

7516604-crypto-badlands-crises-as-catalysts-in-the-digital-asset-economy

SUMMARY: This article examines the recurring crypto crisis events and their implications for the digital asset economy. It argues that instead of viewing these crises as failures of crypto products or institutions, they represent a maturing ecosystem adapting to evolving market needs. The study provides a comparative analysis of regulatory responses in various jurisdictions and advocates for international cooperation to address regulatory arbitrage and promote crypto market maturity.

METHOD: The article employs a comparative analysis of regulatory responses in the United States, the European Union, and Hong Kong SAR (China). It uses data from selected jurisdictions to evaluate the effectiveness of their regulatory policies and identify areas for improvement. The methodology involves examining the use cases and policy implementations of these jurisdictions in their efforts to establish themselves as "digital assets global hubs."

KEY FINDINGS:

- The recurring crypto crises are seen as evidence of a maturing ecosystem adapting to market needs.
- There is a need for international cooperation to address regulatory arbitrage and promote crypto market maturity.
- Jurisdictions are competing for the status of "digital assets global hub" through innovative use cases and regulatory policy implementations.
- The analysis highlights growing frictions in transnational regulatory cooperation.

IMPLICATION FOR TRADING: The implications for trading are significant, as they suggest that regulatory responses and market maturity are key factors in the success and fragmentation of the crypto economy. Practitioners should consider the regulatory landscape when making investment decisions and be aware of the challenges of regulatory arbitrage. Understanding the evolving regulatory environment can help traders navigate the complexities of the crypto market and make informed investment choices.

Crypto Badlands: Crises as Catalysts in the Digital Asset Economy

Abstract

Since the emergence of Bitcoin in 2008, many studies and regulatory discourse have examined the recurring crypto crisis events primarily as a failure of crypto products and its financial system. However, the “positive” implications of the recurring crypto winters have remained considerably understudied and continues to impact how regulators, policymakers, and even researchers, evaluate the credibility and maturity of the crypto economy. This Article provides a new dimension in the evaluation of crypto crisis cycles from a maturing financial system’s perspective. It makes a critical contribution to ongoing discourse on crypto economy’s viability, by presenting the first examination of the recurring crisis events, not as a failure of a financial asset or institution, but as evidence of a maturing ecosystem adapting its core narratives and strengthening its infrastructure to meet the fast-evolving needs of its market. Furthermore, the Article provides a comparative analysis of selected jurisdictions actively competing, through innovative use cases and regulatory policy implementations, for the status of “digital assets global hub” to evaluate the level of global success and persisting fragmentations contributing to challenges, especially on regulatory arbitrage, in the new phase of global crypto regulatory and policy implementations. This analysis identifies the growing frictions in transnational regulatory cooperation and advocates for the engagement of international financial centers (IFCs) as enablers of coordinated supervision and harmonized capacity building in the increasingly leveraged and fast-evolving financial system.

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Introduction

Since the emergence of Bitcoin in 2008,¹ many studies and regulatory discourse have examined the recurring crypto crisis events primarily as a failure of crypto products and its financial system.² However, the “positive” implications of the recurring crypto winters have remained considerably understudied and continues to impact how regulators, policymakers, and even researchers, evaluate the credibility and maturity of the crypto economy. This Article provides a new dimension in the evaluation of crypto crisis cycles from a maturing financial system’s perspective. It makes a critical contribution to ongoing discourse on crypto economy’s viability, by presenting the first examination of the recurring crisis events, not as a failure of a financial asset or institution, but as evidence of a maturing ecosystem adapting its core narratives and strengthening its infrastructure to meet the fast-evolving needs of its market. Furthermore, the Article provides a comparative analysis of selected jurisdictions actively competing, through innovative use cases and regulatory policy implementations, for the status of “digital assets global hub” to evaluate the level of global success and persisting fragmentations contributing to challenges, especially on regulatory arbitrage, in the new phase of global crypto regulatory and policy implementations. This analysis identifies the growing frictions in transnational regulatory cooperation and advocates for the engagement of international financial centers (IFCs) as enablers of coordinated supervision and harmonized capacity building in the increasingly leveraged and fast-evolving financial system.

Bitcoin’s emergence has heralded an ever-growing multitude of similar cryptocurrencies across global jurisdictions, mostly parading themselves as alternative payment instruments, digital gold, and even, parallel financial systems based on decentralization and disintermediation. As of October 2025, the global crypto market capitalization was worth over USD 4.2 trillion,³ comprising millions of tokens and cryptocurrencies of different forms. The promises of their core narratives stem from several factors, including the disapproval among crypto proponents of the TradFi system in reaction to the 2008 global financial crisis (GFC), and moral hazards from huge government bailouts of failing institutions during the GFC.⁴ In contrast, the crypto ecosystem envisages a parallel economy based on an open distributed ledger network, that eliminates the need for TradFi institutions (especially banks) and their huge transaction costs, as well as the complexity of intermediary-based government-controlled financial systems.⁵ In theory, this meant that the crypto economy would offer increased financial inclusion for a larger population of excluded and underserved global population segments, as well as access to a neutral and private financial asset, whose value and affiliation is not tied to any national governments or traditional markets.

However, these narratives have been categorized as “false” as the crypto economy and its risk manifestations have exemplified that it operates far more similar to TradFi markets than it

¹ See e.g., Douglas Arner et al., *Interdependencies in Crypto Ecosystems: Drivers, Implications and Policy Responses* (2023). University of Hong Kong Faculty of Law Research Paper No. 2023/17, <https://dx.doi.org/10.2139/ssrn.4361739>

² Id

³ Aki Yokoyama, *Crypto Asset Monitor* (October Edition) International Monetary Fund Connect (2025), <https://www.imfconnect.org/content/dam/imf/News%20and%20Generic%20Content/GMM/Special%20Features/GMM%20Special%20Feature%20-%20Crypto%20Monitor%20October%202025.pdf>

⁴ Anastasia Sotiropoulou and Dominique Guégan, *Bitcoin and the challenges for financial regulation*, 12.4 CAP. MARK. LAW J. 466 (2017).

⁵ See generally, NIKOS DASKALAKIS AND PANAGIOTIS GEORGITSEAS. *AN INTRODUCTION TO CRYPTOCURRENCIES: THE CRYPTO MARKET ECOSYSTEM* (2020).

originally promised.⁶ This reality has been amplified in particular by the anatomy of the recurring vulnerabilities culminating in crisis events that have ravaged the crypto economy, the first major of which occurred as early as 2014, with the collapse of Mt. Gox. Since then, a total of five major “crypto winters” has occurred, mostly related to risks arising from failures of crypto institutions, and even exposures to macroeconomic events in TradFi markets.⁷ This pattern has persisted across the subsequent crises since Mt. Gox, including a speculative initial coin offerings (ICO) boom (in 2017), the collapse of Terra Ecosystem, Three Arrows Capital and FTX (in 2022). These crises have, in one way or the other, involved the failure of systemically important crypto institutions, a striking paradox in a purportedly decentralized and disintermediated ecosystem.

More recently, the most popular crypto assets, Bitcoin and Ethereum, are facing another tough season characterized by cascading liquidity crisis arising from massive liquidations (and recurring forced margin calls) since October 2025⁸, when the price of Bitcoin had initially reached an all-time high of over USD125,000.⁹ Although the crypto economy is not a stranger to high volatilities and crisis cycles, this time is considered different — a larger segment of traditional market investors is involved, and the adverse effects apply across ecosystems due to asset interlinkages and leverage.¹⁰ Perhaps more interesting is the reason behind the ongoing crash which has been suggested as resulting from reactions to macroeconomic disruptions, especially the ongoing geopolitical tensions and reciprocal tariff regimes between the US and other prominent global jurisdictions.¹¹ In response to these disruptions, many investors have jettisoned assets, such as Bitcoin exchange-traded funds (ETFs), which were perceived as high-risk for more stable alternatives like gold, causing the price of Bitcoin ETFs and the underlying Bitcoin values to sharply and continuously drop.¹² The fact that these external events could have such adverse effects on the value of crypto assets and the crypto economy is an acknowledgment of how much change has occurred within the crypto economy’s core narratives since its inception, and more importantly, what this could mean for the long-term viability of the ecosystem.

These occurrences have not gone unnoticed by key stakeholders in the financial industry and global regulatory system. Many have viewed it as justification for the ongoing claim that the crypto asset ecosystem is a “total bust”.¹³ However, this Article will argue contrarily from regulatory and policy perspective, that such conclusions are narrow. It does not reflect the status of all major aspects and prospects of crypto activities and markets. Despite the recurring crises, the integration of crypto into the global financial system through leverage and radical use cases does not appear to be slowing down. Instructive examples include the propelling of global

⁶ Sirio Aramonte, Wenqian Huang and Andreas Schrimpf, *DeFi risks and the decentralisation illusion* (2021) BIS Quarterly Review.

⁷ Giulio Cornelli et al., *Crypto shocks and retail losses* (Apr 13, 2023) BIS Bulletin No. 69, <https://www.bis.org/publ/bisbull69.pdf>

⁸ Gertrude Chavez-Dreyfuz et al., *Bitcoin plummets, driving \$2 trillion tumble in crypto market value*, REUTERS (Feb 5, 2026), <https://www.reuters.com/business/bitcoin-slumps-with-key-70000-level-sight-2026-02-05/>

⁹ This is not the first boom-to-burst cycle in Bitcoin and other crypto assets, similar events occurred in 2013, 2018 and 2022 after major crisis events in the crypto economy.

¹⁰ OECD, *Institutionalisation of crypto-assets and DeFi–TradFi interconnectedness* (May 2022).

¹¹ Nikou Asgari, *Bitcoin price slides to lowest level since 2025 tariff shock*, FINANCIAL TIMES (Jan 31, 2026), <https://www.ft.com/content/faeb72a0-62ce-4d60-968e-5b932ea9c7e4>

¹² As of late February 2026, Bitcoin has lost over 45% of its peak value in October 2025.

¹³ MEXC, *Krugman Says This Bitcoin Crash Is Different. Is This Bottom Signal?* (Feb 7 2026), <https://www.mexc.com/en-GB/news/656082>

stablecoins as alternative infrastructure to wholesale payments and settlements systems,¹⁴ and the increasing tokenization of deposits, cash-equivalents and real-world assets as new solutions to existing financial gaps among global jurisdictions. Importantly, majority of these radical financial innovations currently benefiting the global financial system resulted from crypto economy's adaptations to its crisis events and volatilities. GSCs, for instance, were developed as a more stable alternative to the highly volatile cryptocurrencies, while tokenization is an offshoot of securitized token offerings, which emerged from the failures of the ICO bubble crash. These realities underscore the Article's contention that crisis have worked as a dynamic for strengthening crypto ecosystems, driving it further towards credibility among traditional market systems.

Among international regulators and policymakers, the regulation of crypto activities has transitioned from theoretical policy designs and evaluation of financial and economic use cases to a more practical implementation of formalized regulatory regimes and long-term policy strategies.¹⁵ However, this has been far from unified. The recent reports from international bodies, such as the Financial Stability Board (FSB) and the International Organization of Securities Commission (IOSCO), have highlighted a contrasting trend.¹⁶ There is substantial convergence in the structure of broader regulatory themes and policy components, with the most robust formalizations manifesting across international financial centers (IFCs) aspiring to become global digital assets hubs. However, critical fragmentations persist across implementation approaches adopted by a larger segment of global jurisdictions, especially on more granular details of regulatory frameworks and enforcement policy strategies.

In the US, for instance, the Trump administration's crypto-friendly stance has revolutionized how the government, key regulatory authorities and industry players treat crypto activities, propelling the jurisdiction to the forefront of crypto innovations and permissive regulatory developments.¹⁷ This permissive stance (including the GENUIS Act, and impending CLARITY Act) have strong influence across the global interconnected financial systems, prompting the introduction of similar permissive frameworks as jurisdictions compete for foreign capital and richer economic growth. However, substantial divergence exists on how key metrics, such as definitions, regulatory scope and applicability, are determined in the implementation of these frameworks, to ensure effectiveness in combating the well-recognized vulnerabilities in crypto's inherently borderless activities and market.

At the extreme end, there are still jurisdictions who treat crypto ecosystem with great suspicion. Most instructively, the existing Chinese ban on all crypto activities imposed in 2021 after the ICO crash has recently been extended, in 2026, to cover major activities in tokenized finance. The restrictive stance requires very stringent preconditions for the grant of approval for all RWA tokenization activities within and beyond its jurisdiction. This confirms that in many

¹⁴ Tobias Adrian et al., *Understanding Stablecoins* (2025) IMF, <https://www.imf.org/-/media/files/publications/dp/2025/english/usea.pdf>; Gordon Y. Liao and John Caramichael, *Stablecoins: Growth potential and impact on banking* (2022) Board of Governors of the Federal Reserve System, <https://doi.org/10.17016/IFDP.2022.1334>

¹⁵ PWC, *Global Crypto Regulation Report 2026* (Jan. 2026) 3, <https://www.pwc.de/de/unterlagen/pwc-global-crypto-regulation-report-2026.pdf>

¹⁶ Financial Stability Board, *Thematic Review on FSB Global Regulatory Framework for Crypto-asset Activities* (Oct 16, 2025) 2.

¹⁷ THE WHITE HOUSE, FACT SHEET: PRESIDENT DONALD J. TRUMP ESTABLISHES THE STRATEGIC BITCOIN RESERVE AND U.S. DIGITAL ASSET STOCKPILE (Mar 6, 2025), <https://www.whitehouse.gov/fact-sheets/2025/03/fact-sheet-president-donald-j-trump-establishes-the-strategic-bitcoin-reserve-and-u-s-digital-asset-stockpile/>

jurisdictions, the crypto economy is still considered a “badland,” comprising heavily unregulated high-risk financial activities. These heterogeneities, also manifesting in formalized approaches and policy implementations, unless actively managed, could create substantial regulatory arbitrage concerns, capable of affecting the effectiveness of individualized jurisdiction-focused implementations.¹⁸ This is especially true as crypto economy strengthens its reach in the face of growing interdependencies and cross-pollination of systemic risks inherent in the integration into the global financial system.

Therefore, there is an urgent need to consider new dimensions in assessing the less acknowledged interrelationships between crisis events and financial innovations in the crypto ecosystem. This Article argues that the findings from this endeavor would be critical to understanding the evolving strengths and remaining weaknesses of the crypto-ecosystem’s shifting narratives, and how to better integrate these dynamics into the actualization of robust, effective and coordinated regulatory and policy global implementations. Following this, the Article further argues for advanced regulatory harmonization through several strategies, including the repurposing of the fundamental roles played by IFCs in global policy alignment and regulatory transplantations. This would create a gateway for a more formal and unified approach on the actualization of key regulatory objectives in a fully interconnected global financial system, extending coordination beyond anti-money laundering, to other equally important strategies on investor protection, financial stability and market integrity.

The Article is structured in five parts. After this introduction, Part I provides a background analysis into the core narratives of the crypto economy and the underlying mechanics propelling them in modern markets. Crypto economy, at its inception, sought to elevate new core financial narratives around its financial markets infrastructure, assets value and market participants structure, all of which are fundamentally different from what obtains in TradFi systems. This section then explores how this core narratives have played out in comparison with TradFi systems, to highlight the observable similarities and peculiar differences.

In Part II, the Article explores the major crisis events since the inception of the crypto economy to evaluate their causes and consequences, as well as the direct impact they have had on the fast-evolving financial innovations evolution, in terms of products, services, systems and infrastructure, in the crypto economy. In general, this section suggests that while crypto crisis typically has initial debilitating effects on the economy, it over time contributes to new forms of radical innovations that aligns ever-more deeply with TradFi and traditional regulatory themes and objectives. This section also identifies that through the crisis events, the global nature of crypto activities and markets have become more apparent, suggesting a new yardstick for evaluating the far-reaching implications on jurisdiction-specific risk-based regulatory frameworks.

In Part III, the Article builds upon the comparative analysis and infers from the earlier examination of crypto crisis, in assessing the status of global regulatory and policy responses to crypto developments. In this Part, the Article reechoes and provides further clarifies the findings of major international bodies on the emerging commonalities and persisting fragmentations in crypto regulatory outlook, and what this could mean for the viability of future developments across markets. This part examines the developmental trends and key issues from major international regulatory bodies, including the Financial Stability Board (FSB), Bank for International Settlements (BIS), International Organization of Securities Commissions

¹⁸ Sumit Agarwal et al., *Inconsistent Regulators: Evidence from Banking*. (2014) 129.2 Q J ECONOMICS 889.

(IOSCO), Financial Action Task Force (FATF) and the International Monetary Fund (IMF). In addition, the comparative analysis also evaluates the regulatory and policy-related implementations across selected prominent global jurisdictions: United States, EU and Hong Kong SAR (China). This analysis highlights the commonalities and persisting heterogeneities in crypto regulatory developments, and how they contribute to existing regulatory concerns, in particular around regulatory arbitrage across major metrics, such as definition of covered assets, composition of reserve assets, scope of regulated issuers under licensing models etc.

In Part IV, the Article examines the roles of IFCs in global financial system and regulation generally and explores the desirability and practicality of repurposing IFCs as viable environments for first-level regulatory and policy implementations, global transplantation and coordinated supervision. This section also outlines the key policy recommendations that should be the immediate focus of the proposed IFCs engagements in addressing the persisting regulatory issues from crypto regulatory fragmentations and the efforts towards regulatory harmonization and coordinated implementations. The recommendation spread across four main themes, including licensing models, data collection and disclosure regimes, risks management and governance, and international cooperation and coordinated capacity building. Part V concludes.

I. Core Narratives of Crypto Ecosystems

The inception of digital assets financial systems began with the launch of Bitcoin, the first and most valued cryptocurrency. The nontraditional infrastructure upon which it grew have gone far beyond its blockchain-based system to include very fundamental narratives that sought to distinguish it from TradFi system. These narratives operate across the broad use cases of digital assets, whether as a payment rail, financial instrument, store of value, and even money. Specifically, Bitcoin and other initial digital assets were construed along three main narratives: (1) digital gold; (2) decentralized and disintermediated ecosystem; and (3) payment rail of future economies.¹⁹ These narratives are examined in turn to highlight the initially chaotic divergence of digital assets ecosystem from foundational concepts in TradFi systems. Setting this scene will be critical to understanding how the recurring crisis cycles have radically transformed the narratives, prompting a reconsideration of how the ecosystem is assessed, and how it could be regulated effectively in the future.

A. Crypto as Digital Gold

The concept of gold in TradFi can be understood both as a popular alternative monetary system, as well as a private commodity for storing value since the beginning of modern societies.²⁰ Since the transition of modern societies and commerce from the barter system, gold and other precious metals have been used as a preferred means of exchange, laying the foundation for the monetary system. In international financial systems, gold has played critical roles as crucial international payments instruments and non-correlated reserve assets. Until 1973, global

¹⁹ Olga Kharif, Bitcoin, *Ether Core Narratives Are Crumbling With Prices* BLOOMBERG (Feb 5, 2026), <https://www.bloomberg.com/news/newsletters/2026-02-05/bitcoin-ether-core-narratives-are-crumbling-with-prices?embedded-checkout=true>

²⁰ See Catherine R. Schenk, *The global gold market and the international monetary system* In THE GLOBAL GOLD MARKET AND THE INTERNATIONAL MONETARY SYSTEM FROM THE LATE 19TH CENTURY TO THE PRESENT: ACTORS, NETWORKS, POWER. 17-38 (2013).

economies operated on the “gold standard”²¹, where major national currencies were backed by their gold reserves used in global trade transactions with counterparts. However, this later gave way to a “fiat-based system”, when the international monetary system transitioned from the gold standard to a regime where national currencies are now currently backed by strategic domestic reserve and investment assets.

Importantly, even though international monetary system now relies primarily on fiat currencies for globalized trade and financial interrelationships, gold continues to occupy a significant position as an alternative reserve asset.²² This is majorly because of its capability to act as a hedge against inflation, and other global macroeconomic eventualities such as currency devaluation, market volatility, and geopolitical crises.²³ Specifically, due to its finite supply, most individual investors, corporate groups (institutional investors), and even central banks²⁴ consider it as a neutral, private and safe-haven asset, providing a more stable store of value (wealth) during adverse economic, financial and political events. While fiat currencies are typically directly impacted by efforts of central banks on monetary policy adjustments (control of money supply through short-term interest rates adjustments), currency devaluation and fiscal spending,²⁵ gold is able to retain its value over longer periods.²⁶ Its demand is therefore consistent and trusted among global regimes, making it a viable reserve asset against potential counterparty defaults and credit risks.

Moreover, the safe-haven advantage also extends to stock and equities market. Gold has been proven to have a very low correlation with downturn events in stock markets,²⁷ thus, providing effective portfolio diversification channels for mitigating potential losses against liquidity crisis or contagion during periods of volatilities tied to the performance of governments or financial entities. In short, gold has established itself as a nonpolitical asset, with huge prospects in global monetary systems and considerable capabilities as a store of value, having demonstrated key criteria of durability, verifiability, portability, fungibility, divisibility and scarcity.

²¹ GUSTAV CASSEL, *THE DOWNFALL OF THE GOLD STANDARD* (2017); EDWIN WALTER KEMMERER, *GOLD AND THE GOLD STANDARD: THE STORY OF GOLD MONEY, PAST, PRESENT AND FUTURE* (LUDWIG VON MISES INSTITUTE, 1944)

²² Anna J. Schwartz, *Alternative monetary regimes: the gold standard* In *MONEY IN HISTORICAL PERSPECTIVE*. 364 (1987).

²³ The effect of gold as a preferred safe-haven asset has been more pronounced recently, reaching an all-time high of over USD5,600 per ounce in January 2026.

²⁴ Central banks especially consider it a viable alternative to the adverse implications that can arise from the overreliance on foreign major currencies, particularly the US Dollar, because such reliance usually have disruptive economic and financial implications on their monetary and financial stability.

²⁵ This can be better understood through what is popularly known as the “Keynesian economics,” developed by John Maynard Keynes during 1930s in response to the catastrophic consequences of the Great Depression, including loss of employment and global recession. The theory, which rivals the Austrian economics, argues that government intervention through increased spending and lower taxes (and inflation control through interest rates adjustments), is crucial to stimulating demand, reducing unemployment and counteracting recessions. This theory influenced the government’s response in the period after the 2007 global financial crisis, where several stimulus packages were released as part of efforts to create jobs and stimulate economic activity and financial recovery. See Sarwat Jahan and 2 ors, *What is Keynesian economics* (2014) 51.3 International Monetary Fund 53-54.

²⁶ The stability of gold has been subject of extensive research, confirming its proven role as a safe haven asset. See Dirk G. Baur and Thomas KJ McDermott, *Why is gold a safe haven?* 10 J. BEHAV. EXP. FINANCE 63-71 (2016).

²⁷ Unlike the stock market or fiat currencies whose value (or purchasing power) is linked to the performance of the government or company, the value of gold connects generally to the cost of goods and services, thus providing more stability in times of financial or economic distress.

The core narrative of the digital asset ecosystem has also been touted as having similar qualities to gold to warrant its classification, at least broadly, as digital gold.²⁸ Like gold, the digital asset ecosystem at its core is comprised of private digital currencies, so-called cryptocurrencies, with no direct ties to national governments, but with increasing relevance in domestic and international monetary system.²⁹ For instance, the whitepaper, which introduced Bitcoin as global private digital currency, emphasized its lack of political affiliation as an advantage for individuals and groups seeking to engage in core financial activities outside the government-controlled financial system, where fiat currencies are the prominent legal tender.³⁰ In lieu of this, the digital asset ecosystem established an open and permissionless blockchain-based system, accessible globally through the internet, where transactions are privately and collectively verified and authorized in a globally decentralized infrastructure, using complex cryptography, so-called proof-of-work.³¹

In this infrastructure, the traditional functions of central banks in central clearing and settlements systems are provided by miners, who get rewarded for solving the unique complex cryptographic puzzles created by generated transactions before getting registered in the immutable block on the chain. In essence, the private infrastructure provides a non-sovereign and censorship-resistant model that protects its ecosystem users from potential monetary debasement, capital controls and cyclical risks. While this privacy has, for the most part, endured across the crypto ecosystem,³² the later section of this Article would demonstrate how the recurring crisis cycles have heralded a transition towards a less private form of digital asset ecosystems. In particular, increasing direct (and indirect) connections with major fiat currencies has become more common than initially envisaged, suggesting a shift in the crypto ecosystem's maturity and adaptation to varying needs.

As a store of value, the digital asset ecosystem also parades itself as a hedge against inflation³³ and reliable alternative to TradFi assets. It is not difficult to appreciate how, in theory, it may be insulated from the shifts in inflation and volatilities in TradFi markets. Indeed, as an alternative asset, digital assets could benefit as safe havens for investors seeking to diversify their portfolio to avoid adverse impacts from high inflation, as well as economic, financial and political crises. This is because, like gold, it also replicates the main criteria of viable store of value assets. For example, Bitcoin's availability as an asset is hard-coded to ensure scarcity – the maximum number of Bitcoins that can be created is capped at 21 million, mimicking the gold finite supply profile. Similarly, the verifiability of digital assets involves complex cryptographic proof that is available on open-source permissionless blockchain-based infrastructure. This register is not only verifiable, but more importantly, all records are immutable, providing a good single source for all parties on the network, while preventing potential tampering with entries made. Moreover, the digital nature of crypto allows its transfer electronically across global jurisdictions, providing strong network for portability, at least across the countries where its use is legal.

²⁸ NATHANIEL POPPER, *DIGITAL GOLD: THE UNTOLD STORY OF BITCOIN* (2015).

²⁹ Konstantinos Gkillas and François Longin, *Is Bitcoin the new digital gold? Evidence from extreme price movements in financial markets* (2019), <https://dx.doi.org/10.2139/ssrn.3245571>

³⁰ Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System* (2008), <https://bitcoin.org/bitcoin.pdf>

³¹ *id* at 3.

³² Muhammad Habib ur Rehman et al., *Trust in blockchain cryptocurrency ecosystem*, 67.4 IEEE Transactions on Engineering Management 1196 (2019).

³³ Sangyup Choi and Junhyeok Shin, *Bitcoin: An inflation hedge but not a safe haven*, 46 Finance Research Letters 102379 (2022).

Finally, the transferability of the digital assets can be exchanged for value to meet real-world needs across global jurisdictions at low costs (in minutes), confirming its fungibility, even in situations where only fractions of the full value of the assets are required for settlements of individual financial transactions (divisibility). While this brief exploration may suggest that indeed digital assets have the necessary features of an alternative global financial asset and a reliable store of value, this is not always the case. A major conflicting element revolves around durability of digital assets in terms of volatility and retention of value. For example, the volatility of Bitcoin, and indeed most digital assets, have remained high, making their conclusively categorization as a short-term store of value rather challenging.³⁴ As research suggests, in recent times, it reacts to regulatory policy shifts like other traditional risk assets. But it may be also argued that the digital asset ecosystem has existed for around 15 years, and in that time, it has managed to remain durable, especially when its ability to recover from recurring crisis cycles is factored.

Subsequent explorations in this Article will argue along this line, that the long-term potential role of crypto as digital gold remains plausible, but presently incomplete. It would therefore require considerable regulatory intervention and harmonized policy implementations, if it is to be realized.

B. Decentralization and Disintermediation

The concept of intermediation and centralization is integral to the evolution of TradFi systems and continues to play a crucial role in modern economies.³⁵ In a broad sense, intermediation refers to the process, where third-party services providers, especially financial institutions like banks, insurance companies and investment firms,³⁶ provide middlemen services to channel the movement of money from those with excess capital (depositors) to those in desperate need for such capital (borrowers). Where these services are offered by one giant financial institution, the complementary services are said to be centralized, implying that the service providers offer a one-stop shop for major financial functions. In doing so, the intermediaries support global trade and promote efficiency in business and commercial transactions, by reducing costs and managing risks from information asymmetries (e.g. taking on third party and credit default risks by managing assets and liabilities on their proprietary accounts, rather than functioning as agents to transacting parties) and creating needed liquidity for economic growth by pooling funds.

Banks, for example, existed since the 12th century, providing individuals and businesses with multiple interlinked financial functions, starting with savings (deposit taking) and loans (credit).³⁷ In recent times, financial institutions in corporate groups are able to offer a broad of financial functions beyond mere deposit taking and loan issuance, including investments, payments and even insurance services. Their transnational scope of their operations has been a

³⁴ Dirk G. Baur Thomas Dimpfl, *The volatility of Bitcoin and its role as a medium of exchange and a store of value* 61.5 *Empirical economics* 2663 (2021).

³⁵ Bert Scholtens & Dick Van Wensveen, *The theory of financial intermediation: An essay on what it does (not) explain*, No. 2003/1. SUERF Studies, (2003).

³⁶ There is a broad range of entities that qualify as intermediaries in TradFi, but the popular ones are categorised based on their service offerings and clienteles, including commercial banks, investment banks, insurance companies, pension funds, and mutual funds.

³⁷ Constantinos Challoumis and Nikolaos Eriotis, *Evolution of banking systems: A comprehensive historical analysis*, 7.1 J. CONTEMP. RES. BUS. ECON. FIN. 1 (2025).

catalyst for the continuous growth of globalization, supporting international trade and increasing interdependencies among economies, regardless of their geographical locations.³⁸

Unlike TradFi systems, decentralization and disintermediation are two foundational concepts at the root of digital assets ecosystem during its inception.³⁹ Indeed the whole tenets of the digital ecosystem, starting with Bitcoin, revolves around the creation of alternative decentralized financial systems in response to the failures of banking institutions and government bailouts during the 2008 GFC. Disintermediation is the direct opposite of intermediation. It generally refers to the process where borrowers can go directly to the financial market to raise needed capital, thus, bypassing the need for traditional service providers.⁴⁰ In lieu of intermediaries, the digital asset system would rely primarily on blockchain technology, enabling direct peer-to-peer (P2P) engagements between online users across global jurisdictions. As such, the digital infrastructure allows the faster exchange of value, while reducing costs, especially those arising from intermediation.

Concurrently, disintermediation using blockchain-based infrastructure also eliminates the need for reliance on centralized authorities, such as central banks and financial intermediaries, thus promoting decentralization.⁴¹ In decentralized finance architectures of digital asset ecosystem, the traditional roles of centralized authorities (government) and financial intermediaries are typically performed by technological applications and software protocols, particularly smart contracts.⁴² These technologies use predetermined protocols in automating the handling of core financial activities such as lending, borrowing and trading. In overcoming the potential costs from information asymmetries (and management of risks), decentralization relies on a trustless system (blockchain technology), allowing the validation of transactions by a distributed network of participants, or “nodes,” in place of a centralized institution.⁴³ This ensures no single entity or centralized authority can manipulate the system, ensuring both security and transparency in underlying P2P transactions. In short, the cutting out of middlemen limits the attendant costs of having multiple players in the value chain, thus, rendering transactions relatively cheaper and faster. In the case of Bitcoin and other cryptocurrencies (e.g., Ethereum), for instance, users can send their assets directly among themselves without the need for a bank, or central bank for settlement, provided they have their private key.

In theory, decentralization and disintermediation can have several benefits, including reducing the risks of censorship from authorities, as well preventing potential hacking and corruption from a single entity, since there is no single point of failure in the distributed network.⁴⁴ However, the sporadic growth of crypto activities has shown that this approach may have become highly limited in upscaling activities, prompting the transition to traditional intermediary-based ecosystems, involving crypto institutions, together with its cost

³⁸ Paul Streeten, *Integration, interdependence, and globalization*, 38.2 FINANCE & DEVELOPMENT 34 (2001).

³⁹ Sijuade Animashaun, *Platformisation of Finance: DeFi's Gradual Disintermediation Effect and the Leveraging of CBDCs in Smart Supervision* (2022) 9 CITY U. H.K. L. REV. (2023), <https://ssrn.com/abstract=4135621>

⁴⁰ MATTHIEU QUINIOU, BLOCKCHAIN: THE ADVENT OF DISINTERMEDIATION (2019); Matthias Haentjens, Tycho De Graaf and Ilya Kokorin, *The failed hopes of disintermediation*, SING JLS. 526 (2020).

⁴¹ Animashaun, *supra* note 39.

⁴² Jon Frost Doerr et al., *DeFi risks and the decentralisation illusion* (2021) BIS Quarterly Review 21, https://www.bis.org/publ/qtrpdf/r_qt2112b.pdf

⁴³ In essence, the consensus mechanism which uses computers in network to agree on transaction validation through “Proof-of-Work” or Proof-of-Stake” algorithms provide an alternative to a central admin. Id at 21.

⁴⁴ id

implications and risks vulnerabilities. This will be explored within the evolution of crisis in the digital asset ecosystem in the next section of the Article.

C. Payment Rails of Future Economies

Payment is a fundamental catalyst to the efficiency of the global financial systems. In TradFi, it provides a gateway to formal financial systems and other core financial functions among both individuals and even entities. As mentioned, traditional payments infrastructure is critically intermediary based, comprising payment services providers in domestic jurisdictions, as well as correspondent banks and payment processors enabling the execution of payment initiation and completion across borders. At the background of this system is the payment and settlements system operated and managed by the government (central banks), such as real-time gross settlement (RTGS), providing aggregate (wholesale) transaction verification and netting among PSPs. Importantly, due to the multitude of service providers across the payment corridors, substantial inefficiencies typically exist in traditional payments, in terms of payment inclusion, broadly referring to three main dimensions: access (e.g., bank accounts), beneficial usage (e.g., cash-based systems or digital payments) and quality (e.g., affordability and protections).⁴⁵

In theory, the digital asset ecosystem has huge potentials to drive payment inclusion and offer the payment rail of the future. The underlying open blockchain-based infrastructure offers global access (using the internet) to instant, 24/7 and low-cost value transfer, without the need for traditional bank accounts, or access to financial intermediaries. The settlement using digital currencies (i.e. decentralized electronic currency) also offer considerable privacy between parties, allowing Bitcoin owners to remain “mostly” anonymous, even though the verification of the transaction is completed transparently by other users on the distributed network – a process known as crowdsourcing. Moreover, where preprogrammed, smart contracts can also allow for the automation of payments on behalf of parties, a fundamental catalyst for the increased leverage of digital financial services in accessing globally competitive commercial transactions.

In practice, however, the reliance on a fully decentralized and disintermediated system can have considerable impact on the trust that such system generates across global economies.⁴⁶ Even though the blockchain architecture solves the legacy problems in payments around double spending and digital payments reversibility, distrusts can still manifest in the forms of public policy and regulatory/governance issues such as financial fraud, particularly anti-money laundering (AML) and counter-financing of terrorism (CFT).⁴⁷ The implications of these concerns on the stability across digital assets ecosystem and its reputation is considered in the next section, particularly in terms of institutional hacks, exploits of DeFi ecosystems. But presently, suffice to note that the instructive example of a project that could have potentially far-reaching implications, whether positive or negative, did not eventually see the light of day. Specifically, the Diem stablecoin project by Facebook (now Meta) included strong proposals

⁴⁵ THE WORLD BANK GROUP, THE GLOBAL FINDEX 2025, <https://openknowledge.worldbank.org/bitstreams/9288bdc5-7a9b-42de-a47c-3746fd68f22a/download>; Kosta Peric, *Digital financial inclusion*, 9.3 J. PAY. STRAT. SYST. 212 (2015).

⁴⁶ Muhammad Habib ur Rehman, et al., *Trust in blockchain cryptocurrency ecosystem*, 67.4 IEEE Transactions on Engineering Management 1196 (2019).

⁴⁷ Parma Bains et al. *Regulating the crypto ecosystem: the case of stablecoins and arrangements*. (2022) 34 International Monetary Fund.

on the creation of an alternative parallel payment system, where the diem would be pegged to a bucket of fiat currencies and operate as the primary means of global financial transactions and commercial interrelationships across the digital assets financial system.⁴⁸ Unfortunately, this project was abruptly abandoned, in part, due to the strong regulatory attention and scrutiny it generated among global regulators and policymakers on its potentially adverse impact on the stability of TradFi systems and traditional market dynamics.⁴⁹ Since then, more trusted use cases have emerged through central bank digital currencies⁵⁰ and GSCs that are increasingly being considered as integral to the future of payment rails. This will be explored later.

Overall, the explorations above highlight the key narratives of the digital asset ecosystem and how it fundamentally distinguishes itself from TradFi systems. The chaos arises not only from the unconventional approach to the core concept of financial systems, but also the dynamics of its market and products. This demonstrates the basis behind the recurring controversy around the crypto ecosystem, especially around ambiguities on whether it is a currency, payment rail, financial asset, or an ecosystem? In the next section, the Article examines the major systemic crisis events that have occurred since the emergence of the digital assets ecosystem and how this has confirmed the shift from its initial narratives. This analysis will suggest the evolving transformative adaptations of the erstwhile niche ecosystem and provide evidence to support that the market is maturing and is ripe for more robust regulatory intervention for global acceptability to harness its full potentials.

II. Crypto Crisis Cycles: Inception and Present Day

The nature and dynamics of modern financial systems – reflected by heavy asset interlinkages and intermediary-based - makes it especially prone to recurring crisis cycles.⁵¹ In general, crisis in the context of financial systems refers to a period of failure in the normal functioning of critical institutions and markets, which results in compounded adverse effects, such as disruptions to key financial functions (e.g. credit and payment), loss of investor/depositor confidence, and sharp drops in the value of financial assets.⁵² In short, a crisis typically occurs when intermediation which supports financial systems break down. This could manifest, for example, in the inability or unwillingness of lenders to extend credit facilities to capable borrowers due to fears around counterparty's solvency.⁵³ Where this happens, it disrupts the financial system by drying up needed liquidity and creating other funding problems (in payments and other financial services) that usually exacerbates the situation, since credit and counterparty defaults become more pronounced.

⁴⁸ LIBRA, WHITEPAPER: AN INTRODUCTION TO LIBRA 12 (JUNE 2019); Dirk A. Zetsche et al., *Regulating Libra* (2021) 41.1 OXF. J. LEGAL STUD. 80

⁴⁹ *Global Regulators and Politicians React to Facebook's Libra Cryptocurrency Initiative*, THE BLOCK (Jun 20, 2019, 11:08 AM), <https://www.theblockcrypto.com/post/28280/global-regulators-and-politicians-react-to-facebooks-libra-cryptocurrency-initiative>; Amanda Simmons, *Regulating Libra: Will Legal and Regulatory Uncertainty Prevent the Launch of Facebook's Cryptocurrency Project?*, 16 J. BUS. & TECH. L. 83 (2021)

⁵⁰ Raphael Auer & Rainer Böhme, *The technology of retail central bank digital currency* (2020) BIS Quarterly Review, March.

⁵¹ Viral V. Acharya and Matthew Richardson, *Causes of the financial crisis*, 21.2-3 CRITICAL REVIEW 195 (2009); Tobias Adrian and Hyun Song Shin, *The changing nature of financial intermediation and the financial crisis of 2007–2009*, 2.1 ANNU. REV. ECON. 603 (2010).

⁵² This term is used broadly to include stocks, bonds, real estate and other hybrid financial instruments traded in modern financial markets.

⁵³ Adrian & Shin, *supra* note 51.

Crisis is not an uncommon phenomenon in TradFi systems.⁵⁴ In fact, one of the major global crises referenced in modern economies dates to the period before the Second World War, when the stock panic in 1929 eventually led to Great Depression of the 1930s.⁵⁵ Since then, other forms of crises have recurring plagued TradFi systems, including banking crises (bank runs and widespread institutional failures)⁵⁶, currency crises (rapid devaluations or speculative attacks on national currencies), debt crises (widespread failures on debt servicing), and asset-price bubbles and crashes (massive leveraged booms of assets followed by sudden collapses undermining collateral value).⁵⁷

For most of these crisis' events, the major triggers are largely similar, even though it is generally argued that no crisis is the same as another.⁵⁸ The major triggers include (1) initial periods of credit booms and mispricing of risks; (2) failures of overleverage and maturity transformation; (3) liquidity freezes and credit crunch; and (4) contagion, interdependences and interconnectedness.⁵⁹ As would be revealed in the analysis from section, these triggers are no longer unique to TradFi systems. Even though the core narratives of digital assets financial systems are fundamentally calibrated differently from the intermediary-based and centralized TradFi model, similar trigger manifestations have nevertheless ravaged the ecosystem, perhaps at a more alarming rate. This begs the question: whether the digital assets ecosystem can be categorized as a mature financial system for sharing similar core crisis mechanisms with more established financial ecosystems? Answering this in the affirmative could justify arguments for more robust regulatory reforms and policy responses characteristic of mature financial ecosystems. This argument will be explored subsequently in Section IV of the Article.

Presently, arguably the major distinguishing factor between crisis in digital assets ecosystems and TradFi lie in the overall effect on the real economy.⁶⁰ In the case of TradFi, some of the noticeable impact from the recurring crisis events have included credit contraction, confidence shock, and in extreme cases, recessions. Where these effects occur, they have forced very robust policy responses and regulatory reforms from national and regional regulators and global policymakers.⁶¹ Key reforms have included emergency liquidity and guarantee, recapitalization and resolution regimes of “too-big-to-fail”⁶² financial institutions, and regulatory tightening around capital and liquidity standards.⁶³ The evolution, recent developments and practicality of similar global responses to digital assets ecosystems' crisis is explored in Section III.

⁵⁴ See generally, ROSS P. BUCKLEY AND DOUGLAS W. ARNER, *FROM CRISIS TO CRISIS* (2011).

⁵⁵ Juan Manuel Matés-Barco, *The Great Depression of 1929: crisis in the world economy*, In *THE AGE OF GLOBAL ECONOMIC CRISES* 1 (2023).

⁵⁶ Charles W. Calomiris and Gary Gorton, *The Origins of Banking Panics: Models, Facts, and Bank Regulation* in R. GLENN HUBBARD (ED), *FINANCIAL MARKETS AND FINANCIAL CRISES* 109 (1991).

⁵⁷ See e.g., ROSS BUCKLEY AND DOUGLAS ARNER, *FROM CRISIS TO CRISIS: THE GLOBAL FINANCIAL SYSTEM AND REGULATORY FAILURE* (2011)

⁵⁸ CARMEN M. REINHART AND KENNETH S. ROGOFF, *THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY* (2009).

⁵⁹ Alin Marius Andries et al., *Risk spillovers and interconnectedness between systemically important institutions*, 58 J. FINANC. STAB. 100963 (2022).

⁶⁰ See e.g., Daniel Gros and Cinzia Alcidi, *The impact of the financial crisis on the real economy: The crisis and the real economy*, 45.1 INTERECONOMICS 4 (2010).

⁶¹ id

⁶² Imad Moosa, *The myth of too big to fail*, 11 J. BANK. REGUL. 319 (2010).

⁶³ Charles AE. Goodhart, *The regulatory response to the financial crisis*, 4.4 J. FINANC. STAB. 351 (2008).

To evaluate what the above crisis triggers mean and illustrate how they manifest, below the Article traces the evolution of crisis in digital assets financial systems, with focus on systemic crisis events in centralized finance (CeFi) and decentralized finance (DeFi) ecosystems.

A. Mt. Gox Collapse (2013)

Mt. Gox, founded in 2010, was one of the first,⁶⁴ and arguably the most dominant, global Bitcoin trading platforms in the beginning of digital asset financial system. It provided multiple core TradFi-like financial functions including Bitcoin trading, crypto custody, trading interface and fiat/crypto deposits and withdrawals. In 2014, the Tokyo-based exchange abruptly closed its website and suspended the withdrawals of deposited cryptocurrencies in its wallet in 2014, on the basis that it had lost around 650,000 - 850,000 Bitcoins (worth USD 470 million, around 7% of all Bitcoins in the world) to attacks by hackers and other serious internal security breaches.⁶⁵ This was the first globally systemic crisis in the digital assets financial system for reasons that quickly became apparent upon external scrutiny by regulators in Japan, which also drew global attention. The decline of the exchange through bankruptcy and impact on the global Bitcoin market also led to the first attempt at regulating crypto exchanges and other crypto intermediaries by TradFi regulators, a quest that has increased, at varying degrees, globally since then.⁶⁶

Importantly, the hack and resulting market destabilization highlights very critical dimensions, which directly impact the perceptions of global consumers, regulators and policy makers across global jurisdictions on crypto ecosystem's core narratives. First, as an exchange which processed most global crypto operations until its decline, the success of Mt. Gox directly negates the core narrative of digital assets financial system around decentralization and disintermediation. While the digital infrastructure undoubtedly supported direct P2P transactions, and for the first few years there were no exchanges, it was interesting that the crypto users and investors still preferred the services of financial (crypto) intermediaries, such as Mt. Gox, as their main source of engagements across borders. While this could, one the hand, suggest that decentralization is unnatural to financial systems, traditional or not, it may also provide evidence to demonstrate that crypto markets was, in fact, adapting to the needs of its users, a critical trait of a maturing financial system.

Second, the impact of the collapse on the stability of the broader crypto markets and financial assets, especially Bitcoin, demonstrates the presence of contagion and interconnectedness in crypto, like TradFi systems. Importantly, this trigger negates the core narrative around "no single point of failure" that is typical of a supposedly decentralized system. Should the crypto markets have been true to its narrative around decentralization, the bankruptcy of Mt. Gox should have had limited impact, instead of its broader spread of financial distress across the ecosystem. This provides very strong similarities to the impact of 1974 Bankhaus Herstatt's collapse in TradFi.⁶⁷

⁶⁴ Other important players at the time include Bitcoin Market and New Liberty Standard.

⁶⁵ Francesco Bolici and Sara Della Rosa, *Mt. Gox is dead, long live bitcoin! Analysis of the rise and fall of a leading virtual currency exchange platform* In EMPOWERING ORGANIZATIONS: ENABLING PLATFORMS AND ARTEFACTS 285 (2015).

⁶⁶ Mai Ishikawa, *Designing virtual currency regulation in Japan: Lessons from the MT GOx case*, 3.1 J. FINANC. REGUL 125 (2017).

⁶⁷ Emmanuel Mourlon-Druol, *Trust is good, control is better': The 1974 Herstatt bank crisis and its implications for international regulatory reform*, 57.2 BUSINESS HISTORY 311 (2015).

Lastly, the internal security issues that affected the stability of Mt. Gox demonstrated the inherent limitations of the technology-based governance frameworks of crypto, and its representations as a financial system. Although the claim was subsequently disputed, the embedded protocols in Bitcoin, which was arguably replicated in other altcoins, in part, contributed to escalations of financial fraud events that ultimately collapsed Mt. Gox. This is because it allowed the alteration of transaction IDs by parties – a dynamic that would not have been possible in TradFi bank-based systems. The failure of this unique feature highlights the role that traditional AML/CFT regulations play in TradFi, a dynamic that is, until recently, fundamentally missing in crypto ecosystems.⁶⁸

In addition, the lack of adequate regulatory oversight and governance frameworks contributed to the failures. It allowed new forms of internal corporate governance misconducts that blurred the facts behind the alleged claim of stolen cryptocurrencies in the exchange. In 2019, Mark Karpeles, the CEO and majority shareholder of Mt. Gox, was found guilty of falsifying data to inflate holdings, among other corporate governance noncompliance issues, such as embezzlement and fraud⁶⁹ from running a trading bot called the “Willy Bot”, which came to light afterwards. While his conviction confirms the limitation of technology-focused governance frameworks on TradFi-like financial intermediation, the full extent of Mark’s contributory activities to the collapse will not be known. In 2021, an agreement was reached between the exchange’s appointed rehabilitation trustee (Nobuaki Kobayashi) and its global creditors,⁷⁰ moving the focus to ongoing compensation and preventing the possibility of full revelations from a public trial.

Paradoxically, several positive notes stem from the existence and capabilities of Mt. Gox during the period up to the crash. The success that it recorded in global operations and international connectivity of financial functions provides evidence to suggest that the digital assets financial system can support complex financial intermediation and centralization like mature financial systems. The failure of Mt. Gox, while suggestive of regulatory failures is not unique to crypto markets. The government authorities in TradFi have been forced on many reported occasions to support failing financial institutions with similar systemic operations, so-called too-big-to-fail institutions.⁷¹ As such, it could be argued that both the internal and external issues which plagued Mt. Gox and ultimately led to its decline was as a result of lack of adequate regulatory intervention. If this is true, then it would support this Article’s subsequent proposals for revamped regulatory adjustments aimed at driving the complete maturity of crypto markets across global jurisdictions to harness its full potentials while effectively managing risks and vulnerabilities.

⁶⁸ According to a recent blockchain research report by Chainalysis, crypto money laundering reached over USD 82 billion in 2025 (up from USD10 billion in 2020), majorly comprised of 1800 Chinese language laundering active wallets which handled around USD 16.1 billion in the year (nearly USD40million each day). See Chainalysis, *The Chainalysis 2025 Crypto Crime Report* (Jan 27, 2026), <https://www.chainalysis.com/blog/2026-crypto-money-laundering/>

⁶⁹ This event provides the first systemic example of misappropriation of customer funds by a crypto exchange CEO. Larry Cermack, *Mt. Gox Mark Karpeles found guilty on only 1 count, given a suspended sentence*, THE BLOCK (Mar 14, 2019), <https://www.theblock.co/linked/15956/former-head-of-mt-gox-mark-karpeles-found-guilty-on-one-charge-sentenced-to-two-years-in-prison>

⁷⁰ Bybit, *Mt. Gox Settlement: How the Payouts Could Impact Bitcoin Prices*, <https://learn.bybit.com/en/investing/mt-gox-settlement-bitcoin>

⁷¹ BENTON E. GUP, TOO BIG TO FAIL: POLICIES AND PRACTICES IN GOVERNMENT BAILOUTS (2003).

Furthermore, the exposures of cryptocurrencies to the collapse created a clear pathway for new and less volatile alternative to cryptocurrencies, popularly called stablecoins.⁷² Stablecoins are a form of programmable cryptocurrency designed to maintain its consistent value (avoiding high price volatility) by being pegged to more stable external financial assets, including fiat currencies, commodities (e.g. gold), or even other more established cryptocurrencies.⁷³ They were introduced to facilitate crypto-native trading without the need for channeling funds through slower and costlier traditional banking systems. The first stablecoin, BitUSD, was launched in July 2014 on the BitShares blockchain. This was swiftly followed by Tether (USDT) – originally called “Realcoin”, which became the first, and still the most ubiquitous, fiat-backed stablecoin. Since then, global stablecoins, and its variants, have gathered a lot of attention, mostly positive, from global adoptions and instructive use cases both in TradFi and crypto markets as the future of domestic and cross-border wholesale payment settlements.⁷⁴

In 2017, Dai introduced a decentralized model of stablecoins, which was essentially crypto backed. In 2018, USD Coin (USDC) was released by Circle and Coinbase, quickly growing into the other notable stablecoin after USDT. As of February 2026, the combined value of top stablecoins is around USD 308 billion, with USDT occupying the majority market share of 59% (about USD 183 billion).⁷⁵ Together, USDT and USDC have become the major stablecoins in crypto cross-border payments and primary market infrastructure for institutional activities.⁷⁶ The latter routinely processed around USD703 billion transactions per month (between June 2024 and June 2025), with a peak of USD1.01 trillion in June 2025. Similarly, USDC also processed around USD 3.21 billion to USD1.54 trillion monthly in the same period. Concretely, the value of stablecoins stem from the transparency of their reserves.⁷⁷ Naturally, this may be exposed to market risks unique to such reserve assets, prompting increased regulatory scrutiny around consumer protection, because stablecoins are issued by private companies, and financial stability due to increasing interlinkages with TradFi.

Summarily, the Mt. Gox crash laid the foundation for the ongoing reforms and policy interventions to the different forms of financial intermediation and centralization manifesting in crypto ecosystems. It also created a pathway to more adaptable representations of crypto products, services and infrastructure that channel the crypto ecosystem’s interlinkage with TradFi for optimal financial and economic advantage. The subsequent sections of this Article will examine how effective these reforms around GSCs have been and the impact they have on the overall perception of the digital assets ecosystem as a mature financial system.

B. ICO Crash (2017)

The year 2017 was significant for the crypto markets for many reasons. The valuations of cryptocurrencies had skyrocketed, with the value of Bitcoin passing USD 1,000 in January and

⁷² Douglas W. Arner, Raphael Auer and Jon Frost, *Stablecoins: risks, potential and regulation* (2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3979495

⁷³ Stablecoins can also create extreme financial stress, especially when it misses its peg with the external financial asset. The transparency is also not always the case as the arrest and conviction of Do Kwon, the Co-Founder and CEO of Terraform Labs (TFL), confirms.

⁷⁴ Arner et al., *supra* note 81.

⁷⁵ CoinMarketCap, *Top Stablecoin Tokens by Market Capitalization*, <https://coinmarketcap.com/view/stablecoin/>

⁷⁶ Chainalysis, *supra* note 77 at 7.

⁷⁷ CoinMarketCap, *supra* note 84.

reaching an all-time high price of USD 13,700 by 17 December of the same year.⁷⁸ However, these feats were matched by the subsequent dramatic losses - around USD 1 billion - suffered by the ecosystem due to its first experience of a market bubble and burst cycle. These losses primarily resulted from the initial coin offerings (ICO) failures and crash.

In general, ICOs were intended as an innovative and radically disruptive form of crowdfunding, aimed at financing the development of new blockchain technological ecosystem.⁷⁹ It involves blockchain startups raising capital by issuing new digital tokens, or coins, to investors of their projects in exchange for more established cryptocurrencies (especially Bitcoin and ether), or fiat currency. In lieu of an ownership stake, investors are mostly promised high-profit potentials from the utility advantages embedded in the acquired tokens' use on each project's future platform.⁸⁰ This dynamic should be fundamentally distinguished from initial public offerings (IPOs) in TradFi, where shares are offered to investors as equity holders in a heavily regulated climate. Regardless of the lack of legal ownership rights in ICOs, the soaring prices of cryptocurrencies attracted a vast majority of global investors to the digital asset markets, creating huge positive sentiments towards crypto projects. This surge had its background in the realized smart contract capabilities of Ethereum, which became the default platform for the ICO hype. As a result, several blockchain projects – led by well-known entities and other new smaller project teams - were developed to access the increased capital availability through ICOs funding. It was estimated that over USD 6.2 billion was raised in 2017 alone from these projects, most of which sadly turned out to be scams.

At the time, the crypto ecosystem was still largely undeveloped and the regulatory regime applicable to the ICO investment schemes was heavily limited, mostly around money laundering. Investors nurtured the illusions about the inherent opportunities and huge returns from funding innovative blockchain projects. These projects were largely believed to be an assured shortcut to wealth, as they are anticipated to be the next big innovation since the introduction of Bitcoin and Ethereum, whose prices were soaring at the time. On their part, many ICOs' project teams exploited the ongoing hype and positive investor sentiments to raise massive capital from new investors by painting grand project blueprints published in whitepapers circulated widely through social media and across crypto communities.⁸¹ This dynamic created the first level of the crash, a market environment representative of a highly speculative bubble unsubstantiated by their fundamentals.

Several ICOs were launched based on this boom phase which peaked between mid 2017 and early 2018.⁸² An estimated 900 ICOs were created in 2017 alone during the bubble phase, with an estimated USD 1.6 billion raised in December 2017 alone. However, over half of these projects subsequently failing, or considered “semi-failed” for their inability to fully execute their roadmap. Filecoin, for example, launched an ICO project whose benchmark gained such notoriety that it was regarded as the model for the entire industry. The team (comprised of

⁷⁸ Mark Holub and Jackie Johnson, *The impact of the Bitcoin Bubble of 2017 on Bitcoin's P2P market*, 29 FINANCE RESEARCH LETTERS 357 (2019).

⁷⁹ Sabrina T. Howell, Marina Niessner and David Yermack, *Initial coin offerings: Financing growth with cryptocurrency token sales*, 33.9 REV. FINANC. STUD 3925 (2020).

⁸⁰ In most cases, the utility in the tokens include functions as currency within the new ecosystem, offer of access to services on the future platform, and in very rare cases, provision of equity stake in the project.

⁸¹ Although the events in 2017 were the most instructive when considering the ICO mania, the first ICO was believed to be conceived in 2012 by J.R. Willet through the white Article titled “The Second Bitcoin White Article.”

⁸² Jay Preston, *Initial coin offerings: Innovation, democratization and the SEC*, 16 DUKE L. & TECH. REV. 318 (2017).

experts from Protocol Labs) was able to raise an astounding USD257 million within a month of its public fundraising in April 2017, one of the largest ICOs during the 2017 boom. This was after the publication of its whitepaper concept, where it proposed the creation of an innovative decentralized storage network. Although it faced substantial delays, it finally launched its mainnet in October 2020 and has since grown rapidly.⁸³ Thus, it was among the very few successful projects that adhered to the regulatory requirements of targeting accredited investors.

In contrast, several other projects also raised funds based on hype without concepts that are feasible or with possibility of actual applications. In short, many of these projects turned out to be scams, essentially shell projects that disappeared after raising huge funds and leaving the promised investors in despair.⁸⁴ As it was later revealed, most had no business plans or working product, and comprised of small teams – sometimes with no legitimate person at the project's front. These concerns became so rampant that in December 2017, it generated considerable attention from global regulators. On 4 September, specifically, the Chinese government jointly published the “Announcement on Preventing the Risks of Token Issuance and Financing.”⁸⁵ This essentially banned all ICOs activities, a cautionary move that was followed by significant regulatory scrutiny and intense crackdown by other global counterparts, including the US and Canada.

Importantly, the restrictive regulatory attention and negative experience quickly altered investor sentiments, drying up external financing in the ICO industry and affecting the completion of fundraising plans by many outstanding projects. Although over 1250 ICOs were created in 2018 that raised USD 7.8 billion, they gradually declined over the year – from USD 1.5 billion (in January) to 74.5 million (in December). Within a short time, this funding crunch affected the entire market, resulting in a burst that slumped the price valuations of the underlying tokens. The September event wiped out around 80% of the entire ICO market value in just a few days, marking the beginning of the burst phase.⁸⁶ For many investors, the slump in the asset prices meant that the tokens they received pursuant to their investments in several ICO projects quickly became worthless, with significant financial implications. While around 95% of ICO projects failed, investors were the real victims - losing an estimated 90% of the value of most ICOs they funded.

The realities of this crash demonstrated that the crypto market is not immune from typical boom-to-burst events that have plagued TradFi. Major crisis events in TradFi have followed similar bubble phases, including the 2000s dot-com bubble (following an initial boom in tech “dotcom” stocks)⁸⁷, and the more recent 2008 global financial crisis (which followed an initial housing bubble and mortgage-related asset price boom). However, the implications on the crypto ecosystem were not all bad on the long run. First it supported the emergence of new crypto products from players with more established and sustainable business models, such as Bitcoin and Ethereum Coins, both of which were pushed to limelight by the ICO regime.

⁸³ Filecoin, *Five Years of Filecoin: What We've Built and What's Next* (Oct 15, 2025), <https://filecoin.io/blog/posts/five-years-of-filecoin-what-we-ve-built-and-what-s-next/>

⁸⁴ Zetzsche, Dirk A., et al., *The ICO gold rush: It's a scam, it's a bubble, it's a super challenge for regulators*, 60 HARV. INT'L LJ 267 (2019).

⁸⁵ Id

⁸⁶ Id

⁸⁷ G. Thomas Goodnight and Sandy Green, *Rhetoric, risk, and markets: The dot-com bubble*, 96.2 Q. J. SPEECH 115 (2010).

Second, and more importantly, it laid the foundation for increased regulatory scrutiny and robust governance regimes for subsequent investment schemes in crypto markets. This demonstrates the capability of the market to adapt to changes and maintain its resilience through improved and targeted regulatory interventions. In the following years after the crash, new forms of more stable collective investment schemes have been developed based on the useful reference provided by the ICO crash. Some of the noteworthy projects have manifested in terms of token financing through Initial Exchange Offerings (IEOs) and Securitized Token Offerings (STOs). Importantly, these new projects laid the foundation for what is now regarded as “tokenization,”⁸⁸ an equally significant investment endeavor that is gaining global attention, with strong potentials in both crypto and TradFi systems.

Therefore, it could be argued that indeed the ICO crash has positioned the crypto market as a mature financial system, where future developments could be based on technology and innovation. Even though bubbles initially appear bad due to their catastrophic effects; in most cases, they subsequently lay the foundation for greater risk taking in startups that is crucial to capital allocation and innovation-centric maturity in the markets. Undoubtedly, regulation would have an important role to play in this clime to ensure sustained confidence that goes beyond hype not supported by underlying fundamentals of projects. Where this is nurtured, it could provide critical alternative finance solutions to the existing limitations in TradFi, in particular around funding gaps.⁸⁹ The desirability and practicality of such a regulatory approach will be discussed subsequently in this Article.

C. Crypto Winter - Luna Black Swan and FTX Collapse (2022) Enron – FTX

Crypto winter has undoubtedly been the most systemic of all crypto crisis cycles, demonstrating the multidimensional failure mechanisms characteristic of a mature financial system.⁹⁰ The crisis illustrates the increasing interconnectedness between DeFi and CeFi in crypto markets, as well as the evolving spread of contagion risks from asset interlinkages and institutional interdependencies.⁹¹ The first level of the crisis began when the Luna cryptocurrency plummeted to almost zero, due to the collapse of the Terra ecosystem, causing massive panic across the financial system.⁹² Shortly after, the second level manifested with FTX, a prominent cryptocurrency exchange and hedge fund, which faced considerable financial distress from internal financial problems and exposures to the Terra ecosystem. Further, FTX’s CEO Sam Bankman-Fried was also arrested and prosecuted for financial fraud - including money laundering.⁹³ Overall, these events not only occasioned heavy retail losses to investors but also disrupted the positive perception of global regulators and policymakers

⁸⁸ OECD Blockchain Policy, *The tokenisation of assets and potential implications for financial markets*. (2020) *The Secretary General of the OECD* 107.

⁸⁹ Marek Giebel and Kornelius Kraft, *External financing constraints and firm innovation*, 67.1 J. IND. ECON. 91 (2019); Douglas Arner et al., *MSME access to finance: The role of digital payments*, In United Nations, Economic and Social Commission for Asia and the Pacific, *MSME Financing Series 7* (2022).

⁹⁰ Sijuade Animashaun, *Great crypto crisis: The prudential regulation of systemically important crypto conglomerates*, SING JLS 1 (2024).

⁹¹ Douglas Arner et al., *Interdependencies in Crypto Ecosystems: Drivers, Implications and Policy Responses*, University of Hong Kong Faculty of Law Research Paper 2023/17 (2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4361739

⁹² Luc Olinga, *Crypto: Liquidity Crisis Spreads to Major Exchanges*, THESTREET (July 8, 2022) <https://www.thestreet.com/investing/cryptocurrency/crypto-liquidity-crisis-spreads-to-major-exchanges>

⁹³ THE WASHINGTON POST, *What to know about Sam Bankman-fried and the FTX crypto exchange collapse*, (Dec 13, 2022) <https://www.washingtonpost.com/business/2022/12/13/sam-bankman-fried-ftx-collapse-explained/>

about the future of the ecosystem. The granular details are analyzed below for better understanding of the revealed cross-ecosystem dynamics and emerging vulnerabilities.

The period before the Terra ecosystem collapse witnessed a boom, where massive rally (in 2021) and positive sentiments around crypto markets occasioned an influx of capital from both retail and institutional investors, hoping for short-term high-yield investments in DeFi markets. In May 2022, however, Terra's sister tokens, Terra USD and Luna, slipped below its peg with the US Dollar,⁹⁴ forcing the entire ecosystem to crash, with a resulting loss of USD55 billion. As a heavily leveraged market, the collapse spread financial distress to the broader crypto ecosystem. Major crypto institutions who had invested a significant portion of their reserve assets in the DeFi markets on similar promises of higher returns quickly became the main channels of contagion risks.

A major victim of this dynamic, with far-reaching influence in the crypto ecosystem, was Three Arrows Capital (3AC), a prominent crypto hedge fund that operated globally as a centralized financial intermediary servicing major retail and institutional investors. In short, the exposures of 3AC to Terra resulted in significant losses to the hedge fund (forcing its collapse), and by extension, other crypto institutions and projects interconnected with its core financial services. For example, defaults from 3AC on the leveraged positions (loans) in its firm resulted in direct losses to Voyager Digital to the tune of USD670 million.⁹⁵ This default occasioned a liquidity crisis, which later forced Voyager Digital into bankruptcy after it abruptly halted its withdrawal and trading services, affecting over 100,000 creditors. On its own, 3AC was forced into compulsory court-ordered liquidation, with far-reaching consequences on its global creditors and the broader crypto market. In the case of Blockchain.com, reports suggest that the crypto trading firm lost around USD 270 million to its interconnections with 3AC.⁹⁶

Unsurprisingly, the collapse of 3AC eroded confidence in the market, triggering sharp drops across major crypto assets, and prompting runs – like bank runs⁹⁷ - on major crypto institutions. This forced many institutions to temporarily suspend withdrawals in attempts to manage the depletion of their limited liquidity since the value of their reserve assets have been grossly impacted by initial exposures to Terra. As expected, this paradoxically worsened the situation in the already fragile financial system as consumer confidence depleted further and faster in response. In all, the failure of 3AC highlights how, contrary to the tenets of digital assets ecosystems, centralization (centralized lending schemes) and interconnectedness have become the norm, prompting the amplification of traditional systemic risks transmission and contagion across the ecosystem. However, unlike TradFi, there were no commensurate external regulatory safeguards and circuit breakers, such as emergency liquidity or bailout, to manage such eventualities.⁹⁸ This revelation underscores the exploration in later sections of the Article on the desirability of increased and strategic regulatory governance, both at institutional and broader macro levels.

⁹⁴ This occurred in 2021, but false assurances were made by Terra CEO, Do Kwon, seeking to pacify investors. He has since been arrested and convicted for financial fraud.

⁹⁵ Arner et. al, *supra* note 105

⁹⁶ COINDESK, *Crypto Exchange Blockchain.com Faces \$270M Hit on Loans to Three Arrows Capital* (July 8, 2022), <https://www.coindesk.com/business/2022/07/08/crypto-exchange-blockchaincom-faces-250m-hit-on-loans-to-three-arrows-capital/>

⁹⁷ George G. Kaufman, *Bank runs: causes, benefits, and costs*, 7 CATO J. 559 (1987). It should be noted that crypto runs are far more severe than traditional bank runs. In the former, automated liquidation through smart contracts prompt immediate forced margin calls once the preprogrammed margins are triggered.

⁹⁸ Douglas W. Diamond and Philip H. Dybvig, *Bank runs, deposit insurance, and liquidity*, 91.3 J. POLIT. ECON. 401 (1983).

Moreover, the second phase of the crypto winter resulted from institutional interdependencies and fundamental failures in risk management and governance in crypto ecosystems.⁹⁹ At the center of these core triggers is FTX, a dominant crypto exchange with global influence, headed by now-convicted CEO, Sam Bankman-Fried. Importantly, as a critical player in the crypto ecosystem, the bankruptcy of FTX, combined with the earlier collapse of Terra ecosystem, had major adverse impact across the broader digital asset ecosystem.¹⁰⁰ Bitcoin, for example, lost 75% of its value around this time in November 2022. Moreover, between late 2021 and the end of 2022, an estimated USD1.8 trillion in crypto market value was wiped out, including USD450 billion lost to Terra Luna and 200 billion to FTX respectively.¹⁰¹ In fact, the FTX collapse and its broader implications has been compared to earlier notorious scandals in TradFi resulting from internal corporate governance abuse and financial fraud (corporate accounting scandals), especially Enron, where around USD 45 billion market losses were recorded by investors (over 59,000 stockholders) after stocks plunged from over USD90 to pennies in 2001.¹⁰² But compared to Enron, it is apparent that the FTX collapse had a far more devastating outcome, especially in the value of overall market losses. This potentiality to spread higher retail losses justifies the ongoing interventions and would support arguments made subsequently on how to better implement harmonized frameworks for effective oversight.

D. Bitcoin Crash (2025-Present)

The ongoing shockwave in the price of Bitcoin, Ethereum and other major cryptocurrencies is not a recent phenomenon.¹⁰³ Global market reports on the digital financial system are replete with myriads of recurring volatilities, with varying degrees of impact on crypto markets, and recently, TradFi systems. In March 2020, for instance, Ethereum's "Black Friday" sent huge shockwaves across the global financial system when crypto markets suffered a heavy blow from huge investor losses after the sudden fall of Ethereum below USD 80.¹⁰⁴ The resulting panic among massive investor groups resulted in nearly USD19 billion in liquidations of leveraged positions, occasioning a severely dramatic meltdown in crypto markets.

More recently, since October 2025, Bitcoin (and Ethereum) has witnessed a prolonged downward spiral, spurring arguments that the hype around its core narratives and crypto generally has waned.¹⁰⁵ Just at the beginning of the same month, it achieved an all-time peak

⁹⁹ Arner et. al, supra note 105

¹⁰⁰ Thomas Conlon, Shaen Corbet and Yang Hu, *The collapse of the FTX exchange: The end of cryptocurrency's age of innocence*, BR. ACCOUNT. REV. 101277 (2023).

¹⁰¹ Giulio Cornelli et al., *Crypto shocks and retail losses* (2023) Bank for International Settlements <<https://www.bis.org/publ/bisbull69.pdf>>

¹⁰² DRS. DIRK J. BARREVELD, *THE ENRON COLLAPSE* (2002).

¹⁰³ According to data from Coinglass, the October 2025 shockwave emanated from massive liquidations from three main exchanges: Hyperliquid (with USD10.3 billion); Bybit (with USD 4.65 billion) and Binance (with USD2.4 billion), all of which accounted for a majority share of the global losses within hours. See COINGLASS, *Liquidation Headmap*, <https://www.coinglass.com/liquidations>

¹⁰⁴ Joshua de Vos, *Crypto's Black Friday* COINDESK (Oct 18,2025), <https://www.coindesk.com/coindesk-indices/2025/10/15/crypto-s-black-friday>

¹⁰⁵ Reports from Solidus Labs suggests that the massive liquidation primarily began as a liquidity shock in reaction to the headline from the US on imposing 100% tariffs on Chinese software imports, suggesting deep and ongoing interconnections between crypto markets' fragility and geopolitical events. See Solidus Labs, *When Whales Whisper: Inside the \$20 Billion Crypto Meltdown* (Oct 11, 2025) <<https://www.soliduslabs.com/post/when-whales-whisper-inside-the-20-billion-crypto-meltdown>>

value of over USD127000 before falling back to around USD 90000 in December 2025. This historic event demonstrates the new trend of deleveraging shifts in crypto markets, where the interlinkages between liquidity, collateral and oracle systems spread stress and volatilities to TradFi markets and vice versa. Since then, the fall has been recurring, starting in late January 2026, when it tumbled below USD 80,000 reaching an astonishing low of USD 62900 by 7 February, down by 30% since the start of the year.

While the volatility in crypto markets is not uncommon, the reason behind the ongoing crash has been rather peculiar and highlight of this analysis. Specifically, it illustrates that volatility in other TradFi markets has become a major driver of instability in digital asset financial system.¹⁰⁶ Specifically, the recent global sell-off of stocks, in reaction to geopolitical uncertainties, for more stable precious commodities, such as gold and silver,¹⁰⁷ as a store of value has contributed to the drastic fall in the price of Bitcoin and other crypto assets – perceived as risky assets.¹⁰⁸ The primary catalysts of the transmission of geopolitical risks to crypto are traditional institutional investors, whose recent increasing demand for crypto assets, since 2024, has taken a downturn in 2025. The most notable manifestations include the reversal in the global uptake (especially in the US) of crypto-related exchange traded funds (crypto ETFs), a form of pool investments involving cryptocurrencies function as the underlying assets.¹⁰⁹ Since October 2025, billions of dollars have continuously flowed out due to many investors in such funds cashing out on them. For most of these investors, the prospects of the US Dollar regaining its value despite the ongoing geopolitical turmoil has increased, disincentivizing the consideration of crypto assets as a preferred hedge against inflation.

This has had considerable spillover effects in the crypto markets, and even among TradFi institutions. Most institutional investors are traditional investors making inroads into crypto through portfolio diversification offered by major TradFi institutions (e.g., Deutsche Bank and other big Wall Street players). In such arrangements, circuit breakers are typically programmed into trading activities, so-called margin calls, which prompts automatic liquidation of investment holdings and leveraged positions during predetermined trigger events, especially a drop in the price of the underlying crypto asset. Impliedly, the forced margin calls from one

¹⁰⁶ Id. There are others who argue that the massive liquidations highlight how exchange-level mechanics amplify systemic stress from macroeconomic conditions. The contention is that the exchanges which experienced the largest liquidations may have “slowed or frozen trading, mispriced assets, lacked adequate anti-manipulation controls.

¹⁰⁷ Robin Paxton and Pretti Soni, *Gold and Silver Hit All-Time Highs as Geopolitical Tensions Rise*, BLOOMBERG (Dec 22, 2025), <https://www.bloomberg.com/news/articles/2025-12-21/silver-hits-record-high-on-rate-cut-bets-and-geopolitical-strife?embedded-checkout=true>

¹⁰⁸ For this reason, BlackRock’s CEO Larry Fink, has categorized Bitcoin as “asset of fear” whose upward trend is tied to situations where investors fear for their physical and financial security. In contrast, where there is minor evidence of stability in TradFi market, such as an agreement on international trade tensions, the assets typically witness outflows in liquidity towards more traditional markets, suggesting that the non-correlated asset narrative of crypto may be similar to gold. Omar El Chmouri, *BlackRock’s Fink Sees Case for Crypto, Gold as ‘Assets of Fear’* BLOOMBERG (Oct 28, 2025), <https://www.bloomberg.com/news/articles/2025-10-28/blackrock-s-fink-sees-case-for-crypto-gold-as-assets-of-fear?embedded-checkout=true>

¹⁰⁹ The first exchange-traded fund (ETF), BITO, issued in the US by ProShares started trading October 19, 2021, attracting more than USD1 billion in assets within the first few days of its debut. Its future-based structure differs from traditional models, which are typically non-futures-based equity ETFs. Since the debut of the first ETF, they (including the new variant, spot Bitcoin ETFs which debuted in January 2024) have been viewed as the channel to provide increased liquidity in crypto financial systems, especially from TradFi institutional investors, and sustaining the upward trend of Bitcoin and other crypto assets prices. However, a negative effect of this expectation is occurring with increased capital flights from recurring margin calls due to sell-offs and cascading liquidity crisis. See e.g. BIS, *Launch of the first US Bitcoin ETF: mechanics, impact, and risks* (2021) https://www.bis.org/publ/qtrpdf/r_qt2112t.htm ;

institutional investor and lower trading volumes triggers a progressive drop in the underlying crypto assets, creating a recurring outward fund flow loop, since a continuous drop also activates the margin calls below it. In TradFi, this is popularly termed as deleveraging and typically occurs when investors become risk averse and channel their capital towards less risky assets to cushion potential losses from market disruptions.

For the broader market system, more importantly, lower trading volume can result in lower liquidity since the more capital that flows into the market correlates with the demand that typically drives the price of underlying crypto assets. The persistence of this could suggest what this Article terms, “crypto winter 2.0,” where worsening macroeconomic conditions fuels extended periods of market decline and stagnant prices.

But perhaps the more important question is: what the shift from a bullish to a bear market trend means for crypto market’s maturity and the perception of traditional investors on the financial system? One plausible angle is to argue that the selling suggests that traditional investors are losing interest, rather quickly, about crypto and the digital assets financial system. The underlying rationale for this argument is that the digital assets financial system’s core narrative has become so blurred that it is not practical or prudent to rely on it as an alternative monetary or financial system. Key issues that have arising from the ongoing Bitcoin crash, and indeed the several crisis cycles considered in this section, include: (1) Does Bitcoin and other crypto assets still qualify as digital gold and a long-term hedge against inflation despite its recurring instability? (2) Is the promise of decentralization and disintermediation still realizable, or is it a mere ruse, considering the repeated institution-led crisis cycles, in particular stemming from interdependences, corporate scandals and inherent failures of its underlying digital architecture (from hacks and exploits)? and (3) Does the vision of crypto as a payment rail of the future remain plausible, or a mere sham, in light of the recurring concerns around ecosystem opacity and susceptibility to financial fraud, especially AML/CFT?

These questions have been at the forefront of recent discourse among global regulators, policymakers and academic scholars, as they try to map the future of the global financial system in the era of digitization. Nobel Laureate Paul Krugman, for instance, has categorized Bitcoin as a “total bust”, implying that the core narratives surrounding the cryptocurrency, and by extension, the maturity of the digital assets financial system, has proven to be merely philosophical, rather than practical. In short, this echoes the conclusion of major market analysts who opine that digital assets ecosystem has become a market for speculative trade due to its unclear narrative.¹¹⁰

However, from a regulatory perspective, this Article holds a contrasting view to the above argument and suggests an alternative conclusion. According to cross on- and off-chain analytics by Solidus Labs, there was a strong regional divide in how traders and institutions moved capital in the aftermath of the massive liquidation that prompted the ongoing Bitcoin turmoil in October 2025.¹¹¹ Specifically, the analytics suggests that global deposits outpaced withdrawals by as much as 1.6 to 1, indicating that participants were not as uniformly de-risking as initial thought. Deposits from Europe and the United States, specifically, doubled their outflow, making them net depositors, while Asia-Pacific (APAC) investors showed near-

¹¹⁰ See e.g., Larry Swedroe, *Bitcoin’s 50% Collapse Exposes Two Industry Myths* (Feb 7, 2026), <https://larryswedroe.substack.com/p/bitcoins-50-collapse-exposes-two>

¹¹¹ See Solidus Labs, *supra* note 119. This provides strong indication of regional divide in market confidence; Western countries view disruptions as an opportunity while Eastern jurisdictions remain largely cautious.

neutral behavior, but with a more defensive stance amid concerns over the global geopolitical tensions between the US and China.¹¹²

Similarly, crypto market data suggests that, over the years, the volatility of crypto markets has been matched only by the crypto financial system's ability to bounce back.¹¹³ Crypto winters are recurring but markedly short-lived. In the case of Bitcoin, specifically, even though the cryptocurrency has faced many downturns, the constant characteristic since its inception has been the upward trend in its value (which started at zero), global adoption and acceptability. The influx of global institutional investors and other big Wall Street players, upon which the ongoing volatility persists, is testament of the crypto financial system's development and strength, especially on complex architecture and market dynamics capable of attracting and sustaining the interests of traditional market movers.¹¹⁴ Therefore, this Article argues that the continued resilience of the crypto market is indicative of a maturing — if not mature, financial system. This argument is supported by very important and apparent indicators earlier explored, but a central theme lies at the foundation — the need for a more robust and coordinated regulatory and policy system.

III. Global Regulatory Policy Responses: Commonalities and Divergences

The interrelationships between crisis cycles and regulatory systems development have played a pivotal role in the evolution and maturity of global financial systems.¹¹⁵ The former creates stress situations that test the efficiency of existing frameworks, exposing the gross limitations within complex market dynamics. In response, regulatory systems emerge as part of reactive policy responses to such stress situations, seeking to identify and manage loopholes contributing to the transmission of identified risks across the ecosystem, as well as providing new and targeted frameworks to ensure the resilience of new systems against the recurrence of a similar crisis event. These recurring stress events and reactive regulatory adaptations have been at the background of the continuous categorization of TradFi systems as mature, in addition to the complexity of its market dynamics.

For instance, regulatory responses in the aftermath of the 1930s Great Depression created the foundation of modern regulatory frameworks and regulatory institutions, such as the Securities and Exchange Commission and Federal Deposit Insurance Commission, variants of which now govern the stability and efficiency of global financial systems.¹¹⁶ More recently, the policy responses after the 2008 GFC, which promoted the shift from micro-prudential regulation towards macroprudential regulation (and contagion risks management) essentially created a

¹¹² Id

¹¹³ Indeed, analyses of past crypto downturn cycles have shown that the market remains resilient and typically achieves the next all-time high valuation afterwards. In 2015, 2019 and 2022, the price of Bitcoin, for instance, dropped 86%, 84% and 77%, respectively.

¹¹⁴ According to a recent 2025 report by the AIMA, the largest membership association for alternative investment managers, over 55% of traditional hedge funds have exposures to digital assets in 2025 (an increase from 47% the previous year, with 47% of institutional investors claiming the evolving crypto-friendly regulatory environment is behind their increased interests in digital asset allocations. See AIMA, *7th Annual Global Crypto Hedge Funds Report* (2025) <https://www.aima.org/compass/insights/digital-assets/7th-annual-global-crypto-hedge-fund-report.html>

¹¹⁵ Viral V. Acharya et al., *Market failures and regulatory failures: Lessons from past and present financial crises*, No. 264. ADBI Working Paper (2011); Goodhart, *supra* note 66.

¹¹⁶ JOHN AMOUR, *PRINCIPLES OF FINANCIAL REGULATION* (FIRST EDN, 2016)

new effective pathway in the management of systemic risks, a necessary move in tackling the increasing interconnectedness and interdependencies across the global financial system.¹¹⁷

In a hypothetical scenario, where the evolution of TradFi systems is separated from these critical regulatory developments that have shaped it over time, it is not hard to imagine how TradFi may have also transformed into the “badlands,” an unfortunate reality that has now gained prominence when construing the reputation of crypto markets. In short, the explorations in this section will illustrate how robust regulatory systems could directly, and indirectly, legitimize the core activities in financial ecosystems, promoting investor perceptions about their stability, and clearing the path towards the ecosystem’s attainment of complete maturity. While repeated patterns highlight the similarities in contributory factors of potentially systemic financial stress, no two financial crises are typically the same.¹¹⁸ This limitation underscores the perceived failures of existing regulatory systems, a manifestation that has also permeated the digital assets financial system.

The other important dimension used in the evaluation of global regulatory systems revolves around the effectiveness of national policy strategies in tackling financial stress, especially those arising from exposures to global financial systems.¹¹⁹ Specifically, while most national regulators have a limit on the territorial scope of their regulatory frameworks, the activities of major regulated ecosystems (and their institutions) are typically transnational. In essence, national frameworks and policy strategies usually have gross limitations and implementation inadequacies in effectively managing exogenous risks, especially those arising from cross-sectoral contagion and cross-pollination of risks across transnational financial systems.¹²⁰

This is one of the major issues affecting the stability of crypto economies and its global nature. According to a 2025 report by Chainalysis on crypto adoption,¹²¹ there is a strong representation of crypto activities across global jurisdictions, suggesting increased acceptability and maturity of the market, with Bitcoin serving as the primary entry point. The countries with the highest crypto activities include, the US, UK, APAC (Japan, Vietnam, India, Indonesia, Pakistan, Bangladesh, Philippines, Thailand, Korea Republic), North America (Brazil, Argentina) and Sub-Saharan Africa (Nigeria), Middle East (Yemen).¹²²

Unsurprisingly, APAC has revamped its status as the crypto grassroots activity global hub and fastest-growing region for on-chain activities, witnessing a 69% year-over-year increase in value received, and a total crypto transaction volume increase from USD1.4 trillion to USD2.36 trillion.¹²³ This is closely followed by Latin-America and Sub-Saharan African, which also witnessed 63% and 52% increase, respectively. Importantly, the growth trends across

¹¹⁷ XAVIER FREIXAS, LUC LAEVEN AND JOSÉ-LUIS PEYDRÓ, *SYSTEMIC RISK, CRISES, AND MACROPRUDENTIAL REGULATION* (2015).

¹¹⁸ Reinhart & Rogoff, *supra* note 61; Jon Danielsson, *Why so many crises happen when we know why they happen and how to prevent them*, CEPR (May 30, 2024), <https://cepr.org/voxeu/columns/why-so-many-crises-happen-when-we-know-why-they-happen-and-how-prevent-them>

¹¹⁹ See Jan Hendrik Dalhuisen, *The Role and Importance of Comparative Law Analysis in International Finance*, SSRN Working Paper (Aug. 2024), <https://ssrn.com/abstract=4698150>

¹²⁰ Denise Garcia Ocampo, Nicola Branzoli and Luca Cusmano, *Crypto, Tokens and DeFi: Navigating the Regulatory Landscape*, FSI Insights on Policy Implementation No. 49, at 5 (May 2023), <https://www.bis.org/fsi/fsinsights49.pdf>.

¹²¹ See Chainalysis, *supra* note, 77 at 4.

¹²² *Id.*

¹²³ Chainalysis, *supra* note, 77 at 5; CHAINALYSIS, *The 2025 Global Adoption Index: India and the United States Lead Cryptocurrency Adoption* (Sept 2, 2025), <https://www.chainalysis.com/blog/2025-global-crypto-adoption-index/>>

jurisdictions have been driven by several factors including the increase in institutional frameworks for crypto activities' access to TradFi channels (e.g. Bitcoin ETFs), increased technical literacy (in Eastern Europe), economic uncertainty, and continued reliance on crypto for remittances and consumer payments in underserved regions (in Sub-Saharan Africa).¹²⁴

These increasing interlinkages with TradFi from the influx of institutional and retail investors from traditional markets warrants the evaluation of national approaches toward international coordination of crypto regulation and policy developments. This section explores the regulatory developments and policy responses around these issues from a global perspective, starting with the reactions from international regulatory bodies (e.g., IMF, BCBS, FATF, FSB, BIS, IOSCO etc.), and thereafter, across three representative jurisdictions: US, EU and Hong Kong. The primary aim is to highlight the status of global developments, including the noticeable frameworks suggestive of commonalities in approaches and structural components, as well as areas of persisting heterogeneities that could be consequential, especially regulatory arbitrage.

A. Delayed Responses from International Regulatory Bodies

From the explorations in the previous section, it is apparent that the operations and broader implications of crypto activities, especially during crisis cycles, extend beyond national borders. By implication, fragmentations and inconsistencies among jurisdictions could grossly affect the efficiency of existing regulatory measures aimed at managing the risks and vulnerabilities in the increasingly significant financial system.¹²⁵ This concern has been echoed by major international financial regulatory bodies. For example, the Bank for International Settlements (BIS),¹²⁶ has recently highlighted the adverse implications that jurisdictional heterogeneities can have on the development of a viable global regulatory environment for crypto-related activities and markets. In response, the BIS suggested the adoption of a more coordinated approach through aligned implementations of globally relevant standards that ensures regulatory harmonization. Such a coordinated framework could assuredly provide a useful template for adoption by national regulators against the increasing risks from crypto-related activities including financial stability, market integrity and investor protection.

However, the acknowledgment of crypto and formal reactive regulatory engagements is a more recent phenomenon among most international regulatory bodies, with strong adverse implications on overall efforts towards international harmonization.¹²⁷ In fact, major regulatory responses developed from 2019, after the ICO bubble crash,¹²⁸ and in response to the abandoned Diem project. Admittedly, the Financial Stability Board (FSB) published its first report on the initial assessment of financial stability implications of crypto assets back in

¹²⁴ Chainalysis, *supra* note, 77 at 6-9.

¹²⁵ Marco Dell'Erba and Andrea Vianelli, *Crypto-Derivatives Regulation (s)*, CORNELL INT. LAW J. 22 (2026) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5895082

¹²⁶ See Denise Garcia Ocampo, Nicola Branzoli and Luca Cusmano, *Crypto, Tokens and DeFi: Navigating the Regulatory Landscape*, FSI Insights on Policy Implementation No. 49, at 5 (May 2023), <https://www.bis.org/fsi/publ/insights49.pdf>.

¹²⁷ This delay on the part of international organizations has been suggested by some as a major contributory factor to the observed fragmentations in global regulatory responses and policy strategies on crypto markets. See, for example, e.g., Dell'Erba & Vianelli, *supra* note 125 at "13-14,16

¹²⁸ Marco Dell'Erba, *Initial Coin Offerings. The First Response of Regulatory Authorities*, 14 N.Y.U. J. L. & Bus. 1109 (2018); IOSCO, *Final Report on the Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms* at 1 (Feb. 2020)

2018.¹²⁹ However, at the time, the report concluded that crypto assets did not yet pose a fundamental risk to global financial stability, although it emphasized the need to be vigilant. A categorization that apparently failed to consider what role crisis events have played in propelling the evolution of the crypto economy as an invaluable component of the global financial system. However, the FSB's initial assessment has evolved into a formalized approach in later years. Specifically, the FSB has undertaken several other active engagements, including consultations, which culminated in the publication of the finalized principles-based and outcome-focused high-level recommendations on crypto markets regulation (in 2023).¹³⁰

More recently, in October 2025, a thematic peer review has been published, highlighting the remaining gaps and lingering inconsistencies in the implementations of the recommended standards across global jurisdictions.¹³¹ While this is a welcome development, it appears that it could have come sooner, supposing the international body had paid more attention to the interrelationships between crypto crisis events and the innovative disruptions it heralds. Nevertheless, it is arguable that with the present pace of regulatory action, more strategic moves could be expected since the recent manifestations of risks now increasingly extend to TradFi systems, which is within the major priorities of the FSB and other key transnational regulatory bodies.

In a similar vein, the IMF, in 2021, formally recognized the growth of crypto assets and highlighted its capability on impacting the global financial stability.¹³² This is clearly years after the initial ICO crash, a crisis that provided ample evidence on the prospect of crypto in global finance and the stability of the investment sector. Moreover, in 2022, IOSCO established its Fintech Task Force (FTF)¹³³ and later released its Crypto-Asset Roadmap,¹³⁴ which marked the origin of its approach towards the digital asset financial system. This was followed, in 2023, by the introduction of a principles-based policy recommendations for crypto oversight and digital assets market with focus on investor protection and market integrity.¹³⁵ Separately, a collaboration between CPMI and IOSCO also issued a guidance in July 2022, providing provisions on the applications of the principles of financial market infrastructures, such as

¹²⁹ FSB, *Crypto-assets: Report to the G20 on the work of the FSB and standard-setting bodies* (2023), FSB, 'The Financial Stability Risks of Decentralised Finance' (February 2023) 22.

¹³⁰ FSB, *High-Level Recommendations for the Regulation, Supervision and Oversight of Crypto-asset Activities and Markets: Final report* (July 17, 2023), <https://www.fsb.org/uploads/P170723-2.pdf>. The framework sets out a coordinated approach on ensuring consistent oversight and risk-management safeguards across international borders and includes two complementary sets of high-level recommendations on (1) general regulatory oversight of crypto asset activities and market; and (2) general governance and regulatory frameworks for global stablecoin arrangements. See PWC, *supra* note 14 at 19-20.

¹³¹ FSB, *Thematic Review on FSB Global Regulatory Framework for Crypto-asset Activities* (Oct 16, 2025), <https://www.fsb.org/uploads/P161025-1.pdf>

¹³² IMF, *Global Financial Stability Report: COVID 19, Crypto, and Climate: Navigating Challenging Transitions* (Oct 2021); IMF, *Elements of Effective Policies for Crypto Assets* (Feb.2023), <https://www.imf.org/en/Publications/Policy-Papers/Issues/2023/02/23/Elements-of-Effective-Policies-for-Crypto-Assets-530092>

¹³³ IOSCO, *Applying and Adapting IOSCO Principles to Digital Asset Markets* (Nov. 2022), <https://www.iosco.org/library/speeches/pdf/2022-11-02-Tuang-Lee-Lim.pdf>

¹³⁴ IOSCO, *IOSCO Crypto-Asset Roadmap for 2022-2023* (July 2022), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD705.pdf>

¹³⁵ IOSCO, *Policy Recommendations for Crypto and Digital Assets Markets Final Report* (Nov. 16, 2023), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD747.pdf>. The core recommendations broadly revolve around governance and disclosure of conflicts, order handling and trade disclosures, crypto listing and market activities, market abuse, cross-border cooperation and custody of client money and assets.

governance, risks management and settlement finality, to global stablecoins.¹³⁶ The scope of these engagements have been impressive, but would have had more impact if it originated as far back as the peak of the ICO boom, when most investors were actively seeking formal safeguards and regulatory guidance on how to navigate the uncharted investment territories in the crypto economy.

On prudential regulations, specifically, the BCBS, in June 2022, formally extended its mandate and measures to cover crypto activities.¹³⁷ This was preceded by the publication of several policy consultations towards developing prudential measures, with focus on the treatment of crypto assets among global TradFi institutions' (banks) capital adequacy and liquidity requirements.¹³⁸ The global framework introduces a global baseline for risk categorization and capital treatment of tokenized deposits and GSCs, with implementation commenced since 1 January 2026.¹³⁹ However, several countries including the UK and US have expressed deep concerns about the calibration, proportionality and potential market impact of these standards, which may likely affect how widely it would be adopted globally.¹⁴⁰ As earlier examined, the emergence of systemically important crypto institution was as far back as 2014, when Mt. Gox performed similar transnational functions across global crypto markets. The introduction of such a prudential regime at the time could have effectively provided the needed framework for prudential safeguards, such as reserve assets and liquidity requirements capable of reducing or even preventing the full scale of the subsequent collapse.

The exception to these “mostly” delayed formal responses above stem from the activities of the FATF in relation to the prevention and management of AML/CFT risks within the unregulated global crypto ecosystem.¹⁴¹ The FATF's first report, which identified the major money laundering and terrorist financing risks in cryptocurrencies, and recommendations for managing these vulnerabilities was published in 2014. This was followed, in October 2021, by an updated risk-based guidance, which advanced the AML/CFT obligations among crypto assets,¹⁴² and another updated standards framework regarding their intermediaries in July 2022.¹⁴³ As will become apparent from the evaluation of national approaches of selected jurisdictions in the next section, this early focus on AML/CFT greatly influenced the initial formal attention of national regulators to the crypto markets. Nevertheless, there is still a considerable lapse in how the crypto activities, especially in off-chain platforms are monitored to ensure that financial fraud is not allowed using obfuscating technologies such as cold wallet storage and re-anonymization tools.

¹³⁶ The primary focus of this guidance is on stablecoin arrangements categorized as systemically important, excluding other categories of multicurrency stablecoins. See CPMI-IOSCO, *Application of the Principles for Financial Market Infrastructures to stablecoin arrangements* (July 2022); IOSCO, *IOSCO Decentralised Finance Report* (Mar 2022).

¹³⁷ For general referencing on the activities of the BCBS in relation to global crypto governance, See generally: BCBS, *Prudential Treatment of cryptoasset exposures* (Dec. 2022); BCBS, *Cryptoasset Standard Amendments* (July 2024); BCBS, *Disclosure of Cryptoasset Exposures* (July 2024); BCBS, *Technical Amendments to the Cryptoasset Standard* (Nov. 2024).

¹³⁸ BCBS, 'The prudential treatment of crypto asset exposures – second consultation' (June 2022).

¹³⁹ See PWC, *supra* note 14, at 21.

¹⁴⁰ FINANCIAL TIMES, *Global Crypto rules for banks need reworking, says Basel chair* (Nov. 19, 2025), <https://www.ft.com/content/a02072d6-2444-44e2-99b4-cfd427d90cc0>

¹⁴¹ See PWC, *supra* note 14, at p.22.

¹⁴² FATF, *Updated guidance for a risk-based approach virtual assets and virtual asset providers* (Oct. 2021).

¹⁴³ FATF, *Targeted update on implementation of the FATF standards on virtual assets and virtual asset providers* (July 2022)

In contrast, the focus of national jurisdictions on AML/CFT paradoxically resulted in substantial delays in relation to the formalization of other core financial regulatory objectives such as financial stability, market integrity and investor protection. The status of developments in these jurisdictions is explored next to illustrate how their implementations have evolved in recent times.

B. Comparative Analysis of Selected Jurisdictions

The section explores the origin and current status of developments in crypto-related regulatory and policy engagements across selected jurisdictions with considerable crypto activities and global influence.¹⁴⁴

1. The United States

Although Bitcoin and crypto activities began in 2009, the concrete attempt at regulating it did not manifest in the US until 2013, when it started generating substantial attention from major regulators in the US. This legal framework was launched by the Financial Crimes Enforcement Network (FinCEN), when it issued a guidance defining crypto as money, and requiring all institutions offering crypto-related services to register as money services business.¹⁴⁵ This was quickly followed (in 2014) by the involvement of the Commodity and Futures Trading Commission (CFTC) categorizing crypto as commodities, essentially providing a basis for its regulatory oversight of the activities in the ecosystem.¹⁴⁶ Similarly in 2015, the Securities and Exchange Commission began its evaluation of crypto as securities, using the established principles by the US Supreme Court in the *Howey Test*,¹⁴⁷ followed by a report on Decentralized Autonomous Organizations, which considered the application of securities regulation to tokens issued during ICO era.¹⁴⁸ These initial regulatory attempts highlight the effect that the chaos within digital asset system's core narratives have on the initial efforts toward regulatory interventions. However, it is plausible to argue that the chaos arose from a lack of understanding of the dynamics of the erstwhile niche ecosystem, a circumstance that became well-adjusted due to the recurring crisis cycles. As such, the permissive regulatory regimes arising currently could suggest new credibility for the narratives of crypto financial systems, after subjection to repeated stress tests and remaining resilient.

Similar divergence also exists on the US policy front. The initial Senate hearings on crypto were held in March 2013, when the focus was on potential market risks, regulatory challenges (scam, fraud) and benefits of the niche ecosystem. More attention was generated by the huge retail losses from the multitude of scams during the ICO bubble and subsequent crash in 2018. But arguably, the defining moment for crypto policy developments in the US began with the

¹⁴⁴ In general, recent assessments suggest that global jurisdictions are adopting tailored frameworks and promoting international coordination on crypto activities and markets, with particular emphasis on stablecoin risks managements. For a broader overview of recent crypto regulatory and policy implementations across global jurisdictions. See FSB, *supra* note 144, at p.3, 9-12; PWC, *supra* note 14, at p. 35 -103.

¹⁴⁵ Department of the Treasury, *Application of FinCEN's Regulations to Persons Administering, Exchanging , or Using Virtual Currencies* (Mar 2013), <https://www.fincen.gov/system/files/shared/FIN-2013-G001.pdf>

¹⁴⁶ Houman B. Shadab, *Regulating Bitcoin and Block Chain Derivatives* (Oct 9, 2014), https://www.cftc.gov/sites/default/files/idc/groups/public/@aboutcftc/documents/file/gmac_100914_bitcoin.pdf

¹⁴⁷ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946)

¹⁴⁸ SEC, *SEC Issues Investigative Report Concluding DAO Tokens, a Digital Asset, Were Securities* (2017), <https://www.sec.gov/newsroom/press-releases/2017-131>

second administration of President Donald Trump and his pre-election promise of making the US a “crypto capital of the planet.”¹⁴⁹ In the days following the return of President Trump to office, the price of most cryptocurrencies, especially Bitcoin, soared in anticipation of this crypto-friendly regulatory environment, an expectation that has manifested.

Recent developments since then have demonstrated that this promise is being fulfilled. Upon taking office in March 2025, President Trump announced the intention to create a strategic crypto reserve, comprised of five cryptocurrencies including Bitcoin, Ether, XRP, Cardano and Solana.¹⁵⁰ While the US is not the first country to create a strategic crypto reserve—El Salvador initiated this earlier while accepting it as legal tender (in September 2021), the status of US as a leader in the global financial system implies that such a move could revolutionize how countries view crypto assets. The adoption of a strategic crypto reserve could challenge the growing efforts to displace the US Dollar as the global reserve currency in favor of alternative currencies or financial assets like gold – and even crypto. A strategic reserve would, therefore, ensure that the US has substantial claim in the alternative financial system, a move that could signal to global traditional investors that digital assets system has been substantially integrated into global TradFi system. And to a large extent, it has achieved this.

Subsequently in July 2025, the GENIUS Act¹⁵¹ was introduced, as a legislation that seeks to establish a comprehensive legal framework on regulations and consumer protections for stablecoins.¹⁵² Like the strategic reserve, this Act creates a direct pathway for the legitimization of crypto financial assets. It achieves this by providing clearer frameworks for eliminating the initial ambiguities between the categorization of payment stablecoins and securities, thus positioning the US a leader in the promotion of regulatory environment for digital asset innovation. Principal provisions include mandatory 100% reserve backing, regular audits, federal approval for stablecoin issuers,¹⁵³ and broader Treasury authority for tackling illicit financing (stricter AML/KYC requirements)¹⁵⁴.¹⁵⁵ Although it is yet to take effect, its introduction has nevertheless contributed to the increased global crypto adoptions, especially among institutional investors, witnessed since the return of President Trump.¹⁵⁶

¹⁴⁹ The White House, supra note 16. There are going discussions as to the effect the president’s personal interest in crypto might have on his broader policies in relation to the financial system. This stems from the president and his family owning a crypto firm, World Liberty Financial (WLFI), which launched its own dollar-pegged stablecoin, USD1, in March 2025 backed by the US treasuries. The success of the crypto ecosystem could therefore have correlated positive impacts on his personal crypto projects, both in the US and globally.

¹⁵⁰ Id

¹⁵¹ The Guiding and Establishing National Innovation for U.S Stablecoins Act of 2025.

¹⁵² The Genius Act is an actualisation of the new agenda of the US policy on crypto, particularly those solidified in the White House’s July 2025 Crypto Report, which advocates for clear rules to pave the way for crypto mainstreaming. This will include enabling digital asset trading at federal levels, refocusing enforcement on illicit actors instead of developers, clarifying process for crypto firm’s access to Fed master accounts and grant of charters.

¹⁵³ This is primarily applicable to larger issuers (over USD10 billion), while issuers below this threshold can use on state regulation.

¹⁵⁴ Specifically, issuers will be subject to the provisions of the Bank Secrecy Act, in addition to the requirement of possessing technical ability to free or burn tokens upon legal order.

¹⁵⁵ While these provisions strengthen the quality of backing assets and improves transparency, there is an ongoing concern about potential limitations and risks, in particular around how it treats stablecoins stability implicitly as a balance sheet problem. See Daniel J. Aronoff et al., *The Hidden Plumbing of Stablecoins: Financial and Technological Risks in the GENIUS Act Era*, MIT Digital Currency Initiative, 29 -38, <https://andersbrownworth.com/pdf/2026-02-04-The-Hidden-Plumbing-of-Stablecoins.pdf>

¹⁵⁶ Chainalysis, supra note, 77, at 7.

Presently, however, the focus of major market actors has been on the introduction of the separately promised CLARITY Act,¹⁵⁷ a draft legislation that would create a regulatory framework for cryptocurrency. If enacted,¹⁵⁸ this legal framework would clarify the jurisdiction of financial regulators across the digital assets financial system – establishing a “dual agency approach”. The proposal aims to end the “regulation by enforcement,” that has permeated the regulator’s interventions in crypto markets and includes provisions on distinguishing the categorization of digital assets as security or commodity.¹⁵⁹

In many ways, the pre-election promises can be said to be delivered.¹⁶⁰ The US crypto-friendly regulatory environment has spread beyond the US to other global jurisdictions, suggesting that the US is truly becoming a big influence in the move towards legitimizing the digital asset financial system and integrating it into core financial services. More importantly, this has had considerable impact on how investors view the crypto markets. As the recent Bitcoin crash indicates, it has not shielded the ecosystem from external market factors but increasingly changed the dynamics of how investors across regions react to crypto crisis events, a paradigm shifts from flight to more cautious considerations of inherent opportunities during stress events. This reality demonstrates that with adequate regulatory frameworks and innovation-driven policy strategies, crypto could achieve substantial credibility as a mature market similar to TradFi systems.

Overall, the US pro-innovation approach has amplified momentum around a federal payment-stablecoin instead of the broader unregulated global stablecoin arrangements. This choice is calibrated to align with state regimes on prudential regulations as part of larger efforts to deploy this innovation in the country’s core financial infrastructure. It however creates a pathway to regulatory arbitrage as it construes narrowly the type of crypto assets it categorizes as payment stablecoins and the issuers that are within the scope of regulated entities. The impact of this on emerging regulatory fragmentations and diverse policy implementations is explored later.

2. Europe Union

The latest index on global adoptions suggests that Europe, especially eastern European countries, such as Ukraine, Moldova, and Georgia show increased crypto activities in relation to their population.¹⁶¹ Nevertheless, the European Union remains the forerunner in the consideration of regulatory developments and policy strategies relating to crypto market activities in the region.

¹⁵⁷ The Digital Asset Market Clarity Act of 2025 (H.R. 3633).

¹⁵⁸ The legislative proposal passed the House of Representatives with bipartisan support in July 2025 but have faced slight delay in finalization since then because it requires reconciliation with other proposals and potential revisions at the Senate.

¹⁵⁹ Under the proposed CLARITY Act, the CFTC would be tasked with overseeing “digital commodities” including non-stablecoin crypto assets like Bitcoin. In contrast, the SEC will be responsible for overseeing tokens that are categorized as investment contracts.

¹⁶⁰ Instructive examples include the affirmation of the permissibility of a broad range of crypto activities such as custody, node operations and selected stablecoin activities by the Office of the Comptroller of the Currency (OCC); withdrawal of prior requirements by FDIC, Fed and OCC that all banks must receive written non-objection letters before engaging in crypto-related activities, and the SEC’s release of guidance on certain liquid staking activities falling outside federal securities law, requiring no registration. See PWC, *supra* note 14, 37-40.

¹⁶¹ Chainalysis, *supra* note, 77 at 6.

The earliest interest from the European Commission began earlier than most nations, in 2012, when the commission started monitoring the popularity of cryptocurrencies with emphasis on regulatory implications around taxation, consumer protection and illegal activities.¹⁶² These evaluations culminated in a report by the European Central Bank (in 2014), which highlighted the major market risks (e.g. high volatility) and emerging regulatory challenges (security, financial crime) around the activities of digital currencies.¹⁶³ At this stage, the primary emphasis was on the use case of digital assets in monetary and payment systems. However, a broader ecosystem angle subsequently emerged, with the beginning of discussions around clarifying crypto asset regulations and ensuring that crypto exchanges are brought within the scope of existing EU AML/CFT laws. By 2017, the regulatory attention had increased in reaction to the ICO boom, culminating in the initial consideration of tokens as securities by the European Securities and Markets Authority.¹⁶⁴ From these events, it is apparent that EU has always been interested in representing itself as the model jurisdiction for global regulatory developments. This has not always worked in favor of the EU's attractiveness to innovations and is, in fact, one of the major reasons why the EU policymakers appear to be shifting away from heavy regulation towards a more flexible system.

On the policy side, the European Parliament held major discussions during the 2017 ICO boom, focusing on the likely implications on consumer protections and broader financial stability. Following this, in 2018, the European Commission began working on draft proposals on a comprehensive regulation around cryptocurrencies, leading to the publication of the renowned draft regulatory framework, Markets in Crypto-Assets Regulation (MiCA), in 2020.¹⁶⁵ This framework, finalized and adopted in 2023, provides the first comprehensive regulatory approach to crypto activities in recent times, with core focus on enhancing consumer protections and clarifying the status and implications of different crypto assets.¹⁶⁶ It primarily applies to major digital assets not already covered by existing financial services regulations, such as MiFID II, and provides for three categories of such assets: (1) Asset-referenced tokens, referring to stablecoins pegged to fiat or other underlying external assets; (2) E-Money Tokens, referring to stablecoins pegged to single fiat currency; and (3) Other crypto-assets, referring to a broader category of unreferenced assets including utility tokens and cryptocurrencies (e.g. Bitcoin).¹⁶⁷

Major provisions of the MiCA include the introduction of licensing regime for a broad range of crypto services providers, requirements for reserve composition, stablecoins interest payments prohibition and prescriptive redemption policies. The final transition period for the

¹⁶² Philipp G. Sandner, Agata Ferreira and Thomas Dunser, *Crypto Regulation and the case for Europe*, In HANDBOOK ON BLOCKCHAIN 661 (2022).

¹⁶³ ECB, *Crypto Assets: Implications for financial stability, monetary policy, and payments and market infrastructures* (May 2019) Occasional Paper Series No 223, <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op223~3ce14e986c.en.pdf>

¹⁶⁴ ESMA, *Advice on Initial Coin Offerings and Crypto-Assets*, 42 (Jan. 2019); FSB, *Regulatory Issues of Stablecoins*, 1 (Oct. 2019).

¹⁶⁵ See PWC, *supra* note 14, p.25-34. The MiCA regulation forms part of an extended arsenal of EU legislations on crypto assets which also include the Digital Operational Resilience Act (DORA). DORA focuses specifically on operational resilience in financial institutions, which also extends to crypto entities. Its primary objective is to ensure that entities have the resilience to withstand, respond to and recover from all forms of ICT-related threats and disruptions.

¹⁶⁶ The rules in the MiCA for stablecoins (especially Electronic Money Tokens) became applicable on 30 June 2024. Since then, the market for euro-referenced stablecoins have grown exponentially, with transaction volumes of major ones (especially EURC and EURCV) reaching over USD3.8 billion.

¹⁶⁷ The MiCA includes a general exclusion on two crypto use cases: (1) of Non-Fungible Tokens which are not fractionalised and (2) fully decentralized finance (DeFi) ecosystems with no identifiable issuer.

implementation of all provisions among member states (on enforcements applicable to all crypto service providers) has been set for July 2026. Although it creates a unified approach primarily applicable among the EU member states, its influence goes beyond the eurozone and extends to other prominent global jurisdictions. This suggests a repeat of the earlier “Brussels Effect”¹⁶⁸ strategy on data protection framework in the general data protection regulation (GDPR).¹⁶⁹ Importantly, MiCA has paved the way for the launch of several licensed euro-referenced stablecoins, such as EURC (Circle), EURR (StabIR), and EUROe (Membrane Finance).¹⁷⁰

Overall, the EU’s implementation has transitioned from rule interpretation and industry mapping towards building operational readiness, including disclosure templates, governance and reporting requirements, and reserve composition and concentration structures. While the regime provides an undoubtedly comprehensive framework, the complexity of the compliance scope has paradoxically prevented true innovations from grassroots crypto adoption and application in the eurozone. This suggests that even where regulatory frameworks can play the role of enablers, complexity of the framework may result in huge compliance costs, consequently driving away global entities and reducing the expected competitive edge from regulatory clarity.

3. Hong Kong SAR (China)

Before evolving to a formal licensing regime, Hong Kong’s crypto regulation and policy developments emanated from the application of existing financial laws to new crypto assets and their service providers. Prior to the ICO bubble crash in 2018, crypto assets (especially Bitcoin) were categorized and treated as a form of “virtual commodities” not money.¹⁷¹ Following this, the Securities and Futures Commission provided guidance on treating ICOs and other tokens with similar characteristics as securities (or collective investment schemes) within the existing scope of the Securities and Futures Ordinance (SFO).¹⁷²

In the wake of the ICO crash in late 2018, however, the Hong Kong policy pivoted away from applying existing laws towards a new regulatory approach focused on market manipulation, scam, money laundering and crypto custody services. All crypto asset managers and fund distributors were expressly designated as within the perimeter of the SFC at this point. The regulatory approach was largely driven by reactions from international standard-setting bodies such as the Financial Action Task Force (FATF) and IOSCO to the assessed global implications of the earlier ICO boom and ongoing crash, at the time. At this stage, the approach was heavily based on voluntary oversight, where market actors were encouraged to follow issued guidance in conducting their activities and reporting risks from activities within the jurisdiction. This

¹⁶⁸ While the MiCA has admittedly had strong influence across global jurisdictions, there appears to be increasing shift from comprehensive regulations of crypto activities towards a more friendly and technology-neutral approach, suggesting the overtake of permissive regimes encouraged by the Trump administration.

¹⁶⁹ ANU BRADFORD, *THE BRUSSELS EFFECT: HOW THE EUROPEAN UNION RULES THE WORLD*. (2020). The EU has recently began moving away from a regime of complex regulation as part of efforts to promotes international competitiveness and attract foreign capital to the EU economies.

¹⁷⁰ Chainalysis, *supra* note 77 at 7.

¹⁷¹ In a prominent speech, the Financial Secretary in December 2013, John Tsang, set the baseline of the governments view of crypto when he described Bitcoin as a cyberworld commodity, and not a form of electronic money or store of value.

¹⁷² SFC, *Statement on initial coin offerings* (Sep 2017), <https://www.sfc.hk/en/News-and-announcements/Policy-statements-and-announcements/Statement-on-initial-coin-offerings>

was later complemented by the creation of a voluntary sandbox project,¹⁷³ where virtual assets trading platforms (VATPs) could test their products in a regulatory-controlled environment before proceeding to broader market offerings. This marked the first crypto platform-specific test-and-learn architecture that promoted the status of Hong Kong as innovation-driven, while working with key stakeholders to identify and manage potential risks.

The above oversight regime was expanded in 2019, allowing VATPs and other crypto intermediaries to offer crypto products while integrating formal investor protection safeguards into their business operations. In June 2023, the voluntary oversight regime was replaced by a formal mandatory licensing framework, supported by the SFO and Anti-Money Laundering and Counter-Terrorist Financing Ordinance,¹⁷⁴ applicable to centralized exchanges.¹⁷⁵ Between 2021 and 2024, more broadly, Hong Kong has worked on positioning itself as a digital-asset hub through several crypto-friendly regulatory initiatives, including issuing virtual asset trading platform licenses, allowing crypto spot ETFs, and fostering cross-sectoral coordination and policy alignment (between the SFC and Hong Kong Monetary Authority) on future-driven initiatives like stablecoins, use cases and their intermediaries.¹⁷⁶ More recently, the SFC has published a roadmap, “A-S-P-I-Re,” reiterating its commitment to a largely principles-based and balanced regulatory regime since it began the focus on the evolving crypto assets ecosystem in 2018.¹⁷⁷ It includes 12 major initiatives around streamlined market access, adaptive compliance and product frameworks, and infrastructure upgrades to bridge TradFi reliability with blockchain efficiency. Thus, emphasizing the intention to harness the key advantages of the underlying infrastructure in crypto ecosystems for traditional markets development.

Separately, the Stablecoins Ordinance¹⁷⁸ was introduced in May 2025 and has since taken effect in August 2025. This legal regime establishes a licensing regime for issuers of fiat-referenced stablecoins under the purview of the central financial regulator, the Hong Kong Monetary Authority. The efficacy of this policy development would, however, be subject of controversy, especially regarding the role of Hong Kong as a financial center for the flow of capital between Western countries and the Mainland China. This comes in the wake of China’s financial regulators joint expansion of its crackdown beyond cryptocurrencies to include stablecoins and asset tokenization.¹⁷⁹ The revamped rules in the latest notice reaffirm China’s

¹⁷³ HKMA, *HKMA launches Project Ensemble Sandbox to accelerate adoption of tokenization* (Aug 2024), <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/08/20240828-3/>

¹⁷⁴ The Anti-Money Laundering and Counter-Terrorist Financing (Amendment) Ordinance was enacted in 2022 and created the mandatory licensing regime for crypto trading platforms under the purview of the SFC.

¹⁷⁵ There is also evidence that the court system has played a complementary role to the policy developments related to crypto financial activities. In 2023, the *Gatecoin case*, established the view of the Hong Kong court on crypto assets when the court confirmed that cryptocurrencies constitute “property” that can be held in trust and subject to the principles of common law related to ownership and transfer of property.

¹⁷⁶ See generally, PWC, *supra* note 14, p.61-62

¹⁷⁷ The SFC ASPIRe framework is structured around five major pillars: access, safeguards, products, infrastructure and relationships. Securities and Futures Commission, “*A-S-P-I-Re*” for a Brighter Future: *SFC’s Regulatory Roadmap for Hong Kong’s Virtual Asset Market* (Feb 19, 2025) <https://www.sfc.hk/-/media/EN/files/ER/ASPIRe/ASPIRe-roadmap-for-Hong-Kongs-virtual-asset-market-Eng.pdf?rev=1ff2b9ab976f482e924b1d911c55b27a&hash=ABF3EDC5C737FE8435568222D04417EA>; The ASPIRe framework is also complemented by the Financial Services and the Treasury Bureau’s (FSTB) LEAP framework which emphasizes legal and regulatory streamlining, multistakeholder partnership development, expansion of tokenized products, and cross-sectoral collaboration advancement.

¹⁷⁸ Stablecoin Ordinance, Cap 656, <https://www.elegislation.gov.hk/hk/cap656?pmc=1&m=1&pm=0>

¹⁷⁹ Xiaofei Xu, *China tightens crypto crackdown with onshore RWA tokenization ban*, SCMP (Feb 7, 2026), <https://www.scmp.com/business/cryptocurrency/article/3342751/china-tightens-crypto-crackdown-onshore-rwa-tokenisation-ban>

hardline stance on crypto activities (earlier issued in 2021), which now includes not only the tokenization of real-world assets but also all instances of overseas issuance of yuan stablecoins.¹⁸⁰ Chinese firms seeking to engage in tokenization services must only do so after obtaining approvals from regulators. Additionally, their financial and tech partners must also meet very strict compliance standards to be allowed to collaborate on such endeavors.

The primary rationale provided for this restrictive approach includes increased speculative activities in crypto activities and concerns surrounding capital flight, both of which can have strong implications on the economy's financial stability amidst the ongoing global trade tensions with the US. This could also affect how Hong Kong plans to navigate the attraction of foreign capital to its digital asset's hub, especially among western institutional investors hoping to take advantage of the diverse wealthy segments (and family offices) with strong ties to the Chinese Mainland capital pool. Overall, the approach in Hong Kong has moved from an initially reactive approach to the execution of formal legal regimes which classifies activities and risks and adapts to the latest developments in the innovative crypto market. The long-term success would however be dependent on how it calibrates its implementations to attract western capital investments without breaching its obligations to the Mainland China under the one country two system regime.

C. Preliminary Deductions on Commonalities and Divergence

From the above overview, it is deducible that crypto market regulation is now acknowledged as an increasingly significant market in the global financial system. Furthermore, crypto regulation appears to have transitioned from theoretical explorations - involving consultations, policy design and whitepapers - towards formalized strategic implementations. Unsurprisingly, the initial active engagement among international regulatory bodies and across the selected jurisdictions have focused on AML/CFT. This confirms that at the initial stage, crypto was viewed and treated as a niche ecosystem, operating similar to the "badlands." As observable from majority of the jurisdictions explored, the expansion of anti-money laundering regulations likely followed the cue from the FATF. The reason for this is not farfetched. Jurisdictions who fail to implement the FATFs recommendations on AML/CFT are typically put on the infamous "grey list,"¹⁸¹ which affects their reputation in international financial transactions and foreign capital attraction.

Moreover, the progressive implementations of AML/CFT measures also underscore a well-recognized fact regarding the role that international regulatory bodies play in effective regulatory governance, especially when it relates to financial activities that are inherently transnational in nature.¹⁸² As the transnational nature of crypto activities implies that they can spread risks across borders, it is justifiable that the initial assessment of the scope of their activities should be conducted from a cross-border perspective, before national implementations to ensure effective coordination. But this begs the question as to why other transnational counterparts delayed their active engagements in assessing and acknowledging the inherent opportunities, risks and vulnerabilities in crypto activities and markets? In answering this, it is helpful to reiterate the role that crisis cycles play in financial systems, a

¹⁸⁰ As such, all foreign entities and individuals offering crypto services within China, as well as domestic entities seeking to issue digital currencies overseas without regulatory approval is now considered illegal.

¹⁸¹ Dell'Erba & Vianelli, *supra* note 140, at 14

¹⁸² Kenneth W. Abbott, *International organizations and international regulatory cooperation: exploring the links* (2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2532228

dynamic that has been reinforced in crypto financial systems. Inferring from this, it is not surprising that most of the remaining international regulatory bodies began actively assessing the risks and exposures in crypto markets after the ICO bubble and subsequent crash.

Afterall, this was the first major crisis that demonstrated the strong capabilities of crypto markets to impact the stability of global financial systems. It was also the major event that highlighted crypto's inherent opportunities in providing viable alternatives to external financial gaps, if supported by an effective regulatory regime. The prior crisis scenarios, such as the Mt. Gox collapse, was majorly absolved within the crypto ecosystem, with negligible direct impacts on TradFi markets, institutions, or investors. In this regard, it could be argued, yet again, that the increased activities among the selected jurisdictions after the ICO crash followed the developments among the international regulatory bodies. This is factual, even if most of such activities manifested in the form of regulatory warnings to market participants and supervisory letters to key market actors about the emerging market dynamics and vulnerabilities.

More importantly, the developing formalized approaches reflects the “same activity, same risk, same regulation” principle,¹⁸³ which explore the integration of crypto markets within the perimeter of existing regulatory regimes, in the first instance. This was later followed by crypto-focused regulatory and policy implementations across other regulatory objectives, such as financial stability, interdependencies and market integrity, beyond AML/CFT, indicating that most regulators are presently more optimistic about the crypto market's maturity. This provides the evidence in support of a global convergence in crypto regulation, especially on foundational concepts and structural components of a long-term regulatory and policy landscape. In many jurisdictions, this includes principles, such as AML, reserves assets, issuers, and governance, on the regulation of key activities (lending, stacking, collecting investment), products (global stablecoins, tokens), institutions (VATPs) and even ecosystems (DeFi, even if considerably slower).

1. Regulatory Arbitrage

Nevertheless, substantial heterogeneities persist on how these foundational concepts and structural components are being implemented to ensure holistic actualizations.¹⁸⁴ The major challenge—regulatory arbitrage¹⁸⁵—which reflects the cross-border nature of crypto markets and group-wide corporate structures is examined for illustration. Most national approaches are jurisdiction-focused, with little consideration for transnational risk channels. The implications of the cross-border nature of crypto markets and emerging interconnectedness and interdependencies are adequately demonstrated by the recurring crisis cycles.¹⁸⁶ However, most of the regulatory implementations by national regulators have focused on the treatment

¹⁸³ FSB, *FSB finalises global regulatory framework for crypto-asset activities* (July 2023), <https://www.fsb.org/2023/07/fsb-finalises-global-regulatory-framework-for-crypto-asset-activities/>

¹⁸⁴ These divergences have been subject of growing debates among international policymakers and academic researchers. See FSB, *supra* note 144, (highlighting the strong heterogeneities in the implementation of its ten core recommendations on financial stability regulations of crypto assets and markets); Dell'Erba & Vianelli, *supra* note 140, 20-22 (arguing for a more aligned and coordinated approach to the regulation of crypto derivatives amidst and ever-increasing divergence in global regulatory approaches and implementations); Rolf Weber & Rainer Baish, *Regulatory Guardrails for “Stablecoins*, 42.1 BANK. & FIN. L. REV. 111 (2025).

¹⁸⁵ For general readings on arbitrage, see e.g., Victor Fleischer, *Regulatory arbitrage*, 89 TEX. L. REV. 227 (2010).

¹⁸⁶ Arner et al. *supra* note 105.

of crypto assets and the markets as it applies primarily within their jurisdiction. Key examples include the regulation of national fiat-based stablecoins arrangements, regulation of VATPs activities, and the implementation of redemption rights and reserve assets requirements focused on national markets. This is a welcome development because it provides a baseline for structural components that can be replicated across other jurisdictions, usually developed from international frameworks released by standard-setting bodies.

However, as is the case with most regulatory and policy strategies, the implementations typically diverge to meet the peculiarities of each jurisdiction and the priorities of their national regulators and policymakers. These nuances and tailored implementations manifest in differences related to licensing models, eligibility of issuers,¹⁸⁷ composition of reserve assets (and concentration limits), scope of crypto assets covered, redemption timelines, disclosure regimes, and resolutions strategies.¹⁸⁸ For example, while the redemption rules in Singapore applies the T+0 timeline, other prominent jurisdictions such as the UK apply the T+1 approach, implying that a cross-border transaction involving these financial corridors would pose considerable legal and regulatory mismatch for entities and other market participants. Another notable divergence relates to the fact that globally, there is no harmonized treatment of tokenized deposits, with jurisdictions devising different approaches to suit their need. This could pose very serious challenges since the deposits hold considerable potentials for application in wholesale interbank settlements across global payment corridors. Without proper coordination, this could affect how investment transactions are settled and the rules that apply to both the issuers and overall infrastructure.

Indeed, this concern may persist as long as the primary attention remains focused on national crypto use cases, especially around fiat-referenced stablecoins arrangements, which most jurisdictions are adopting. While a national-focused fiat-referenced arrangement might appear easier, it negates the global scope of major crypto economy dynamics, where its true potential lies for cross-border payment activities and settlements of international trade. As each jurisdiction now have their own fiat-stablecoin, there is likely going to be new forms of currency competition and regulatory discrepancies that could affect the inherent advantages of a truly globalized digital economy, where multicurrency arrangements would enable true interconnections in finance and regulatory developments. The BIS has been working actively on creating new pilot models of multicurrency CBDC arrangements,¹⁸⁹ including project Ensemble. This Article will therefore argue that it would be beneficial if the various fiat-reference stablecoin arrangements emerging are ultimately integrated under this multicurrency scheme for true international settlements and other financial activities. For this to happen, the initial effort must necessarily focus on regulatory frameworks to ensure interoperability and regulatory equivalence among partnering jurisdictions.

The above divergences are worsened by the limitations of national regulators in relation to the regulation of interconnected financial activities and technological use cases expanding beyond the scope of their national sovereignty, so-called extraterritoriality. The direct implication of the diverse approaches to implementation is that it fosters regulatory arbitrage, where market actors can exploit fragmentations and loopholes in the implementation scope across

¹⁸⁷ This can include a broader or narrow range of institutions, including bank-only or specialised electronic money issuers, crypto-native institutions (custodians, issuers and exchanges) or broadly including payment service providers.

¹⁸⁸ For general global divergence, see e.g. PWC, *supra* note 14, p.13.

¹⁸⁹ Raphael Auer, Philipp Haene and Henry Holden, *Multi-CBDC arrangement and the future of cross-border payments* (March 2021) BIS Papers No 115, <https://www.bis.org/publ/bppdf/bispap115.pdf>

jurisdictions in positioning their activities to overcome compliance bottlenecks.¹⁹⁰ As such, the national strategies may have limited effect on external risks channels from the transnational activities of these institutions, especially during crisis events, when exposures in one jurisdiction quickly spreads contagion and systemic risks to other interconnected markets.¹⁹¹

In the Mt. Gox case study, the collapse occurred in Japan from lapses in corporate governance and cybersecurity measures, but the effect was felt across continents, even though most jurisdictions had existing AML/CFT safeguards. The relatively modern implementations in formalized crypto regulations did not also have much impact on curtailing the spread of contagion risks during the Terra ecosystem (and 3AC) and FTX collapses, both of which spread retail losses beyond the immediate crypto ecosystem. Therefore, considerable divergences in implementation approaches and lack of standardization across sectors could still pose serious challenges to the effective regulatory environment and legal certainty needed to support the full maturity of crypto markets.

The above illustrations reecho the major findings of fragmentations in the most recent evaluations by the FSB in its published 2025 thematic peer review.¹⁹² In general, it finds that while most jurisdictions are moving from theoretical explorations to practical actualizations, there is still an uneven order to implementations, with fundamental gaps that renders financial stability – and other core regulatory objectives – insufficiently addressed.¹⁹³ The underlying reasons for these divergences stem from several facts considered above, all of which can have strong implications on crypto financial system maturity. Only a minority of jurisdictions are presently close to full alignment with the core tenets of FSB’s 2023 high-level recommendations. While most jurisdictions have demonstrated their commitment to formalizing crypto regulation through adoption, or development, of robust regulatory regimes, only a few jurisdictions have gone beyond broadly generic frameworks applicable to crypto institutions.

In short, only a few jurisdictions have comprehensive regulatory regimes on equally impactful crypto activities,¹⁹⁴ such as global stablecoins arrangements, margin and leverage and DeFi. Therefore, with the continuous cross-border growth of such activities, existing limitations on the consideration of reserve assets, margin calls and redemption rights of extraterritorial market activities may pose an existential threat to the effectiveness of developed regulatory regimes

¹⁹⁰ In most jurisdictions, presently, most crypto actors are forced to localise their business models and compliance regimes across the major jurisdictions of their global operations. This complicates adequate disclosure regimes due to the multitude of financial market infrastructures, jurisdictions and market actors involved across the financial ecosystem.

¹⁹¹ For emphasis, contagion and systemic risks have played vital roles in recent crisis, both in TradFi and crypto markets. Riadh Aloui et al., *Global financial crisis, extreme interdependences, and contagion effects: The role of economic structure?* 35.1 J BANK FINANC 130 (2011); Rosalind Wiggins and Andrew Metrick, *The Lehman brothers bankruptcy: The global contagion*, Yale Program on Financial Stability Case Study 2014-3H-V1 (2014); Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193 (Nov.2008).

¹⁹² IOSCO has also published a similar thematic review (in collaboration with FSB) assessing the overall implementation of its assessed recommendations with particular focus on investor protection and market integrity. IOSCO, *Thematic Review Assessing the Implementation of Crypto and Digital Asset Markets* (Oct 2025), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD801.pdf>

¹⁹³ Some of the key weaknesses include insufficient capital buffers, resolution planning and reserve composition for effective prudential governance; and lack of consistent and granular systematic data collection and risks monitoring regimes for evaluating interconnections across ecosystems and potential risk contagion.

¹⁹⁴ Some of the illustrative jurisdictional examples with relatively robust regulatory regimes include Japan, Hong Kong, Singapore and the EU. However, substantial limitations and heterogeneities still exist around how these jurisdictions implement their stablecoin arrangements and DeFi ecosystem governance.

from exposures to less regulated counterparts. This concern is amplified by the increasing interlinkages with TradFi markets through the activities of institutional investors capable of transforming these crypto activities and their institutions into systemically important market activities and actors respectively.

In all, measures should be taken to ensure that regulatory safeguards across major high-risk activities, as well as requirements on governance, risks management and prudential regulation of crypto service providers must be aligned across global jurisdictions. Fortunately, most international regulatory bodies have published guidelines on the key foundational principles of regulatory governance along the “same risk, same regulation” concept, the other important aspect should therefore focus on the viable environment to implement these frameworks. Such an environment should offer opportunities to test and learn from different approaches and should include platforms for information sharing and collaborations among global jurisdictions, as well as deep and impactful interactions among a broad range of stakeholders.

IV. Way Forward: IFCs as Crypto Market Maturity Enablers?

In the previous section, there are emphasis across prominent jurisdictions aiming to become the next “global digital asset hub.” In TradFi, this status emphasizes the role of international financial centers (IFCs) and their critical role in financial regulatory and policy developments and supervisory coordination in the global financial system. In general, IFCs are cities or regions with high concentration of major financial institutions and financial services that facilitate cross-border flow of capital and regulatory policy development. In achieving this status, IFCs typically offer stable regulatory environments, strong financial market and digital infrastructure and serve as global or regional hubs for innovative financial business.¹⁹⁵

From a regulatory perspective, specifically, IFCs’ exposures to multinational financial actors and dynamic business ecosystem offer enabling environments for developing, testing and implementing innovative, transparent, internationally compliant regulatory and policy systems, complemented by specialized enforcement and tax regimes.¹⁹⁶ Presently, the global constituents of this group in TradFi include New York, London, Singapore and Hong Kong, supported by regional (Shanghai) and offshore centers (the Cayman Islands). Inferring from this, this section will argue that IFCs could offer the most desirable and practical location to operationalize the readiness of regulatory and policy implementations needed for projecting crypto financial system’s maturity on a global scale. This is because their access to international businesses operations and existing infrastructure provides the perfect environment for testing different forms of regulatory actualizations, as well as promoting the replication of favorable approaches across transnational ecosystems. This has already manifested in how major IFCs have dealt with recent financial innovations and regulatory development. In the context of crypto, specifically, major IFCs opted for the development of regulatory regimes to allow crypto activities when most of the prominent jurisdictions, such China and Saudi Arabia, imposed an outright ban. In essence, they have the willingness to foster innovation-centric regulatory developments through the fostering of technology-neutral frameworks. This

¹⁹⁵ According to the Global Financial Centres Index (GFCI), the contributory factors to consider when assessing IFCs include, business environment, human capital, infrastructure, financial sector development, and reputation.

¹⁹⁶ PETER YEOH, *THE WORLD OF INTERNATIONAL FINANCIAL CENTRES: OPPORTUNITIES, CONCERNS, AND REGULATIONS* (2021); Prem Sikka, *The role of offshore financial centres in globalization*, 27.4 *ACCOUNTING FORUM*. Vol. 27. No. 4. (Taylor & Francis 2003); Douglas W. Arner, *The Competition of International Financial Centres and the Role of Law*, In *Economic Law as an Economic Good* 193 (2009).

willingness could have very strong positive impact in promoting regulatory harmonization across global jurisdictions on the crypto economy.

This section considers the role that IFCs could play in surmounting the negative externalities arising from four existential regulatory implementation and policy issues underlying ongoing regulatory arbitrage and fragmentations, including (1) licensing models, (2) risk management and governance, (3) data collection and disclosure regimes, and (4) international cooperation and supervisory coordination.

A. Licensing Models

The future of digital assets financial system would likely rely not only the underlying technological advancements (blockchain), but especially on institutions applying these technologies in developing new use cases for applications in global finance. As earlier discussed, there is a growing divergence in the categorization of entities for the purpose of registration and issuance of licenses across jurisdictions.¹⁹⁷ In most cases, entities are forced to develop specialized business models to obtain authorization and operate in particular jurisdictions, while various altered versions are created in the broader corporate group to meet the needs of their global operations. Therefore, the major focus of IFCs in overcoming the existential issue of licensing the key players in the crypto markets should necessarily consider the application of a broad definition and scope for qualifying entities. In this regard, the Article suggests the adoption of the definition of crypto assets services providers (CASPs) provided in IOSCO's final report on policy recommendation for crypto as a baseline. It defines CASPs as:

“Service providers that conduct a wide range of activities relating to crypto-assets, including but not limited to, admission to trading, trading (as agent or principal), operating a market, custody, and other activities such as services relating to lending/staking of crypto-assets and the promotion, marketing and distribution of crypto-assets on behalf of others.”¹⁹⁸

The definition above is worded broadly to cover a broad range of market actors exploiting the crypto financial market infrastructures, including both crypto-native firms, as well as the increasingly relevant TradFi actors, such as non-bank financial intermediaries (NBFIs), banks, and PSPs. Importantly, this could definition provide the gateway to bring crypto conglomerates and their group-wide structures of transnational affiliates across financial ecosystems into the licensing regime. From the explorations of the recurring crisis events in both CeFi and DeFi markets, it is apparent that one major channel for risk transmission, with equally strong potential in TradFi markets, stem from the activities of these actors, who operate similar to traditional systemically important financial institutions (SIFIs). Therefore, wording the definition in this way would cover the broad financial functions provided by the main institutions itself, as well as the indirect activities of its corporate components and global affiliates.

In contrast, the existing ringfenced approach, in particular on defining crypto entities and designated issuers, could create new forms of regulatory arbitrage from indirect holding

¹⁹⁷In Japan, issuers are limited to bank only while the US and the EU allow other non-bank entities that meet their issuing requirements.

¹⁹⁸ IOSCO, *Policy Recommendations for Crypto and Digital Asset Markets Final Report* (Nov 16, 2023) 1 (footnote 2), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD747.pdf>

companies and other less visible forms of financial consolidations, through which registered entities may engage in otherwise unlicensed activities. If this is allowed to grow unfettered, it could enable an ineffective regulatory environment where risks are transmitted from regulated entities to unsupervised market segments. Moreover, the argument that narrow construction of definitions could provide a viable means of licensing only the important actors is greatly flawed. As the crypto ecosystem is fast-evolving and global, activities which may appear less relevant today could quickly transition into systemic activities in the near future, especially if market actors find inherent competitive edge in the market from lack of adequate regulatory oversight or coordinated supervisory regimes.

In lieu of the above, the Article suggests that a licensing model, which offers varied categories of authorizations should be favored. In this proposed regime, licensing models could involve several types, including general purpose licenses, fit for purpose license on specialized crypto activities, and/or sectoral licenses for activities in sectors that deemed critical. Further, to cushion the effects that overregulation might have on the markets, it is suggested that a varying degree of compliance and disclosure regime should be imposed on each category of authorized entities. The nuances of this could be determined by the collaboration of sectoral regulators based on their immediate regulatory priorities, as well as the risks potentials of each regulated activity or entity. At the international level, broader macroeconomic policy considerations can be factored in reaching a compromise as to minimum standards, thus, preventing misalignments with national priorities.

A similar multilevel licensing regime is in force in Hong Kong, through the initiative of the securities regulator on VATPs and trading activities.¹⁹⁹ The dual licensing model includes SFC's Type 1 and Type 7 licenses applicable to security tokens, while the AMLO applies primarily to non-security tokens. As a result, trading platforms and other market actors can determine which of the licenses is most appropriate for the nature of their services, although major platforms typical obtain the dual licenses to cover all forms of crypto asset engagements. In essence, a similar multilevel authorization model could therefore provide IFCs with better understanding of the dynamics in each market segment, their risks potential and the intrinsic interconnectedness they may have with less regulated ecosystems. This information obtainable through efficient disclosure regimes can be adapted domestically and shared across transnational peer learning platforms for coordinated regulatory and supervisory developments, that ensures a minimum standard is applied globally.

B. Risk Management and Governance

The institutional arrangements on the management of risks related to AML/CFT appears to be at an advanced stage compared to others. The efficiency of this evolving regime in effectively curbing financial crimes in crypto markets is another issue entirely. However, the focus here is on less formalized risks management and governance approaches beyond AML/CFT, including prudential regulation, investor protection and market integrity. As the global overview has indicated, there is substantial heterogeneities in how governance frameworks are implemented, in particular around reserve composition (between segregated high-quality assets and partial deposits), capital buffers, holding limits and liquidity requirements, as well as internal corporate governance safeguards.

¹⁹⁹ The regime's scope covers broadly centralized platforms providing designated crypto activities, such as trading, custodial and even advisory services.

IFCs typically have advanced financial and technological infrastructures to support more radical regulatory and supervisory implementations than their lesser developed counterparts. This can be particularly useful in risks management and governance framework alignment for crypto activities and markets. On reserve assets composition, it appears, quite rightly, that most regulators and international policymakers are still convinced that full reserve backing should be preferred in crypto markets, in lieu of the fractional reserve backing applicable among major TradFi institutions. This is not a flawed view if one considers the lack of government backing,²⁰⁰ high volatility in crypto markets and the proneness of its financial activities to result in cascading retail losses. However, the more pressing issue relates to how the reserve should be composed, including the categories of highly liquid assets that should be favored, and the concentration limits for each of these assets to ensure diversification and spreading of risks.

In this regard, IFCs have considerable experience on what kind of assets offer easy access to high liquidity that can be relied on during the events of financial distress or market turmoil. Typical low risk assets, such as US treasuries and Japanese bonds, that have been constant reserve assets in modern economies have recently faced volatilities due to heightening geopolitical tensions and shifts in government priorities around inflation country and macroeconomic strategies.²⁰¹ Therefore, it is suggested that the composition of reserve assets, while including traditional constituents, like gold and money market funds, should also consider more modern alternatives, such as stablecoin arrangements of economies with relatively stable political landscape.²⁰² This aligns with the fast-evolving growth among global jurisdiction on fiat-backed stablecoins and central bank digital currency regimes with direct link to national reserves in central banks. In doing so, the reserve composition may also contribute to the continuous evolution of crypto markets by providing increasing connections with established traditional markets and the safety nets they offer from national governments.

The other governance issue on vertical integrations and how this affects internal corporate structures and governance framework is equally important. Corporate groups and the complexity of their financial composition is not a novel phenomenon among IFCs. Most businesses in IFCs are operated by multinational corporate groups, with vast affiliation spanning global jurisdictions. A similar template used in regulating this group could offer a first layer of action in the effective governance of crypto entities and their corporate control. Importantly, this arrangement could help identify ownership patterns and controls among major players, as well as the level of independence that is exercised by their affiliates. In doing so, the regulators in the IFCs can have a better understanding of the evolving dynamics on crypto corporate structures and the likely governance issues related to conflict of interests or segregation of assets.

As the ecosystem is evolving, identifying the gaps in regulatory frameworks would be a most critical aspect in the development of effective and adaptable strategies for supporting responsible innovations. Established concepts, such as substituted compliance, could be used

²⁰⁰ This can be best understood through the roles of central banks as lender of last resort, deposit insurance schemes, and the provision of emergency liquidity during period of financial distress.

²⁰¹ Aileen Chuang, *Japan bond volatility raises contagion for Asia's stocks and debt*, SCMP (Jan 21, 2026), <https://www.scmp.com/business/commodities/article/3340667/japan-bond-volatility-raises-contagion-alarm-asias-stocks-and-debt>

²⁰² The alternative approach is to rely on reserve composition that are typically favoured by global SIFIs in their operations across multiple jurisdictions. Indeed, there is an argument in existing literature which suggests the treatment of crypto conglomerates as systemically important institutions under the same activity, same risks, same regulation principle.

in accessing needed information across the corporate groups, whether in traditional markets or within the broader crypto ecosystem. Lessons learned from such endeavors could thereafter be shared among international peers to ensure a more coordinated supervisory approach.

C. Data Collection and Disclosure Regimes

While disclosure is a useful strategy, the real problems lie in the technicality of what is to be shared, and the granularity of such data needed to ensure beneficial utilization in strategy development and continuous calibration. The collection of data from on-chain activities may not prove so hard to obtain and analyze since the blockchain is naturally immutable and entries can be verified in both permissioned and open-source variants. However, a majority of crypto market activities are also increasingly occurring off chain, requiring a more traditional approach to ensure that regulators are kept abreast of the evolving dynamics in the market and the risks potentials.

In this context, the advanced digital infrastructure of major IFCs can be used as pedestals for embedding regulatory technology and supervisory technology into the systems of major crypto players and markets, to access and analysis actionable data in (near) real time. Where this is possible, regulators and policymakers can better understand trends in the markets that may be indicative of early crisis events, or even potential triggers, that may occasion crashes and cross-sectoral/transnational systemic risks contagion. Developing the needed technological foundation and legal framework for such disclosure regimes will be critical to the success of this strategy. Fortunately, a broad range of projects are at advanced stages on the use cases of technologies, including blockchain, in upscaling digital disclosures and electronic data collection, thus alleviating potential concerns around data dump and the lack of compatibility across technical infrastructures. Such projects, including from the Cambridge SupTech Lab,²⁰³ could be adopted for exploration among major players during initial sandbox interactions prior to licensing, and retained afterwards as part of ongoing obligations applicable to registered or authorized entities.

Admittedly, this may initially prove slightly difficult for DeFi ecosystems, where the level of human control is minimal in the automation of activities, such as margin calls, that have been preprogrammed. However, there is always an element of human in the loop in such environments, that can be subject to regulatory governance on preprogramming. In particular, disclosure protocols can be embedded into the broader smart contracts to ensure that actionable data is shared with regulators and supervisors at prescribed intervals as part of the condition for securing operational license.²⁰⁴ This way, regulators and policymakers are able to better understand who the major controllers in both CeFi are and DeFi markets and how interconnections spread within and across the financial ecosystems.

D. International Cooperation and Coordinated Capacity Building

Regulatory cooperation at cross-sectoral levels, and minimum standards and coordinated supervision at transnational levels is perhaps the important recommendation on actualizing

²⁰³ Cambridge SupTech Lab, <https://cambridgesuptechlab.org>

²⁰⁴ This is part of the larger concept around “embedded supervision” suggesting the integration of supervisory requirements into underlying digital infrastructures by developers upon a legal order from regulators.

sustainable crypto financial markets.²⁰⁵ As the recent evaluations confirm that the level of developments have moved beyond theoretical frameworks towards actual implementations, the role of IFCs should focus on both test-and-learn strategies and the promotion of capacity building among contemporary jurisdictions.

Most IFCs are actively engaged in collaborative regulatory and supervisory projects, such as those led by the BIS innovation hub, IOSCO and the FSB. As most of the projects are held in IFCs, there is opportunity to share information about observable outcomes across economies which reflect the strength and limitations of individual implementation schemes. This is the first tier of a workable multilevel approach that would involve jurisdictions sharing data about the dynamics and observations from regulatory sandboxes²⁰⁶ and other multistakeholder projects.²⁰⁷ While this should primarily focus on collaborations between cross-sectoral regulators and international regulatory bodies, it could overtime be extended to involve major players in the industry, to ensure that adapted implementations do not work unnecessary hardship on supervisees,²⁰⁸ that may affect the innovations in the market.

Concurrently, the other layer should focus on capacity building of implementation regimes across jurisdictions, starting with IFCs and extending across other counterparts able to tailor the strategies to their unique local market conditions. Developing practical minimum standards could offer very useful benefits in this regard. This could include using established frameworks on information sharing in AML/CFT travel rule and other financial stability and securities regulation forums to communicate data on evolving market trends and regulatory adaptations. While this approach could create stronger cooperation and coordination among global jurisdiction to promoter consistency, it may carry significant limitations from privacy and national security concerns. In this ongoing age of digitalization and techno-nationalism, most jurisdictions are extreme cautious about sharing sensitive information about their financial markets and regulatory developments for fear of its effect on their national security and digital sovereignty. This fear has become amplified by the increasing AI disruption and its capabilities to exploit such datasets for broader macroeconomic applications beyond what was intended.

Nevertheless, what is known is that all jurisdictions suffer jointly, even if at varying degrees, from disruptions in financial systems, whether crypto or traditional. Therefore, a compromise is necessary to ensure the viability of markets through the calibration of workable templates for information sharing. A major solution proposed in this respect could be the use of international regulatory bodies as umpires in navigating the complex web of geopolitical tensions and regulatory competitions affecting the implementation of effective international cooperation. Most jurisdictions agree that these institutions are neutral and usually have no alliance to one, or few, economies. Therefore, allowing them lead, in collaboration with IFCs, could offer a viable solution to the ongoing challenges around privacy and sensitive data security in financial systems.

²⁰⁵ Richard Herring and Jacopo Carmassi, *The structure of cross-sector financial supervision*, 17.1 Financial Markets, Institutions & Instruments 51 (2008).

²⁰⁶ There is evidence that key jurisdictions, such as UK, Singapore, Hong Kong and the UAE, have already started using sandboxes to assess how stablecoins and tokenized deposits integrate with their national payment systems prior to full licensing. See PWC, *supra* note 14, p.14

²⁰⁷ This may include consortium pilots, shared custody arrangement and international collaborations on proving scale and liquidity.

²⁰⁸ Engagements in sandboxes across prominent jurisdictions typically include a diverse segment of industry players including banks, fintech, as well as cross-sectoral regulators. Thus, allowing the use of such projects as channels for structured experimentations on pressing regulatory and supervisory strategies.

V. Conclusion

Next to the recent disruptions in AI (and Fintech) markets, the developments in crypto are, unarguably, the most notable of all financial innovations across the global financial system. This can be deduced from several contrasting factors. On the one hand, the ongoing Bitcoin crash and massive liquidations among institutional investors highlight the many “issues” inherent in the consideration of crypto markets as a viable financial system. On the other, the influx of broader investor segments, including both traditional institutional investors and even national government authorities highlight the increasing credibility of the erstwhile niche ecosystem and its prospect as an integrated component, not parallel, of TradFi.

Among most stakeholders, crypto is therefore no longer a gamified ecosystem for solely tech savvy consumers seeking to create new financial ecosystems for their unique needs. Instead, it has transitioned into a more mature financial system, where the needs of a multitude of stakeholders are met, using both traditional, as well as novel and disruptive, use cases in financial interfaces, products and infrastructure. The influx of institutional investors and recent increase in government positive consideration of crypto-related financial innovations and transformative applications, such as global stablecoins and tokenized finance, are some of the most prominent contemporary issues driving global regulatory and policy debates in finance. At the minimum, this trend suggests the growing legitimization of the journey towards mainstreaming crypto markets in global financial systems. At the same time, it also confirms that indeed, while the use cases may continue to evolve to meet increasing market demands, the evaluation of its global implications at the theoretical level has given way to a more practical execution of regulatory and policy developments to adapt with the new order in global finance.

At the background of this revolution, is the unending controversy around the presumably chaotic core narratives of crypto ecosystems, in part, due to its diverse use cases and market prospects. However, as shown in this Article, in many ways, the recurring crisis cycles have paradoxically worked towards adjusting and managing the expectations among participants in the market, and even beyond. The major lessons learned revolve around the capability of these narratives to shift in reaction to market realities, sometimes birthing new manifestations of further innovative disruptions. This has been the case of major evolutions in crypto, including global stablecoins and tokenization, both of which are now increasingly integrated into the systemically important TradFi market infrastructures and forming the basis of future developments at domestic, regional and transnational levels.

In the case of crypto’s prospect as digital gold, specifically, the crisis events have demonstrated that the determination of alternative assets sustainability should focus, not only on immunity from volatilities, but also on the resilience of the underlying infrastructure supporting such assets. Inherent volatilities may, from time to time, affect the value of non-correlated assets during periods of macroeconomic events, as we have witnessed with gold in recent times. Nevertheless, the crypto market has shown that in modern economies, the capability of such assets to bounce back, after such market and financial stress events, is equally important. This is a testament to other less acknowledged contributory factors to the resilience of crypto, including the sustained positive investor sentiments, that have sustained the overall ecosystem. Indeed, the crypto market has managed to survive all its major crisis events, despite the notable lack of government support enjoyed by TradFi throughout its evolution. To many who are keen on diversifying their portfolio into modern neutral assets, this is evidence of crypto’s long-term viability as a non-correlated asset.

The above manifestations provide justification of the increased attention that crypto markets have gotten from international regulators and policy makers. But there is a lot that still needs to be done if the regulatory system is to be effective in adapting to the vulnerabilities and risks inherent in crypto's transnational operations. The reliance on existing financial regulations was a good start point; it helped us understand how much similarities exist between the digital asset market and TradFi, and what can be repurposed for effective and timely risks management and policy implementations. However, the next phase, which is emerging would be likely be the most challenging because it requires the consideration and balance of local market conditions and nuances of national regulatory objectives in a truly borderless financial ecosystem, where risks crosspollination and interdependencies are rife.

Therefore, the solution would lie in exploiting all available and tested approaches, such as those for which IFCs are known and capable, in determining how to calibrate national tailored strategies, while preventing regulatory arbitrage from international fragmentations. There are presently a multitude of implementation tools that can be harnessed, but the true test would likely come from finding common grounds to support international regulatory cooperation, coordinated supervision and, undoubtedly, enhanced multistakeholder engagements. Achieving this would require that all hands must be on deck, including international regulatory bodies, regional policymakers, academics, industry players, and national regulators. This would ensure that the future of the global financial system is ultimately a true representation of collective efforts toward moving critical financial infrastructures, products and institutions away from the badlands into more credible environments.