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Subcommittee on Digital Assets

Securing America's Leadership in the Digital Asset Revolution

Introduction

Chair Lummis, Ranking Member Gallego, and Members of the Subcommittee, thank you for the opportunity to testify on this defining issue for the future of American financial leadership. Your dedicated leadership comes at a critical moment, as the United States stands at a crossroads in shaping the next generation of financial services—and the decisions we make now will determine whether we lead or fall behind in the global digital economy.

I am Sarah Hammer, Executive Director at the Wharton School, Founder and CEO of Wharton Cypher Accelerator, and Adjunct Professor at the University of Pennsylvania Law School. I served as Acting Deputy Assistant Secretary for Financial Institutions at the U.S. Treasury and Acting Secretary of Banking and Securities for the Commonwealth of Pennsylvania, where I led the Department through the 2023 Banking Crisis. Additionally, I have held roles in portfolio analytics, macroeconomic research, trading, portfolio management, investment strategy, and institutional asset management.

Throughout my career, I have worked directly with global financial institutions, engaged closely with senior regulators and policymakers, and communicated with retail investors through research and public forums. My experience spans banking, asset management, blockchain and digital assets, artificial intelligence, and the modernization of financial infrastructure. I collaborate with founders and investors who are building businesses in emerging technologies, and with regulators, policymakers, and industry leaders around the world.

Before I begin, I would like to state that this testimony reflects my personal views and does not necessarily reflect the views of the Wharton School or the University of Pennsylvania.

Blockchain technology and digital assets represent a fundamental evolution in financial services, introducing decentralization, transparency, and immutability as core attributes. These innovations have the potential to reduce settlement risk, improve financial infrastructure, enable seamless cross-border transactions in real time, and increase financial inclusion.[1] By doing so, blockchain technology is reshaping how value is stored, transferred, and managed. As other nations move swiftly to integrate digital assets into their financial systems, the United

[1] Hammer, Sarah, *The Blockchain Ecosystem*, Working Paper (8 November 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3281020.

States faces a choice: remain at the forefront of financial innovation or cede leadership to jurisdictions that provide clearer regulatory frameworks.[2] [3]

To inform that choice, my testimony will focus on where the U.S. stands today and what steps we must take to lead. I will begin with a brief overview of the global digital asset regulatory landscape and the United States' position within it. I will then present data illustrating our declining competitiveness. Next, I will outline three core principles for effective regulation: (1) a clear foundation of standards, rules, and enforcement, (2) strong consumer protections, and (3) international standard setting. I will conclude with specific policy recommendations to clarify the U.S. regulatory framework, enhance coordination, and improve our financial infrastructure. Together, these steps will help deliver the regulatory clarity, safeguards, and resilience needed to sustain U.S. leadership in digital assets.

Section I. A Defining Moment for U.S. Leadership in Digital Assets

Balancing Innovation and Financial Stability

Throughout our nation's history, American prosperity has been built on our ability to harness transformative technologies through clear, principles-based regulation that fosters responsible innovation while safeguarding financial stability. The United States pioneered railroads that connected a continent and the Internet that connected the world. In each case, our leadership was not accidental but rather resulted from a uniquely American approach: embracing innovation while establishing regulatory frameworks that provide clarity, integrity, and global leadership. This balance has been the foundation of U.S. economic strength for generations.

Today, we stand at a defining moment in financial history. Blockchain technology and digital assets are not simply incremental innovations. They represent a paradigm shift as profound as the creation of modern banking. Digital assets are redefining how value is transferred, reducing friction in cross-border payments, revolutionizing capital formation, and enabling new models of ownership that were previously impossible. As a result, these technologies are reshaping financial markets, global commerce, and economic infrastructure. The United States remains at the forefront of this transformation, but our leadership is increasingly at risk.

As we deliberate our regulatory approach, other jurisdictions have decisively established clear, comprehensive frameworks. Bermuda, an early mover in digital asset regulation, established one of the first comprehensive licensing frameworks through its 2018 Digital Asset Business Act.[4] Singapore has implemented robust licensing regimes through its Payments Services Act (PSA)[5] and is advancing the Singaporean Stablecoin Regulatory Framework.[6] The UAE's Dubai Financial Services Authority (DFSA) has created a well-defined regulatory

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[2] *See generally* Hammer, Sarah, Time for Offense: Why America Needs Bold Crypto Legislation Now, *The Wharton Initiative on Financial Policy and Regulation*, (16 November 2024), https://wifpr.wharton.upenn.edu/blog/time-for-crypto-legislation/.

[3] *See generally* Hammer, Sarah, US Leadership in the Digital Asset Race: Stablecoin Policy and the Future of Finance, *The Bretton Woods Committee Blog* (31 March 2025), https://www.brettonwoods.org/article/us-leadership-in-the-digital-asset-race-stablecoin-policy-and-the-future-of-finance.

[4] Digital Asset Business Act (2018), https://www.bma.bm/viewPDF/documents/2023-11-14-11-11-48-Digital-Asset-Business-Act-2018.pdf, [hereinafter *DABA*].

[5] Payment Services Act 2019, 2020 Revised Edition (28 January 2020: Except sections 111, 113, and 114; 30 July 2020: Section 114; 31 May 2021: Section 111), https://sso.agc.gov.sg/act/psa2019 [hereinafter *PSA*].

[6] Media Release, Monetary Authority of Singapore, "MAS Finalises Stablecoin Regulatory Framework" (15 August 2023), https://www.mas.gov.sg/news/media-releases/2023/mas-finalises-stablecoin-regulatory-framework.

structure for the Dubai International Finance Centre (DIFC) to attract global digital asset businesses.[7] In 2020, Switzerland adopted legislation to provide guidance on how existing laws apply to digital asset businesses.[8] The European Union has enacted the 2023 Markets in Crypto-Assets regulation (MiCA), providing a legal framework for businesses and investors.[9] These jurisdictions recognize a fundamental principle: regulatory clarity does not hinder innovation—it enables it.

As CEO of an accelerator, I often work directly with pioneering startups as they navigate this evolving landscape. These entrepreneurs embody the spirit of American ingenuity, yet they face a formidable challenge: regulatory uncertainty. Over the past several years, the absence of a clear framework, the prevalence of regulation by enforcement, and the *de facto* prohibition on banking services for blockchain and digital asset businesses have left even well-intentioned companies without a viable path to compliance. This uncertainty has not only slowed innovation—it has pushed it offshore. The consequences extend well beyond individual businesses, threatening America's leadership in the global financial system.

In my work, I also have the privilege of witnessing firsthand the extraordinary talent, vision, and drive of students dedicated to digital assets and blockchain innovation. These young innovators are not seeking deregulation. Rather, they are demanding clarity, consistency, and a regulatory framework that fosters responsible innovation while protecting consumers and upholding market integrity. If we fail to provide it, they may take their ideas, capital, and ambition elsewhere, thus ceding the future of finance to other countries. That is not a risk the United States can afford to take.

The stakes are high. With a clear, strategic regulatory framework, the United States will cement its dominance of digital assets for decades to come. Regulatory clarity will give American businesses the certainty they need to drive innovation, attract global firms to our markets, and establish rigorous safeguards against illicit activity. Most critically, it will ensure that the next wave of financial transformation happens here, anchored in American leadership and values.

The choice before us is unmistakable: we can lead this transformation or be relegated to the sidelines. History has proven that when the United States embraces innovation with clear, principles-based regulation, we do not merely keep pace with technological revolutions—we define them. Now is the moment to act.

II. America at a Crossroads: Data on Declining U.S. Competitiveness

The consequences of past U.S. regulatory uncertainty are evident, with multiple indicators reflecting a decline in the nation's leadership in blockchain and digital assets. One of the clearest signals comes from venture capital flows: in Q2 2023, U.S.-based digital asset startups attracted 45% of global crypto venture funding,[10] but by Q3,

[7] DIFC Digital Assets Law, DIFC Law No. 2 of 2024, https://edge.sitecorecloud.io/dubaiintern0078-difcexperie96c5-production-3253/media/project/difcexperiences/difc/difcwebsite/documents/laws--regulations/digital_assets_law_2_of_2024.pdf [hereinafter *DIFC Law*].

[8] Swiss Federal Act on the Adaptation of Federal Law to Developments in Distributed Ledger Technology (11 December 2020), https://www.newsd.admin.ch/newsd/message/attachments/60601.pdf.

[9] European Securities and Markets Authority, "Markets in Crypto-Assets Regulation (MiCA)," https://www.esma.europa.eu/esmas-activities/digital-finance-and-innovation/markets-crypto-assets-regulation-mica.

[10] Lyons, Ciaran, "US 'dominates' crypto startup funding in A2: Report," *Cointelegraph* (16 July 2023), *https*://cointelegraph.com/news/us-crypto-startup-in-q2-galaxy-digital.

that share had dropped to 34%.[11] In other words, nearly two-thirds of all venture investment in digital assets occurred outside the U.S., with Singapore, the UAE, and the UK capturing a growing share.[12]

This trend extended beyond capital flows to strategic corporate decisions. As jurisdictions with clear regulatory frameworks gain traction, major U.S. crypto firms are expanding overseas to operate in environments with greater legal certainty. For example, Circle, the issuer of USDC, became the first global stablecoin issuer to comply with the EU's MiCA regulatory framework, securing an e-money license from France's banking regulator.[13] Meanwhile, anecdotal evidence from industry leaders and startup founders has indicated a preference for foreign jurisdictions over the U.S., where regulatory uncertainty created significant operational challenges.[14]

Global adoption patterns reflect this shifting landscape. While the U.S. retail digital asset adoption rose from #8 in 2021[15] to #5 in 2022[16] and #4 in 2023[17] and 2024[18]—this upward trend remains fragile. Other jurisdictions, particularly in Europe and Asia, are rapidly closing the gap by implementing comprehensive regulatory frameworks that provide legal clarity for businesses and investors. Without a clear and coordinated regulatory strategy, the U.S. risks stagnation as users and businesses migrate to markets that offer greater clarity and stability. This shift is evidenced in the following analysis, which examines stablecoin usage, active wallet and contract addresses, and total adjusted blockchain transactions—illustrating how regulatory clarity is reshaping global adoption patterns.

Temporal Analysis of Stablecoin Usage by Geographic Region

The following chart presents chronological data on stablecoin usage by geographic region. In January 2020, North America accounted for 37% of global trackable stablecoin transfers, while Asia represented ~61% and Europe ~0%. By May 2022, North America peaked at 82% of global transfer volume,[19] with Europe at 7%. By December 2024, North America's share had fallen to 61%, while Europe had risen to ~21%. These data points indicate that while North America continues to lead in stablecoin adoption, Europe is closing the gap. Notably, MiCA's

[11] Thorn, Alex and Parker, Gabe, "Crypto and Blockchain Venture Capital Q3," Galaxy Research (13 October 2023), https://www.galaxy.com/insights/research/crypto-and-blockchain-venture-capital-q3-2023/#:~:text=US,and%20Singapore%20%286.2.

[12] *Id*.

[13] Press Release, "Circle is First Global Stablecoin Issuer to Comply with MiCA, Europe's Landmark Crypto Law" (1 July 2024), https://www.circle.com/pressroom/circle-is-first-global-stablecoin-issuer-to-comply-with-mica-eus-landmark-crypto-law.

[14] Wilser, Jeff, "US Crypto Firms Eye Overseas Move Amid Regulatory Uncertainty" (27 March 2023; updated 30 March 2023), https://www.coindesk.com/consensus-magazine/2023/03/27/crypto-leaving-us.

[15] Chainalysis, The 2021 Geography of Cryptocurrency Report, Analysis of Geographic Trends in Cryptocurrency Adoption and Usage (October 2021), https://go.chainalysis.com/rs/503-FAP-074/images/Geography-of-Cryptocurrency-2021.pdf.

[16] Chainalysis, The 2022 Geography of Cryptocurrency Report, Everything You Need to Know About Crypto Adoption Around the Globe (October 2022), https://go.chainalysis.com/rs/503-FAP-074/images/2022-Geography-of-Cryptocurrency.pdf.

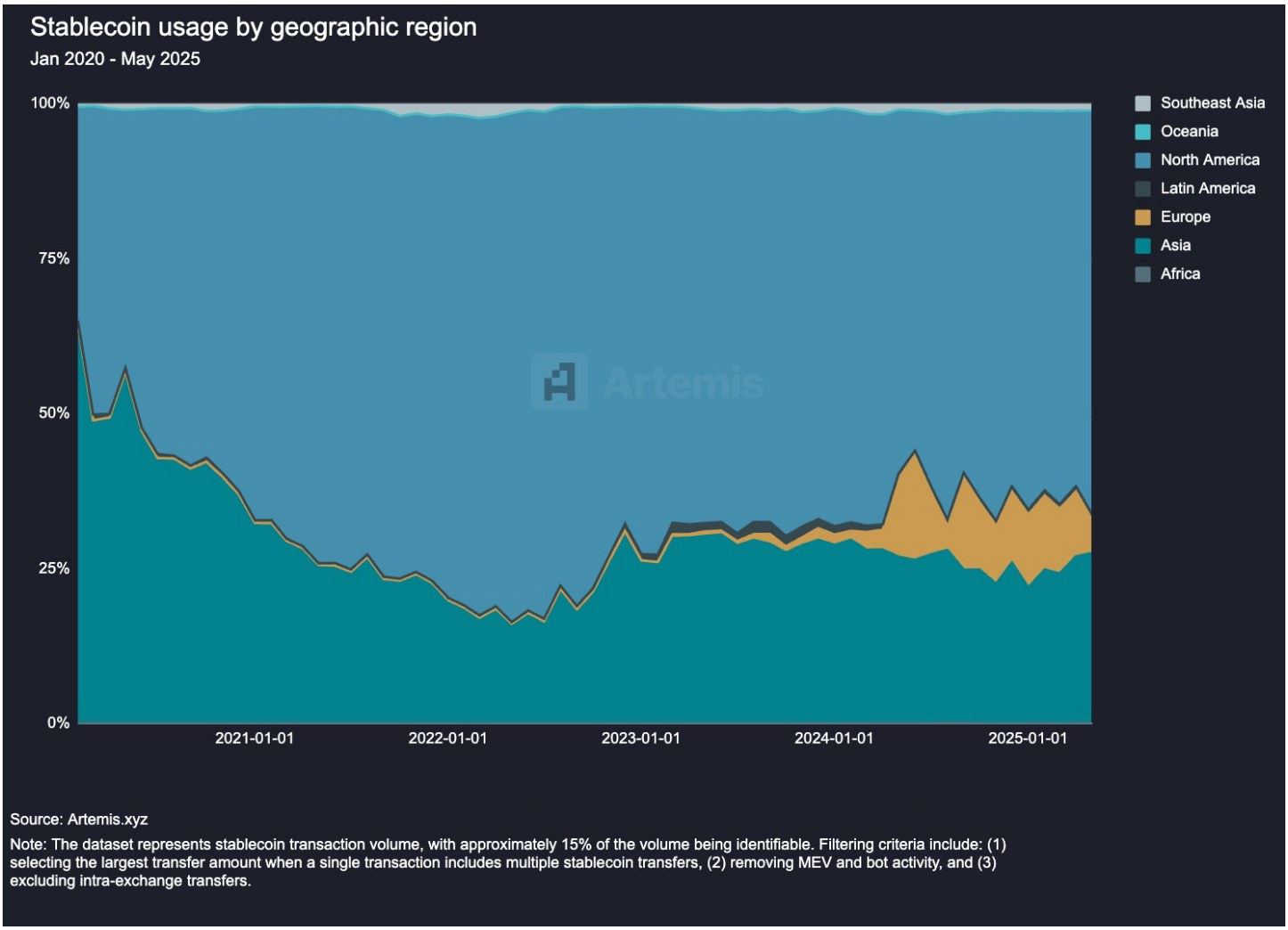
[17] Chainalysis, The 2023 Geography of Cryptocurrency Report, Everything You Need to Know About Crypto Adoption Around the Globe (October 2023), https://www.chainalysis.com/wp-content/uploads/2024/06/the-2023-geography-of-cryptocurrency-report-release.pdf.

[18] Chainalysis, The 2024 Geography of Cryptocurrency Report, Everything You Need to Know About Crypto Adoption Around the Globe (October 2024), https://www.chainalysis.com/wp-content/uploads/2024/10/the-2024-geography-of-crypto-report-release.pdf.

[19] Peak percentage may have been due to the role of FTX.

adoption in May 2023[20] and the implementation of stablecoin regulations in June 2024[21] did not appear to hinder EU activity. Instead, European stablecoin usage accelerated, suggesting that regulatory clarity may have fostered adoption rather than suppressed it.[22] [23] [24]

Chart A. Stablecoin Usage by Geographic Region (January 2020-May 2025)

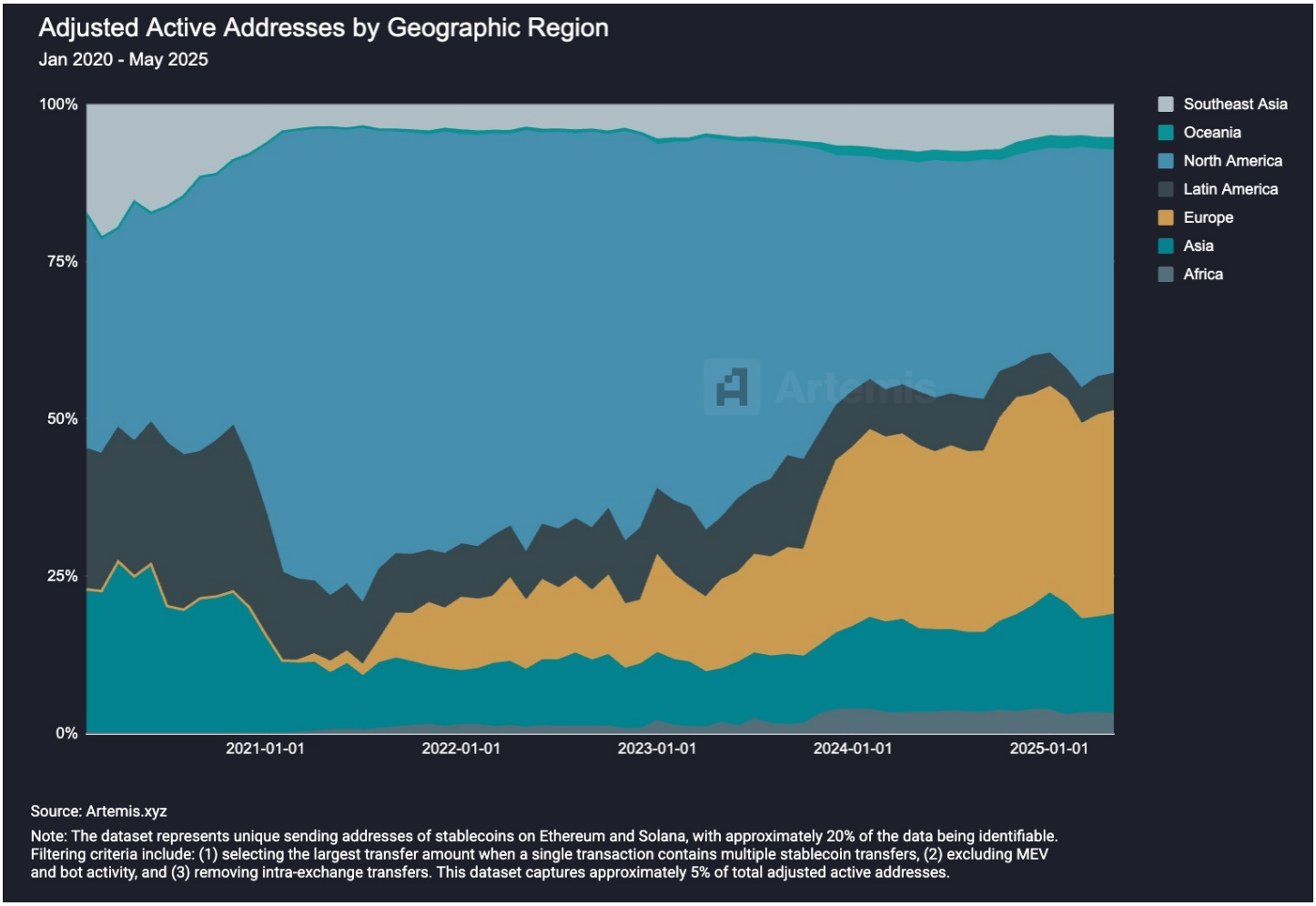


[20] MiCA Papers, "Implementation Timeline," https://micapapers.com/guide/timeline/.
[21] *Id*.
[22] *Id*.
[23] MiCA's Q1 2025 deadline for delisting of unlicensed crypto-assets is likely the cause of the decline in EU stablecoin usage around March 2025.
[24] *See generally* Hammer, Sarah, America at a Crossroads: Securing Global Digital Assets Leadership, *The Wharton Initiative on Financial Policy and Regulation* (1 April 2025), https://wifpr.wharton.upenn.edu/blog/securing-global-digital-asset-leadership/.

Temporal Analysis of Active Wallet and Contract Addresses by Geographic Region

The next chart tracks unique active digital asset sending accounts—defined as either a wallet address or a contract address—as a percentage of total global taggable accounts. While North America led in Q2 2021, its position has since declined. Beginning in 2024, the EU began to rival North America, reflecting a broader shift in adoption as Europe's regulatory certainty supports increased engagement.[25]

Chart B. Adjusted Active Addresses by Geographic Region (January 2020-May 2025)

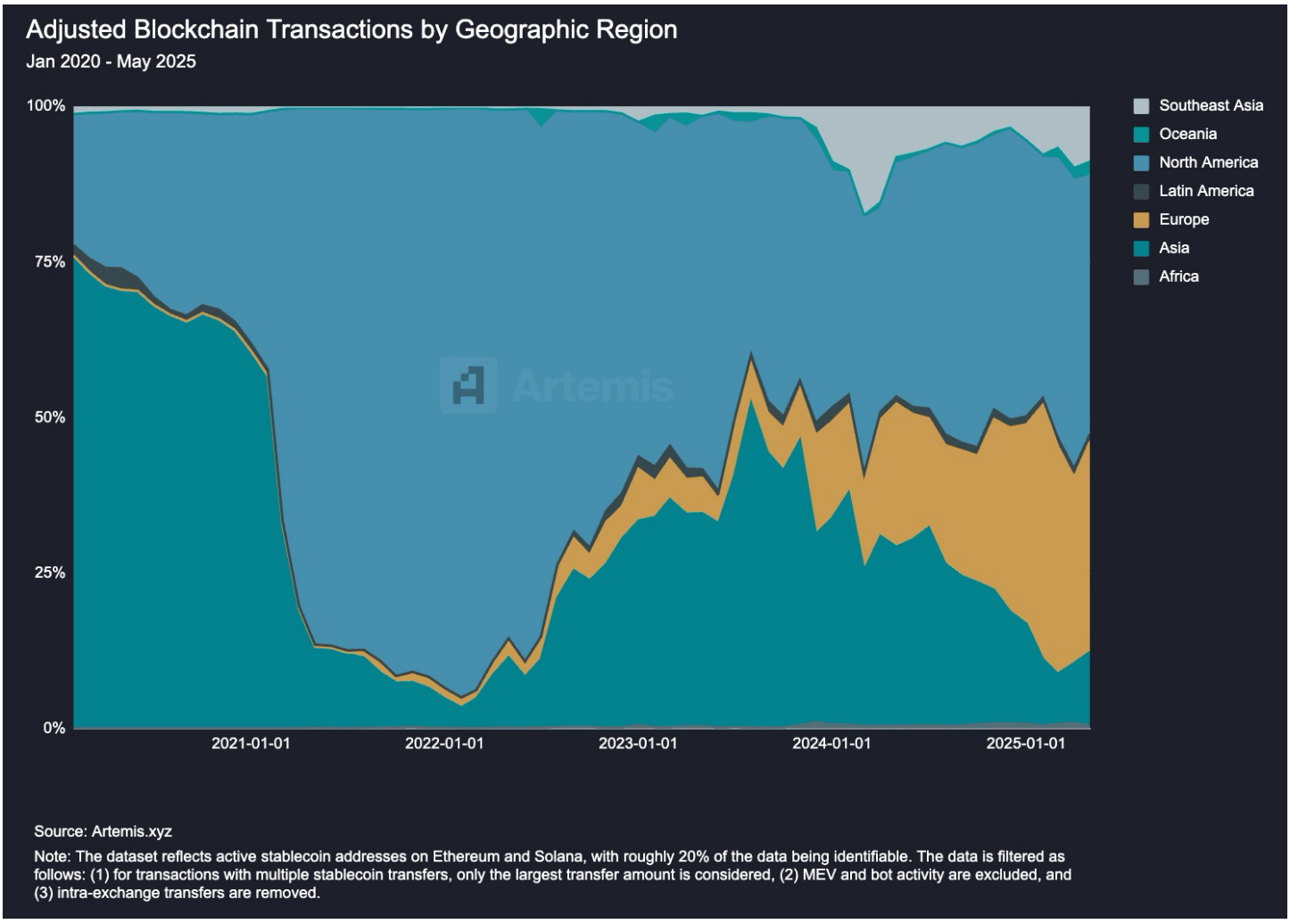


[25] Data set consists of Ethereum and Solana. About 5% of the data is taggable.

Temporal Analysis of Blockchain Transactions by Geographic Region

The third chart analyzes adjusted blockchain transactions by region as a percentage of global transactions.[26] In Q2 and Q3 2022, North America accounted for nearly 95% of all global blockchain transactions. However, since Q1 2025, the EU has been positioned to surpass North America. Once again, the data suggest that the passage of MiCA has not suppressed crypto activity in the EU. On the contrary, it seems to have expanded it, reinforcing the role of regulatory clarity in sustaining digital asset markets.

Chart C. Temporal Blockchain Transactions by Geographic Region (January 2020-May 2025)



[26] Data set consists of Ethereum and Solana. About 20% of the data is taggable. The data is filtered as per the following activity: (1) if a single transaction makes multiple transfers by stablecoins, the largest transfer amount is selected, (2) MEV and bot activity is removed, (3) intra exchange transfers are removed.

Global Competitors Advancing in Blockchain-Based Clearing and Settlement

The United States must recognize that other jurisdictions are not only rapidly adopting digital assets but also actively implementing blockchain-based technologies to significantly enhance their financial infrastructure—particularly in central clearing and international transaction settlement. Notably, global competitors, including the UK-based Fnality, are already leveraging blockchain to execute real-time wholesale payments using digital representations of central bank funds.[27] Such advancements enhance efficiency and strategically position these jurisdictions to potentially reduce reliance on the U.S. dollar for global settlements. To sustain American financial leadership and avoid falling further behind, the U.S. must urgently engage with blockchain-enabled innovations in clearing and settlement.

III. Principles for Regulating Digital Assets

The U.S. must establish a regulatory framework that is clear, enforceable, and aligned with the unique attributes of blockchain technology and digital assets. Effective regulation is not solely about responding to emerging risks—it is also about designing systems that promote long-term stability, foster innovation, and secure global competitiveness. To achieve these goals, regulatory policy must be grounded in core principles that reflect both the architecture of blockchain technology and the dynamics of modern financial markets.

In 2022, I co-authored *A Comprehensive Approach to Crypto Regulation*, a foundational paper that presents a pragmatic, principles-based framework for digital asset oversight. The analysis begins with the recognition that digital assets are not simply digital versions of traditional financial instruments. They operate on fundamentally different architectures, with distinct technical structures, risk profiles, and business models. Regulation must acknowledge these differences—avoiding both the retrofitting of legacy frameworks and the risks of regulatory permissiveness. A precise and informed approach is essential to safeguard consumers, ensure financial stability, and preserve U.S. leadership in global markets.

The paper details how blockchain's core features – decentralization, transparency, immutability, and security—offer transformative opportunities while also introducing regulatory complexities.[28] As I wrote, "Smart contracts are simply computer programs, and as such are written in programming languages suited for computers, rather than legal contracts." These technological realities must be incorporated into regulatory design to ensure frameworks are effective, adaptive, and resilient in the face of innovation.

Drawing on expertise from financial regulation, computer science, and international policy, my paper outlines three foundational pillars for effective digital asset oversight: (1) establishing crypto standards, rules, and enforcement; (2) implementing robust consumer protections; and (3) advancing global standard setting. This framework offers a roadmap for balancing innovation with market integrity and financial stability and has informed both regulatory discourse and industry best practices.

These principles are not abstract—they are essential. They provide the foundation for a regulatory system capable of supporting innovation while ensuring systemic safety. Without them, the U.S. risks regulatory fragmentation, capital flight, and a diminished role in shaping the future of global finance.

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[27] Press Release, Fnality Press Office, "Fnality commences early stage of Sterling payment operations in a world-first for both wholesale finance and digital asset markets" (14 December 2023), https://fnality.com/news/fnality-commences-initial-phase-of-sterling-payment-operations-in-a-world-first.

[28] The extent to which various blockchains are decentralized varies. For example, certain banks have formed private blockchains that are accessible to only their customers.

1. Establishing a Foundation of Standards, Rules, and Strong Enforcement

Standards provide a critical foundation for regulation, ensuring consistency, security, and market stability. They are also essential for building interoperable infrastructure across platforms and institutions. As I noted in *A Comprehensive Approach to Crypto Regulation*, "Standards have played an integral role in both financial regulation and the digital world."[29] In computer science, protocols like HTTP, HTML, and SMTP facilitate seamless internet functionality. At the same time, financial self-regulatory bodies such as FINRA and MSRB demonstrate that industry-driven standards—when backed by regulatory mandates—create well-functioning markets.[30]

Collaboration with a credible standard-setting organization can enhance this process. The National Institute of Standards and Technology (NIST) has a long history of working with the public and private sectors to develop technical benchmarks that enhance security, reliability, and efficiency. Collaboration with NIST on standards for digital assets and interoperability would help create capabilities across blockchain networks, reducing fragmentation while providing a more structured foundation for regulatory oversight.

However, standards must be reinforced by clear rules and vigorous enforcement. Rules define permissible activities, establish compliance requirements, and impose penalties, ensuring that markets operate with integrity and accountability. Without consistent enforcement, regulations become ineffective, allowing bad actors to exploit loopholes and undermining investor confidence.[31] To foster a stable, transparent, and well-regulated digital asset market, policymakers must ensure that rules are applied uniformly and violations carry real consequences. Otherwise, even the best-designed standards and rules will fail to protect consumers and maintain market integrity.

2. Strengthening Core Consumer Protections

A strong consumer protection framework is essential to fostering user confidence, preserving market integrity, and maintaining financial stability. Unlike traditional finance, digital assets may lack standardized protections and expose consumers to opaque business practices, inadequate disclosures, and insolvency risks with no apparent recourse. Consumers remain at risk without clear legal protections, substantial governance requirements, and enforceable rights. Regulation must mandate clear disclosures, transparent governance, and robust safeguards to ensure fair treatment, accountability, and stability in digital asset markets.

In *A Comprehensive Approach to Crypto Regulation*, I emphasized that effective regulation must embed core consumer protections in a well-designed regulatory framework. Effective regulation must require that:[32]

- "Crypto issuers should be required to act honestly, fairly, and professionally, and identify, prevent, manage, and disclose conflicts of interest."

[29] Falk, Brett Hemenway and Hammer, Sarah, *A Comprehensive Approach to Crypto Regulation*, 25 U. Pa. J. Bus. L. 415, 423 (2023), https://scholarship.law.upenn.edu/jbl/vol25/iss2/3.
[30] *See also,* Silverbreit, Ariel, Decoding Cryptocurrency Regulation, *The Regulatory Review* (15 March 2024), https://www.theregreview.org/2024/03/14/breitman-decoding-cryptocurrency-regulation/.
[31] Falk, Brett Hemenway and Hammer, Sarah, *A Comprehensive Approach to Crypto Regulation*, 25 U. Pa. J. Bus. L. 415, 423-428 (2023), https://scholarship.law.upenn.edu/jbl/vol25/iss2/3.
[32] Falk, Brett Hemenway and Hammer, Sarah, *A Comprehensive Approach to Crypto Regulation*, 25 U. Pa. J. Bus. L. 415, 446-447 (2023), https://scholarship.law.upenn.edu/jbl/vol25/iss2/3.

- "Disclosures should be comprehensive, including rights, risks, reserves, redemption, lending arrangements, rehypothecation policies, fees, and dispute resolution processes."
- "Governance processes must be transparent and detail how decisions around freezing, clawbacks, and blacklisting will be made."
- "Customer asset treatment in bankruptcy or insolvency must be explicitly defined, consistent with relevant customer protection rules."
- "Transparency into the underlying technology powering digital assets must be mandated, including timely notice and disclosure of material source code changes."

These principles are not aspirational—they are the minimum necessary safeguards to protect investors, maintain market integrity, and build trust in the digital asset ecosystem.

3. Advancing International Standard Setting

Differences in national approaches to regulation make it difficult for businesses to expand internationally as well as for governments to enforce their domestic rules. This is especially true for digital assets, where regulation is fragmented, and opportunists may look to circumvent rules—a phenomenon known as "regulatory arbitrage." Global standards are therefore important to achieve clear, consistent, and comprehensive regulatory frameworks. While global standards do not carry the force of law, the development process can result in buy-in by national governments that increases the probability of successful adoption. A detailed analysis of global standard-setting processes is beyond the scope of this testimony; however, it is worth noting that while the process can be arduous, the outcome is well worth the effort. Essential ingredients of international standard setting include transparency, openness, deliberation, and participation. Finally, equally important to global standard setting is the adoption and implementation process.

IV. Essential Pillars of a US Digital Asset Framework

Drawing on both rigorous research and firsthand engagement with leading global digital asset regimes, I offer the following insights for shaping a robust and forward-looking U.S. framework. At its core, a successful regulatory regime must recognize three imperatives: safeguarding consumers, ensuring market integrity and financial stability, and enabling responsible innovation that maintains U.S. leadership in financial markets. This balance is not theoretical—it is essential to protecting Americans, fostering productive investment, and defending the long-term competitiveness of the U.S. financial system.[33]

A Clear Taxonomy for Digital Assets

The foundational element of an effective digital asset regulatory framework is a clear and coherent taxonomy. For too long, the U.S. approach relied on regulation by enforcement—a costly, inefficient, and opaque method that undermined both compliance and innovation. While the Securities and Exchange Commission is now undertaking important and much-needed work on this issue, that work should be expanded. Even more robust

[33] Anti-money laundering (AML) compliance and cybersecurity are also essential components of a well-regulated digital asset ecosystem. Ensuring that financial crimes are prevented and that digital infrastructure remains secure is critical to market integrity and consumer protection. While these issues are of paramount importance, they fall beyond the scope of this testimony, which focuses on regulatory clarity, consumer protection, market structure, and financial stability.

interagency collaboration and policy engagement are necessary to ensure we do not return to the flawed model of the past.[34] A clear and legally defined taxonomy is essential to anchor this effort.

Jurisdictions such as Bermuda (Digital Asset Business Act of 2018 Part 1(2)(1)),[35] Singapore (Payment Services Act Parts 1 & Schedule 1.3), Switzerland (May 2020 The Federal Act on the Adaptation of Federal Law to Developments in the Technology of Distributed Ledgers),[36] Dubai (DFSA Rulebook GEN 3A.1),[37] [38] and the European Union (Article 3 of MiCA)[39] have each provided explicit classifications for digital assets, enabling businesses and investors to understand precisely the legal status and regulatory treatment of various digital asset types. This clarity ensures that only appropriately licensed digital assets circulate within these markets, supporting consumer protection and market integrity.[40]

However, it is important to recognize that while these international jurisdictions have clear taxonomies, their individual frameworks vary significantly in scope, structure, and regulatory approach. For instance, most maintain separate regulatory frameworks specifically for stablecoins, though not all adopt the same policies. Some explicitly prohibit algorithmic stablecoins due to stability concerns, while others permit them under particular conditions. Similarly, privacy tokens are prohibited in certain jurisdictions but allowed in others. Furthermore, several regulatory regimes distinguish asset-referenced tokens—which maintain stability by referencing external

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[34] Speech, Commissioner Hester M. Peirce, "There Must Be Some Way Out of Here" (21 February 2025), https://www.sec.gov/newsroom/speeches-statements/peirce-statement-rfi-022125.

[35] *DABA*, *supra* note 4, Part 1, at 5.

[36] Swiss Federal Act on the Adaptation of Federal Law to Developments in Distributed Ledger Technology (11 December 2020), https://www.newsd.admin.ch/newsd/message/attachments/60601.pdf

[37] Dubai Financial Services Authority, Rulebook Modules, General Module (GEN) [VER67/03-25], https://dfsaen.thomsonreuters.com/rulebook/gen-3a11. DFSA's Taxonomy:

- 3A.1.1.a "Algorithmic token": a Crypto Token which uses or purports to use, an algorithm to increase or decrease the supply of CryptoTokens in order to stabilize its price or reduce volatility in its price
- 3A.1.1.d "Privacy token": a Crypto Token where the Crypto Token or the DLT or other similar technology used for the Crypto Token has any feature or features that are used, or intended to be used, to hide, anonymize, obscure or prevent the tracing of any of the information referred to in (c)(i) to (vi) which relates to Privacy Device[s]
- "Recognized crypto tokens": includes recognized fiat crypto tokens, financial services can be carried on in the DIFC subject to regulatory requirements
- "Unrecognized crypto tokens": financial services cannot be carried out in the DIFC until recognized by the DFSA
- "Prohibited tokens": privacy tokens and algorithmic tokens are prohibited in the DIFC

[38] Dubai Financial Services Authority, "DFSA Explainer: Regulation of Crypto Tokens" (2019), https://365343652932-web-server-storage.s3.eu-west-2.amazonaws.com/files/9017/2743/2831/Crypto_Token_regime_explainer_-_Final.pdf.

[39] Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32023R1114 [hereinafter *MiCA*]. MiCA's Taxonomy:

- Art 3.5 "Crypto-asset": a digital representation of a value or of a right that is able to be transferred electronically using distributed ledge technology or similar technology
- Art 3.6 "Asset-referenced token": a type of crypto-asset that is not an electronic money token and that purports to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies
- Art 3.7 "Electronic money token" or "e-money token": a type of crypto-asset that purports to maintain a stable value by referencing the value of one official currency
- Art 3.9 "Utility token": a type of crypto asset that is only intended to provide access to a good or service supplied by its issuer

[40] MiCA exempts certain digital assets from licensing requirements.

assets—from stablecoins pegged directly to single fiat currencies, acknowledging important functional differences among these digital assets.

Developing a taxonomy for digital assets in the United States presents distinct challenges given the complexity of our multiple federal regulatory agencies. Each agency—the SEC, CFTC, OCC, and Federal Reserve—has distinct jurisdictional claims and regulatory mandates involving digital assets. Unlike foreign jurisdictions with a unified financial regulator, the U.S. must thoughtfully coordinate oversight among these agencies to avoid fragmentation and confusion. Despite these inherent complexities, establishing a coherent taxonomy is crucial.

To this end, the United States' taxonomy for digital assets should be clear, codified by statute, and reflect the practicalities of this complex and ever-changing market. A straightforward and legislatively enshrined taxonomy is essential to enable global businesses to seamlessly operate and innovate within the American market. While digital assets exhibit significant diversity, simplifying the taxonomy at the highest level allows regulatory agencies to craft targeted rules that effectively address different categories and their associated risks, while also providing sufficient flexibility to accommodate future technological innovation and new business models as they emerge.

Streamlined Supervision and Oversight

A single, unified financial regulator may be an idealistic dream, but it has afforded other jurisdictions a significant competitive edge in digital asset oversight. In Bermuda, the Bermuda Monetary Authority (BMA) serves as the primary regulator for digital asset businesses under the Digital Asset Business Act, overseeing licensing, supervision, and compliance.[41] Singapore's PSA framework benefits from the efficiency of having a single financial regulator, the Monetary Authority of Singapore (MAS), which oversees banking, securities, payments, and digital assets under a comprehensive framework. Supervision of digital assets in Switzerland is conducted by FINMA, which applies a technology-neutral, risk-based approach under existing financial market laws.[42] In the DIFC, the Dubai Financial Services Authority handles rules and supervision.[43] Under MiCA, the European Securities and Markets Association (ESMA) leads regulation and supervision unless the crypto asset is determined to be "significant," in which case the ECB regulates.[44] A single, streamlined approach provides clarity for digital assets businesses, making it easier for firms to obtain licenses, comply with regulations, and operate confidently in a predictable environment.

In the U.S., a complex web of agencies creates regulatory uncertainty, forces businesses to navigate overlapping jurisdictions, and requires significant resources to interface with endless supervisory reporting requirements. Although it is unlikely that the U.S. will consolidate financial regulation under a single authority, policymakers must act swiftly to streamline and clarify the current framework. Essential components of this process include legal identification of a primary regulator for each type of digital assets business, undertaking interagency coordination, and avoiding conflicting actions. By doing so, we can provide the certainty and stability necessary for responsible innovation in digital assets while safeguarding financial markets and consumers.

[41] DABA, *supra* note 4, 4(5), at 9.
[42] FINMA Website, "Enforcement: license holders," https://www.finma.ch/en/enforcement/licence-holders/.
[43] DIFC Law, *supra* note 7, at 10.
[44] Where asset-referenced and e-money tokens are labelled as 'significant,' the European Banking Authority takes over the supervisory role. MiCA, *supra* note 39, at 103.

Appropriate Regulation for Stablecoins

Stablecoin regulations are a critical pillar of a well-structured digital asset framework, ensuring financial stability, consumer protection, and market integrity.[45] Leading jurisdictions such as Singapore, Dubai, and the European Union have implemented licensing requirements for stablecoin issuers, ensuring that only regulated entities can operate in their markets. To align with global standards and reinforce trust in digital asset markets, the US should require stablecoin issuers to be licensed by the appropriate regulatory authority before conducting business.

In addition to licensing, a robust regulatory framework should mandate 100% reserve backing by highly liquid assets to ensure swift stablecoin redemption and financial resilience. Singapore's forthcoming Stablecoin Regulatory Framework requires redemption at par value within five business days,[46] while the European Union's MiCA e-money token rules grant a permanent right of redemption to strengthen consumer protections.[47] Both frameworks impose strict reserve requirements and rigorous transparency standards to safeguard financial stability.

Dubai has also taken steps to enhance its stablecoin oversight. While the DFSA previously required fiat-backed crypto tokens to maintain 80% of reserves in cash,[48] this rule was recently updated. The new framework now mandates that reserves (a) be held in highly liquid, low-risk cash assets that are expected to maintain their value even under stress and (b) undergo daily valuation to ensure ongoing stability.[49] Although the updated framework does not specify a fixed percentage for reserve holdings, its requirements effectively mandate that 100% of reserves be held in highly liquid, low-risk cash assets to ensure stability and resilience.

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[45] SEC Division of Corporation Finance, *Statement on* Stablecoins (April 4, 2025) https://www.sec.gov/newsroom/speeches-statements/statement-stablecoins-040425. On April 4, 2025, the Division of Corporation Finance of the Securities Exchange Commission *issued* a statement setting forth the Division's view that the offer and sale of "Covered Stablecoins" in the manner and under the circumstances described in the statement do not involve the offer and sale of securities under Section 2(a)(1) of the Securities Act of 1933 or Section 3(a)(1) of the Securities Exchange Act of 1934. Thus, in the Division's view, persons involved in the creation (or "minting") and redemption of Covered Stablecoins do not need to register those transactions with the SEC under the Securities Act or ensure that they qualify for a Securities Act registration exemption.

[46] Media Release, Monetary Authority of Singapore, "MAS Finalizes Stablecoin Regulatory Framework" (15 August 2023), https://www.mas.gov.sg/news/media-releases/2023/mas-finalises-stablecoin-regulatory-framework Implementation of the Stablecoin Regulatory Framework has not yet taken place, but is expected soon.

[47] MiCA, *supra* note 39, Article 51(6).

[48] The DFSA defines Fiat Crypto Tokens are those tokens that are typically pegged to a fiat currency and backed by reserve assets denominated in the peg currency. DFSA Consultation Paper No. 153, "Updates on the Regulation of Crypto Tokens," Part I.(iv)(20)-(24) (4 January 2023), Fiat Crypto Token recognition criteria. https://dfsaen.thomsonreuters.com/sites/default/files/net_file_store/CP153_Updates_on_the_Regulation_of_Crypto_Tokens_1.pdf.

[49] DFSA Consultation Paper No. 153, "Updates on the Regulation of Crypto Tokens," Part I.(iv)(20)-(24) (4 January 2023), https://dfsaen.thomsonreuters.com/sites/default/files/net_file_store/CP153_Updates_on_the_Regulation_of_Crypto_Tokens_1.pdf 0. In addition to the standard recognition criteria for all Crypto Tokens set out in GEN 3A.3.4, where the DFSA looks at, for example, the regulatory status, transparency, market depth, technological resilience, and other risks related to a Crypto Token, the DFSA added additional criteria for Fiat Crypto Tokens.

While Bermuda does not have a specific framework for stablecoins, it recognizes their growing importance.[50] In May 2024, Bermuda introduced a draft, "Guidance on Digital Asset Business Signal Currency Pegged Stablecoins (SCPS)," signaling a move toward establishing a structured framework. The proposed guidance outlines requirements for governance, risk management, market-making due diligence, backing assets, attestations, and disclosures, aiming to ensure that stablecoin issuers operate with financial integrity and transparency.[51] These adjustments are intended to reinforce the resilience of stablecoins while maintaining regulatory flexibility.

Prohibition on Algorithmic Stablecoins

Algorithmic stablecoins lack asset backing and depend on self-regulating algorithms to maintain their value—an approach that has proven highly unstable. As I observed in *A Comprehensive Approach to Crypto Regulation,* an on-blockchain algorithm that facilitates changes in supply and demand between a so-called stablecoin and another cryptocurrency is not actually stable and is ripe for abuse.[52] The collapse of TerraUSD (UST) in May 2022 wiped out billions in market value, exposing the risks of unbacked stablecoins. The fallout raised serious concerns about volatility, systemic risk, and potential fraud, prompting regulators worldwide to restrict or ban algorithmic stablecoins to protect financial stability.

Notably, algorithmic tokens are effectively banned in the EU since they do not maintain explicit reserves tied to traditional assets and, therefore, do not fall within the categories of permitted crypto-assets.[53] Both algorithmic tokens and privacy tokens are banned in the DIFC.[54] In Singapore, the Monetary Authority of Singapore (MAS) has stated that "MAS views stablecoins which are algorithmically-pegged, unbacked, or backed by other cryptocurrencies to be more susceptible to volatility in value. Correspondingly, such stablecoins will continue to be treated as DPTs" (Digital Payment Tokens).**[55]** In practice, this classification makes it extremely difficult for an algorithmic stablecoin to meet Singapore's stringent DPT licensing requirements.

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[50] Bermuda Monetary Authority, "Digital Asset Business Single Currency Pegged Stablecoins (SCPS) Consultation Guidance" (10 May 2024), https://www.bma.bm/viewPDF/documents/2024-12-06-16-17-12-Notice---Digital-Asset-Business-Single-Currency-Pegged-Stablecoins-SCPS-Consultation-Guidance.pdf.

[51] *Id*.

[52] Falk, Brett Hemenway and Hammer, Sarah, *A Comprehensive Approach to Crypto Regulation*, 25 U. Pa. J. Bus. L. 415, 431-432 (2023), https://scholarship.law.upenn.edu/jbl/vol25/iss2/3.

[53] TheBanks.eu, "Stablecoins and MiCA: Regulations and Examples in the EU" (13 November 2024), https://thebanks.eu/articles/stablecoins-and-mica-regulations-and-examples-in-the-eu

[54] Dubai Financial Services Authority, "DFSA Explainer: Regulation of Crypto Tokens" 3 (2019), https://365343652932-web-server-storage.s3.eu-west-2.amazonaws.com/files/9017/2743/2831/Crypto_Token_regime_explainer_-_Final.pdf.

[55] Monetary Authority of Singapore, Consultation Paper on Proposed Regulatory Approach for Stablecoin Activities (October 2022), https://www.mas.gov.sg/-/media/mas-media-library/publications/consultations/pd/2022/consultation-on-stablecoin-regulatory-approach_finalised.pdf .
Paragraph 3.5: "A wide range of stablecoins currently exist, varying in terms of their asset pegging, as well as the mechanism that upholds the stability of the stablecoins 'value against the pegged asset(s). MAS intends to focus its regulatory regime on: Single-currency pegged stablecoins (SCS) – As compared to other types of stablecoins (such as those pegged to a basket of currencies or other assets such as commodities), SCS has a stronger use case for payment and settlement. Non-SCS will continue to be subject to the existing DPT regime under the PS Act. MAS views such stablecoins as being less stable in nominal value and should be treated differently from SCS. In addition, even among SCS, there is variation in the stabilisation mechanism. MAS views stablecoins, which are algorithmically pegged, unbacked, or backed by other cryptocurrencies, to be more susceptible to volatility in value. Correspondingly, such stablecoins will also continue to be treated as DPTs."

Market Integrity Provisions to Prevent Fraud, Manipulation, and Systemic Risk

A comprehensive regulatory framework must include clear, enforceable rules for digital asset service providers, such as exchanges, broker-dealers, and trading systems. Other jurisdictions have established strict licensing, conduct, and prudential requirements to ensure market integrity. Singapore's PSA, Dubai's DFSA framework, and the EU's MiCA all impose robust obligations on service providers, requiring them to act honestly and fairly, maintain transparent fee structures, implement strong compliance programs, and safeguard client assets. These measures are not optional but essential to maintaining trust, preventing financial crime, and ensuring orderly markets.

The United States must adopt similarly rigorous standards to remain competitive and protect market participants. Digital asset service providers should be subject to licensing and supervision, with strong governance and operational resilience requirements. They must prevent market abuse, manage conflicts of interest, and establish clear protocols for customer asset protection. Service providers should also be required to implement anti-money laundering (AML) controls, ensure separation of client and firm assets, and develop wind-down plans to mitigate systemic risk. Without these safeguards, U.S. digital asset markets will remain vulnerable to fraud, misconduct, and instability, putting investors and financial stability at risk.

Establishing a Bankruptcy Regime

The collapse of FTX underscored the urgent need for a clear bankruptcy framework for service providers in the digital asset space. Although FTX was a centralized entity rather than a decentralized exchange, its failure affected 2.2 million users, far exceeding the 110,000 customer accounts impacted by Lehman Brothers' bankruptcy. The FTX case illustrates how insolvency in the digital asset ecosystem can have far-reaching consequences, as distress rapidly transmits through interconnected platforms, liquidity providers, and counterparties.

As I noted in my 2022 paper, *A Comprehensive Approach to Crypto Regulation*, regulators must establish how ecosystem participants will be treated in insolvency scenarios to mitigate systemic disruption to the ecosystems in which they participate.[56] Moreover, this evaluation should include ecosystem participants such as development companies and non-profit foundations that support blockchain-based protocols such as decentralized exchanges and decentralized lending platforms. Clear rules are essential to govern the interaction between decentralized and centralized finance in bankruptcy. Absent a well-defined framework, market confidence will deteriorate, contagion risk will escalate, and broader financial stability may be compromised.

The EU's MiCA framework recognizes this risk. MiCA Section 65 and Article 47 require issuers of asset-referenced tokens to develop orderly redemption plans to protect holders in cases where issuers cannot meet their obligations, including in bankruptcy.[57] The US should consider a similar bankruptcy planning requirement to ensure a structured approach for digital asset issuer insolvencies.

Stablecoin treatment in bankruptcy is also an important issue. Under the US Bankruptcy Code, an "automatic stay" halts most creditors' actions to protect the debtor against specific actions from its creditors,[58] such as moving to foreclose on a debtor's property. Another objective of the automatic stay is to put all creditors on a level playing field and prevent one creditor from seizing a debtor's assets before steps are taken to reorganize. However, the

[56] Falk, Brett Hemenway and Hammer, Sarah, *A Comprehensive Approach to Crypto Regulation*, 25 U. Pa. J. Bus. L. 415, 436 (2023), https://scholarship.law.upenn.edu/jbl/vol25/iss2/3.
[57] MiCA, *supra* note 39, Section (65) and Article 47.
[58] 11 U.S. Code § 362 - Automatic stay.

Code provides a safe harbor from the automatic stay for some non-debtor counterparty securities agreements, such as derivatives, to enable immediate settlement and liquidity.[59] Without this safe harbor, a single bankruptcy could destabilize multiple financial institutions, amplifying financial turmoil.

Stablecoins used in clearing and settlement serve a market function as vital as that of derivatives.[60] If a financial institution relying on stablecoins were to fail, an automatic stay could freeze assets, cutting off liquidity and triggering a cascade of failures as counterparties struggle to meet obligations. Without an explicit provision stipulating a safe harbor from the automatic stay, stablecoins used in financial transactions remain vulnerable to the same liquidity freezes that derivatives protections were designed to prevent.[61] To eliminate ambiguity, the law should explicitly provide that stablecoins used in clearing and settlement are afforded a safe harbor from the automatic stay.

Sustaining Regulatory Effectiveness through Engagement and Cross-Border Collaboration

Ongoing industry engagement and cross-border cooperation are essential to maintaining an adaptive and credible regulatory framework. Regulators should regularly consult with both digital asset firms and traditional financial institutions to monitor market developments, identify emerging risks, and determine whether new rules—or modifications to existing ones—are warranted. Bermuda provides a model for this approach: the Bermuda Monetary Authority (BMA) conducts annual consultations with industry participants to assess evolving practices and evaluate whether regulatory refinements are needed.[62]

Cross-border cooperation is also critical to enabling seamless international business activity—so that U.S.-based firms can operate efficiently across jurisdictions and global firms view the U.S. as an attractive destination for investment. To support this, Bermuda has established Memorandums of Understanding (MOUs) with other regulatory authorities that enhance supervisory coordination. These agreements facilitate regulatory cooperation, improve supervisory clarity, and support consistent oversight across borders. Notably, in February 2021, the BMA signed an MOU with the Wyoming Division of Banking—demonstrating how bilateral cooperation can strengthen global digital asset supervision.[63]

Pairing Regulation with Innovation

Aligning regulation with innovation is critical to fostering growth, ensuring market integrity, and maintaining global competitiveness. Jurisdictions that provide regulatory clarity while supporting emerging technologies attract investment and establish themselves as industry leaders. Dubai exemplifies this approach, combining clear regulations, banking access, and innovation support. Its regulatory framework translates these principles into concrete action through targeted programs designed to reduce barriers and accelerate adoption.

For example, the DIFC enables controlled experimentation through its "Innovation Testing License," a Commercial License with a subsidized fee structure open to technology and innovation firms interested in developing or testing new, novel, or innovative products. The License is subsidized for a period of 2 to 5 years at

[59] 11 U.S. Code §362(b)(6) and (7).
[60] One might argue that stablecoin payments are more akin to cash than the contractual obligations of derivatives.
[61] Stablecoins held for non-payment purposes, such as corporate treasury, should not be provided a safe harbor from the automatic stay. They should be considered assets of the bankruptcy estate.
[62] Telephone interview with senior official from the Bermuda Ministry of Finance, March 14, 2025.
[63] Press Release, Bermuda Monetary Authority, "Press Release - BMA MoU Wyoming Division Of Banking" (8 February 2021), https://www.bma.bm/news-and-press-releases/press-release-bma-mou-wyoming-division-of-banking.

a rate of USD 1,500 per annum and gives access to co-working space and discounted visas.[64] The DIFC Innovation Hub further accelerates growth, hosting more than 1,000 blockchain and tech startups, providing access to funding from venture capitalists, family offices, and institutional capital, running accelerator programs, offering business education, and training aspiring lawyers through DIFC Academy.[65] In its own words, "the DIFC is developing a trailblazing blockchain environment for companies at the cutting edge of innovation."[66]

Beyond policy, Dubai backs innovation with significant financial investment. In 2024, Dubai ranked 7th globally for foreign direct investment in technology, with an inflow of over $1 billion, according to the Financial Times.[67] Dubai also invests directly in blockchain applications. One notable example is the Dubai Pay portal,[68] a blockchain-powered platform that has streamlined government payments and saved an estimated 5.5 million hours of paperwork annually.[69] Dubai also benefits from its low tax environment for Free Zone Persons and business-friendly policies, which have attracted significant foreign direct investment (FDI) into its tech sector.[70]

To remain competitive, the U.S. must similarly strengthen its innovation infrastructure. Within the CFTC, an initiative to promote responsible fintech innovation and to improve the quality, resilience, and competitiveness of the markets already exists. Created in 2017, LabCFTC is the agency's focal point to promote fintech innovation and fair competition and to identify and utilize emerging technologies to enable the CFTC to carry out its mission more effectively and efficiently. In order to preserve this initiative, LabCFTC should be codified in law.[71]

Finally, pairing regulation with innovation means the U.S. should proactively support initiatives to incorporate blockchain and digital asset technologies directly into our financial infrastructure, particularly in critical functions such as clearing and settlement.[72] Policymakers should encourage pilot programs and exploratory research leveraging well-regulated, USD-backed stablecoins or similar digital instruments. By doing so, we can modernize our financial systems, significantly enhance settlement efficiency, reduce systemic risks, and reinforce U.S. financial leadership globally.

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[64] DIFC Website, "Innovation License," https://www.difc.ae/business/establish-a-business/innovation-licence.
[65] DIFC Website, "DIFC Ecosystem," https://www.difc.ae/ecosystem.
[66] DIFC Blogs, "The Global Blockchain Ecosystem is Growing in Dubai's International Financial Centre," https://www.difc.ae/whats-on/blogs/the-global-blockchain-ecosystem-is-growing-in-dubais-international-financial-centre.
[67] CodeX Team, "Dubai's Leadership in Blockchain and AI: Creating a Global Hub for Crypto and Tech" (9 October 2024), https://www.codex.team/blog/dubai-s-leadership-in-blockchain-and-ai-creating-a-global-hub-for-crypto-and-tech [hereinafter Dubai's Leadership].
[68] Government of Dubai Website, "DubaiPay," https://www.digitaldubai.ae/apps-services/details/dubaipay.
[69] Dubai's Leadership, *supra* note 67.
[70] Dubai's Leadership, *supra* note 67.
[71] Press Release, Commodity Futures Trading Commission, Release 755817, "CFTC Launches LabCFTC As Major Fintech Initiative" (17 May 2017), https://www.cftc.gov/PressRoom/PressReleases/7558-17. A similar innovation initiative exists within the SEC. In 2020, the SEC announced that its Strategic Hub for Innovation and Financial Technology, "FinHub," would become a stand-along office. The purpose of FinHub has been to spearhead agency efforts to encourage responsible innovation in the financial sector, such as in distributed ledger technology and digital assets, automated investment advice, digital marketplace financing, and artificial intelligence and machine learning. Press Release, Securities Exchange Commission, "SEC Announces Office Focused on Innovation and Financial Technology: FinHub Specialized Unit to Become Stand-Alone Office" (3 December 2020), https://www.sec.gov/newsroom/press-releases/2020-303.
[72] My further analysis on this issue can be found in a forthcoming issue of in the *American Bar Association Business Law Today.*

Regulatory Integrity and Enforcement

Jurisdictions worldwide are building deterrence and preserving regulatory integrity through strict enforcement mechanisms that impose significant penalties for non-compliance. Bermuda's Digital Asset Business Act prescribes fines of up to $10 million[73] and imprisonment of up to five years for regulatory breaches.[74] [75] [76] In Switzerland, the Financial Market and Supervisory Authority (FINMA) can withdraw the authorization of individuals and legal entities that no longer meet the authorization requirements or have committed serious violations of supervisory law. Moreover, companies that fail to meet authorization requirements are liquidated.[77] Singapore's PSA mandates fines and imprisonment of up to three years for violations of digital asset licensing requirements.[78] The DFSA imposes fines, public censures,[79] and, for AML violations, up to 10 years imprisonment.[80] The European Union's MiCA explicitly requires exchanges to delist non-compliant tokens.[81] [82] [83] While these enforcement approaches vary, they share common objectives—deterring misconduct, ensuring accountability, and reinforcing confidence in financial services.

As the U.S. moves forward on digital asset regulation, we must mandate strong enforcement to preserve the integrity of our legal framework, create robust deterrents against bad actors, financial crime, and illicit activity, and protect consumers and our financial system from illegal operations. Now is the time for the U.S. to move beyond the fragmented, ineffective approach of regulation by enforcement—where no clear rules exist, and enforcement is carried out through lawsuits. Instead, the U.S. should establish explicit laws that clearly define compliance obligations and consequences for violations.

VI. Reclaiming US Leadership in Global Finance

Drawing on experience in regulatory and policy leadership at both the federal and state level, as well as senior positions in global financial institutions and world-class academic institutions, I have observed the accelerating convergence of innovation and regulation from multiple vantage points. Effective policymaking must evolve in step with the market. The task before us is not to needlessly restrain innovation, but to channel it through a

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[73] DABA, *supra* note 4, Part 5, Disciplinary Measures, 39(1).
[74] DABA, *supra* note 4, Part 3, Licensing 10(3)(a).
[75] Bermuda's statute explicitly references imprisonment in multiple sections, reinforcing the seriousness of non-compliance. DABA, *supra* note 4, Part 2. 10(3)(a) & (b), 4(37)(5)(b), 5(43)(9)(a) & (b), 6(51)(5)(a)&(b) and so on.
[76] In addition to financial and criminal penalties, Bermuda also authorizes public censures, prohibitions, and injunctions against violators, ensuring strong deterrence. DABA, *supra* note 4, Part 5, Disciplinary Measures.
[77] Art. 37 para. 3. The Financial Market Supervisory Act (FINMASA). *See also* FINMA Website, "Withdrawal of authorization, liquidation, and bankruptcy," https://www.finma.ch/en/enforcement/enforcement-tools/withdrawal-of-authorisation-liquidation-and-bankruptcy/.
[78] PSA, *supra* note 5, Part 2. Licensing of Payment Service Providers 5(3)(a).
[79] DFSA Website, "About Enforcement," https://www.dfsa.ae/what-we-do/enforcement/about-enforcement-119.
[80] DLA Piper Insights, "Anti-money Laundering: United Arab Emirates" (27 February 2023), https://www.dlapiper.com/en/insights/publications/2023/02/anti-money-laundering-united-arab-emirates.
[81] ESMA Public Statement, "On the provision of certain crypto-asset services in relation to non-MiCA compliant ARTs and EMTs" (17 January 2025), https://www.esma.europa.eu/sites/default/files/2025-01/ESMA75-223375936-6099_Statement_on_stablecoins.pdf.
[82] Benziga, "ESMA Pushes for Delisting of Non-MiCA Compliant Stablecoins, Sets Q1 2025 Deadline" (20 January 2025), https://www.benzinga.com/content/43086240/esma-pushes-for-delisting-of-non-mica-compliant-stablecoins-sets-q1-2025-deadline.
[83] Parts, Helen, "Kraken to delist Tether's USDT, 4 other stablecoins in Europe," *Cointelegraph* (1 February 2025), https://cointelegraph.com/news/kraken-usdt-delisting-europe-mica-stablecoin-compliance.

framework that protects consumers, reinforces market integrity, and safeguards the U.S.'s position as the global leader in financial services.

One principle I consistently emphasize is that regulation must be aligned with the business model it seeks to govern. Traditional financial services—banking, asset management, and insurance—each have distinct regulatory structures designed for specific risks. Digital assets, by contrast, span multiple business models, some resembling existing financial services while others introduce entirely new mechanisms of value transfer and financial intermediation. Policymakers must recognize this complexity and avoid classifications that could misalign oversight or stifle responsible innovation.

Blockchain and digital assets are reshaping the financial sector in real-time. While there is value in learning from international approaches, no jurisdiction offers a perfect model. Ultimately, the U.S. must chart its own course, providing global leadership that is anchored in principles that establish agile and enduring standards, safeguard consumers and market integrity, and promote international regulatory collaboration. By doing so, America can foster responsible innovation, manage risk, and sustain our leadership in global finance.