WRITTEN TESTIMONY OF B. SALMAN BANAEI

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Tokenization and the Future of Securities: Modernizing Our Capital Markets

Before the
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I. Introduction

Chairman Hill, Ranking Member Waters, and distinguished Members of the House Financial Services Committee ("Committee"), thank you for the opportunity to submit this written testimony on the tokenization of securities and its implications for the future competitiveness of U.S. capital markets. This testimony supplements my oral remarks and provides asset-class-specific policy recommendations for Congress, the Securities and Exchange Commission ("SEC" or "Commission"), and the Department of the Treasury ("Treasury") to promote robust, regulated tokenized capital markets.

My name is Salman Banaei. For the past year, I have served as General Counsel of Kimber Labs Inc.[1], d/b/a "Plume," a New York-based tokenization company with over fifty employees, a majority based in the United States.[2] Kimber Labs' investors include Apollo Global Management, Brevan Howard, F-Prime Capital (an affiliate of Fidelity Investments), Galaxy Digital, Haun Ventures, Laser Digital (an affiliate of Nomura) and SV Angel, among others. Before this role, I had the honor of serving at the Commodity Futures Trading Commission (2009-2013) and the SEC (2024-2025). I've also worked in other private sector roles at Uniswap Labs (2022-2024), Chainalysis (2021-2022), and IHS Markit (n/k/a S&P Global) (2014-2021).

Kimber Labs has developed a number of products designed to facilitate the tokenization of securities and other real-world assets (RWAs). These products include the Plume public blockchain. Plume is Ethereum's "Compliance Layer" and is the only Ethereum Layer 2 blockchain with built-in protocol-level AML and sanctions screening. Since launching mainnet in June 2025, Plume has attracted over 220 tokenization projects (including blue chip issuers like Apollo, Hamilton Lane, and WisdomTree), over $350 million in distributed asset value and approximately 260,000 RWA wallets, representing nearly half of all global non-stablecoin RWA wallets.[3]

The global investor population is growing. According to the World Bank, in 1990, just over 1.6 billion people were middle or upper income globally.[4] In 2024, there were over 7 billion.[5] As the global pool of people with access to capital expands, tokenization can provide these investors access to U.S. capital markets. This can lead to new sources of capital and liquidity to fund job-creating

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[1] *See Kimber Labs, Kimber Labs Homepage,* https://kimberlabs.org/ (last visited Mar. 22, 2026). I've contributed publications and reports on blockchain and crypto regulation, as well as finance more generally, including co-authoring a response piece on "Blockchain Transaction Ordering as Market Manipulation." *See* B. Salman Babaei, Response to Blockchain Transaction Ordering as Market Manipulation, 20 Ohio St. Tech. L.J. 1 (2023), https://kb.osu.edu/items/957249c4-05c3-4900-b114-d580750e106c) (last visited Mar. 22, 2026), Banaei has also participated as a contributor to the World Economic Forum's 2023 white paper Pathways to the Regulation of Crypto-Assets: A Global Approach. *See* World Econ. Forum, *Pathways to the Regulation of Crypto Assets* (2023),https://www3.weforum.org/docs/WEF_Pathways_to_the_Regulation_of_Crypto_Assets_2023.pdf.

[2] *See Plume Foundation, Plume Foundation Homepage,* https://plume.org (last visited Mar. 22, 2026) for the website for Plume Foundation, an independent Cayman Islands foundation company, that stewards and oversees the Plume public blockchain and receives support services from Kimber Labs pursuant to an arm's length agreement.

[3] *See* rwa.xyz, Plume Network, https://app.rwa.xyz/networks/plume (last visited Mar. 22, 2026) (metrics as of Mar. 21, 2026). In Appendix II, we provide additional detail on Kimber Labs products, including the Nest vault, an asset management protocol, and related asset and fund administration services, designed to facilitate tokenization through embedded and offchain compliance infrastructure.

[4] *See Population by Income Classification*, World Bank, OURWORLDINDATA.ORG, https://ourworldindata.org/grapher/population-by-income-classification (last visited Mar. 22, 2026).

[5] *See id.*

real-world projects in the United States and align global economic interests with American priorities and values.

Tokenization can allow for more timely and effective asset transfers and safe custody. It can improve market efficiencies and reduce dependencies on third-party intermediaries.

For these reasons, and more, other jurisdictions, including Hong Kong, Singapore, Switzerland, the European Union, and the United Arab Emirates are offering grants to subsidize advancements in tokenization, publishing frameworks, and launching live pilots to capture the infrastructure layer for global capital.[6]

The question before this Committee is whether American capital markets infrastructure and American regulatory frameworks will channel that demand or whether foreign competitors with different geopolitical objectives will capture it.

This testimony serves three purposes.

First, it provides the Committee with an asset-class-by-asset-class assessment of how tokenization can strengthen U.S. capital markets.

Second, it identifies specific legal and regulatory barriers that impede the development of tokenized securities markets in the United States while our global competitors move aggressively to capture this opportunity.

Third, it offers concrete, actionable recommendations for Congress, the SEC, and the Department of the Treasury organized around six guiding principles: (1) *same or better outcomes*[7]—tokenized systems should replicate or exceed the investor protections achieved by existing regulation; (2) *accountability*—entities that have an essential role in delivering financial services should be accountable; (3) *prioritization*—policy attention should focus on asset classes where tokenization delivers the greatest net benefit; (4) *do no harm*—reforms to well-functioning markets should be carefully calibrated to avoid fragmenting existing liquidity; (5) *durability*—regulatory change should provide lasting legal certainty, not time-limited exemptions; and (6) *proportionality*—regulatory requirements should be calibrated to the actual risks presented by a given activity.

The challenge for policymakers is how to encourage the compliant and productive use of tokenization. This testimony's overarching goal is to provide some policy tools on how to do so. Our vision is for a regulated American tokenized capital market that contains strong protections for U.S. retail customers and ensures that U.S. regulated capital markets products continue to outcompete competitors based on robust oversight as finance moves onchain.

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[6] *See e.g.*, H.K. Monetary Auth., HKMA Launches Digital Bond Grant Scheme, (Nov. 28, 2024), https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/11/20241128-3/; Monetary Auth. of Singapore, *Global-Asia Bond Grant Scheme*, https://www.mas.gov.sg/schemes-and-initiatives/global-asia-bond-grant-scheme (last visited Mar. 22, 2026); Monetary Auth. of Singapore, Project Guardian, (Nov. 12, 2025), https://www.mas.gov.sg/schemes-and-initiatives/project-guardian .

[7] "We believe that interoperability in capital markets can be defined as 'the ability to exchange assets across ledgers – DLT and traditional – while preserving the asset's integrity, ownership rights and lifecycle, with full legal and regulatory compliance'. In other words: 'same asset, same rights, same outcome'." *Building the Path Towards Digital Asset Sec. Interoperability* (Depository Tr. & Clearing Corp., Clearstream, Euroclear & Bos. Consulting Grp. Feb. 2026), https://www.dtcc.com/-/media/interoperable-digital-asset-securities-white-paper.pdf.

Meanwhile, some suggest that tokenization warrants a whole new set of rules and exemptions specific to the technology. It doesn't. The economics and risk of a financial product should drive its regulation, not the technology used. Limited changes to existing rules can be made to incorporate new technological realities into existing regulatory frameworks founded in time-tested policy principles: investor protection; market integrity; capital formation; and combatting illicit finance. Congress and regulators should fine-tune existing laws and rules to better work in a tokenized infrastructure.

The analysis that follows reflects our experience as a tokenization startup. We have limited resources and therefore focus on the tokenization opportunities that provide the greatest return on investment.

In Appendix I we provide a summary of our recommendations. In Appendix II we provide a description of Kimber Labs-developed products and services. In Appendix III we provide an overview of the current state of onchain tokenized markets.

II. Fixed Income and Debt Securities

Applying our principle of "prioritization," fixed income is the asset class that likely has the most to gain from tokenization. It is a very large asset class trading in a generally opaque market, due to isolated sources of liquidity.

The global bond market represents over $100 trillion in outstanding debt securities, with the U.S. accounting for approximately $58.2 trillion.[8] Yet this market remains substantially less transparent and more costly for investors than national market system (NMS) equities, as highlighted by SEC Commissioner Caroline Crenshaw in 2023.[9] While trading in these markets has become increasingly electronic, the large number of distinct individual securities, lack of market transparency, concentration of key market intermediaries, and other factors have inhibited market efficiency.

Tokenization has already proven that it can improve fixed income markets. The evidence supporting the benefits of bond tokenization is compelling. The 2023 Hong Kong Monetary Authority study found that tokenized bonds exhibited lower bid-ask spreads by 5.3%, with that advantage doubling to 10.8% for retail-accessible bonds, while issuance yield spreads fell by 23.9%.[10] The Bank for International Settlements has confirmed that tokenization can enhance bond market efficiency across liquidity, issuance costs, and yields.[11] The World Economic Forum found tokenization can

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[8] *See* Org. for Econ. Coop. & Dev., *Global Debt Report 2025* (Mar. 20, 2025), https://www.oecd.org/en/publications/2025/03/global-debt-report-2025_bab6b51e.html; Drew DeSilver*, What to Know About the Bond Market,* Pew Rsch. Ctr. (Aug. 12, 2025), https://www.pewresearch.org/short-reads/2025/08/12/what-to-know-about-the-bond-market/.

[9] *See* Commissioner Caroline A. Crenshaw, *Fixed Income and Options: The Other Market Structures*, Address at the Fixed Income Forum Spring Roundtable (Mar. 30, 2023), https://www.sec.gov/newsroom/speeches-statements/crenshaw-remarks-fixed-income-forum-spring-roundtable-033023 ("the fixed income markets are still considerably less transparent and can be much more costly for investors than, for example, national market system (NMS) stocks").

[10] *See* H.K. Monetary Auth., *An Assessment of the Benefits of Bond Tokenisation* Nov. 28, 2023), https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2023/RM04-2023.pdf.

[11] *See* Committee on Payments & Mkt. Infrastructures, Bank for Int'l Settlements, *Tokenisation in the Context of Money and Other Assets: Concepts and Implications for Central Banks* (Oct. 2024), https://www.bis.org/cpmi/publ/d225.pdf (discussing the potential of tokenization to enhance bond market efficiency across liquidity, issuance costs, and yields).

save 800–1,000 person-hours during issuance.[12] Recent academic research suggests approximately 2x lower price slippage and 2x greater capital efficiency using decentralized finance (DeFi) protocols for tokenized bonds versus legacy bond trading.[13]

Singapore's Project Guardian with participation from over 40 institutions, including the IMF and World Bank, across seven countries, is leading commercialization of tokenized bonds.[14]

America's competitors are racing to capture the tokenized bond market while U.S. bond tokenization is lagging. There is an important reason why this is.

A. TEFRA Reform

While perhaps outside of this Committee's jurisdiction or one with overlapping jurisdiction with the House Ways and Means Committee, I want to flag that the US tax code currently penalizes tokenization of debt securities through provisions that were clearly not intended to address it. The Committee should work with the House Ways and Means Committee and Senate Finance Committee to reform the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). TEFRA was designed to discourage the issuance of "bearer bonds." "Bearer bonds" are paper fixed-income securities owned by whoever holds the physical certificate, rather than by who is recorded as a registered owner.

One of the primary reasons for this US policy was that these financial products were used to facilitate money laundering, tax evasion, and other illicit activities. The unintended consequence of TEFRA and Treasury regulations thereunder as it applies to tokenized bonds is disproportionate to the harm TEFRA is intended to address.

TEFRA's bearer bond regime imposes overlapping penalties that effectively prohibit tokenized bond issuance in any form that cannot satisfy the Code's "registered" transfer requirement. This would prohibit the issuance of tokenized bonds on a permissionless public blockchain where transfers happen peer-to-peer, i.e. between self-custodied wallets occur without the involvement of any book entry system. This applies whether or not the ownership ledger is maintained by the issuer, a transfer agent, or a clearing agency because such freely transferable tokens are functionally indistinguishable from bearer bonds under TEFRA and Treasury regulations thereunder.[15]

For issuers, TEFRA denies the interest deduction under I.R.C. § 163(f) and imposes an excise tax at issuance equal to one percent of principal per calendar year of maturity under I.R.C. § 4701(a). For holders, sanctions include disallowance of loss deductions under I.R.C. § 165(j), reclassification of capital gains as ordinary income under I.R.C. § 1287(a), among other penalties.[16] The HIRE Act of

[12] World Econ. Forum, *How Tokenization Is Transforming Global Finance* (Dec. 10, 2024), https://www.weforum.org/stories/2024/12/tokenization-blockchain-assets-finance/ (finding tokenization can save 800–1,000 person-hours during issuance and reduce book-closing periods by more than 50%).

[13] Tuan Tran & Duc A. Tran, *An Automated Market Maker Algorithm for Fixed-Rate Trading with Flexible Maturities*, Comput. Econ. (Aug. 06,2025), https://doi.org/10.1007/s10614-025-11046-4.

[14] Monetary Auth. of Singapore, Project Guardian, https://www.mas.gov.sg/schemes-and-initiatives/project-guardian (last visited Mar. 22, 2026) (a coalition of over 40 institutions, including the IMF and World Bank, across seven countries).

[15] See I.R.C. §§ 149(a)(3), 163(f)(3); Treas. Reg. § 5f.163-1; proposed Treas. Reg. § 1.163-5(b)(1), 82 Fed. Reg. 43,722 (Sept. 19, 2017) (defining registered form to require that transfers be effected only through a book entry system maintained by the issuer, its agent, or a clearing organization)."

[16] Tax Equity and Fiscal Responsibility Act of 1982, Pub. L. No. 97-248, § 310, 96 Stat. 324, 595–600 (codified at I.R.C. §§ 163(f), 165(j), 312(m), 1287(a), 4701); *see also* Hiring Incentives to Restore Employment Act of 2010, Pub. L. No. 111-147, § 502, 124 Stat. 71, 107 (eliminating the foreign-targeting exception for U.S. issuers of bearer debt for obligations issued after Mar. 18, 2012); I.R.C. § 149(a) (tax exemption loss for municipal bearer obligations); IRS Notice

2010 eliminated even the foreign-targeting safe harbor for U.S. issuers, subjecting bearer debt issued after March 18, 2012 to a 30% withholding tax on interest regardless of the investor's residence.

Congress should amend I.R.C. §§ 163(f) and 4701 to provide that a distributed ledger satisfying standards prescribed by the Secretary of the Treasury constitutes a legally valid bond register, and that token holders recorded on such ledger are treated as registered owners. Because this relief would create a new class of transferable, pseudonymous obligations outside the traditional book-entry system, it should be conditioned on robust illicit finance compliance. The appropriate compliance obligations, however, could fall on the regulated intermediary, i.e. the broker-dealer, transfer agent, or other licensed entity that operates the issuer's ledger, rather than on the bond issuer. Congress should model that intermediary obligation the BSA compliance requirements that Congress enacted for payment stablecoin issuers in Section 4 of the GENIUS Act. This concept is further explored in Section VI below.

In the interim, before such legislation is enacted, Congress should encourage the IRS to issue regulations or guidance clarifying that distributed ledgers satisfying prescribed, robust identification and accountability standards qualify as book-entry systems for purposes of the "registered" bond definition under the Internal Revenue Code.[17]

We also encourage DTC to extend its tokenized securities entitlement program to corporate and asset-backed debt securities.[18]

B. Community-Focused Asset-Backed Securities

Congress should encourage the SEC to facilitate tokenization of asset-backed securities (ABS) involving federally-backed programs that enhance capital formation for underserved communities, i.e. securities backed by Community Development Financial Institutions, Minority Business Institutions, Minority Depository Institutions, Low-Income Housing Tax Credit programs, and Opportunity Zones.[19] The Commission should hold a roundtable to explore the utility of new shelf registration rules (Form S-3) tailored to these products would expedite registration, with costs and risks further reduced by tokenization and onchain distribution.

III. National Market System Securities (Public Equities)

2012-20, 2012-13 I.R.B. 574 (treating global bearer form as registered if bearer definitives issue only upon clearing system meltdown, issuer default, or adverse tax-law change); IRS Notice 2006-99, 2006-2 C.B. 907 (treating dematerialized obligations as registered).

[17] Treasury guidance clarifying that qualifying distributed ledgers constitute "registered form" book-entry systems under I.R.C. § 163(f) would provide valuable interim relief but cannot fully substitute for legislation for four reasons. First, administrative guidance, including formal Treasury regulations, lacks the durability of statute. Second, certain TEFRA penalties are independently codified statutory provisions that guidance clarifying the "registered" definition may not fully reach, including the I.R.C. § 4701 excise tax and the 30% withholding tax imposed by the Hiring Incentives to Restore Employment Act of 2010, Pub. L. No. 111-147, § 502, 124 Stat. 71, 107 (codified at I.R.C. §§ 871(h) and 881(c)). Third, our proposed legislative revisions, especially allocating BSA obligations to broker-dealer intermediaries as a condition for statutory exclusion, require legislation. Fourth, market participants are unlikely to build durable tokenized bond infrastructure on a guidance-only foundation given the investment required; legislative certainty is a practical prerequisite to capital formation at scale.

[18] *See supra* note 36.

[19] Sorenson Impact Inst., *Asset-Backed Securitization for CDFIs*, https://sorensonimpactinstitute.com/project/asset-backed-securitization-for-cdfis/ (last visited Mar. 22, 2026).

Applying our "do no harm" principle, reforms to NMS securities should be very carefully calibrated. U.S. public equities and ETFs already operate within the most liquid and efficient market structure in the world. Billions of shares per day trade at hundreds of regulated trading venues at nanosecond speeds at spreads of fractions of a penny per share. It is an intensely competitive environment for brokers, exchanges, ATSs, and other intermediaries.

That efficiency was built on reforms like the creation of Regulation ATS, as well as Regulation NMS. However, Regulation NMS was also built on assumptions, e.g., centralized quotation aggregation, standardized instruments, interoperation across the trading and settlement supply chain dependent on intermediaries, that DeFi-based systems do not share.

Reconciliation of Regulation NMS and tokenized NMS securities will not be easy, as SEC Chairman Atkins has flagged.[20] The rule-level incompatibilities are numerous: the consolidated National Best Bid and Offer (NBBO) cannot be constructed from decentralized liquidity pools with no standardized unit of account (in DeFi, trading pools may not include a U.S. dollar stablecoin); the Order Protection Rule (Rule 611) protects firm, static quotations incompatible with dynamic Automated Market Maker (AMM) liquidity; and the Sub-Penny Rule (Rule 602) does not translate to blockchain environments with eighteen-decimal divisibility.

Because tokenization of NMS securities risks fragmenting already well-functioning markets by creating parallel trading and settlement systems, comprehensive NMS tokenization will require a multi-year effort, and should be considered cautiously. Bifurcating liquidity between tokenized and non-tokenized equities may be inevitable, but that will likely create predation opportunities for arbitrageurs and could be disastrous for investors and corporate issuers alike.[21]

Integrating tokenized equities into Regulation NMS will require careful vigilance to ensure positive outcomes. We therefore encourage Congress and the SEC to begin exploratory work on integrating tokenized equities into Regulation NMS. Some of the adjustments may be relatively harmless, e.g., through integrating DeFi pricing mechanisms into public pricing feeds, in collaboration with oracle service providers capable of bridging tokenized and non-tokenized markets. But most others will require extensive fact finding led by the Commission with oversight and direction from the Committee.

A. Onchain Initial Public Offerings

Separate from the secondary market trading of US public equity securities, we urge you to consider onchain initial public offerings (IPOs). Critically, onchain IPOs *pose less of a fragmentation concern* than secondary trading of existing NMS securities. Because the issuer's securities would be offered *solely* or primarily in an onchain environment from inception, there is no existing offchain market to fragment. The securities are born onchain, with a single book of record.

[20] Paul S. Atkins, Chairman, SEC, *The Digital Finance Revolution*, Remarks at the SEC Speaks Conference (July 31, 2025), https://www.sec.gov/newsroom/speeches-statements/atkins-digital-finance-revolution-0731.

[21] Letter from Tyler Gellasch, Healthy Mkts. Ass'n, to Chairman Tim Scott & Ranking Member Elizabeth Warren, S. Comm. on Banking, Hous. & Urban Affairs (Jan. 13, 2026), https://healthymarkets.org/wp-content/uploads/2026/01/HMA-Ltr-to-Banking-Cmte-1-13-2026-final.pdf.

The cost of traditional IPOs remains a major deterrent to accessing public markets. Former SEC Commissioner Jackson observed that middle-market IPOs pay a "7% tax" in underwriting fees.[22] DeFi protocols, automated market makers and innovative continuous clearing auction mechanisms can provide competition to rent-seeking underwriters. The global distribution network of open blockchains, alongside lower tokenization costs, can meaningfully reduce the cost of public offerings and provide needed competition to the current costly IPO process. Congress should consider urging the SEC to clarify offering rules (for both issuers and underwriters) to enable IPOs of tokenized securities as a meaningful alternative to the traditional, underwriter-driven, non-tokenized IPO process.[23]

Broker-dealers that participate in onchain IPO liquidity pools as registered market makers or liquidity providers would deliver meaningful benefits: deeper order books at launch, price stabilization, and the kind of institutional credibility that attracts broader investor participation. To encourage that participation, the SEC and FINRA should provide clear net capital guidance for tokenized securities positions held in connection with onchain offerings.[24] Because onchain AMM-based pricing mechanisms are not currently recognized pricing sources under Rule 15c3-1, tokenized security positions held by liquidity providers in an onchain IPO pool risk being treated as having no market value for net capital purposes regardless of actual liquidity depth. This results in prohibitive capital charges on willing broker-dealer participants and structurally exclude all but the most capitalized firms from onchain IPO market-making.[25]

U.S. bank regulators have recently provided technology-neutral guidance extending capital treatment of traditional securities to their tokenized counterparts.[26] The SEC and FINRA should consider analogous clarifications for net capital treatment of tokenized securities specifically, guidance confirming that tokenized securities satisfying applicable registration or exemption requirements, and priced through recognized onchain pricing mechanisms, are entitled to the same

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[22] Commissioner Robert J. Jackson Jr., *The Middle-Market IPO Tax*, Address at the Vanderbilt L. Sch. Conference on the Middle Market (Apr. 25, 2018) (observing that middle-market IPOs pay a "7% tax" in underwriting fees).

[23] Blockchain-based tokenization reduces these costs by eliminating intermediary layers through smart contracts and enabling automated compliance, settlement, and distribution functions. *See* World Econ. Forum, *How Tokenization Is Transforming Global Finance* (Dec. 2024), https://www.weforum.org/stories/2024/12/tokenization-blockchain-assets-finance (noting that smart contract automation of issuance tasks compresses intermediation costs).

[24] Under the Net Capital Rule, 17 C.F.R. § 240.15c3-1, broker-dealers must apply percentage "haircuts" to the market value of securities positions, reducing their net capital dollar-for-dollar based on each security's assessed risk characteristics, e.g., 15% for registered equity securities, and potentially 100% for securities lacking a recognized pricing source or established market. *See* 17 C.F.R. § 240.15c3-1(c)(2)(vi); *see also Interpretation and Guide to Net Capital Computation for Brokers and Dealers*, 32 Fed. Reg. 856, 858 (Jan. 25, 1967) (securities not yet effectively registered or exempt "should be given no value for net capital purposes").

[25] *See* Jeffrey T. Dinwoodie, *Net Capital and Crypto*, YALE J. ON REG.: NOTICE & COMMENT (May 13 2025), https://www.yalejreg.com/nc/net-capital-and-crypto (noting that the "cost of capital that needs to be allocated to a crypto business from a broker-dealer may cause a firm to limit the activity"); Statement of SEC Commissioner Hester M. Peirce, *There Must Be Some Way Out of Here* (Feb. 21, 2025), https://www.sec.gov/newsroom/speeches-statements/peirce-statement-rfi-022125 (calling for comment on net capital haircuts and the "readily convertible into cash" standard as applied to digital asset securities).

[26] Fed. Deposit Ins. Corp., Bd. of Governors of the Fed. Reserve Sys. & Off. of the Comptroller of the Currency, *Agencies Clarify the Capital Treatment of Tokenized Securities*, Joint News Release 2026-14 (Mar. 5, 2026), https://www.occ.gov/news-issuances/news-releases/2026/nr-ia-2026-14.html.

haircut treatment as their traditional equivalents, and that broker-dealers providing liquidity in registered onchain IPO pools may rely on AMM-derived pricing for net capital valuation purposes. Such clarification would remove the single most significant structural barrier to broker-dealer participation in onchain IPO liquidity and enable the competitive, distributed underwriting model that makes onchain public offerings an economically superior alternative to the current 7% IPO underwriter tax.

IV. Asset Management Products

The U.S. public fund market represents approximately $30 trillion in assets under management. Leading managers are moving aggressively: BlackRock calls tokenization "step two" in the financial revolution;[27] Franklin Templeton emphasizes blockchain's transparency and immediacy;[28] Fidelity and Apollo see transformative potential;[29] Northern Trust has launched a tokenized share class for a $10 billion+ money market fund.[30] At this point, we can identify three interrelated reforms under the Investment Company Act of 1940 to support onchain public funds.

A. Custody: Section 17(f) and Rule 17f-2

Applying our "same or better outcomes" principle, the SEC should clarify that registered investment companies may hold digital assets through onchain vault architectures with transfer-agent control.[31] Rule 17f-2, adopted in 1941, imposes paper-era controls that cannot accommodate cryptographic custody.[32] An onchain vault, such as the Nest protocol, with immutable smart contracts, multi-party authorization, hardware-backed keys, and annual key-rotation drills reproduces and in material

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[27] BlackRock CEO Larry Fink has stated: "ETFs are step one in the technological revolution in the financial markets. Step two is going to be the tokenization of every financial asset." Larry Fink, Chairman & CEO, BlackRock, Inc., Remarks on Squawk Box, CNBC (Jan. 12, 2024), quoted in MacKenzie Sigalos, *BlackRock's Larry Fink Says Bitcoin ETFs Are Just the First Step in the Technological Revolution of Finance*, CNBC (Jan. 12, 2024), https://www.cnbc.com/2024/01/12/blackrocks-larry-fink-says-bitcoin-etfs-are-just-the-first-step-in-the-technological-revolution-of-finance.html.

[28] Press Release, Franklin Templeton, Franklin Templeton Receives CSSF Approval to Launch First Fully Tokenised UCITS Fund on a Public Blockchain Using Proprietary Technologies in Luxembourg (Oct. 28, 2024), https://www.franklintempleton.lu/press-releases/news-room/2024/franklin-templeton-receives-cssf-approval-to-launch-first-fully-tokenised-ucits-fund-on-a-public-blockchain-using-proprietary-technologies-in-luxembourg-copy.

[29] Statement of Cynthia Lo Bessette, Head of Digital Asset Mgmt., Fidelity Invs., quoted in Camomile Shumba, *Tokenized Treasuries Hit $5B Milestone as Fidelity Investments Touts RWA Potential as Collateral*, COINDESK (Mar. 25, 2025), https://www.coindesk.com/markets/2025/03/25/tokenized-treasuries-hit-usd5b-milestone-as-fidelity-investments-touts-rwa-potential-as-collateral; Statement of Christine Moy, Partner, Head of Digital Assets, Apollo Glob. Mgmt., quoted in Ian Allison, *Apollo Unveils Tokenized Private Credit Fund as Blockchain Deepens TradFi Links*, COINDESK (Jan. 30, 2025), https://www.coindesk.com/business/2025/01/30/apollo-unveils-tokenized-private-credit-fund-as-blockchain-deepens-tradfi-links.

[30] Northern Trust Asset Management has introduced a tokenized share class for a money market fund with over $10 billion in assets. Press Release, Northern Trust Asset Management, Northern Trust Asset Management Enters Digital Assets Market with Launch of Tokenized Money Market Share Class (Mar. 2, 2026), https://www.businesswire.com/news/home/20260226557099/en/Northern-Trust-Asset-Management-Enters-Digital-Assets-Market-with-Launch-of-Tokenized-Money-Market-Share-Class.

[31] Investment Company Act of 1940 § 17(f)(1), 15 U.S.C. § 80a-17(f)(1) (requiring most registered funds to place and maintain their securities in accordance with custody requirements).

[32] Rule 17f-2 under the Investment Company Act, adopted in 1941, requires bank safekeeping, physical segregation, and three independent public accountant verifications per fiscal year. *See* 17 C.F.R. § 270.17f-2.

respects strengthens legacy protections. To address potential asset-liability management concerns when registered investment companies utilize onchain vaults for self-custody, independent verification services such as those offered by Bluprynt can provide real-time, third-party attestation of onchain asset holdings against fund liabilities.[33] This would not require Congressional action.

B. Multi-Format Funds: Section 18

Consistent with our "durability" principle, the current case-by-case exemptive relief model to allow for multi-class registered funds is unsustainable. The SEC has issued approximately fifty post-Vanguard exemptive orders to allow for ETF share classes within mutual funds,[34] yet no rule of general applicability that permits a multi-format fund with ETP, much less tokenized share classes. Congress should consider amending Section 18 to directly permit investment companies to have standard, ETP, and tokenized classes, or direct the SEC to adopt a rule of general applicability to effectuate that. These rules should address board authorities and duties, ownership rights and responsibilities, fee and expense allocations between classes, recordkeeping, and other key investor protection issues.

C. Secondary Markets: Section 22(d) and Rule 22c-1

To allow secondary markets for tokenized mutual fund shares to develop, Congress should repeal or substantially amend Section 22(d), direct the SEC to amend Rule 22c-1 to permit secondary market transactions at market-determined prices, and preserve forward pricing for direct fund transactions.

Section 22(d)'s retail price maintenance requirement, requiring mutual fund dealers to sell shares in a mutual fund at exactly the same public offering price listed in the prospectus, was enacted in 1940 to prevent riskless trading at a time when funds used backward pricing, an abuse eliminated by the advent of forward pricing in 1968. The SEC's own Division of Investment Management concluded in 1992 that the primary purpose of Section 22(d) had been "rendered moot" and the provision should be repealed.[35]

V. Cross-Cutting Regulatory Challenges

Applying our "proportionality" principle, several structural issues extend across asset classes and require coordinated attention. We begin with the application of the Exchange Act in Sub-Sections (A)

[33] Bluprynt provides independent, real-time verification of onchain asset holdings, enabling fund boards, auditors, and regulators to confirm that assets held in smart-contract-based vault architectures correspond to reported fund liabilities. *See* Bluprynt to Provide KYI Verification for Plume as Securitize Joins Its RWA Ecosystem, BLUPRYNT (Nov. 20, 2025), https://www.bluprynt.com/news/bluprynt-to-provide-kyi-verification-for-plume-as-securitize-joins-its-rwa-ecosystem. This addresses a key concern under Section 17(f) of the Investment Company Act of 1940, 15 U.S.C. § 80a-17(f), regarding the safekeeping and segregation of fund assets in digital form.

[34] On November 17, 2025, the SEC issued its first post-Vanguard exemptive order to Dimensional Fund Advisors. Dimensional Fund Advisors LP, Investment Company Act Release No. 35,380, (Nov. 17, 2025), https://www.sec.gov/files/rules/ic/2025/ic-35786.pdf. Approximately fifty similar orders have since been granted. *See* Multi-Class ETF Fund Exemptive Relief under the Investment Company Act of 1940, Investment Company Act Release No. 35834 (December 17, 2025), https://www.sec.gov/files/rules/ic/2025/ic-35834.pdf. F/m Investments launched the first live dual share class fund on February 12, 2026. *See* Press Release, F/m Investments,F/m Investments Becomes First ETF Issuer to Launch Dual Share Class Fund (Feb. 10, 2026), https://www.fminvest.com/news/fm-investments-becomes-first-etf-issuer-launch-dual-share-class-fund.

[35] SEC Div. of Inv. Mgmt., Protecting Investors: A Half Century of Investment Company Regulation 308 (1992) (concluding that "the first, and we believe the primary, purpose of section 22(d) has been rendered moot").

ATS Reform, (B) DeFi broker-dealer regulation, and Settlement Interoperability. In Sub-Section (D) we cover other tokenization regulatory issues of general applicability.

A. Onchain Trading of Tokenized Securities: ATS Reform

Consistent with our "same or better outcomes" principle, Congress should encourage the SEC to provide rulemaking, exemptive orders, or no-action relief to facilitate onchain trading of tokenized bonds. The SEC should revise Regulation ATS, which was first adopted in 1998, to promote, among other things, electronic trading and organized trading of fixed income securities (bonds, ABS, etc.). Regulation ATS was promulgated under Exchange Act Sections 11A and 23(a)(1) in recognition that the existing framework "did not envision many … of these trading and business functions."[36]

The SEC should establish standards for ATS operations using DeFi protocols as well, including but not limited to, requirements for: (i) *fair access*, adapted to wallet-based participation models with compliance whitelisting; (ii) *cybersecurity*, incorporating code audit standards, bug bounty programs, and immutability requirements comparable to SEC Regulation SCI; and (iii) *surveillance*, leveraging the inherent transparency of open blockchains.

While the SEC has reportedly considered an "innovation exemption"[37] for onchain trading, Congress should urge the Commission to move concurrently toward full ATS registration for ATSs that use DeFi protocols. A time-limited exemption, constrained by volume caps, uncertain renewal, and restricted scope, may prevent operators from achieving the scale and legal certainty necessary to attract institutional investment and successful outcomes, ultimately undermining the exemption's own policy goals. This is demonstrated by lackluster results for similar programs elsewhere.[38] Further, we question whether an "innovation exemption" might introduce unnecessary risks and inefficiencies to the marketplace, as it may not sufficiently protect the integrity of the markets. The innovation exemption, unless used as a temporary measure and combined with a clear roadmap toward the integration of DeFi and tokenization within the SEC's regulatory architecture, may provide false comfort to tokenization entrepreneurs and incumbent businesses alike that the future of tokenized securities will operate outside of legacy regulatory protections.

Full registration under Regulation ATS, by contrast, provides durable legal certainty that enables long-term investment in compliance infrastructure. A recent court decision calls into question whether the SEC can rely on exemptive authority or no-action relief to create a new regulatory regime for tokenized securities and that regulatory treatment of this significance warrants full agency consideration through deliberative notice-and-comment exemptions and rulemaking.[39]

On surveillance, FINRA and the SEC should work with new DeFi-based brokers and registered ATSs to establish an industry-wide onchain market surveillance system. Open blockchains record all

[36]Regulation of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 70,844, 70,845 (Dec. 22, 1998).
[37] Commissioner Hester M. Peirce, Adam's Lib, *Remarks at the Meeting of the SEC Investor Advisory Committee* (Mar. 12, 2026), https://www.sec.gov/newsroom/speeches-statements/peirce-remarks-iac-031226 (noting that "[a]s Chairman Atkins and I discussed recently, Commission staff is working on an innovation exemption to facilitate limited trading of certain tokenized securities—much narrower than the 'blanket' exemption mentioned in the draft recommendation").
[38] See OMFIF, EU's DLT Pilot Can Still Take Off If the Rules Catch Up (Aug. 4, 2025), https://www.omfif.org/2025/08/eus-dlt-pilot-can-still-take-off-if-the-rules-catch-up/ (describing "a widespread belief that the pilot regime was slated to end after three years" that "disincentivised participation").
[39] *See CBOE Futures Exch. v. SEC*, 77 F.4th 971, 974 (D.C. Cir. 2023) (vacating an SEC exemptive order for failure to adequately explain its rationale).

transactions publicly in real-time, a capability that can replace, at likely lower cost and greater accuracy, other audit trail systems. FINRA and the SEC should leverage onchain public blockchain infrastructure to create a surveillance system that monitors tokenized securities trading across all registered DeFi-based venues, achieving real-time transparency. Vendors have developed machine-learning-based market surveillance tools specifically designed for DeFi and onchain trading environments and could serve as technology partners to help FINRA operationalize this capability.[40]

B. DeFi Broker-Dealer Registration: Tailored Frameworks

Applying our "accountability" principle, entities operating DeFi application layers, the retail-facing interfaces through which Americans access tokenized securities, should bear clear regulatory obligations designed to achieve traditional securities regulatory goals of investor protection, market integrity, and capital formation in a manner tailored to the tokenized security supply chain for retail investors. The Senate's Digital Asset Market Clarity Act ("DAMCA") addresses this directly: Section 302 imposes illicit finance obligations on "distributed ledger application layers,"[41] and Section 108 directs the SEC to modernize securities regulations for digital asset activities.[42]

Congress should ensure that the definition of "broker" under Exchange Act Sections 3(a)(4) and 3(a)(5) encompasses service providers that facilitate trading in tokenized securities for retail users in order to achieve parity in the protections for retail investors afforded by the Exchange Act across DeFi-based securities trading and traditional means.[43] This could be done by inserting into DAMCA the following:

> *(__) Section 3(a)(4) of the Securities Exchange Act of 1934 (15 U.S.C. § 78c(a)(4)) is amended by adding at the end the following:*
>
> *(i) IN GENERAL.— The term "broker" includes any person that owns or operates a distributed ledger application layer, as defined in [section 302] of the Digital Asset Market Clarity Act,*

[40] For example, Solidus Labs provides market integrity infrastructure purpose-built for digital asset and DeFi markets, including real-time trade surveillance, market manipulation detection, and cross-venue monitoring capabilities that could be adapted to FINRA's supervisory needs for registered DeFi-based broker-dealers and ATS operators. *See* Solidus Labs, *Trade Surveillance*, https://www.soliduslabs.com/solutions/trade-surveillance (last visited Mar. 22, 2026) (describing real-time, cross-venue surveillance covering onchain and offchain markets, DEXs, and CeFi/DeFi manipulation detection).

[41] Digital Asset Market Clarity Act ("DAMCA") § 302, H.R. 3633, 119th Cong. (discussion draft 2026), https://www.banking.senate.gov/imo/media/doc/market_structure_draft.pdf (amendment in the nature of a substitute proposed by Sen. Scott of South Carolina) (imposing illicit finance obligations on "distributed ledger application layers," defined as web-hosted software applications enabling users to create or submit instructions to execute transactions on a distributed ledger).

[42] DAMCA § 108, H.R. 3633, 119th Cong. (discussion draft 2026) (directing the SEC to update securities regulations to accommodate digital asset activities).

[43] Absent new legislation, a DeFi application layer operator could assert a colorable argument that offering access to tokenized securities does not require broker-dealer registration. In *SEC v. Coinbase, Inc.*, No. 1:23-cv-04738-KPF (S.D.N.Y. Mar. 27, 2024), the court dismissed the SEC's claim that a non-custodial wallet application required broker registration, holding that routing user instructions to blockchain protocols without taking custody of assets does not constitute acting as a "broker" under Exchange Act Section 3(a)(4). In *Risley v. Universal Navigation Inc.*, No. 23-1340, 2025 WL 615185 (2d Cir. Feb. 26, 2025) (summary order), the Second Circuit found that even if tokens at issue were securities, that it would "defy logic" to hold an application developer liable under the Exchange Act for a third party's use of the platform, and that non-custodial DeFi interfaces are not statutory "sellers" under Section 12(a)(1) of the Securities Act. The framework proposed herein replaces this ambiguous status quo with a durable compliance path that protects retail investors.

> *through which users who are not accredited investors may create or submit instructions to execute transactions in securities.*
>
> *(ii) EXCLUSIONS.— The term "broker" under this subparagraph does not include—*
>
> *(I) a non-controlling developer or provider, as defined in [section 604] of the Digital Asset Market Clarity Act, whose activity is limited to developing, publishing, or maintaining a blockchain protocol or blockchain application, as those terms are defined in section [2] of the Digital Asset Market Clarity Act, provided that such person does not own or operate a distributed ledger application layer through which users execute transactions in securities; or*
>
> *(II) a decentralized governance system, as defined in [section 2] of the Digital Asset Market Clarity Act, unless participants in such a system are under common control or acting pursuant to an agreement to act in concert.*

Congress could direct the SEC to create a safe harbor through rulemaking that would provide that if the owner or operator of a distributed ledger application layer demonstrates commercially reasonable efforts to prevent the facilitation of transactions in securities through such distributed ledger application layer, then it would not have to register as a "broker."

At the same time, applying our "proportionality" principle, FINRA and the SEC can and should *tailor* regulatory requirements for non-custodial DeFi brokers. There is ample precedent. FINRA created the Capital Acquisition Broker (CAB) category through FINRA Rule 016, approved by the SEC in 2016 under Exchange Act Section 15A(b)(6),[44] recognizing that firms with limited activities did not require the full panoply of FINRA rules. The SEC itself used Exchange Act Sections 3(a)(1) and 11A to create Regulation ATS as a less burdensome alternative to full exchange registration.[45] The SEC's broad exemptive authority under Exchange Act Section 36(a)(1) provides additional flexibility.[46]

New "DeFi broker" and "Digital ATS" registrant categories could be used as vehicles for the Commission to impose requirements calibrated to the actual risks at the securities DeFi application layer. Appropriate obligations would include: anti-fraud and fair dealing standards,[47] disclosure of material conflicts of interest, including disclosures relating to and management of maximal extractable value (MEV) extraction, front-running by insiders, and economic arrangements with

[44] FINRA R. 016 (Capital Acquisition Broker Rules), approved by Securities Exchange Act Release No. 78617 (Aug. 18, 2016) (approving tailored registration category for firms with limited activities under Securities Exchange Act of 1934 § 15A(b)(6), 15 U.S.C. § 78o-3(b)(6)).

[45] 15 U.S.C. § 78c(a)(1); 17 C.F.R. §§ 242.300–.304 (Regulation ATS). The SEC adopted Regulation ATS in 1998 under its authority in Exchange Act sections 11A and 23(a)(1) to establish a flexible registration framework for electronic trading systems that did not fit the traditional exchange model. See Regulation of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 70,844 (Dec. 22, 1998).

[46] 15 U.S.C. § 78mm(a)(1) (providing the SEC broad exemptive authority to exempt "any person, security, or transaction" from any provision of the Exchange Act or rules thereunder, conditionally or unconditionally, if consistent with the public interest and investor protection).

[47] *See* FINRA R. 2010 (Standards of Commercial Honor and Principles of Trade), https://www.finra.org/rules-guidance/rulebooks/finra-rules/2010; FINRA R. 2020 (Use of Manipulative, Deceptive or Other Fraudulent Devices), https://www.finra.org/rules-guidance/rulebooks/finra-rules/2020.

"solvers"[48] and other liquidity providers,[49] Bank Secrecy Act (BSA) and sanctions compliance consistent with the obligations imposed on distributed ledger application layers,[50] cybersecurity and code audit standards that reflect best practices for DeFi protocols and are functionally equivalent to SEC Regulation SCI,[51] recordkeeping adequate to reconstruct all transactions that rely on onchain records,[52] and cooperation with FINRA surveillance systems integrated with onchain transactions.[53]

Conversely, requirements designed for intermediaries that hold customer assets or interoperate with carrying brokers are likely ill-suited to non-custodial DeFi interfaces and generally should not apply, such as elements of the SEC's capital[54] and customer segregation requirements,[55] carrying agreement obligations,[56] and Regulation SHO's locate and close-out requirements (which assume intermediated short-selling mechanics that do not exist in a DeFi environment where settlement is atomic).[57] The result would be a registration framework that brings accountability and investor protection to the customer-facing DeFi layer (where the risk of fraud, conflicts, cybersecurity risk, and manipulation is highest) without requiring non-custodial operators to maintain infrastructure designed for a fundamentally different business model.[58]

C. Settlement Infrastructure

Clearance and settlement is the backbone of securities markets. This infrastructure ensures that every trade results in the actual transfer of securities and payment between counterparties in a timely and reliable manner. With respect to onchain clearance and settlement, we have two recommendations.

First, the SEC should develop guidance on the use of decentralized blockchains by registrants to support clearance and settlement activities. This guidance should examine statutory criteria, e.g., features demonstrating the capability to support the prompt and accurate clearance and settlement of securities transactions, the safeguarding of securities and funds, etc. are achieved through the protocol's automated, nondiscretionary architecture, modeled after the requirements of Section 17A of the Exchange Act. This basic framework will ensure a durable foundation for registrants to begin

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[48] *See* Nicolai Søndergaard, *Solver Networks, Distinct Solutions?*, NANSEN RESEARCH (Sept. 13, 2024), https://research.nansen.ai/articles/solver-networks-distinct-solutions (defining "solvers" as agents or automated programs that take user-expressed intents and determine the optimal execution path by analyzing market conditions, liquidity, and costs to achieve a desired crypto asset execution).

[49] *See* FINRA R. 2111 (Suitability); 17 C.F.R. § 240.10b-5 (Exchange Act Rule 10b-5); FINRA R. 2121 (Fair Prices and Commissions) (requiring transparent fee disclosure to end users).

[50] *Supra* note 18; GENIUS Act § 4(a), Pub. L. No. 119-33, 139 Stat. 119-27 (2025), https://www.congress.gov/bill/119th-congress/senate-bill/1582/text. .

[51] 17 C.F.R. §§242.1000–1007.

[52] *See* 17 C.F.R. § 240.17a-4 (Exchange Act Rule 17a-4).

[53] *See* FINRA R. 3110 (Supervision), https://www.finra.org/rules-guidance/rulebooks/finra-rules/3110.

[54] *See* 17 C.F.R. § 240.15c3-1 (Net Capital Rule) (calibrated to the risk of a broker-dealer failing while holding customer funds and securities).

[55] *See* 17 C.F.R. § 240.15c3-3 *(Customer Protection Rule).*.

[56] *See,* FINRA R. 4311 (Carrying Agreements), https://www.finra.org/rules-guidance/rulebooks/finra-rules/4311.

[57] 17 C.F.R. §§ 242.200–204 (Regulation SHO).

[58] *See* 15 U.S.C. § 78mm(a)(1) (Exchange Act § 36(a)(1)) (authorizing the SEC to exempt persons, securities, or transactions from Exchange Act provisions conditionally or unconditionally); FINRA R. 016 (Capital Acquisition Broker Rules) (establishing precedent for tailored FINRA registration categories with reduced obligations for firms with limited activities), approved by Securities Exchange Act Release No. 78617 (Aug. 18, 2016), https://www.finra.org/rules-guidance/rulebooks/capital-acquisition-broker-rules/016.

to operationalize their use of blockchain technology while ensuring the same or better clearance and settlement policy outcomes.

Second, for centralized distributed ledger service providers, especially those that support securities-specific settlement capabilities, the SEC should exercise its authority to provide conditioned exemptions to full "clearing agency" registration to provide legal certainty for onchain settlement services that otherwise could trigger registration requirements under the Exchange Act.[59] This should extend to settlement service providers that utilize smart contracts to "facilitate" onchain settlements, including aligning settlement methods between real-time onchain and traditional offchain cycles (T+0, T+1, or T+2).

Temporary, limited SEC staff no-action relief could provide a transition that could allow such blockchain securities settlement platforms to conditionally defer clearing agency registration pending a rulemaking-based framework. Such relief could be modeled after the 2025 DTC no-action letter[60] for tokenized NMS securities. That said, this relief should be designed as an interim measure for a more permanent rule change to accommodate implementation.

D. Other Cross-Cutting Tokenization Regulatory Issues

Custody. SEC custody requirements under Exchange Act Rule 15c3-3 are tethered to intermediated models that do not contemplate self-custody through private keys.

Clearing. Onchain settlement may trigger unnecessary clearing agency registration which was designed for centralized institutions.

State law. UCC Article 8's intermediated framework is ill-suited to peer-to-peer token transfers, while Article 12 excludes investment property. The SEC could leverage Exchange Act Sections 17A(b)(1) and 36(a) to provide clearing agency exemptive relief for qualified blockchain protocols enabling them to set transfer rules as "clearing corporations" under the Uniform Commercial Code (UCC).[61]

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[59] Section 3(a)(23)(A) of the Securities Exchange Act of 1934, 15 U.S.C. § 78c(a)(23)(A), defines "clearing agency" as:

> The term 'clearing agency' means any person who acts as an intermediary in making payments or deliveries for the purchase or sale of a security or who provides facilities for comparison of data respecting the terms of settlement of securities transactions, to reduce the number of settlements of securities transactions, or for the allocation of securities settlement responsibilities.

This definition is broad and captures not only traditional central counterparties (CCPs) and central securities depositories (CSDs) but also entities providing facilities for data comparison, netting, or allocation of settlement responsibilities potentially encompassing certain middleware or technology providers in the settlement process.

[60] Letter from Jeffrey S. Mooney, Assoc. Dir., Div. of Trading & Mkts., SEC, to Brian Steele & Nadine Chakar, DTCC (Dec. 11, 2025), https://www.sec.gov/files/tm/no-action/dtc-nal-121125.pdf (regarding no-action request related to the Depository Trust Company's development of DTCC Tokenization Services) [hereinafter DTC NAL].

[61] UCC Article 8's indirect holding system requires a securities intermediary at every transfer link: a person acquires a property interest in a security only as a certificated security, an uncertificated security on the issuer's books, or through a "security entitlement" created when a securities intermediary credits the security to a securities account so a direct wallet-to-wallet token transfer fits none of the three modes and leaves the transferee without entitlement-holder protections. Article 12 does not cure this because the definition of "controllable electronic record" expressly excludes investment property, and the December 2025 DTC no-action letter confirmed the problem rather than solving it: tokens were characterized not as securities or security entitlements but merely as an alternative instruction mechanism for DTC, with the relief expressly limited to DTC and not establishing a general framework for other market participants. The proposed § 17A(b)(1) and § 36(a) exemption would bridge this gap by granting a blockchain protocol clearing corporation status. This would result in token transfers triggering Article 8 security entitlements directly. *See* U.C.C. § 8-102(a)(5).

Cybersecurity. New tokenization policy should set standards for code audits, onchain/offchain recordkeeping reconciliation, and management of losses from cyberattacks or malfunctioning smart contracts, scaled to the systemic importance of the infrastructure.

Transfer agent recordkeeping. The SEC's transfer agent rules under Rules 17Ad-9 and 17Ad-10 of the Exchange Act require registered transfer agents to maintain a master securityholder file containing, among other elements, each holder's "registration" (i.e., name) and physical mailing address.[62] These requirements were designed for a different era with different infrastructure. In a blockchain environment, a securityholder's public-key wallet address provides a mathematically unique, cryptographically bound locator for the private key that controls the securities, as well as the address to which onchain notices, dividend distributions, and proxy materials can be routed. Unlike names and mailing addresses, which are subject to typographical errors, aliasing, and frequent changes, public-key addresses are immutable and self-reconciling, materially reducing the risk of misidentification and advancing the Commission's own objectives of prompt and accurate clearance and settlement.[63]

Congress should direct the SEC to amend Rules 17Ad-9 and 17Ad-10 or, in the interim, the SEC should exercise its rulemaking authority under Section 17A(d), to provide that a distributed ledger address qualifies as an acceptable form of "registration" and "address" for purposes of the master securityholder file when the transfer agent maintains the blockchain as part of its official records. This reform should also ensure that compliance with Rule 17Ad-17 (lost securityholders) can be satisfied through the transfer agent's ability to identify shareholders that have lost access to their shares and recover those shares through its power to "burn" and "remint" to replace the lost securities. This is consistent with the policy goals of Rule 17Ad-17, because blockchain-addressed holders cannot become "lost" in the traditional sense, as onchain notices and payments are delivered directly to each holder's cryptographic address without the risk of returned mail frequent in the current mail-dependent system.[64]

Congress also should direct the SEC to reopen the issues contemplated in the 2015 Concept Release on Transfer Agent Regulations,[65] adding supplemental questions directed at understanding the extent to which blockchain technology can serve as a secure, auditable, and privacy-enhancing substitute for legacy recordkeeping systems. Consistent with our "same or better outcomes" and "proportionality" principles, onchain risks should be addressed in proportion to their scale, and demonstrably superior technology should not be penalized by rules designed for an earlier era.

Permissioned vs. permissionless blockchains

Permissioned blockchains, such as JPMorgan's Onyx, Goldman Sachs' Digital Asset Platform, and the permissioned Hyperledger Besu network underlying the DTC's December 2025 tokenization

[62] 17 C.F.R. §§ 240.17Ad-9, .17Ad-10; Securities Exchange Act Release No. 19860 (June 9, 1983) (adopting Rules 17Ad-9 through 17Ad-13).
[63] *See* 15 U.S.C. § 78q-1(a)(2)(A) (directing the SEC to facilitate the establishment of a national system for the prompt and accurate processing of securities transactions).
[64] Securities Exchange Act Release No. 39176 (Oct. 1, 1997) (adopting 17 C.F.R. § 240.17Ad-17 to address investors whose mail is returned as undeliverable).
[65] *See* Transfer Agent Regulations, 80 Fed. Reg. 81,948 (Dec. 31, 2015).

no-action letter, offer genuine operational benefits: faster settlement, reduced reconciliation costs, and improved collateral mobility among consortium participants.[66]

But permissioned systems offer little direct capital formation benefit. By definition, a closed network restricts participation to pre-approved counterparties and development to pre-approved partners.[67] These are typically the same large financial institutions that already dominate traditional markets. For example, a tokenized ABS on a permissioned ledger is inaccessible to retail investors or foreign capital unless the consortium operator explicitly admits them. A developer has to align their business interests with the network operator to be given the chance to build an application on the network.

Public, permissionless blockchains achieve a fundamentally better result than nation-state level blackbox databases that are the foundation of the current market structure or permissioned networks. This is because any token meeting embedded compliance requirements can be distributed across the permissionless network to anyone in the world. Through inherently globally scaled, permissionless blockchains the U.S. can export its capital markets much more broadly than at present while also reducing reliance on rent-seeking intermediaries.

With proper oversight at key touchpoints, i.e. the retail-facing applications and regulated securities tokens with embedded compliance as discussed in this testimony, the U.S. can develop a framework that achieves better outcomes than the present national-level market structure across all three securities law policy objectives, investor protection, market integrity, and especially capital formation.[68]

VI. Combatting Illicit Finance Through Onchain Infrastructure

As a technological point, open blockchains offer extremely effective tools for combatting illicit activity: onchain law enforcement seizure rates approach 12%, far exceeding rates in traditional finance.[69] "Freeze-and-seize" token functionality is a very potent law enforcement tool that

[66] See DTC NAL (describing DTC's permissioned Hyperledger architecture for tokenized entitlements and the operational efficiency benefits of consortium-based tokenization).

[67] *See e.g.,* IOSCO, *Tokenization of Financial Assets*, FR/17/25, at 14–15 (Nov. 2025), https://www.iosco.org/library/pubdocs/pdf/IOSCOPD809.pdf (noting that permissioned systems restrict participation to pre-approved counterparties and that participation in such networks requires third-party custody, oracle, and ramp infrastructure controlled by the consortium operator)

[68] *See* Securities Exchange Act of 1934 § 3(f), 15 U.S.C. § 78c(f); Securities Act of 1933 § 2(b), 15 U.S.C. § 77b(b); Investment Company Act of 1940 § 2(c), 15 U.S.C. § 80a-2(c); Investment Advisers Act of 1940 § 202(c), 15 U.S.C. § 80b-2(c) (collectively requiring the Commission, in all rulemaking, to consider "in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation."

[69] This figure is derived from two public sources. For the numerator, IRS Criminal Investigation's annual report for fiscal year 2022 recorded over $7 billion in total asset seizures, the overwhelming majority consisting of cryptocurrency. *See* Tax Notes, *Surge in IRS Crypto Seizures Might Pose Market Challenge* (Aug. 25, 2023), https://www.taxnotes.com/featured-news/surge-irs-crypto-seizures-might-pose-market-challenge/2023/08/24/7h4rf. For the denominator, Chainalysis revised its estimate of total illicit cryptocurrency volume for 2024 upward to $57.2 billion as additional illicit addresses were identified and incorporated into its dataset. *See* Chainalysis, *2026 Crypto Crime Report Introduction* (Mar. 2026), https://www.chainalysis.com/blog/2026-crypto-crime-report-introduction/. Dividing the numerator by the denominator yields approximately 12%. Using annual U.S. seizure figures for a more typical enforcement year, such as the $3 billion reported for 2023, *see* TRM Labs, *Enhancing Law Enforcement's Role in Expanding the US Strategic Bitcoin Reserve*, https://www.trmlabs.com/resources/blog/enhancing-law-enforcements-role-in-expanding-the-us-strategic-bitcoin-reserv

contributes to these seizure rates. The Nest protocol incorporates freeze-and-seize smart contracts for tokenized assets, demonstrating the feasibility of Bank Secrecy Act (BSA) and sanctions compliance for tokenized securities modeled on the GENIUS Act template[70] presaged by the bipartisan stablecoin bill this Committee proposed in February 2025,[71] provide an effective model that should be extended to tokenized asset markets.

Under current law, BSA compliance for securities markets depends on broker-dealer intermediaries that conduct know-your-customer (KYC) screening pursuant to customer identification program (CIP) requirements. While this ensures broad identification of market participants, mapping KYC-derived personally identifiable information to illicit activity is far more difficult than onchain transaction monitoring. The GENIUS Act addresses this for stablecoins by requiring issuers to implement transaction monitoring and freeze-and-seize capabilities for secondary market transactions through DeFi protocols.[72]

Consistent with our "same or better outcomes" principle, Congress should encourage an approach for BSA compliance modeled after the GENIUS Act and the bipartisan House Financial Services bill proposed in February 2025 for tokenized securities in order to enable the use of tokenized securities in DeFi markets.[73] Just as in the case of stablecoins, it is imperative that tokenized securities operate under a regulatory framework that enables broad, global distribution of tokenized securities through DeFi markets accessible to global investors. This will ensure that U.S. tokenized securities become more readily available for foreign investors, enhancing capital formation opportunities for U.S. businesses.

That said, to protect the U.S. markets from abuses and risks, Congress should encourage the Department of Treasury, in consultation with the SEC, to set BSA compliance expectations for tokenized securities that mirror those for payment stablecoins. Because neither tokenized securities issuers nor their transfer agents under U.S. securities laws are generally "financial institutions" under the BSA,[74] while broker-dealers are, under our"accountability" principle, Treasury and the SEC

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e, against a comparable illicit volume denominator yields a range of approximately 5–7%. Even at the lower end of this range, crypto seizure rates exceed traditional finance seizure rates by a factor of more than 25. *See* U.N. Office on Drugs & Crime, *Estimating Illicit Financial Flows Resulting from Drug Trafficking and Other Transnational Organized Crime* 7, 119, 131 (2011), https://www.unodc.org/documents/data-and-analysis/Studies/Illicit-financial-flows_31Aug11.pdf ("globally, it appears that much less than 1% (probably around 0.2%).").

[70] GENIUS Act § 4, Pub. L. No. 119-33, 139 Stat. 119-27 (2025), https://www.congress.gov/bill/119th-congress/senate-bill/1582/text (endorsing token-level freeze-and-seize functionality as an effective model for combating illicit finance); *see also* Stablecoin Transparency and Accountability for a Better Ledger Economy Act ("STABLE Act") (discussion draft 2024), https://democrats-financialservices.house.gov/UploadedFiles/02.10.25_STABLE_2024_xml_12.3.24.pdf (bipartisan House Financial Services Committee stablecoin bill supported by Ranking Member Waters, articulating a consistent tailored approach to onchain token BSA compliance).

[71] *See* Stablecoin Transparency and Accountability for a Better Ledger Economy Act ("STABLE Act"), H.R. 2392, 119th Cong. § 3(d) (2025), https://democrats-financialservices.house.gov/UploadedFiles/02.10.25_STABLE_2024_xml_12.3.24.pdf.

[72] GENIUS Act § 4, Pub. L. No. 119-33, 139 Stat. 119-27 (2025), https://www.congress.gov/bill/119th-congress/senate-bill/1582/text; *see also* Stablecoin Transparency and Accountability for a Better Ledger Economy (STABLE) Act, H.R. 2392, 119th Cong. § 3(d) (2025), https://democrats-financialservices.house.gov/UploadedFiles/02.10.25_STABLE_2024_xml_12.3.24.pdfSection

[73] *Id.*

[74] The Bank Secrecy Act defines "financial institution" in 31 U.S.C. § 5312(a)(2) through an enumerated list of entity types subject to BSA obligations. That list includes banks, broker-dealers, money services businesses, insurance companies, casinos, and similar entities but does not enumerate securities issuers or transfer agents. FinCEN has never promulgated

should consider a rulemaking that would allow non-custodial secondary trading of tokenized securities in pseudonymous trading centers, including DeFi markets not operated by a U.S. national securities exchange, provided the tokenized securities incorporate asset-level BSA compliance capabilities that mirror those of stablecoin issuers under the GENIUS Act and provided such capabilities are administered by a broker-dealer subject to the BSA.[75]

In extending the role of broker-dealers into tokenized securities issuance, the Commission should also explore other enhancements to ensure market integrity.

Another pathway to achieve this same policy outcome, in lieu of reliance on a broker-dealer providing BSA compliance, is for Congress to create a new "digital transfer agent" registrant category under the Exchange Act that would be required to provide transfer agency and BSA compliance as a new category of "financial institution" under the BSA.[76] This could be performed in conjunction with the discussion above about tailoring clearing agency registration requirements or providing notice-and-comment exemptive relief.

Put simply, onchain analytics, BSA-like KYC expectations, and token-level freeze-and-seize functionality (similar to the approach incorporated in the GENIUS Act[77]) provide an effective model that should be extended to tokenized asset markets, and tokenized securities markets, in particular.

VII. Support for Pending Legislation

Plume generally supports the Senate's DAMCA bill and highlights several provisions of particular significance for tokenized securities markets:

Section 108: Modernization of securities regulations. The directive to update securities regulations for digital asset activities provides the statutory basis for the DeFi broker-dealer, ATS, and custody reforms recommended in this testimony.[78] We also appreciate the inclusion of "vault" protocols in

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a rule subjecting issuers or transfer agents to BSA program requirements as stand-alone "financial institutions." Transfer agents are regulated under Exchange Act Section 17A and subject to SEC rules requiring them to maintain books and records, but those obligations are entirely separate from the BSA's AML program, suspicious activity reporting, and currency transaction reporting requirements. Broker-dealers, by contrast, are expressly enumerated in § 5312(a)(2)(B) and subject to FinCEN's broker-dealer AML rule at 31 C.F.R. § 1023.210, which is why a broker-dealer and not an issuer or transfer agent currently serves as the primary BSA compliance touchpoint in securities markets. *See* 31 U.S.C. § 5312(a)(2) (enumerating entities constituting "financial institutions" subject to the BSA, including broker-dealers under subparagraph (B), but not including securities issuers or transfer agents); 31 C.F.R. § 1023.210 (imposing AML program requirements on broker-dealers as financial institutions); *see also* 15 U.S.C. § 78q-1 (establishing the SEC's transfer agent regulatory regime under the Exchange Act, separately from BSA obligations).

[75] *Supra* note 65.

[76] Currently, transfer agents are not "financial institutions" subject to the BSA, but legislative revisions could revise the definition of "financial institution" to include a "digital transfer agent."

[77] *See supra note 65* (endorsing token-level freeze-and-seize functionality as an effective model for combatting illicit finance). It should be noted that the approach taken in the GENIUS Act is consistent with the tailored approach to onchain token BSA compliance articulated in the bipartisan House Financial Services stablecoin bill ("STABLE Act") supported by Ranking Member Waters. Stablecoin Transparency and Accountability for a Better Ledger Economy Act ("STABLE Act") (discussion draft 2024), https://democrats-financialservices.house.gov/UploadedFiles/02.10.25_STABLE_2024_xml_12.3.24.pdf.

[78] Section 108 of DAMCA, H.R. 3633, 119th Cong. § 108 (discussion draft 2026), https://www.banking.senate.gov/imo/media/doc/market_structure_draft.pdf, directs the SEC to modernize securities regulations across the full range of digital asset market structure activities, specifically including custody, broker-dealer, ATS, and exchange registration, conduct standards, and clearing, settlement, and net-capital requirements. These are the same areas addressed by this testimony's recommendations. The provision is a rulemaking mandate, not self-executing

the bill text as onchain market infrastructure the Commission should consider as it updates its regulations. A key revision we recommend however, is that Congress amend the definition of "broker" under the Section 3(a)(4) of the Exchange Act to include service providers operating at the distributed ledger application layer if the service provider facilitates trading in tokenized securities for retail users. This ensures the same regulatory outcomes across all retail-facing securities trading apps and will lead to a durable framework for U.S. tokenized securities.

Section 305: Temporary hold for certain digital asset transactions. The Act's temporary hold provision authorizes digital asset intermediaries to place short-duration holds on transactions flagged as potentially illicit, operationalizing the freeze-and-seize capability that stablecoin issuers have pioneered and that we have embedded for tokens issued through the Nest protocol. This mechanism is a practical and proportionate alternative to counterproductive blanket know-your-customer gating at the protocol layer, enabling compliance at the token-level for tokenized securities while preserving the permissionless access that makes open blockchains effective vehicles for global capital formation.

Section 306: Voluntary cybersecurity program for decentralized finance trading protocols. The Act's establishment of a voluntary cybersecurity program for DeFi trading protocols addresses a concern we have emphasized throughout this testimony: that cybersecurity standards must scale with the systemic importance of the infrastructure. Section 306 strikes the right balance by creating a framework through which DeFi protocols can demonstrate adherence to code audit, vulnerability disclosure, and incident-response standards without imposing a one-size-fits-all mandate that could stifle early-stage development, consistent with our "proportionality" principle. We encourage the SEC and Treasury to develop this program in close collaboration with protocol developers and independent audit firms to ensure that the resulting standards are technically sound, operationally achievable, and recognized by regulated financial institutions conducting due diligence on DeFi protocols they integrate.

Section 505: Tokenization study. The joint SEC-CFTC study on tokenized RWA standards is an important indication of Congressional intent. We also strongly urge Congress to retain Section 505(e)(1) and (h)(1) as drafted, codifying the foundational principle that a security issued, recorded, or transferred using distributed ledger technology remains a security under the securities laws, a position consistent with statements made by SEC Chairman Atkins and SEC Commissioner Peirce, as well as recent SEC staff guidance.[79]

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relief; the SEC took a preliminary step in December 2025 by issuing staff guidance permitting broker-dealers to claim "physical possession" of crypto asset securities under the Customer Protection Rule, 17 C.F.R. § 240.15c3-3 where private-key controls are maintained, but expressly declined to address the rule's "control" prong and called for formal Commission rulemaking. *See* Commissioner Hester M. Peirce, *No Longer Special: Statement on the Custody of Crypto Asset Securities by Broker-Dealers* (Dec. 17, 2025), https://www.sec.gov/newsroom/speeches-statements/peirce-121725-no-longer-special-statement-division-trading-markets-statement-related-custody-crypto-asset. Congress should ensure Section 108 includes enforceable deadlines and interim safe harbors to prevent the rulemaking delays that have historically characterized SEC engagement with digital assets. *See* DAMCA § 108, *supra*.

[79] See Paul S. Atkins, Chairman, SEC, *Testimony Before the S. Comm. on Banking, Hous. & Urban Affairs* (Feb. 12, 2026) (confirming that "tokenized securities are securities, and we'll treat them as such"); Commissioner Hester M. Peirce, *Enchanting, but Not Magical: A Statement on the Tokenization of Securities* (July 9, 2025), https://www.sec.gov/newsroom/speeches-statements/peirce-statement-tokenized-securities-070925 ("As powerful as blockchain technology is, it does not have magical abilities to transform the nature of the underlying asset. Tokenized

Section 604: Blockchain Regulatory Certainty Act. Section 604 of the Act provides critical protections for non-custodial software developers that are integral to permissionless market development while not undermining other criminal or civil authorities that could still be brought in connection with money laundering.[80]

VIII. Conclusion

Tokenization is a significant, qualitative change in how the plumbing of our capital markets will operate. The asset-class-specific recommendations in this testimony are anchored by the principles of "same or better outcomes," "accountability," "prioritization," "do no harm," "durability," and "proportionality."

Foreign jurisdictions are not waiting on what the SEC or Congress decides to do. The infrastructure layer for global capital markets is being built now. We urge you and the SEC to work together to ensure that the U.S. leads in the safe integration of tokenized securities into the global financial system.

I thank the Committee for its attention and look forward to your questions.

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securities are still securities."); Div. of Corp. Fin., SEC, Statement on Tokenized Securities (Jan. 28, 2026) ("format of issuance or method of recordkeeping . . . does not affect the application of the federal securities laws.").See also Letter from N. Am. Sec. Adm'rs Ass'n ("NASAA") to Chairman Tim Scott & Ranking Member Elizabeth Warren, S. Comm. on Banking, Hous. & Urban Affairs, at 1–2 (Feb. 23, 2026), https://www.nasaa.org/wp-content/uploads/2026/02/NASAA-Urges-Congress-to-Make-Targeted-Improvements-to-the-Federal-Market-Structure-Proposals-2.23.26-F.pdf (strongly urging Congress to retain Section 505 of the Digital Asset Market Clarity Act as drafted, noting that Sections 505(e)(1) and (h)(1) codify the foundational principle that "a tokenized financial instrument shall be treated for all regulatory purposes as the financial instrument it represents").

[80] DAMCA at § 604 (Blockchain Regulatory Certainty Act), *supra* note 18 (providing protections for non-custodial software developers integral to the permissionless development of onchain markets). Even with § 604, the Department of Justice ("DOJ") retains full criminal enforcement power under 18 U.S.C. § 1956 (laundering of monetary instruments, including promotion of specified unlawful activity, concealment of proceeds, or evasion of reporting requirements) and 18 U.S.C. § 1957 (monetary transactions in criminally derived property of $10,000 or more), along with related conspiracy, 18 U.S.C. § 1956(h), aiding and abetting, 18 U.S.C. § 2, and other statutes addressing fraud, sanctions evasion, or terrorism financing. Treasury and FinCEN preserve investigative authority, referral powers to DOJ, and special measures under 31 U.S.C. § 5318A against high-risk protocols or entities. Most critically, the Office of Foreign Assets Control ("OFAC") retains independent sanctions enforcement, e.g., under the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701–1708, and related Executive Orders, which apply regardless of money services business ("MSB") status and prohibit dealings with sanctioned persons or jurisdictions, enabling civil and criminal penalties for knowing facilitation of illicit flows even if undertaken by non-custodial software developers.

APPENDIX I

Summary of Recommendations

Congress

- Amend Exchange Act §§ 3(a)(4) and 3(a)(5) to extend "broker" registration to DeFi applications that facilitate transactions in tokenized securities for retail users, with carve-outs for non-custodial software developers and decentralized governance systems.
- Retain Digital Asset Market Clarity Act § 108 ("Modernization of securities regulations for digital asset activities") as drafted, expressing Congressional intent that the SEC update its regulatory framework across the full range of digital asset market structure activities, including broker-dealer, ATS, exchange, custody, clearing, settlement, and net capital requirements.
- Retain Digital Asset Market Clarity Act §§ 505(e)(1) and (h)(1) as drafted, codifying the foundational principle that a security issued, recorded, or transferred using distributed ledger technology remains a security under the securities laws consistent with statements by SEC Chairman Atkins and Commissioner Peirce. We also support the joint SEC-CFTC tokenization study directed by § 505 as an important indicator of Congressional intent.
- Retain Digital Asset Market Clarity Act § 604: Blockchain Regulatory Certainty Act. Section 604 of the Act provides critical protections for non-custodial software developers that are integral to permissionless market development while not undermining other criminal or civil authorities that could still be brought in connection with money laundering.
- Reform TEFRA by amending I.R.C. §§ 163(f) and 4701 to recognize distributed ledgers meeting Treasury-prescribed standards as valid bond registers, treating token holders as "registered" owners for all Code purposes, with BSA compliance obligations allocated to broker-dealer intermediaries.
- Amend Investment Company Act § 18 to permit multi-format funds (mutual fund, ETF, and tokenized share classes) and repeal or substantially amend § 22(d) to permit secondary market trading of tokenized fund shares at market-determined prices.
- Direct the SEC to amend transfer agent Rules 17Ad-9 and 17Ad-10 to recognize blockchain wallet addresses as valid "registration" and "address" entries in the master securityholder file, and reopen the 2015 Transfer Agent Concept Release.
- Establish a BSA compliance framework for tokenized securities modeled on the GENIUS Act's stablecoin regime, enabling non-custodial DeFi trading subject to broker-dealer-administered transaction monitoring and freeze-and-seize capabilities, or alternatively create a "digital transfer agent" registrant category subject to the BSA as a financial institution.

SEC

- Issue rulemaking (not merely time-limited exemptions) creating formal "DeFi broker" and "Digital ATS" registration categories with tailored obligations, including anti-fraud, conflicts disclosure, BSA/sanctions compliance, and cybersecurity standards, while excluding inapplicable intermediary rules (net capital, customer protection, Regulation SHO).
- Provide guidance and exemptive relief to facilitate onchain IPOs and granting clearing agency exemptive relief for atomic settlement of IPO transactions.

- Clarify that registered investment companies may use onchain vault architectures for custody under Investment Company Act § 17(f) and Rule 17f-2, leveraging third-party attestation services in lieu of traditional qualified custodians.
- Provide clearing agency exemptive relief for onchain settlement services.
- Work with FINRA to develop an industry-wide onchain market surveillance system leveraging public blockchain transparency as a cost-effective alternative to the Consolidated Audit Trail.
- Facilitate tokenization of community-focused ABS (CDFIs, MDIs, LIHTC, Opportunity Zones) through tailored shelf registration rules (Form S-3).

Treasury

- Issue IRS guidance clarifying that distributed ledgers satisfying prescribed standards constitute "registered form" book-entry systems under the IRC, providing interim TEFRA relief for tokenized bonds in advance of legislation.
- In consultation with the SEC, issue rulemaking establishing BSA compliance expectations for tokenized securities markets, including a framework enabling non-custodial secondary trading where asset-level transaction monitoring and freeze-and-seize capabilities are administered by a BSA-obligated broker-dealer, modeled on GENIUS Act requirements for payment stablecoins.

APPENDIX II

Kimber Labs Products and Services

1. Plume Blockchain

The Plume blockchain is an Ethereum Virtual Machine-compatible Layer 2 scaling solution built on the latest Arbitrum Nitro stack and ArbOS. As an optimistic rollup-based Orbit chain, it delivers high-speed, low-cost execution with full Ethereum composability while settling batches to Ethereum mainnet for final security and dispute resolution. It offers significantly reduced fees — especially valuable for RWA operations — and seamless integration with Ethereum tools and DeFi applications.

Plume interacts with Ethereum through standard rollup mechanisms: the sequencer orders and batches transactions, fraud proofs (via Nitro's WASM execution) resolve invalid states if needed, and data availability is secured through ArbOS-native solutions with a Data Availability Committee (DAC).

What truly sets Plume apart is its industry-first, protocol-level and blockchain-wide AML/ATF compliance and threat detection system powered by Forta Firewall. This system is embedded directly at the RPC endpoint, screening every transaction in real time before it reaches the sequencer.

It combines global sanctions compliance with advanced proactive security. It instantly checks every wallet and transaction against the full OFAC SDN list and specialized high-risk watchlists, including Lazarus Group addresses, and other known threat actors. It detects phishing attempts, fake tokens, AI-powered smart contract exploits, and freeze-list violations.

The result is powerful: wallets linked to illicit activity are blocked at the protocol level. This gives Plume the strongest built-in protection of any Ethereum virtual machine (EVM)-based blockchain. Institutional firms can operate safely without exposure to illicit funds, while users benefit from a cleaner and more secure environment.

2. Nest Protocol

Kimber Labs has also developed the Nest protocol, a DeFi vault or asset management protocol. Nest is a Plume- and Ethereum-native vault protocol and system — now also live on Solana mainnet. Nest is designed for institutional-grade tokenization, programmatic fund asset management, and embedded onchain and offchain compliance built directly into its smart contracts and application interface.

At its core are two smart contracts: one that locks the fund's assets and controls who can access them (the "Core Vault"), and one that manages vault assets within those constraints (the "Manager"). Together with the "Vault Extension," these three immutable smart contracts deliver a fully segregated, cryptographic equivalent of a multi-asset index vault — complete with controlled access, onchain safeguards against price manipulation, independent oversight over administration and operations, and regulatory-ready controls.

Nest upgrades the traditional paper-era custody model (bank vaults, physical sign-out logs) with a cryptographic equivalent that provides better protections, asset segregation, controlled access, and independent oversight in a format native to digital assets.

What makes Nest the most advanced asset management system on the market today is its real-time, protocol-level AML/ATF integration and composability capabilities to add other embedded

compliance features. Every deposit, redemption, and transfer automatically triggers a sub-second check against TRM Labs policies ranging from sanctions, terrorist financing, special measures, known hacker groups, Ponzi schemes and investment fraud, all the way to darknet markets. Its onchain transfer hooks block any interaction with sanctioned or high-risk clustered wallets. In addition, Nest implements freeze-and-seize functions that allow loss recovery and lawful order seizures.

Production evidence with over 2.3 million transactions screened (and $228M in processed volume) demonstrates that these controls— i.e. real-time screening, automated blocking, address clustering, behavioral monitoring, and onchain transparency— prevent illicit flows more effectively than traditional point-in-time CDD in a permissionless environment. Sanctions and darknet risks are structurally restricted (transactions simply revert or are blocked), while the ability to investigate specific wallets with forensic specialists under lawful orders enables full law enforcement cooperation.

Nest DAO LLC, a Republic of the Marshall Islands non-profit DAO LLC,[81] is the primary curator of Nest vaults at present.[82] All revenues/yield produced by Nest DAO LLC vaults are shared with users of Nest DAO LLC vault token holders on a pro rata basis. As a non-profit DAO, Nest DAO LLC retains no revenues/yield nor charges any fees in connection with the vaults it curates.

3. Arc

Arc is an open source tokenization platform that lets anyone bring assets onchain that handles the end-to-end process of tokenization, from entity setup to custody and cap table management, making tokenization accessible to businesses and individuals.[83] Arc simplifies the tokenization workflow by connecting issuers to pre-integrated service providers (e.g., oracles, custodians) and automating compliance, onchain smart contract-based custody, and secure smart contract deployment, with embedded dividend distribution and offchain data reconciliation capabilities. This reduces operational and regulatory complexity, making it easier for asset issuers to deploy, manage, and operate their onchain assets and projects efficiently.

Arc can be understood as the platform to launch tokenized securities, while Nest provides embedded administrative and compliance features. Kimber Labs builds and maintains the core technology behind both products, delivering a complete solution for asset tokenization and fund administration services on Ethereum, Plume, and Solana blockchains.

4. Tokenized Asset and Fund Administration Services

Kimber Labs' tokenized asset and fund administration services are designed to enable compliant tokenization of securities for the American and other markets. Kimber Labs' developed Nest vault administration system and services currently include token-level AML/sanctions compliance with

[81] *See* Republic of the Marshall Islands, Decentralized Autonomous Organization Regulations 2024, https://rmiparliament.org/cms/images/LEGISLATION/SUBORDINATE/2024/2024-0001/2024-0001_1.pdf.
[82] Nest vaults currently provide non-U.S. users access to fully pass-through revenue share vaults with exposure to investment managers such as Apollo, Hamilton Lane, Janus Henderson, Superstate and WisdomTree. *See* NEST.CREDIT, https://nest.credit (last visited Mar. 22, 2026).
[83] See Arc, PLUME NETWORK, https://plumenetwork.xyz/arc (last visited Mar. 22, 2026).

transaction monitoring and "freeze-and-seize" capabilities aligned with the requirements for "payment stablecoins" under the GENIUS Act.[84]

Kimber Labs has recently registered a transfer agent with the SEC and has a pending broker-dealer registration with the goal of providing embedded securities and Bank Secrecy Act compliance for U.S. securities tokens issued through the Nest protocol.[85] Kimber Transfer Agency LLC utilizes a complementary onchain Transfer Agent Protocol[86] that enables issuers to deploy and manage complete cap tables in full compliance with the US regulations. The protocol automatically maps every onchain transaction, including issuance, transfer, and cancellation of issued securities, and formats them into a traditional offchain database. This bi-directional sync supports direct reporting to the DTCC and SEC when required.

Kimber Labs has also partnered with Bluprynt to provide independent verification of assets held in Nest vaults, obviating the need to utilize a qualified custodian to ensure asset-liability alignment.[87]

5. Non-Custodial Broker-Dealer and ATS

Kimber Labs is registering a non-custodial broker-dealer and an onchain Alternative Trading System (ATS) with FINRA to provide regulated infrastructure for tokenized securities trading, while preserving the self-custody principles of DeFi.

Consistent with our "accountability" principle, Kimber Labs Inc. remains the developer of the underlying infrastructure and blockchain technology, while the registered broker-dealer will serve as the accountable entity responsible for application layer and compliance oversight, trade surveillance, as well regulatory reporting in order to serve United States-based customers.

The non-custodial architecture ensures that users retain direct ownership without an intermediary, as well as full control over their tokenized assets. The broker-dealer provides KYC, AML, ATF, and reporting oversight without assuming custody of user funds or securities.

The ATS will enable compliant secondary market trading for non-NMS tokenized securities, such as bonds, asset-backed securities, and certain registered and registration-exempt investment company shares. It will leverage permissioned Automated Marker Maker protocols equipped with embedded compliance controls and advanced surveillance technologies.

Both registrations leverage Plume and Nest's existing real-time AML/ATF screening and blockchain-wide threat detection infrastructure for transaction-level compliance.

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[84] *See supra* note 65.

[85] *See* Form TA-1, Kimber Transfer Agency LLC, SEC EDGAR (Sept. 26, 2025), https://www.sec.gov/Archives/edgar/data/2083132/000094787125000802/0000947871-25-000802-index.htm

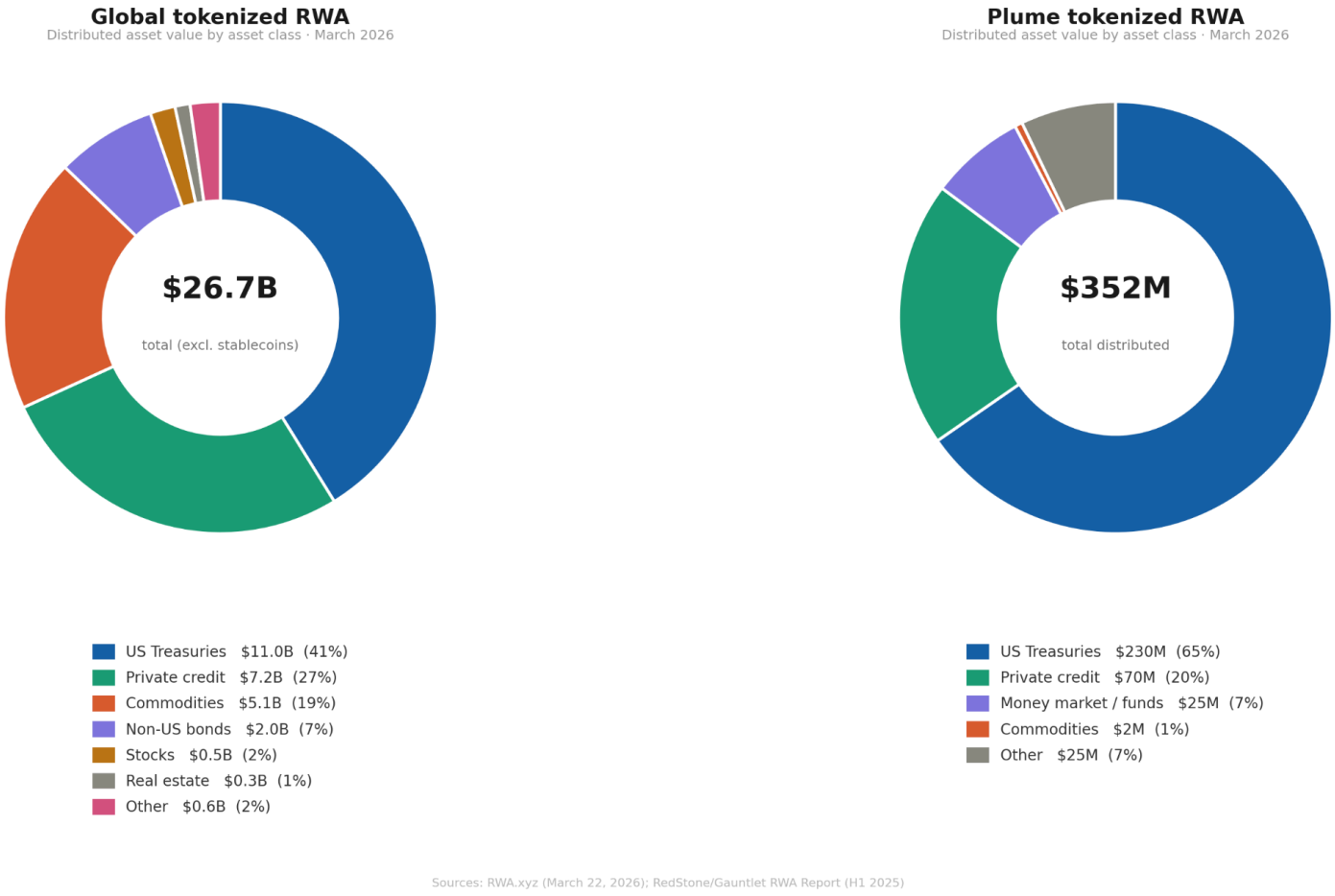
[86] *See* Transfer Agent Protocol, DOCS.TRANSFERAGENTPROTOCOL.XYZ, https://docs.transferagentprotocol.xyz/ (last visited Mar. 22, 2026).

[87] *See Bluprynt to Provide KYI Verification for Plume as Securitize Joins Its RWA Ecosystem*, BLUPRYNT (Nov. 20, 2025), https://www.bluprynt.com/news/bluprynt-to-provide-kyi-verification-for-plume-as-securitize-joins-its-rwa-ecosystem.

APPENDIX III

Onchain Tokenized Real-World Assets Markets Overview

Graphic 1: Distributed Asset Value Globally and on Plume Blockchain



Source: RWA.xyz

Global ($26.7B total, excl. stablecoins, as of March 22, 2026 per RWA.xyz): US Treasuries dominate at 41%, followed by private credit at 27% and commodities (largely gold) at 19%. The relatively large commodity share reflects gold-backed tokens (PAXG and XAUT together exceed $5B), while private credit figures here reflect active on-chain loan balances — cumulative originations are much larger (~$33B). The global distributed asset value across all public blockchains currently stands at approximately 5% per month (79.6% per year).

Plume ($352M total, as of March 22, 2026 per RWA.xyz): Plume skews even more heavily toward US Treasuries (65%). Private credit comes second at 20% via Centrifuge and Nest.

The following tables present the ten largest tokenized real-world assets globally and on the Plume network, ranked by distributed asset value as of March 22, 2026, based on data from RWA.xyz.

Distributed asset value reflects the market capitalization of tokens actively distributed to holders on public blockchains, excluding stablecoins.

Table 1: Global Top 10 Tokenized Assets by Distributed Asset Value (March 22, 2026)

#	Asset	Issuer	Asset Class	Value
1	XAUT (Tether Gold)	Tether	Gold	$2.67B
2	USYC	Circle / Hashnote	US Treasuries	$2.40B
3	PAXG (Paxos Gold)	Paxos	Gold	$2.31B
4	BUIDL	BlackRock / Securitize	US Treasuries	$2.01B
5	USDY	Ondo Finance	US Treasuries	$1.21B
6	BENJI	Franklin Templeton	US Treasuries	$1.02B
7	EUTBL	Spiko	EU T-Bills	$987M
8	JTRSY	Janus Henderson / Centrifuge	US Treasuries	$915M
9	JMWH	Justoken	Energy (MWh)	$861M
10	USTB	Superstate	US Treasuries	$786M

Source: RWA.xyz Asset Screener (March 22, 2026). Excludes stablecoins. JMWH (Justoken) is a tokenized energy contract representing megawatt-hours of delivered electricity, issued on XRP Ledger.

Table 2: Plume Network Top 5 by Platform/Asset, Distributed Asset Value (March 22, 2026)

#	Platform	Known Asset(s)	Asset Class	Value
1	Ondo	USDY	US Treasuries	$201.5M
2	Nest (Kimber Labs)	Apollo ACRED, Hamilton Lane, WisdomTree Prime Funds	Private credit / funds	$54.4M
3	Centrifuge	JTRSY	US Treasuries	$50.8M
4	Superstate	USTB + USCC	US Treasuries	$28.4M
5	OpenTrade	Multi-asset (4 RWAs)	US Treasuries / credit	$8.4M

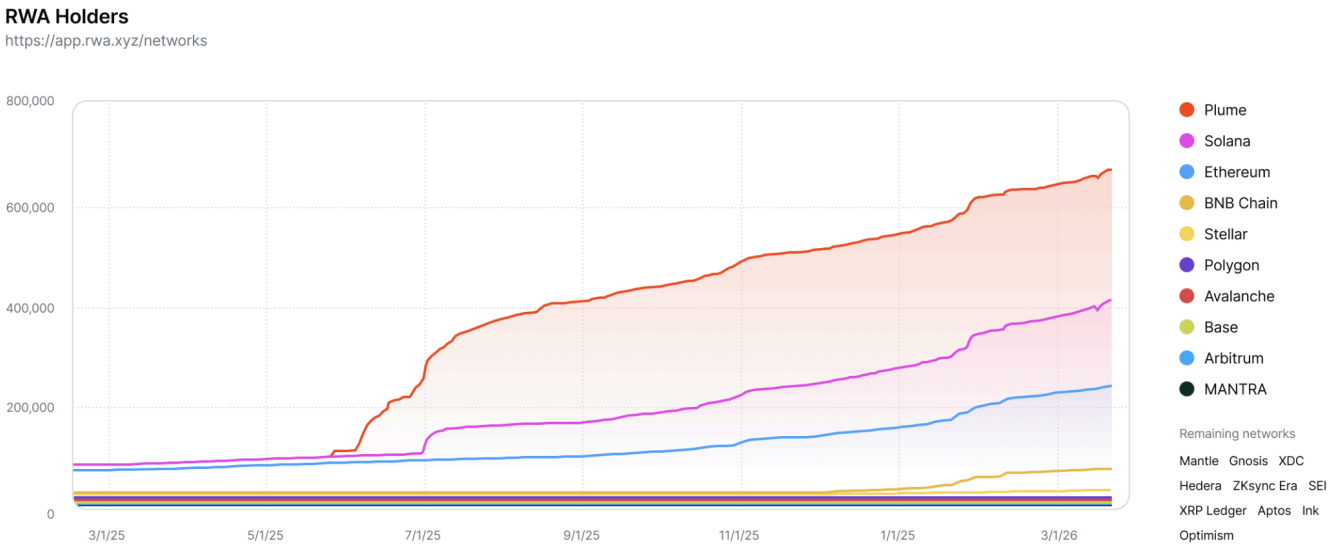
Source: RWA.xyz Networks — Plume (March 22, 2026). Plume's public page reports by platform; where the dominant individual asset is publicly known it is identified. Nest (Kimber Labs) hosts 11 assets across Apollo, Hamilton Lane, and WisdomTree products. JTRSY (Janus Henderson via Centrifuge) appears in both the global and Plume top 10, illustrating Plume's ability to attract blue-chip institutional issuers.

Tokenized US Treasury funds dominate both rankings. Seven of the global top 10 assets are US Treasury or money market products, and six of the top 10 Plume assets hold primarily Treasury instruments. This reflects the current phase of RWA adoption, in which institutions prioritize

yield-bearing, low-risk instruments as a bridgehead for onchain capital and onchain investors seek the relative stability of these assets.

Gold is the second-largest global asset class. Tether Gold (XAUT) and Paxos Gold (PAXG) together represent approximately $5 billion in distributed value globally.

Graphic 2: RWA Wallet Holder Count by Blockchain



Source: RWA.xyz

Why aren't tokenized assets growing exponentially?

The tokenized RWA sector is expanding at a measured pace of roughly 5–6% per month (80-101% per year) rather than the exponential trajectory that some projections have suggested.[88] At least seven structural constraints explain why, despite the opportunities described in this hearing.

1. Regulatory uncertainty is a significant barrier to tokenization adoption, with 66% of institutional investors citing this as a reason not to invest in digital assets.[89]

[88] McKinsey & Company, From Ripples to Waves: The Transformational Power of Tokenizing Assets (June 2024), https://www.mckinsey.com/industries/financial-services/our-insights/from-ripples-to-waves-the-transformational-power-of-tokenizing-assets (projecting tokenized financial assets reaching $2 trillion in the base case and up to $4 trillion in the bull case by 2030, excluding stablecoins and CBDCs).

[89] See EY-Parthenon & Coinbase, 2026 Institutional Digital Assets Survey (Jan. 2026), https://www.ey.com/en_us/financial-services/institutional-digital-assets-survey (finding that the uncertain regulatory environment is the primary concern for 66% of institutional investors investing in digital assets, and that 78% identify market structure as the area most in need of clear regulatory guardrails); accord Funds Europe & CACEIS, The Growing Role of Tokenisation in Asset Management, https://funds-europe.com/__sentry?ctype=balanced&uri=/the-steady-rise-of-tokenisation-in-asset-management/ (2025) (58% of asset owners cite regulatory constraints as a hurdle).

2. Punitive capital surcharges for global banks for tokenized assets on permissionless blockchains under Basel is a formidable deterrent to institutional adoption.[90]
3. Only recently has stablecoin legislation come online and in many cases is still in implementation phase - as in the U.S., for example, but also Hong Kong and elsewhere.[91]
4. Tokenized securities on public blockchains have only recently become permissible.[92]
5. The macroeconomic rate environment has blunted the value proposition of onchain capital markets even for native crypto users. U.S. money market funds returned stable yields of 4.2–5.3% APY over 2023–2024, while base stablecoin lending rates cluster around 3-4%, removing the arbitrage incentive that would otherwise pull new capital onchain.[93]
6. Liquidity fragmentation across chains has materially impaired market development.[94]
7. Limited selection of yield-bearing tokenized assets make onchain capital markets less attractive reducing its appeal to institutional investors.[95]

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[90] *See* Basel Committee on Banking Supervision, *Prudential Treatment of Cryptoasset Exposures*, SCO60 (effective Jan. 1, 2025), https://www.bis.org/basel_framework/chapter/SCO/60.htm (Applying 1,250% capital risk weight applicable to permissionless blockchain assets. This renders bank participation in public-chain tokenization commercially unviable absent reform.).

[91] While Hong Kong, for example, has pioneered bond tokenization, its regulatory progress is uneven with no stablecoin issuer licenses yet to have been granted despite 2025 legislation. CoinDesk, *Hong Kong Will Start Granting Stablecoin Issuer Licenses in March: Reuters* (Feb. 2, 2026), https://www.coindesk.com/policy/2026/02/02/hong-kong-will-start-granting-stablecoin-issuer-licenses-in-march-reuters (reporting HKMA chief Eddie Yue's statement that only "a very small number" of licenses will be granted in a first wave in March 2026 following review of 36 applications).
CoinDesk, Hong Kong Will Start Granting Stablecoin Issuer Licenses in March: Reuters (Feb. 2, 2026), https://www.coindesk.com/policy/2026/02/02/hong-kong-will-start-granting-stablecoin-issuer-licenses-in-march-reuters (reporting HKMA chief Eddie Yue's statement that only "a very small number" of licenses will be granted in a first wave in March 2026 following review of 36 applications).

[92] See e.g., MAS's revised Guide on the Tokenisation of Capital Markets Products (2025) requiring disclosure of "risks associated with public-permissionless blockchains" as a condition of use, see Bird & Bird, MAS Issues Revised Guide on Tokenisation of Capital Markets Products (Dec. 2025), https://www.twobirds.com/en/insights/2025/singapore/monetary-authority-of-singapore-issues-revised-guide-on-tokenisation-of-capital-markets-products/. The United Kingdom's Digital Securities Sandbox, established by the Financial Services and Markets Act 2023 (Digital Securities Sandbox) Regulations 2023, S.I. 2023/1398, in force January 8, 2024, is nominally technology-neutral but has ruled out permissionless assets as settlement instruments on financial stability grounds and opened for applications only in September 2024. *See* Bank of England & FCA, Policy Statement on the Digital Securities Sandbox PS24/12, 3.24 (Sept. 30, 2024), https://www.bankofengland.co.uk/paper/2024/policy-statement/boe-fca-joint-approach-to-the-digital-securities-sandbox .

[93] Investment Company Institute, 2025 Investment Company Fact Book (2025) ("in 2023, money market fund yields reached their highest level in more than 15 years, and yields continued to remain high in 2024 despite three cuts to the federal funds rate in the second half of the year Cranedata"), https://www.ici.org/research/stats/mmf.
DefiLlama, *Stablecoin Yield Pools*, https://defillama.com/yields/stablecoins (last visited Mar. 23, 2026).

[94] Canton Network, *State of RWA Tokenization 2026* (Dec. 18, 2025), https://www.canton.network/blog/state-of-rwa-tokenization-2026 (finding that the tokenized RWA market exceeded $36 billion excluding stablecoins as of late 2025, "yet fragmentation across chains is already creating measurable inefficiency, including 1–3% pricing gaps for identical assets and 2–5% friction when moving capital cross-chain").

[95] Redstone Finance, Yield Bearing Assets & Stablecoins Report 2025 (Dec. 2025) (noting yield-bearing assets make up just 8–11% of crypto markets versus 55–65% of traditional finance); InvestAX, Real World Asset Tokenization: Trends and Outlook for 2026 (noting liquidity remains uneven and participation is still largely institutional); Vu et al., "Tokenize Everything, But Can You Sell It? RWA Liquidity Challenges and the Road Ahead," arXiv:2508.11651 (Aug. 2025) (documenting low trading volumes, long holding periods, and limited investor participation across tokenized asset classes).