

Why DeFi Matters: The Case for Open Financial Infrastructure

TL;DR: Decentralized finance (DeFi) applies the internet's open architecture to value, allowing assets to move through open-source protocols, smart contracts, and self-custody wallets without depending on a single intermediary. The result is a financial system with capabilities legacy rails cannot replicate, including: continuous global market access, portable assets that can be used across applications, near-instant final settlement, compliance enforced in the protocol layer, and direct ownership backed by resilient open-source infrastructure. Together, these shifts open meaningful capital markets participation to billions of people—in the U.S. and globally—who today are gated out by account-opening paperwork, geographic distance, and minimum balances. The policy question is how to design a regulatory framework that captures these benefits while concentrating KYC, AML, and sanctions controls at the regulated touchpoints where risk actually sits—minting and redemption, broker-dealer interactions, and the exercise of shareholder rights—rather than at every onchain transfer.

What is DeFi?

DeFi applies the open architecture of the internet to the movement of value. Just as the internet allowed information to flow globally without asking permission from a central operator, DeFi allows value to move through open-source protocols, smart contracts, and self-custody wallets without depending on a single intermediary to hold the assets, sit between the parties, or approve the transaction.

The practical consequences are autonomy and control. A user can hold their own assets, transact directly with a counterparty anywhere in the world, and interact with financial applications on their own schedule. Intermediaries do not disappear—regulated on- and off-ramps, custodians, and broker-dealers all remain essential—but they are no longer the only path to participation. The default flips from gated access to open access, with rules and compliance embedded directly into the infrastructure rather than bolted on by each participating firm.

The Problems DeFi Solves

A smartphone and an internet connection are enough to participate. The credentialing hurdles, banking relationships, geographic proximity, and minimum balances that gate today's system stop being prerequisites.

Why does this matter in practice? Because the open architecture described above produces capabilities that legacy financial infrastructure has either failed to deliver or never attempted. The existing system works well for those it was built around: people with brokerage accounts, domestic bank relationships, and the ability to transact during business hours in a major financial center. A meaningful share of Americans, and most of the world, sit outside that perimeter—excluded by documentation requirements, geographic distance, minimum balances, and intermediated processes that assume an existing institutional relationship.

The case for DeFi is that it changes those defaults at the level of the infrastructure itself. Markets run continuously across time zones. Assets remain usable across applications rather than sitting idle in a single account. Settlement clears in seconds with finality, eliminating the post-trade exposure window. Compliance rules live in the protocol layer, applied consistently rather than reconstructed firm by firm. And holders can take direct custody of their assets, reducing reliance on any single intermediary to remain operational.

The sections that follow examine each of these shifts in turn—the concrete shortcomings in today’s system, the capabilities DeFi unlocks in their place, and why the combination is worth the regulatory effort to get right.

Always-on, Globally Accessible Markets

Traditional markets are anchored to physical venues and time zones. Even as exchanges are increasingly extending hours, practical access still depends on where a customer lives, the limited business hours of the exchange, and whether customers have a broker operating on those hours.

Decentralized protocols operate differently. Liquidity pools and automated market makers run 24/7/365 across all time zones, rather than matching a single venue’s calendar. And, an investor can interact with digital assets whenever they choose, rather than when a broker’s system happens to be open.

On its own, 24/7 trading is not a decisive advantage because some traditional markets are incrementally moving in that direction. The real structural change is that market access is no longer tethered to a specific geography or business day. For example, a retail investor in Lagos, a small business founder in São Paulo, and an institutional allocator in New York can all interact with the same infrastructure on their own schedules. This levels the playing field by giving diverse users equal access to liquidity, pricing, and opportunities in ways that legacy systems cannot.

Onchain markets do not precondition financial opportunity based on a specific time zone or geography. Investors and small businesses can interact with the same infrastructure on their own schedules, instead of conforming to the business hours of a distant financial center.

Portability and Capital Efficiency

In traditional finance, each use case tends to live in its own silo. For example, an asset you hold at a broker is easy to trade in that broker’s system, but if you want to use it as collateral, lend it out, or combine it with other positions in structured strategies, you often need specialized services, bilateral agreements, and substantial balances—essentially prime brokerage or better.

DeFi, on the other hand, is built around portability and composability. A digital asset can be moved, pledged, or integrated across multiple protocols without new bilateral contracts at each step. The same position can support trading, collateralization, and automated strategies, subject to risk parameters encoded in smart contracts, which are self-executing programs that automatically execute when predefined conditions are met.

This architecture improves capital efficiency in two directions. For individuals, smaller balances can be put to work more flexibly without navigating a maze of account types and minimums. For institutions, treasury, funding, and hedging functions can converge on a single programmable interface instead of disparate legacy systems.

Not every onchain yield opportunity is risk-free or appropriate for retail savers. The point is that the infrastructure itself removes a layer of friction that has historically reserved higher-value use cases for the largest players.

In DeFi, an asset is not trapped in a single account or venue. It can move frictionlessly across protocols to support trading, collateral, and funding. That portability turns previously static balances into active tools for both individuals and institutions.

Transparent, Instant and Final Settlement

Today's capital markets devote enormous resources to the period after a trade. Under T+1 settlement, there is a full day where a position has changed hands economically, but not yet legally or operationally. During that window, counterparty risk persists, trades can fail, and entire teams work on reconciliation and exception handling.

Onchain settlement is nearly instantaneous, where trade execution, clearing, and settlement happen in a single transaction. When it completes, ownership and payment are final. There is no backlog of unsettled trades sitting as contingent obligations, and no intermediaries are needed just to manage post-trade processes. For regulators and market operators concerned with stress scenarios, this is a foundational improvement in how risk accumulates, how long it lingers in the system, and how quickly it is resolved.

Programmable Compliance and Corporate Actions

One of the greatest advantages of DeFi is that rules can be embedded directly into market infrastructure. Smart contracts can enforce transfer restrictions, sanctions controls, and eligibility criteria at the protocol level, and they can do so automatically and consistently rather than relying on manual processes and disparate systems to enforce firm-level policies.

The same logic applies to corporate actions and shareholder rights, where today's system is notorious for over- and under-voting, complex chains of intermediaries, and delayed or incomplete information flows. With digital and tokenized assets, voting rights and other entitlements can be linked deterministically to the tokens outstanding, and corporate actions can be executed automatically to the current set of token holders at a given point in time. Issuers, intermediaries, and regulators can observe these processes onchain in real time, backed by an immutable audit trail.

The result is not less compliance, it is better compliance—more consistent, more transparent, and more targeted to the actual risks regulators are tasked to uphold.

Additional Structural Benefits

Several additional structural advantages of DeFi are important to note:

- **Self-Custody:** The ability for an individual or entity to directly control their own keys is fundamentally an improvement to existing property rights. It ensures that assets cannot be unilaterally frozen, reassigned, or misallocated by an intermediary outside of defined legal processes. In practice, this shifts control from institutions to owners, reinforcing direct ownership and reducing reliance on third parties.
- **Resilience:** DeFi systems tend to have fewer single points of failure than legacy rails. Even well-regulated banks and payment systems can go offline, while open-source infrastructure is continuously tested in public and accessible through multiple gateways. These structures also reduce dependence on bespoke integrations, allowing value to move without requiring every institution to maintain proprietary connections with others.

- **Cost:** DeFi does not uniformly outperform traditional markets on costs, particularly in mature domestic equities where competition has already driven down spreads and fees. DeFi's advantages are most visible in areas where traditional systems remain fragmented, such as cross-border transfers and transactions across incompatible financial networks. In these cases, DeFi can meaningfully reduce friction and expense by eliminating layers of intermediaries and reconciliation, allowing value to move faster and cheaper.
- **Access:** Fractional ownership is another area where DeFi expands access compared to legacy systems. Tokens can represent any portion of an asset and move programmatically among qualified participants, whereas traditional brokerage offerings for fractional shares are often limited in scope and geography. The broader promise is global, programmable access, which enables individuals with smaller balances to hold diversified positions in assets that were previously difficult to access without specialized products.

The Regulatory Moment and Smart KYC

The benefits of DeFi cannot be realized at scale without a regulatory framework that is both effective and realistic. The core challenges are identity and AML/CFT: if every onchain transfer requires a fresh, full KYC event, tokenized assets will be confined to gated silos that look much like existing walled gardens. If, on the other hand, identity is never required, regulators lose critical tools for fighting financial crime and enforcing market integrity.

A smart KYC approach offers a reasonable balance. The principle is straightforward and rooted in how the Bank Secrecy Act ("BSA") has long operated. Full KYC/AML should apply at the regulated touchpoints where participants mint or redeem tokenized assets, interact with broker-dealers, or otherwise become customers of regulated financial institutions. Sanctions and other controls can be enforced at the protocol level, including the ability to freeze or seize tokens pursuant to court orders or sanctions obligations. And regulators, firms, and analytics providers can leverage onchain transparency and forensic tools to detect misconduct, rather than trying to replicate legacy reporting frameworks on top of new infrastructure.

Smart KYC preserves the core protections of the Bank Secrecy Act while allowing assets to remain portable through DeFi. It focuses intensive checks where they actually reduce risk, instead of imposing identity frictions at every step of every transaction.

What a smart KYC approach does not do is demand that every secondary market token transfer between self-hosted wallets be tied to someone's identity in real time. Under longstanding BSA interpretation, regulated firms are responsible for knowing their customers, but not every downstream holder of an instrument once it leaves their balance sheet or platform.

Congress has recently affirmed this principle for stablecoins in the GENIUS Act, recognizing that requiring KYC at every transfer would undermine the very use cases the law is meant to support. At the same time, Treasury and FinCEN have signaled a shift toward effectiveness-based AML/CFT programs, emphasizing outcomes over raw volumes of paperwork.

Applying those same ideas to digital assets and DeFi can deliver compliance without compromise, where rigorous controls are implemented where risk actually sits, and portability and composability can unlock value and inclusion.

A Strategic Opportunity

DeFi's most significant contribution is expanding financial access—an effect that can be easy to overlook from within traditional systems. Billions of people remain excluded not by lack of demand, but by structural requirements like formal documentation, minimum balances, and geographic proximity to institutions. By reducing these barriers to a smartphone, internet connectivity, and compliant on- and off-ramps, DeFi has the potential to drive one of the largest expansions of participation in financial services in a generation.

The United States, in this context, is uniquely positioned to shape and benefit from that expansion, given its deep capital markets, globally trusted regulatory institutions, and highly sought-after equity markets. DeFi and tokenization are the infrastructure that can extend that access to people who have yet to meaningfully participate in financial systems.

This technological architecture exists. The regulatory building blocks, from stablecoin legislation to evolving AML/CFT guidance, are falling into place globally. The open question is whether policymakers choose a path that confines digital assets to familiar walled gardens or one that allows them to interact with DeFi in a way that is safe, supervised, and worthy of the opportunity in front of us.

DeFi is not about tearing down the existing financial system. It is about building the next layer of it in a way that is more open, accessible, and resilient.