

Collateral Mobility: The \$200 Trillion Question Hiding in the Plumbing

The financial system is short of nothing. It is slow at everything. That distinction is now worth more than most asset classes, and tokenization is the fight to capture it.

Zakaryae Boudi
Intelligence Economy Institute

June 20, 2026

Originally published on X at
<https://x.com/ZakaryaeBoudi/status/2068295312058224883>

There is a number the industry quietly agonizes over. Of roughly \$230 trillion in securities that could, in principle, be used as collateral, only about \$25 trillion actually is. With only \$25 trillion of securities currently eligible for collateral use out of a \$230 trillion potential, tokenization could significantly expand liquidity and capital efficiency.

Two hundred trillion dollars of pledgeable assets sit idle. Not missing. Idle. Understanding why is the whole story, and it is a more interesting story than “blockchain fixes finance,” because the disease is subtle and the cure is contested.

Let me build it from the ground up.

1. What collateral is, and why it has to move

Strip away the jargon and collateral is a hostage. You owe me something; I worry you won't pay; so you hand me an asset I can seize and sell if you default. The hostage makes your promise believable. Markets run on billions of such promises, and collateral is what keeps them honest.

For the hostage to do its job, three conditions have to hold at the exact instant trouble arrives. The asset must be in the right place: the correct account, at the correct depository. It must be in the right name: clear, enforceable legal title. And it must be there at the right time: which in modern markets can mean within the hour.

Hold one bond still and all three are easy. The difficulty is dynamic. The same bond is wanted by many promises at once, and they do not take turns politely.

2. Why the world suddenly needed so much of it

For most of financial history collateral was an operational afterthought. Then 2008 happened, and the regulatory response made it a binding constraint almost overnight.

Three rule changes did the work. Mandatory central clearing pushed enormous volumes of derivatives through clearinghouses, each demanding margin in high-quality assets, posted daily. The uncleared margin rules then extended that discipline to bilateral trades, dragging thousands of firms into the daily exchange of collateral. And Basel III taught banks to hoard their best assets to satisfy liquidity ratios, shrinking the pool everyone else could borrow from.

The arithmetic turned hostile. A finite supply of genuinely “good” collateral (cash and government bonds) now faced a demand that was larger, and worse, synchronized. When markets convulse, everyone's margin call arrives on the same morning.

3. The friction

Here is the engine of the whole problem.

Picture a single government bond. In a frictionless world it could margin a cleared swap at 9am, finance a repo at noon, and cover a securities-lending recall by 3pm. One asset, three obligations, one day. That is collateral velocity: the same hostage vouching for several promises in sequence.

In the real world the bond does one of those jobs and lies still for the other two. Three frictions stop it.

The first is locational fragmentation. The bond lives in a specific account at a specific

depository. The next obligation needs it somewhere else (a different custodian), often a different country. Moving it means a cross-border settlement instruction, with everything that entails.

The second is settlement latency. Traditional settlement runs in batches, on a clock (T+1, sometimes still T+2), with hard daily cut-offs. A bond freed at 3pm cannot be re-pledged at 3:01 if the next settlement window does not open until tomorrow morning. The asset is yours, and still you cannot use it, because the system is asleep.

The third is the operational chain. Each move threads through custodians, sub-custodians, the depository, agent banks, and the reconciliation systems that make them all agree. Every link adds delay, cost, and the ever-present chance of a failed or mismatched instruction.

This is why that \$200 trillion sits idle. The March 2023 banking stress made the cost vivid: high-quality liquid assets remained trapped in segregated accounts while institutions faced acute liquidity needs, which is a textbook illustration of assets that existed, were owned, and still could not be reached in time.

4. The hidden tax of standing still

Because firms cannot trust the timing, they do the only rational thing: they over-provision. They park idle buffers at every venue they touch, not because they need those assets, but as insurance against latency. That trapped liquidity is the true cost of the system, and it is paid in four currencies.

There is funding drag: the buffers have to be financed, and high-quality assets cost balance-sheet capacity while earning almost nothing. There is opportunity cost: a bond pledged in one place cannot simultaneously be lent, repo'd, or reused elsewhere. There are settlement fails, when latency causes a recall or re-pledge to miss its window and penalties follow. And there is intraday liquidity risk, the expensive precautionary cash held purely to paper over the timing gap.

Now the reframing that changes everything:

The collateral shortage is not a shortage of assets. It is a shortage of availability at the moment and place of need, caused by settlement latency, locational fragmentation, and long operational chains. Firms compensate by over-collateralizing, which traps liquidity.

Read that twice, because it inverts the obvious solution. The answer was never “find more collateral.” It is “raise the velocity of the collateral you already own.” This is exactly the insight that transformed manufacturing a generation ago: the great supply chains won not by holding more inventory but by turning it faster. The lesson has finally reached the settlement layer, and it arrives wearing the name collateral mobility. Tellingly, the industry’s own banner report on the subject is titled *Accelerating the Velocity of Collateral*. “One of the best use cases for tokenization is the modernization of the post-trade movement of collateral that backstops trading activity,” says a Futures Industry Association report, *Accelerating the Velocity of Collateral*.

5. What tokenization actually does

Tokenization, in this context, has nothing to do with cryptocurrency speculation. It means representing the legal title to a real asset as a programmable record on a shared ledger, such that moving the token moves the entitlement. The decisive word is programmable: the token carries rules.

This quietly pries apart three things that traditional infrastructure welds together: the record of who owns what, the act of transferring ownership, and the logic governing when transfer may occur. Separated, each can be made faster. Recombined on a shared ledger, they attack collateral's velocity problem along four edges.

Atomic settlement closes the delivery gap. On a shared ledger the two legs of an exchange settle simultaneously or not at all, which means there is no interval in which one party has delivered and the other has not. The bond can genuinely be freed at 3:00 and re-pledged at 3:01. And the precautionary buffer that existed solely to insure against that gap stops earning its keep.

A single source of truth collapses the operational chain. One shared ledger replaces the dozens of private sub-ledgers each custodian maintains. "In the right name" becomes a fact visible on the ledger rather than the output of an overnight reconciliation that everyone hopes will agree by morning.

Programmability lets collateral manage itself. Smart-contract logic can encode eligibility, haircuts, substitution, and margin response, automatically routing the right asset to the highest-priority obligation with no one at a terminal. The static pledge becomes a dynamically optimized one.

Mobility without movement is the subtlest and most powerful. The bond never has to leave its depository at all; only its tokenized claim travels. Separate the economic interest from its custodial location, and locational fragmentation simply dissolves: the entitlement clears in the time it takes to update a ledger entry, while the security itself never moves an inch.

This is no longer theoretical. In April 2025 the DTCC, the beating heart of US post-trade, launched a platform for real-time tokenized collateral and began moving Treasuries on-chain. The biggest driver for institutional clients is to free up capital by redeploying collateral instantly rather than tying it up in slow settlement cycles, increasing the mobility and velocity of collateral movement globally. Euroclear has a parallel initiative on the Canton Network; clearinghouses including Eurex, CME, and ICE are all in trials. The DTCC's own phrase for the use case is blunt: the "killer app" for collateral mobility.

6. The part most coverage misses: this is not new, it is generalized

Here the analysis has to leave the brochure behind, because the most important point is strategic, not technical.

Tokenization is not inventing a capability. It is removing the walls around one that already exists.

For decades, triparty agents have offered something remarkably close to perfect mobility: near-instant substitution, collateral optimized across a client's obligations, all reallocated on the

agent's own internal books. But only inside their own walls, and only when both counterparties bank with the same agent. The magic worked because one institution saw both sides of the ledger.

Tokenization is that same magic with the walls knocked down: the identical reallocation machinery, running on shared rails, available to counterparties who have nothing in common but a standard. It generalizes the triparty model from one firm's balance sheet to the entire market.

For incumbents, this lands not as a feature but as an existential question. Tokenize your own franchise or wait for someone to tokenize around it. The thing that looks like a technology upgrade is in fact a contest over who owns the rails everyone else must use.

7. The trap beneath the promise: mobility dies at the ledger's edge

Now the warning the optimists tend to skip, and it is where the entire 2026 frontier actually sits.

Tokenization solves mobility within a ledger beautifully. It does almost nothing for mobility between ledgers. And since no one ledger will ever hold all the world's assets and all the world's money, the unsolved problem is not tokenization at all. It is coordination across ledgers, at the asset layer and, far more treacherously, at the money layer.

Start with the asset side, because it is the easier half to see. Put one ledger at Euroclear and another at the DTCC, and the fragmentation has not vanished but has merely moved up one floor. The bond is now stuck behind a different, shinier wall. Build this carelessly and the industry trades a slow, connected system for a constellation of fast, disconnected islands. The regulators see it plainly. IOSCO notes that market participants continue to favor the use of traditional settlement infrastructure, partly because the network effects present in traditional infrastructure are formidable: a single connected system, however slow, beats a dozen quick ones that cannot talk to each other. The derivatives market's own verdict is sharper: multiple chains threaten to create more puddles than pools unless interoperability matures. Speed inside a silo is not mobility. It is a faster way to stay stuck.

But the asset side is the shallow problem. The deep one, the one that decides whether any of this works, is the cash leg, because atomic settlement requires money that lives on the same ledger as the asset. This is the crux of the entire design. Although traditional wholesale interbank systems can already support DvP settlement mechanisms, the key innovation introduced by tokenized reserves lies in atomic settlement from having money and assets on the same ledger. Move the bond instantly but settle the cash through legacy rails, and the latency you just exorcised walks straight back in through the door you left open. The binding constraint was never the security. It was the money moving against it.

And here money does something the bond never does: it shatters into incompatible kinds. To see why this is catastrophic, you have to understand the principle the entire monetary system silently rests on, and which most people have never had to name: the singleness of money. A dollar in your account at Bank A is worth exactly one dollar at Bank B. You never check an exchange rate between Chase dollars and Citi dollars, because there isn't one. That seamless interchangeability is not a law of nature; it is an achievement, propped up by deposit insurance,

central-bank settlement, and a century of plumbing built to make different banks' liabilities trade as one. The objective is to preserve the singleness of money and maintain confidence in convertibility at par across platforms and institutions. Tokenization threatens that achievement in two directions at once.

Fragmentation between the forms of money. There is not one kind of tokenized money coming; there are three, and they are genuinely different instruments. Tokenized deposits are a liability of a commercial bank, carrying that bank's credit risk. Wholesale CBDC is a direct claim on the central bank, effectively risk-free. Stablecoins are privately issued bearer tokens, backed to varying and sometimes opaque degrees. They do not naturally convert into one another at par. The BIS flagged the danger long ago: private bearer tokens like stablecoins may entail departures in their relative exchange values away from par, in violation of the singleness of money, while deposits that settle in central-bank money behave far better. Build atomic settlement across all three and you are no longer swapping a bond for cash, but you are quietly making a market between three species of money that, under stress, may not be worth the same thing.

Fragmentation within a single form. Subtler, and likelier to bite first. Even staying inside one kind of money, tokenization does not guarantee fungibility. A tokenized deposit from Bank A is technically a different token from one issued by Bank B: different ledger, different format, different controls. Absent a shared standard and a settlement bridge between them, the two do not trade as one. Each bank's money becomes, in the industry's own unsparing phrase, a "cash island." Equally important is the interoperability across banks; otherwise, each bank's tokenized deposits would only function as a separate "cash island," limiting scalability and usefulness.

The cautionary tale already exists. JPMorgan's deposit token is the most successful in the world, and the most instructive, because it is by design a closed network: it settles on JP-Morgan rails, between JPMorgan clients, on a JPMorgan-operated chain. It is simultaneously the strongest proof that a single-bank token can scale and the sharpest illustration of the trap: without interoperability, deposit tokens become walled gardens rather than wholesale infrastructure. The same fracture runs along jurisdictional lines for stablecoins: a token treated as cash-equivalent under one regime may be classified as a security or e-money under another, so the "same" asset is pristine collateral in one country and a compliance incident the moment it crosses a border. Money that means different things in different places is not money. It is a reconciliation problem wearing money's clothes.

So the real frontier is not tokenizing money. It is coordinating it: holding par convertibility and atomic settlement together across forms, across banks, and across jurisdictions, all at once. And the uncomfortable truth is that this coordination infrastructure does not yet exist. The live experiments are still hunting for its shape. The BIS-led Project Agorá is precisely an attempt to find out whether tokenized commercial bank deposits and tokenized central bank reserves can operate on a shared platform at all. The UK's multi-bank pilot matters for the same reason: tokenised deposits without inter-bank interoperability are just single-bank product features, and it is one of the few live tests anywhere of the genuinely cross-bank case. The American Bankers Association names the missing piece bluntly: what is ultimately needed is an on-chain version of the Fedwire system to settle interbank transactions, ensuring the singleness of money in a tokenized environment.

And the architecture of that missing layer forces a trade-off no one has resolved. Wire every ledger to every other with bilateral bridges, and the IMF warns those links become highly complex, thus compounding risks. Route everything through a central hub instead (a new tokenized market utility) and you win stronger network economies at the cost of increased concentration: a single shared ledger becomes a critical node whose failure could disrupt the entire market. And concentration carries a charge that is not merely operational. A single global hub must be operated by someone, domiciled somewhere, and governed under some jurisdiction's law, and no sovereign is eager to route its banks' settlement through infrastructure another government can ultimately reach, sanction, or switch off. The same centralization that delivers clean atomicity also creates a chokepoint, and chokepoints are exactly what states have spent the post-2022 era learning not to depend on.

This is the knot at the heart of the whole project, and it deserves to be stated without euphemism. Tokenization exists to abolish settlement risk (the danger that one leg of a trade settles and the other fails). But the coordination layer being improvised to connect these islands of money threatens to smuggle settlement risk back in through the side door: via a bridge that snaps mid-transaction, via two forms of money that drift from par at the worst possible moment, via a hub whose outage freezes everyone at once. The entire enterprise turns on a piece of infrastructure that has not yet been architected, one that must hold atomicity and interoperability together without reintroducing the very risk tokenization was built to kill. Solve mobility on every island, and you still have not built the bridges. And the bridges, it turns out, are the whole game.

8. What comes next, and the new risk it imports

So where does this leave the system, and what follows once the plumbing is laid?

The first consequence is a shift toward continuous markets. Once collateral can move atomically at any hour, the nine-to-five settlement day starts to look like an accident of history. Clearinghouses are already being told to prepare for collateral mobilization that no longer fits within traditional business hours. A 24/7 financial system is no longer a slogan; it is an operational requirement that mobility makes both possible and unavoidable.

The second consequence is a regulatory inversion that is easy to miss. For decades, supervision watched institutions (their balance sheets, their risk models, their behavior). When trading, settlement, custody, and compliance are all embedded in code, the object of supervision changes. As the IMF puts it, failures can originate in smart contracts, data feeds, or consensus mechanisms, rather than firm balance sheets. The watchdog must learn to audit software, not just firms.

And the third consequence is the sobering one. The very speed that makes mobility valuable also removes the friction that, in a crisis, used to buy time. Settlement lag was a cost, but it was also a circuit breaker, a few hours in which panic could be paused and humans could intervene. Instant atomic settlement abolishes that pause. The IMF's warning deserves to be read slowly: atomic settlement and enhanced transparency reduce some traditional risks, but speed and automation introduce new vulnerabilities. Stress events are likely to unfold faster, leaving less time for discretionary intervention. We are about to trade the cost of slowness

for the danger of speed. The next crisis, when it comes, will move at the velocity of the very collateral we worked so hard to free.

9. The compressed truth

Collateral mobility looks like a plumbing upgrade and is in fact a land grab. The technology is sliding toward commodity; the moat is the network that forms around it. Whoever supplies the credible cash leg, and whoever sets the architecture everyone else must clear across, captures the value of that idle \$200 trillion. Everyone else pays rent.

So the question facing every depository, custodian, and clearinghouse is not whether they can tokenize. They can, trivially. It is whether they end up owning the rails or renting them, and that question is being decided right now, in the contest over tokenized cash and cross-ledger settlement.

In a network business, there is no medal for finishing second. There is the network, and there is everyone who has to pay to use it.

If this piece mapped the why, our technical report maps the how, in operational detail. *Settlement Plumbing* is a systematic account of how an agreement to exchange value becomes a final, irrevocable transfer: the layered set of institutions, accounts, contracts, messages, and risk controls, spanning clearing, payment, and securities settlement, through which a trade turns into settled obligations. It works methodically through the machinery this article only gestured at: institutions, accounts, messages, money, collateral, netting, finality, and failure. Written for institutional readers, regulators, infrastructure providers, banks, market makers, and tokenization researchers, it is the engineering companion to everything argued above, the 60-page schematic beneath the land grab. Intelligence Economy Institute members can sign in to read and download the full document at

<https://intelligenceeconomy.org/reports/settlement-plumbing-technical-report>.