**Stablecoins, the Singleness of Money, and the Evolving Payment System**

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The views expressed are my own and do not necessarily reflect official positions of the Federal Reserve Bank of Dallas or the Federal Reserve System.

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Good morning everyone, and welcome to San Antonio.

I am Enrique Martínez García with the Global Institute, and it is a pleasure to welcome you to the San Antonio branch of the Federal Reserve Bank of Dallas for the fourth edition of the CEMLA/Dallas Fed Financial Stability Workshop.

Before framing this year's workshop, let me begin with a few words of appreciation.

First and foremost, my warmest thanks to Dr. Manuel Ramos-Francia, General Manager of CEMLA, for his strong support for this event and for joining us here in San Antonio. I also want to thank Gustavo Leyva, Peter Karlström, and the entire CEMLA team for their excellent collaboration. And I want to recognize Matías Ossandon Busch, with whom we organized two prior editions of this workshop; his work laid the foundation for this fourth one.

Let me begin now my remarks with the usual disclaimer: the views I express today—shaped by my own interpretation of the issues raised by the papers to be presented at the workshop—are solely my own and do not necessarily reflect those of the Federal Reserve Bank of Dallas or the Federal Reserve System.

**Framing the workshop**

We are living through a period of rapid change in money and finance. What used to be "digital money"—tapping a card or logging into online banking—has expanded into a world where value can move on *new rails*: instantly, across borders, and often outside the traditional correspondent-banking chain.

One way to make sense of the themes in this year's financial stability workshop program is to see that beneath them lies a common question: What does the future of the payment system—and with it, the future of money, banking, and finance—look like?

It is in that spirit that I want to use stablecoins as a guiding thread. Not because this is a crypto conference—it is not—but because stablecoins sit at the intersection of many of the issues addressed by the papers in this workshop: the expanding role of nonbanks, the evolving plumbing of liquidity, the changing perimeter of macroprudential policy, the global status of the dollar, and the channels through which monetary policy transmits.

**Stablecoins as a potential step toward a different technological configuration of the monetary system**

For years, distributed-ledger technologies were sometimes described as innovations in search of a compelling use case. Stablecoins have increasingly become that use case. They combine programmability, 24/7 settlement, and global reach to meet a very concrete demand for rapid access to dollar-denominated liquidity.

A stablecoin is, at its core, a digital IOU promising par redemption.[1] What distinguishes it is *how* it moves: across blockchains, instantly, globally, and without many of the frictions inherent to traditional banking rails. But that redemption commitment, not the blockchain technology alone, is what turns a digital token into a money-like instrument.

You can think of a stablecoin as a new cash leg in an increasingly programmable financial system. In the traditional world of finance, that cash leg is the bank deposit; in the emerging world, it may be a tokenized claim.[2]

Some of the motivations behind central bank digital currencies (CBDCs) mirror those behind stablecoins—instant settlement, programmability, wider reach—though the institutional implications differ. This raises broader questions about how public money, private money, and near-monies will interact.

Three characteristics make stablecoins especially pertinent to discussions about where the monetary and financial system may be headed:

1. They sit outside the traditional banking core, though their backing—Treasury bills, repos, deposits—ties them closely into it.[3]
2. Fully reserved stablecoins bear a strong resemblance to narrow-bank models, which limit maturity transformation but raise questions about where intermediation migrates as liquidity flows through such structures.[4]
3. They are no longer confined to crypto markets—they appear in settlement flows, treasury operations, cross-border transfers, and increasingly as hedges in inflation-prone economies.

This brings us to a core policy concern: does the growing role of privately issued digital monies—with differing collateral structures and operational rules—risk fragmenting the monetary system, undermining the singleness of money, and replacing a unified payments architecture with a patchwork of tokens?[5]

This is precisely where the papers in this workshop can help us. By shedding light on the consequences of the changing financial environment, they can offer valuable insights—even when they do not explicitly address stablecoins or payment systems—into the deeper questions we must confront as new forms of money and financial intermediation gain traction.

**1. Financial disintermediation**

The paper by Bruno Albuquerque and coauthors shows that when monetary or macroprudential policy tightens, credit and risk tend to migrate outward from banks toward nonbank intermediaries.[6] In an environment where liquidity can increasingly flow through new digital channels, this migration has implications for monetary policy transmission and for where maturity transformation takes place—a function traditionally performed within the banking system.

Research by Teng Wang shows that banks and nonbanks increasingly operate in layered partnership structures: nonbanks originate or warehouse risk; banks provide funding and backstop liquidity. This mirrors many digital and token-based ecosystems, where the new front end is visible but the balance-sheet core likely remains bank-based.

Itay Goldstein's work reminds us that fragility stems from maturity transformation funded by runnable liabilities—a mechanism that faster technology does not eliminate and may accelerate.

A related issue is the possibility that stablecoins could become interest-bearing if issuers begin passing through the yield earned on their reserve assets.[7] Such a development would move stablecoins closer to traditional savings instruments (money market funds) and could materially affect competition for bank deposits, the transmission of monetary policy, and cross-border capital flows.

**2. The macroprudential perimeter**

Jorge Abad and coauthors show that banks accumulate common risks in calm times; Maximilian Grimm highlights that tightening in fragile conditions increases the crisis-risk elasticity of rate hikes; Patricio Toro shows that countercyclical capital tools matter precisely because risks build endogenously; and Pinar Uysal demonstrates the macroprudential value of credible supervision in good times, while Alberto Pérez-Bernabeu speaks about the distributional effects of macroprudential policy and policy adjustments.

Together, these insights raise a pointed question: Are our macroprudential frameworks drawn as if the payment system were fixed—anchored in deposits and traditional banking—while new rails and private forms of money reshape where liquidity is created and where risks accumulate?

If oversight does not adapt to this evolving perimeter, we risk supervising the system we *used* to have, not the one we are moving toward.

**3. The international role of the dollar**

Umang Khetan's work shows how global financial conditions depend on the structure of dollar funding: when foreign intermediaries rely on dollar liabilities, U.S. monetary policy transmits through their balance sheets.

YYu An's research shows that global financial shocks tend to propagate through a small number of traded risk factors, which move prices across currencies and asset classes simultaneously.[8] Rather than affecting markets in isolation, shocks travel through shared channels that link otherwise distinct assets and geographies—channels whose behavior could be altered as settlement assets, collateral, and payment infrastructures evolve.

This provides a lens for thinking about the changing landscape in which the dollar operates. The dollar remains the anchor of the international monetary system, but its dominance ultimately rests on trust—in institutions, in liquidity, in governance, in predictability.

That trust is being tested by political and economic fragmentation and by a world that appears increasingly more geopolitically bipolar. At the same time, the U.S. is positioning itself as a standard-setter in AI and in digital finance. The recently introduced GENIUS Act could reshape global payments by enabling fully backed, dollar-denominated stablecoins—broadening access, speeding settlement, and potentially increasing demand for U.S. Treasuries.

The research by Umang Khetan and Yu An suggests that global spillovers, international dollar funding structures, and new payment technologies cannot be analyzed in isolation. Tokenized settlement layers—public or private—could alter traditional spillover channels, underscoring the need for a deeper understanding of how evolving payment infrastructures interact with global monetary transmission.

**4. Financial fragility**

The digital transformation of finance introduces new vulnerabilities. Rodrigo González shows how algorithmic liquidity and automated liquidation can produce fast, synchronized runs. Anne Lundgaard Hansen's work suggests that AI may curb some forms of herding but could create risks if many market participants rely on similar models.

These developments raise an older question: What makes money essential, and what keeps the dollar the essential anchor of the international monetary system? From the gold standard to stablecoins, money's value lies in what it *does*—enabling exchange, reducing friction, and supporting specialization. Over time, it has become clear that the value of money rests not on the physical attributes of money itself, but on trust, governance, and the credibility of the institutions that stand behind it.

The challenge today is sustaining that trust amid rapid fintech innovation, evolving digital settlements, and new private forms of money—some of which can "run" at machine speed.

**5. Housing, credit risk, and the real economy**
The real economy is where these financial architectural shifts ultimately take shape. Work by Alberto Pérez-Bernabeu and Iván Payá shows rising interconnectedness in regional housing markets. David Zhang's research shows how refinancing constraints generate nonlinear borrower losses under rate shocks.

If funding structures migrate toward more market-based or even tokenized forms, these housing and credit channels could either amplify or attenuate, depending on how new intermediaries structure risk.

That uncertainty makes Diego Fernando Cuesta-Mora's simulation-based and machine-learning stress-testing approaches especially useful for assessing vulnerabilities across firms and balance sheets.

As tokenized funding grows, such forward-looking methods may become indispensable for identifying where risks could concentrate—and whether policy interventions mitigate or intensify fragility.

**Bringing it all together**
If we step back, a unifying narrative emerges from all these papers:

- The payment system is evolving from a bank-centric model to a multi-layered one involving banks, nonbanks, platforms, and new settlement asset issuers.
- Financial intermediation and liquidity creation are shifting, complicating monetary transmission and the macroprudential perimeter.
- Fragility persists and takes new forms, now spanning banks, funds, platforms, digital tokens, and algorithmic decision-making.
- Global spillovers and the international role of the dollar may increasingly depend on the emergence of tokenized settlement assets.
- Technology is reshaping coordination, contagion, and the speed of stress propagation through financial markets and asset classes.
- And the real economy remains deeply affected by these dynamics.

Stablecoins are not the whole story, but they are indicative of the transition underway. They force us to ask fundamental questions about what money will be, who issues it, how it moves, and how it interacts with credit, risk, and policy.

Workshops like this—bringing together scholars and policymakers from across the Americas and beyond—are essential for advancing our understanding of those important questions.

**Concluding remarks**

Before closing, let me say that I would be remiss not to mention that these issues are deeply intertwined with the work of the Federal Reserve Bank of Dallas' Global Institute, which we relaunched last year. Many of the questions you will explore over the next two days—about money, payments, digital settlement, global spillovers, and macro-financial stability—are at the core of our research agenda. And we rely on the insights, collaboration, and engagement of scholars like you to help us tackle these challenges.

Thank you again for being here. I very much look forward to the conversations that will follow.

And now, it is my pleasure to cede the floor to Dr. Manuel Ramos-Francia, General Manager of CEMLA, who will offer his perspective and speak to CEMLA's institutional role—including one of its most valuable assets, the *Latin American Journal of Central Banking*.

**ENDNOTES**

1. **Blockchain technologies, stablecoins, and the promise of par convertibility.** Stablecoins promise that one token can always be redeemed for one dollar. Any financial transaction involves four elements: an *object* being exchanged, a *means of payment*, a mechanism to execute the transaction (settlement *clearing*), and a system that records ownership and history (a *ledger*). In traditional finance, banks and payment networks—such as Visa or Mastercard—perform these functions through centralized databases. In blockchain-based systems, smart contracts execute transactions, stablecoins serve as the payment instrument, and the blockchain functions as a distributed database that records and verifies ownership and settlement. In that sense, stablecoins and blockchains are technologies for processing, settling, and recording transactions. Their economic relevance lies in the fact that they introduce alternative payment and settlement rails, increasing competition in the payments space and putting downward pressure on costs, frictions, and delays.

   To make the promise of one-to-one redeemability credible, stablecoin issuers must hold reserve assets—financial instruments that back the value of the stablecoin. Most reputable or regulated issuers hold reserves entirely in high-quality, very safe, and highly liquid assets, such as: (a) cash held in commercial bank accounts; (b) U.S. Treasury bills (short-term government debt); (c) overnight reverse repurchase agreements (reverse repos) backed by Treasury collateral; and (d) other high-quality liquid assets (HQLA). These instruments are chosen because they can be converted into cash immediately and with minimal risk—an essential condition for maintaining par convertibility.

   To reinforce confidence that one stablecoin truly equals one dollar, issuers typically rely on: (1) mark-to-market valuation, updating the value of reserve assets regularly to reflect current market prices; (2) third-party custody, holding reserves with independent and trusted custodians to reduce operational and counterparty risk; and (3) transparent disclosure, publishing regular reports that specify the composition and value of reserves. Some issuers go further by using on-chain proof-of-reserve systems, which employ oracle networks—trusted data feeds—to post cryptographic attestations directly onto the blockchain. The objective is to allow verification, in near real time, that reserves exist and correspond to the number of tokens in circulation.

2. **Stablecoins as the "cash leg."** In any financial system, every transaction has two legs: an asset leg (the good or financial instrument being exchanged) and a cash leg (the money used to settle the trade). In the traditional financial system, the cash leg is almost always a bank deposit. When a stock is purchased or a loan is settled, payment occurs through adjustments to entries on bank ledgers. A ledger is simply a record-keeping system that tracks balances and how they change over time.

In the traditional system, commercial banks maintain the ledgers for their customers' deposits—when an account balance moves from $1,000 to $950, that internal update constitutes the payment. Payment networks such as Visa, Mastercard, and ACH operate centralized messaging or record systems that route, authorize, and coordinate transactions. The Federal Reserve maintains the most foundational ledgers in the U.S. system: the ledger of reserve balances held by commercial banks and the Fedwire real-time gross settlement (RTGS) ledger used for large-value, wholesale payments. When banks settle with each other, the Federal Reserve's ledger provides the final and authoritative record of who owes what. In all these cases, the ledger is centralized: a single trusted institution—a commercial bank, a payment network, or a central bank—has the authority to maintain, update, and validate the official record. This is why the traditional financial system is often described as a hierarchy of ledgers, each controlled by a recognized institution.

In tokenized or blockchain-based financial systems, stablecoins increasingly perform the role of the cash leg, but on a blockchain ledger rather than on a bank's ledger. A blockchain is a shared, distributed record synchronized across many participating computers, where changes are validated through consensus rather than by a single institution's authorization. When a stablecoin is transferred, the blockchain ledger updates the balances of the sender and the recipient simultaneously and in real time. This architecture allows tokenized assets—such as tokenized securities, tokenized loans, or digital bonds—to settle against a stablecoin cash leg directly on the same ledger, with payment and asset exchange occurring atomically and without reliance on traditional banking rails.

A related development is the emergence of tokenized deposits—bank deposits represented as digital tokens on permissioned ledgers operated by banks. A permissioned ledger is a blockchain-like system in which participation, access, and validation rights are restricted to approved institutions, typically regulated banks, rather than being open to the public. Tokenized deposits therefore retain the legal and prudential characteristics of traditional deposits while adding programmability and interoperability in controlled, regulated environments. They offer a mechanism for bringing the benefits of tokenized finance inside the traditional banking perimeter while maintaining oversight and compliance.

In essence, bank deposits serve as the cash leg of traditional finance, settled on centralized institutional ledgers; tokenized deposits replicate that role on permissioned distributed ledgers; and stablecoins serve as the cash leg of broader programmable finance, settled on public or consortium blockchains. Stablecoins and tokenized deposits thus provide the monetary instruments that allow tokenized financial systems to support efficient settlement, collateral movement, and automated financial contracts—blockchains provide the ledger infrastructure, and these digital cash instruments provide the money that moves on it.

3. **Stablecoins and the banking core.** Although stablecoins circulate outside the traditional banking system, they remain closely connected to it through their reserve backing. Stablecoin issuers typically hold reserves in instruments such as bank deposits, U.S. Treasury bills, and short-term repurchase agreements (repos)—assets that are deeply embedded in the existing banking and financial architecture. As a result, the development of the payment system via stablecoins does not bypass the banking core; rather, it repackages bank and sovereign liabilities into a new, privately issued settlement instrument. Even as stablecoins operate on new payment rails, their stability and credibility continue to depend on the soundness, liquidity, and institutional framework of the traditional financial system.

4. **Stablecoins and narrow banking.** Many regulated stablecoin designs resemble a modern form of narrow banking. In a narrow-bank structure, institutions issue money-like liabilities while holding only very safe, short-term assets—such as cash, Treasury bills, or overnight reverse repos—as backing. This design sharply limits maturity transformation, reducing the traditional bank-run risk associated with funding long-term assets with short-term liabilities.

   At the same time, this structure raises important macro-financial considerations. As liquidity flows into stablecoins:
   - demand for short-term sovereign liabilities may increase, affecting money-market rates and the transmission of monetary policy;
   - deposits may migrate away from commercial banks, potentially altering bank funding models and credit provision;
   - liquidity may become concentrated in nonbank issuers that lack direct access to central-bank liquidity backstops; and
   - par convertibility may depend critically on mark-to-market valuation and robust custody arrangements, particularly during periods of market stress.

   In this sense, while stablecoins may appear “safe” in isolation, their large-scale adoption could reshape where intermediation occurs and how risks are distributed across the financial system.

5. **Collateral structures, programmability, and the singleness of money.** A central concern raised by the expansion of digital monies is the preservation of the singleness of money—the principle that all units of money denominated in the same currency should be interchangeable at par and usable for the same purposes. In traditional monetary systems, one dollar is a dollar regardless of *who* holds it or *how* it was obtained.

Fragmentation risks can arise along two closely related dimensions. First, digital monies may be backed by different collateral structures, ranging from central bank liabilities, to commercial bank deposits, to portfolios of sovereign securities or other high-quality liquid assets (HQLA). Differences in backing, liquidity, transparency, and access to public backstops can affect perceptions of safety and convertibility, potentially leading users to treat ostensibly similar digital monies as imperfect substitutes.

Second, digital monies are often programmable, meaning that operational rules can be embedded directly into the instrument. These rules may restrict who can hold or transfer the money, where it can circulate, when it can be used, or under what conditions transactions are permitted—for example, through jurisdictional filters, whitelisting of approved users, transaction limits, or automated compliance checks.

While programmability can enhance efficiency, compliance, and risk management, it can also weaken fungibility if different digital monies—or even different versions of the same stablecoin—embed distinct rules or constraints. Some tokens may face usage frictions, trade at a discount, or be accepted only in specific contexts. In such circumstances, the payment system risks evolving into a fragmented landscape of tokens with differing functionality and acceptance, rather than a unified monetary architecture.

Taken together, heterogeneity in collateral backing and operational rules can cause digital monies to trade or function differently across contexts, undermining par acceptance. The policy challenge is therefore how to harness the efficiency gains of programmable money while preserving the singleness of money that underpins trust, liquidity, and the smooth functioning of modern payment systems. In this context, discussions around central bank digital currencies (CBDCs) often emphasize regulatory design and interoperability standards as mechanisms to ensure that, as payment technologies evolve, the monetary system remains unified—rather than fragmenting through the expansion of private digital alternatives.

6. **Credit migration and nonbank intermediation.** Bruno Albuquerque and coauthors document that when monetary or macroprudential policy becomes more restrictive, banks do not simply reduce lending across the board. Instead, some credit activity and risk-taking shift from regulated banks to less regulated nonbank financial intermediaries, such as finance companies, investment funds, or other market-based lenders. This migration reflects differences in regulatory constraints, funding structures, and risk-taking incentives across institutions.

As a result, tightening policy may alter where credit is intermediated rather than only how much credit is supplied. In environments where liquidity and settlement increasingly occur through digital or tokenized channels, this outward migration of credit could be amplified or accelerated, raising important questions about monetary transmission and the location of financial risk.

7. **Interest-bearing stablecoins.** Stablecoin issuers typically invest their reserves in safe, short-term instruments such as U.S. Treasury bills or overnight repurchase agreements (repos). If issuers are permitted or choose to pass through some or all of the interest earned on these assets to token holders, stablecoins would begin to resemble highly liquid money-market claims rather than purely transactional means of payment. This evolution could have several implications.

   First, interest-bearing stablecoins could become more attractive relative to traditional bank deposits, intensifying competition for retail and wholesale funding. Second, by offering yields that adjust quickly to changes in short-term interest rates, such stablecoins could alter monetary-policy transmission, particularly the pass-through of policy rates to liquid assets held outside the banking system. Finally, because stablecoins can circulate globally with relatively low friction, interest-bearing features could affect international spillovers and cross-border dollar liquidity conditions.

8. **Factor-based spillovers.** Yu An shows that much of the international transmission of financial shocks can be explained by a limited set of global risk factors—such as the Dollar factor, carry-trade risk, and related common components. These factors capture broad shifts in investor demand and risk appetite that affect many currencies and asset classes simultaneously. Using detailed data on order flows, the analysis demonstrates that shocks do not primarily propagate asset by asset or country by country. Instead, they move factor by factor: changes in demand for dollar exposure, for example, can reprice exchange rates, bonds, and other financial instruments across markets at once.

   As payment systems and settlement assets evolve—including the increasing use of tokenized or digital instruments—the way these factor-based channels operate may be altered, with implications for how global shocks are transmitted across markets.