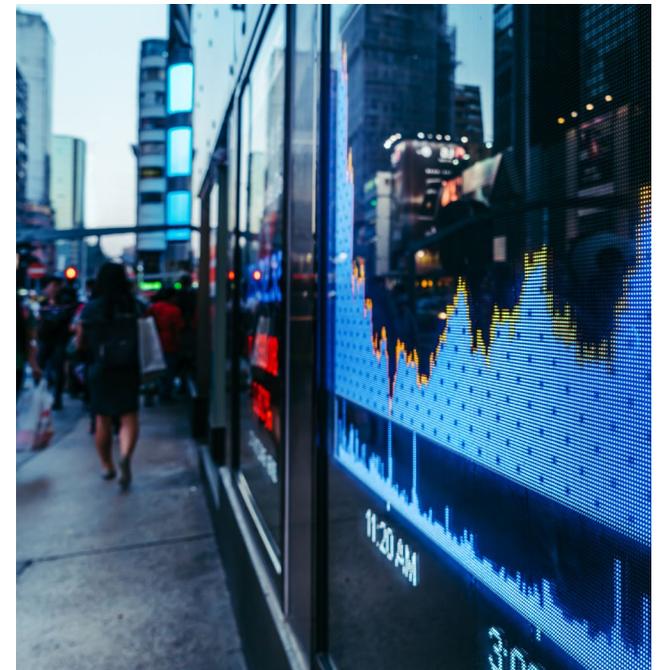
Policymakers acknowledge the need to provide regulatory clarity, but regulatory clarity is often a journey, not a destination, and typically a slow one that evolves with changes in innovation and the market environment. Although policymakers acknowledge that crypto-asset activity has not yet risen to a level that creates systemic risk, they are keenly sensitive to the scale and scope of growth, as well as the potential for interconnectedness with traditional finance firms. The risks for policymakers lie in regulating too heavily or too lightly. Over-regulate and policymakers risk criticism for hampering innovation, denying innovative products to consumers, and ceding momentum to other jurisdictions. Under-regulate and policymakers could leave instability risks unaddressed, customers unprotected, and potentially threaten the digital asset market's integrity. Engaging with both traditional finance firms and crypto natives to align on a common understanding of the risks, opportunities, and tradeoffs, in anticipation of regulation, could better foster more durable and effective regulatory outcomes.

A likely path for regulation, and one that many policymakers have begun to take (as evidenced by the FSB's recent statement on crypto-asset regulation) is to draw parallels and apply existing regulations to crypto-assets and to products that function most like existing crypto-assets, and then to apply additional safeguards where needed.⁶ A one-size-fits-all approach may not necessarily be appropriate for the regulation of digital assets, and an understanding of the unique ecosystem must be taken into consideration.

Stablecoins are a good example of where there is regulatory convergence. Regulators seem to agree that fiat-based stablecoins are the preferred model (as opposed to algorithmic stablecoins). Fiat-based stablecoins have clear parallels with money market funds, provided they are backed by fiat currency on deposit with a recognized depository. Many policymakers, including in the UK, the EU, and Japan, are now moving rapidly to establish specific regulatory regimes for stablecoins, particularly those used as a means of payment (in some cases, for crypto-based, and those linked to money). In the U.S., legislation is under discussion that would allow stablecoins to be issued by regulated banks or non-banks that back their issuance 100% with liquid assets. Legislation has also been proposed to limit issuance solely to regulated banks. Regulators remain cautious about stablecoins, acknowledging both the risks and opportunities, but note the increasing urgency of a regulatory response considering the growth of the market, and events such as the recent collapse of Terra.

Greater reliance on and harmonization of sandboxes across jurisdictions could encourage responsible innovation by allowing firms the opportunity for controlled experimentation while enabling regulators to assess risks and unintended consequences within and across jurisdictions. They are an example of public-private collaboration which is arguably key in getting any closer to an answer to regulating digital assets. First introduced for FinTech firms, regulatory sandboxes enable regulators to work with innovators to ensure that appropriate consumer protection safeguards are built into their new products and services before

these reach a mass market.⁷ The UK FCA established its regulatory sandbox in 2014, and it has been copied by around 40 jurisdictions. The Monetary Authority of Singapore (MAS) also has a well-regarded regulatory sandbox, with MAS recently announcing a new project with the financial industry to pilot the testing of digital assets and DeFi.⁸ A key challenge for regulators remains in articulating expectations within their jurisdictions in a transparent fashion that gives clarity to firms as to when requirements to exit the regulatory sandbox have been met and to apply those expectations consistently to firms.



II. CBDCs

Outside of regulation, there is heightened focus in the industry and among policymakers around CBDCs, which remains an ongoing area of debate.

CBDCs are digital representations of central bank liabilities that are broadly accessible and usable by the public.⁹ Central bank liabilities include both commercial bank money (i.e., reserves) and currency (i.e., cash). In modern central banking systems, reserves – which are traded among banks in wholesale markets – are already digitized and are recorded electronically on central bank balance sheets but are not widely available to the public. Currency or cash, in contrast, is widely available to the public for use in retail transactions but not in digitized form as a liability of the central bank (but as a liability of a commercial bank). When policymakers discuss the desirability and feasibility of a CBDC, they are really focused on whether the central bank should make a digitized central bank liability available to the public.

The emergence of CBDCs is consistent with historical innovations in money that have reduced both holding and transaction costs over time. Nevertheless, several factors explain the recent growing interest in CBDCs. First, the scale and scope of digital assets have grown significantly over the past year, raising concerns in the official sector that, absent further regulatory actions, growth may outpace regulatory requirements, promote illicit finance, and ultimately undermine financial stability. Second, there has been increased research and exploration of CBDCs among central banks to achieve various public policy goals, including promoting monetary sovereignty and fostering financial inclusion. Third, some believe that the creation of a CBDC could help support national economic competitiveness. Many of these factors were a key reason

why several governments, including the U.S., adopted a “whole-of-government” approach toward digital assets that places “high urgency” on CBDC research design, development, and deployment options.

Developing and deploying a CBDC is a complex undertaking, which requires careful consideration of the trade-offs associated with CBDC design, architecture, participation, and infrastructure. Each choice has important implications for public policy dimensions: competition and costs, privacy, financial inclusion, payments resiliency, and integrity. There are many

paths to a CBDC with different speeds to “market” and implications for each of the policy dimensions. Perhaps the quickest path to a CBDC would be for the central bank to provide accounts and associated services to non-bank issuers of stablecoins. A longer path would entail developing a permissioned blockchain where participating institutions would serve as presenters and validators of transactions. There are many potential options in between and no one-size-fits-all for jurisdictions given how each prioritizes and adjudicates tradeoffs.

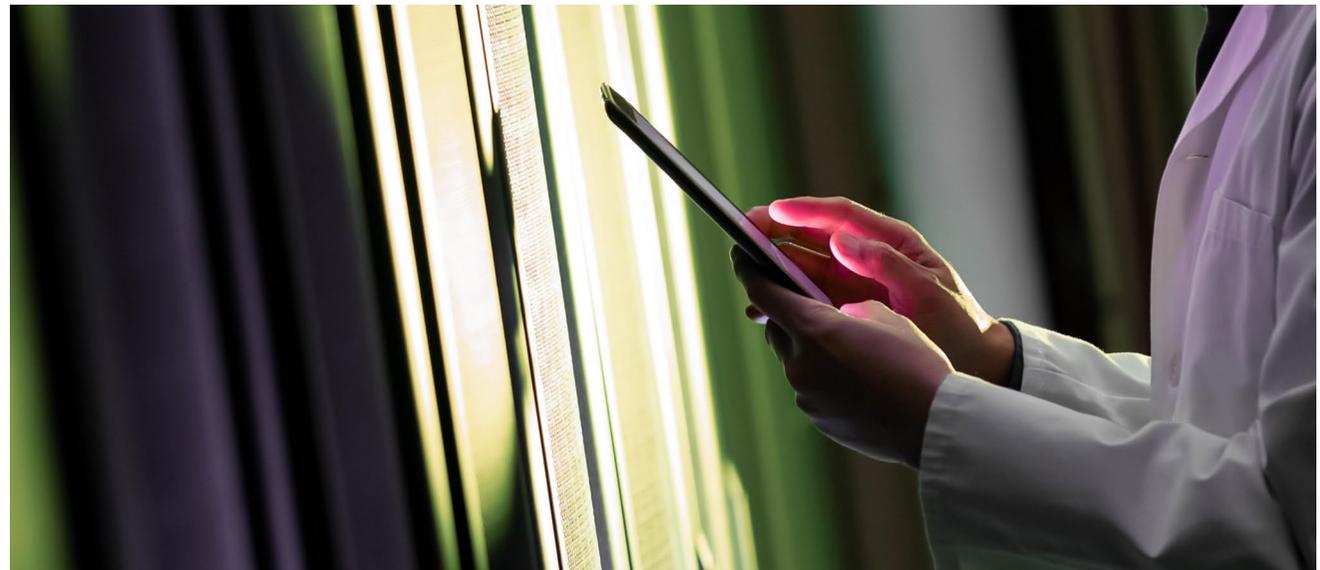


Support remains mixed within and across jurisdictions because of differing views on the opportunities and risks. Proponents suggest that CBDCs could strengthen national competitiveness and promote growth due to their programmability feature. CBDCs could also enhance the efficacy of fiscal and monetary policy, particularly during periods of economic stress. Other advantages include fostering standards that create greater interoperability, thus enhancing digital connectivity and reducing financial transaction costs. Detractors raise privacy, cybersecurity, financial stability and technological feasibility concerns. Some question the underlying value proposition in light of the proliferation of private stable coins and faster payment alternatives (e.g., fast payment settlement systems). As a result, the outlook for CBDCs is still being decided in major economies given their potential impact on the balance between opportunities and risks not just for the crypto-asset market but for the economy as a whole.

As jurisdictions move forward with developing CBDCs, key considerations for policymakers include:

- ▶ Clearly articulating the policy objective(s) the CBDC is intended to achieve.
- ▶ Understanding what impact CBDC implementation could have on the financial system.
- ▶ Assessing whether technological requirements are specified in a manner consistent with stated policy objectives.

- ▶ Carefully considering the trade-offs relating to CBDC design, architecture, participation, and infrastructure including unintended consequences.
- ▶ Setting clear expectations with respect to roles, responsibilities and accountability between public sector and private sector (e.g., “know your customer” (KYC), data security and privacy, operational resiliency).
- ▶ Consensus building mechanisms for developing of technology standards that balance both domestic and international use cases.
- ▶ Understanding the programmability of payments.





Summary

There are close analogies already available to drive regulation of digital assets with some modifications to support the digital nature of these ecosystems. For policymakers, this presents an opportunity to leverage proven approaches that exist within their toolkit and could incentivize earlier adoption by traditional financial firms and crypto natives.

For traditional financial firms, they will need to come to decisions soon about why and how they might engage in crypto-asset markets and what areas they can engage in prudently in a manner consistent with existing risk management and compliance frameworks, as well as regulatory requirements. For crypto natives the big issue will be how they adapt to regulation by making greater investments in risk management and compliance in the absence of regulatory clarity and adapt their business models to accommodate an environment that looks to be increasingly more regulated.

CBDCs are gaining momentum as the trend toward regulation evolves. The development and implementation of CBDCs bears close watching as CBDCs can impact the opportunities and risks in the digital asset market and, therefore, the regulatory outcomes that responsible innovation is intended to achieve. Policymakers are considering fundamental design decisions to ensure the successful deployment of CBDCs and take into consideration the impact not just on digital asset markets, but on economic growth, market functioning and financial stability.

Authors

EY Global Regulatory Network



Chris Woolard CBE

GRN Chair and Partner, EMEIA Financial Services Consulting
Ernst & Young LLP
christopher.woolard@uk.ey.com



Alejandro Latorre

Principal, Financial Services Risk Management Advisory
Ernst & Young LLP
alejandro.latorre@ey.com



Danielle Grennan

Senior Manager
EMEIA Financial Services Regulatory & Public Policy
Ernst & Young LLP
dgrennan@uk.ey.com

Assurance



Mike Leonardson

Partner
Ernst & Young LLP
michael.leonardson@ey.com



Amarjit Singh

EMEIA Assurance Blockchain Leader
Ernst & Young LLP
asingh@uk.ey.com

EY Global Public Policy



Shawn Maher

Global Vice Chair, Public Policy
Ernst & Young LLP
shawn.maher@eyg.ey.com



Katie Kummer

Deputy Vice Chair, Public Policy
Ernst & Young LLP
catherine.kummer@ey.com



Fatima Hassan-Szlamka

Associate Director, Global Public Policy
Ernst & Young LLP
fatima.hassan@ey.com

Blockchain



Paul Brody

Global Blockchain Leader
Ernst & Young LLP
paul.brody@ey.com

Acknowledgments

We would like to thank the following individuals from the EY organization for their contributions to this work: Laura Winthrop, Kevin Hannan, Andrew Hobbs, Bridget Neil, Shauna Steele, Stevy Loy, Julia Tay, Lowri Maher, Kurt Hohl, Eugene Goyne, Debra Greenberg, Chris Barford, and Igor Mikhalev.

Endnotes

1. IOSCO Decentralized Finance Report, International Organization of Securities Commissions, <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD699.pdf>, March 2022.
2. “Crypto Prices Move More in Sync With Stocks, Posing New Risks,” IMF Blog, <https://blogs.imf.org/2022/01/11/crypto-prices-move-more-in-sync-with-stocks-posing-new-risks/>, January 2022.
3. “Crypto Market Sinks Below \$1 Trillion After Latest DeFi Blowup,” Bloomberg News, <https://www.bloomberg.com/news/articles/2022-06-13/bitcoin-sinks-to-18-month-low-as-us-inflation-impact-spreads>, 13 June 2022.
4. Assessment of Risks to Financial Stability from Crypto-assets, Financial Stability Board, <https://www.fsb.org/wp-content/uploads/P160222.pdf>, 16 February 2022.
5. “FSB issues statement on the international regulation and supervision of crypto-asset activities,” Financial Stability Board press release, <https://www.fsb.org/2022/07/fsb-issues-statement-on-the-international-regulation-and-supervision-of-crypto-asset-activities/>, 11 July 2022.
6. “Federal Reserve Board provides additional information for banking organizations engaging or seeking to engage in crypto-asset-related activities” - Federal Reserve Board, <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220816a.htm>, 16 August 2022.
7. Regulatory sandbox, Financial Conduct Authority, <https://www.fca.org.uk/firms/innovation/regulatory-sandbox>, November 2015.
8. “MAS Partners the Industry to Pilot Use Cases in Digital Assets,” Monetary Authority of Singapore press release, <https://www.mas.gov.sg/news/media-releases/2022/mas-partners-the-industry-to-pilot-use-cases-in-digital-assets>, 31 May 2022.
9. See Neha Narula, “Building A Stronger Financial System: Opportunities of a Central Bank Digital Currency,” testimony before the Senate Banking Subcommittee on Economic Policy, 9 June 2021.

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. For more information about our organization, please visit ey.com.

© 2022 EYGM Limited. All Rights Reserved.

EYG no. 007955-22Gbl

2208-4079853

ED None

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, legal or other professional advice. Please refer to your advisors for specific advice.

ey.com

