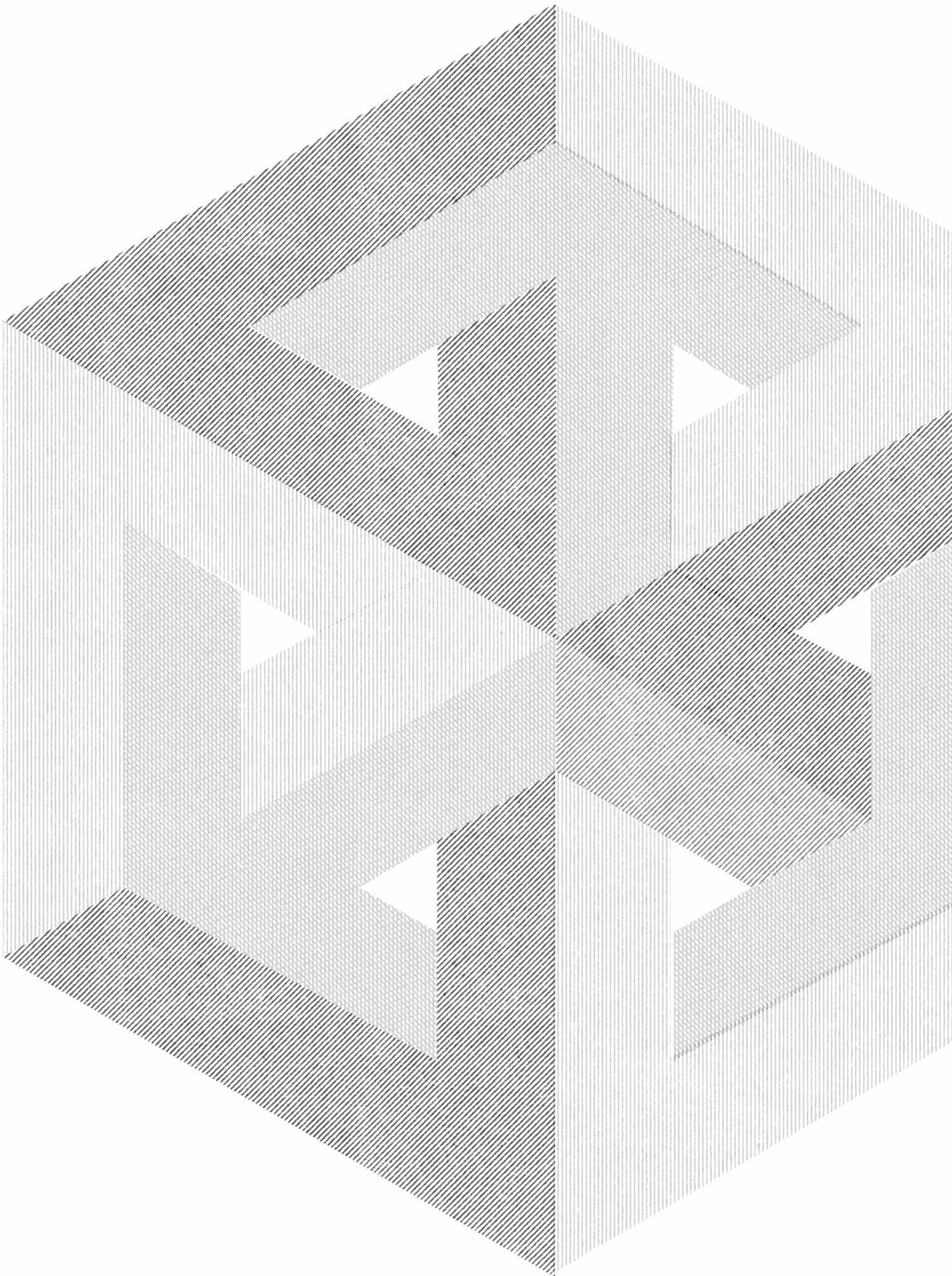


TradFi Tomorrow

DeFi and the Rise of Extensible Finance

In collaboration with



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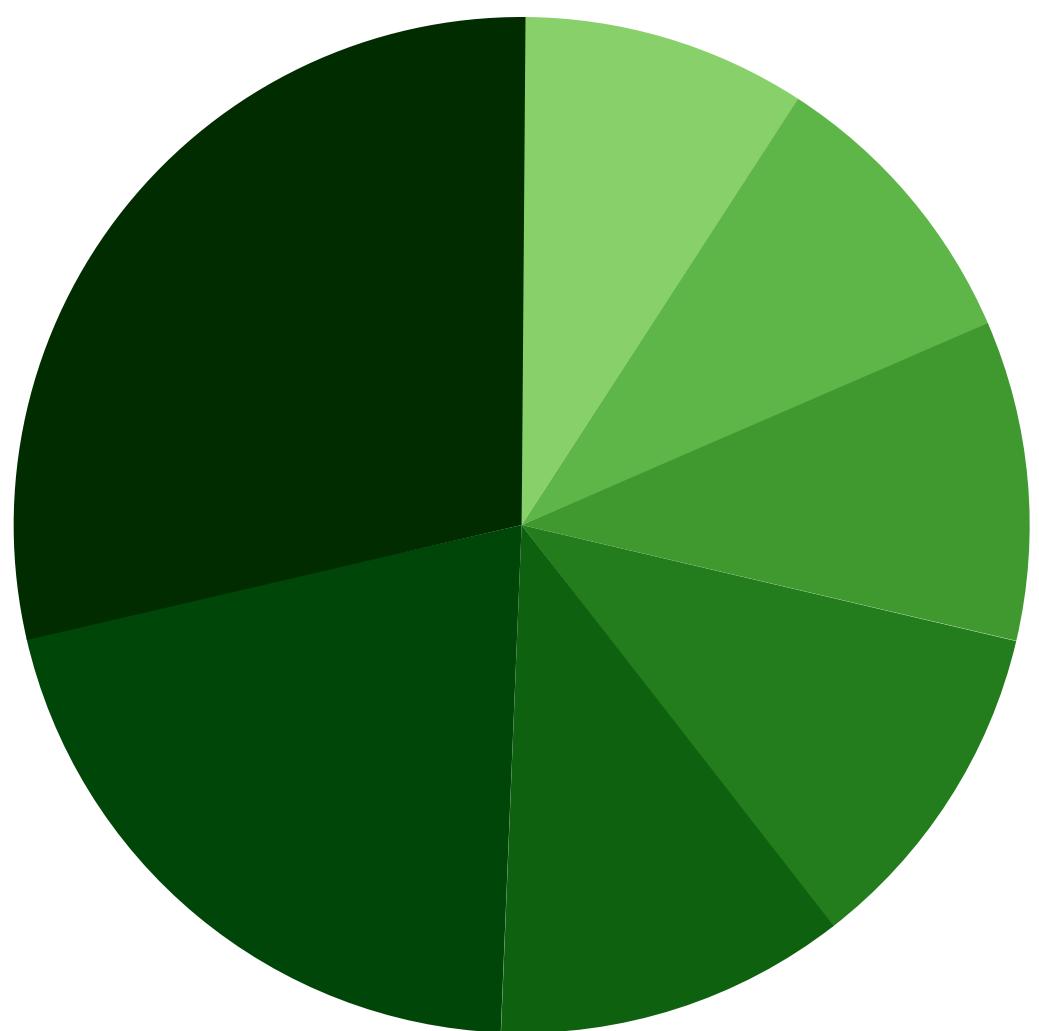
The biggest headwind preventing DeFi from unlocking real economic efficiencies in the short term is the regulatory environment. Policymakers have a generational opportunity to accelerate.



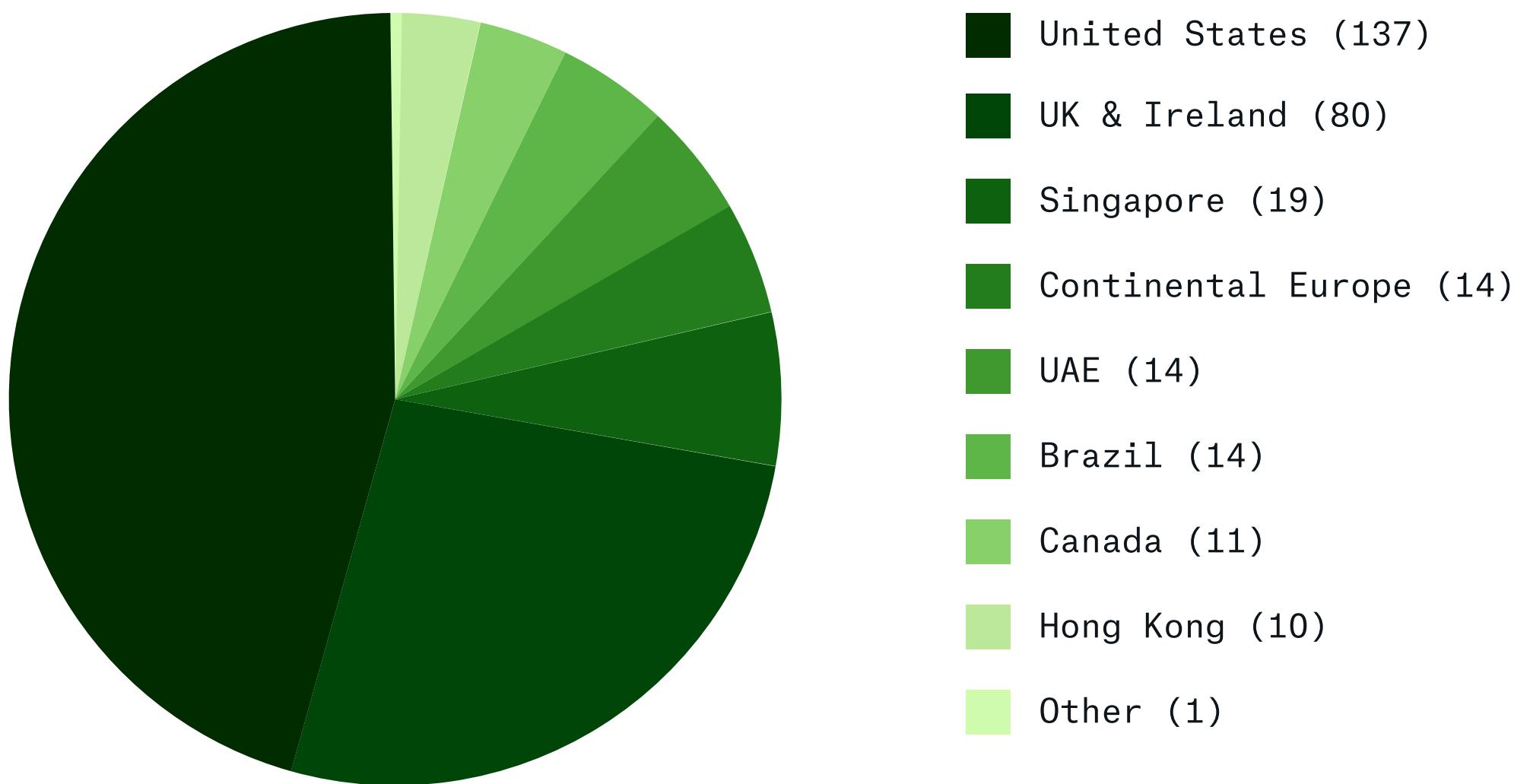
Background

We surveyed 300 professionals working at a range of institutions across the financial services sector in a number of advanced economies.

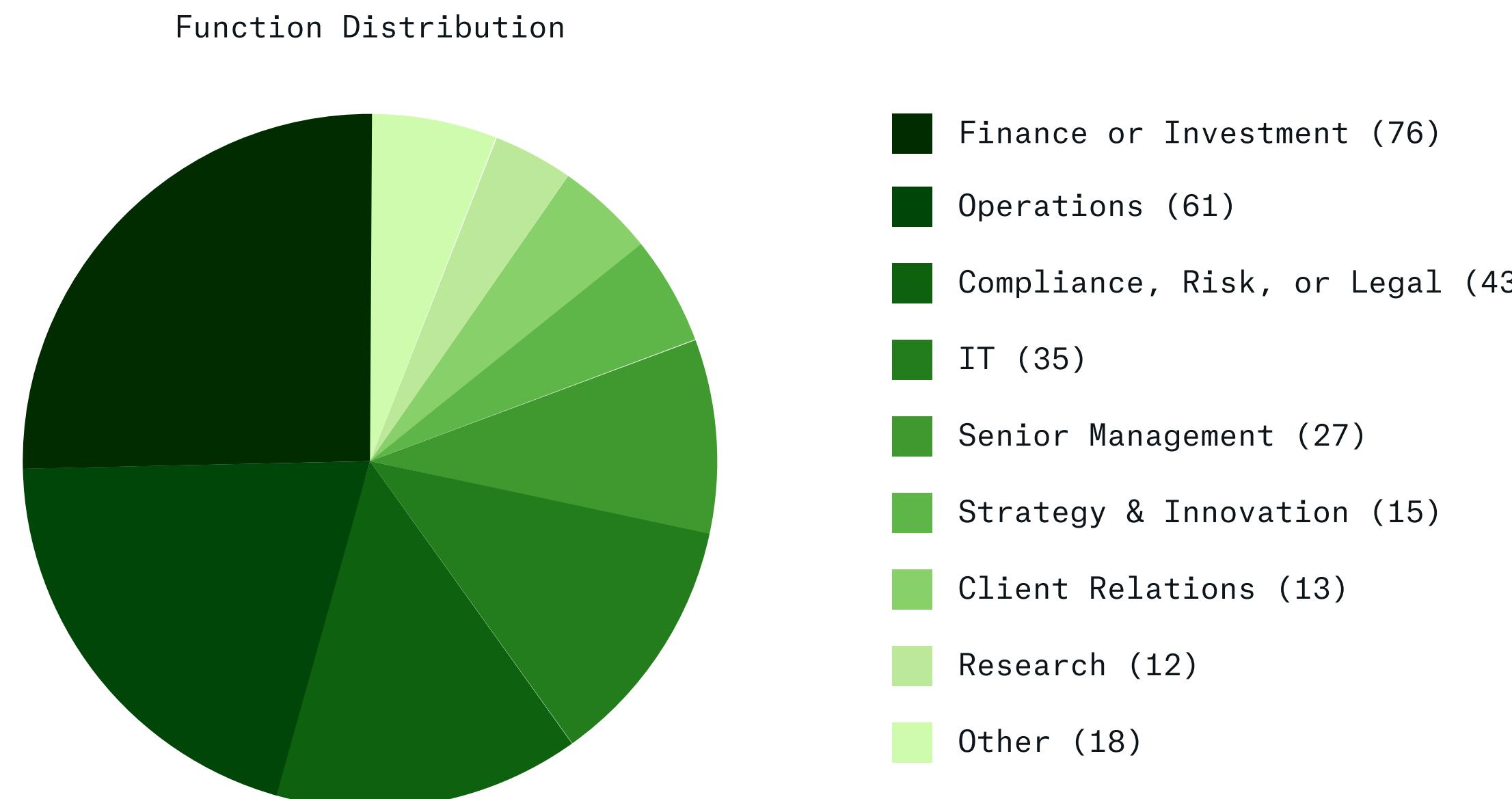
Industry Distribution



Geographical Distribution



Respondents were selected across organizational functions if they knew about their institutions' current and future engagement with blockchains and crypto.



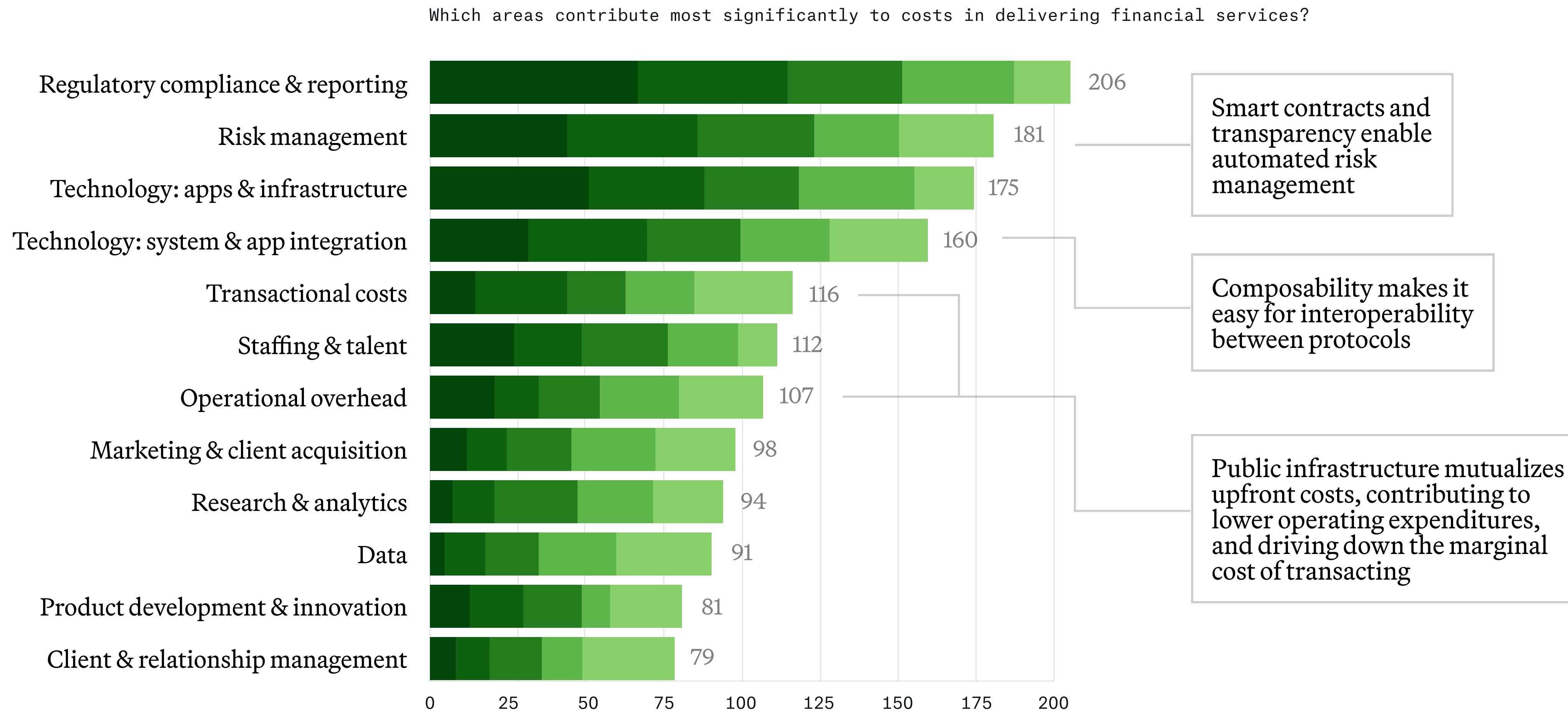
The global financial system consists of a network of privately-managed ledgers connected through a grid of disconnected communications protocols.

This web of ledgers, messaging networks, and intermediaries is costly and inefficient. Institutions need to develop and operate massive IT infrastructures and, on top of that, still have to pay rent-seeking financial intermediaries to help reconcile their books.

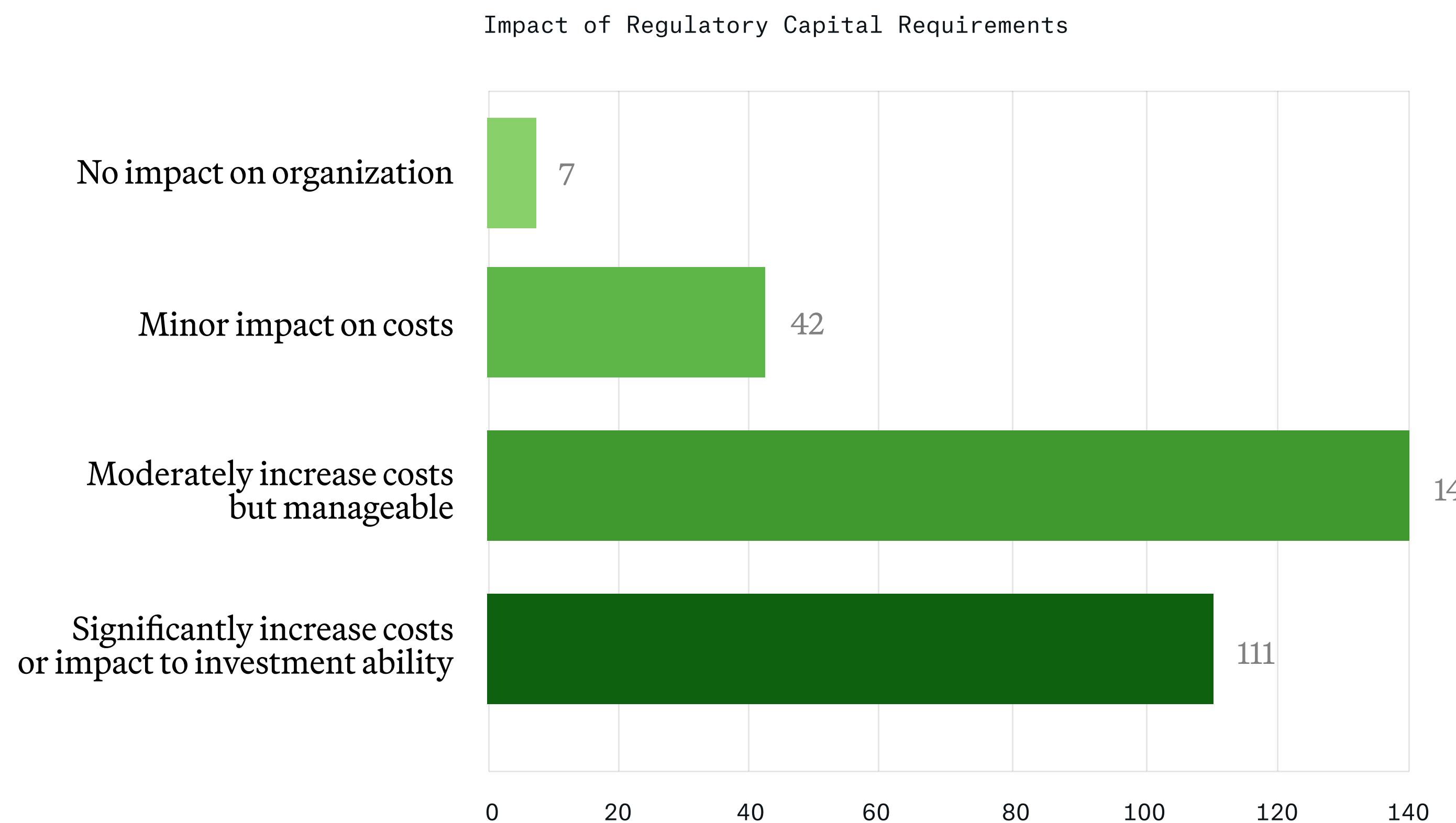
These functions and systems — typically known as the “back office” — often require manual intervention, which is expensive and prone to error, leading to settlement risk and delays.

All of these issues increase the cost of capital, compressing returns and reducing economic growth in the long run.

Some of the biggest TradFi cost drivers involve backend technology infrastructure, where blockchains could play a larger role in the future.



Slow & inefficient systems lead to longer settlement times, which increase the cost of regulatory capital. Reducing these costs is highly desirable.



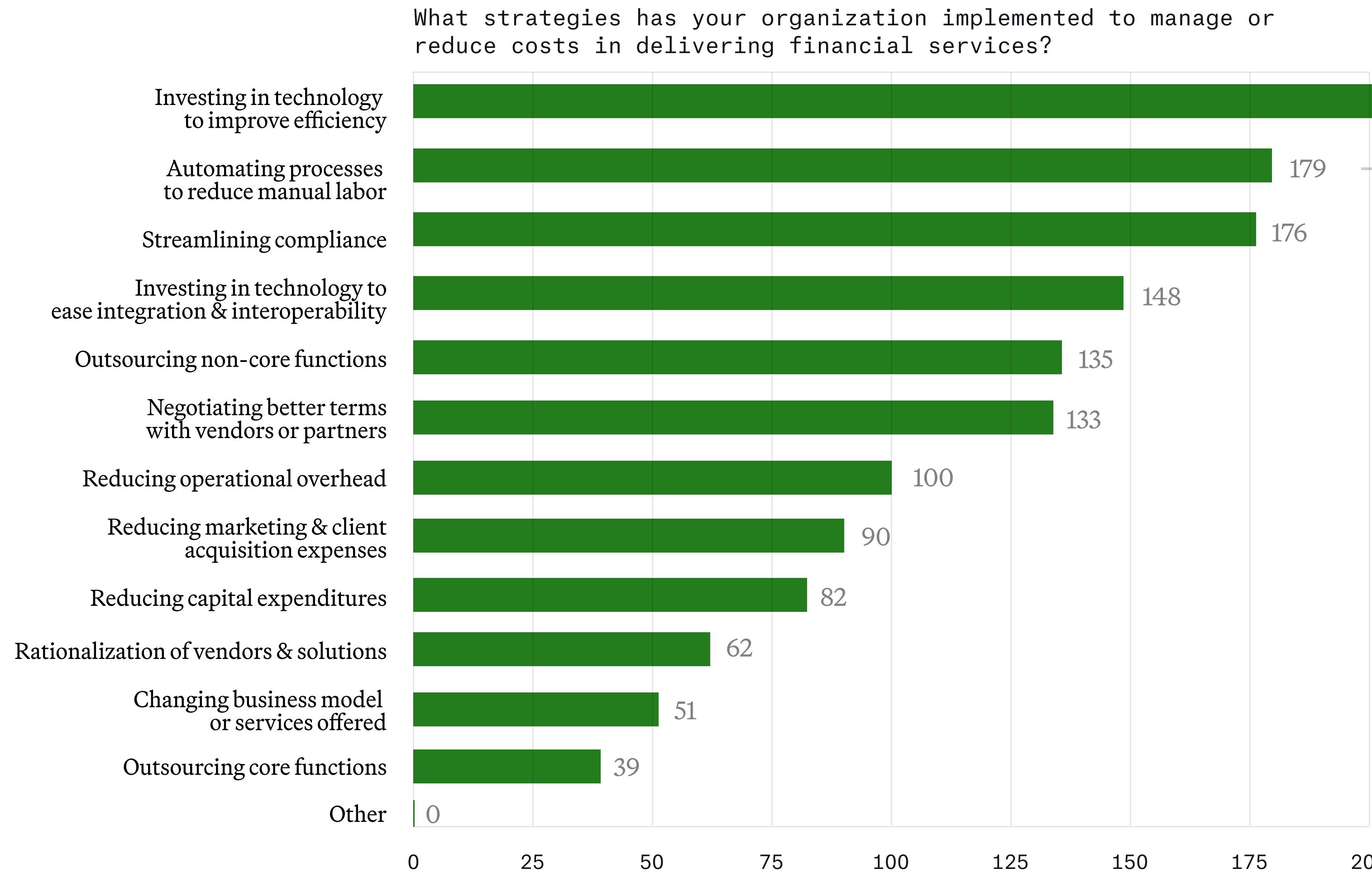
“Cutting the clearance and settlement cycle in half also reduces the amount of margin, or collateral, that must be placed with the clearinghouse. The way the math works it’s likely to average 29 percent savings over time. First indications reported by the clearinghouse show a savings of 25 percent, or more than \$3 billion, resulting from the move to T+1.”

Gary Gensler

I

More than two-thirds of TradFi
firms are currently looking at DeFi.

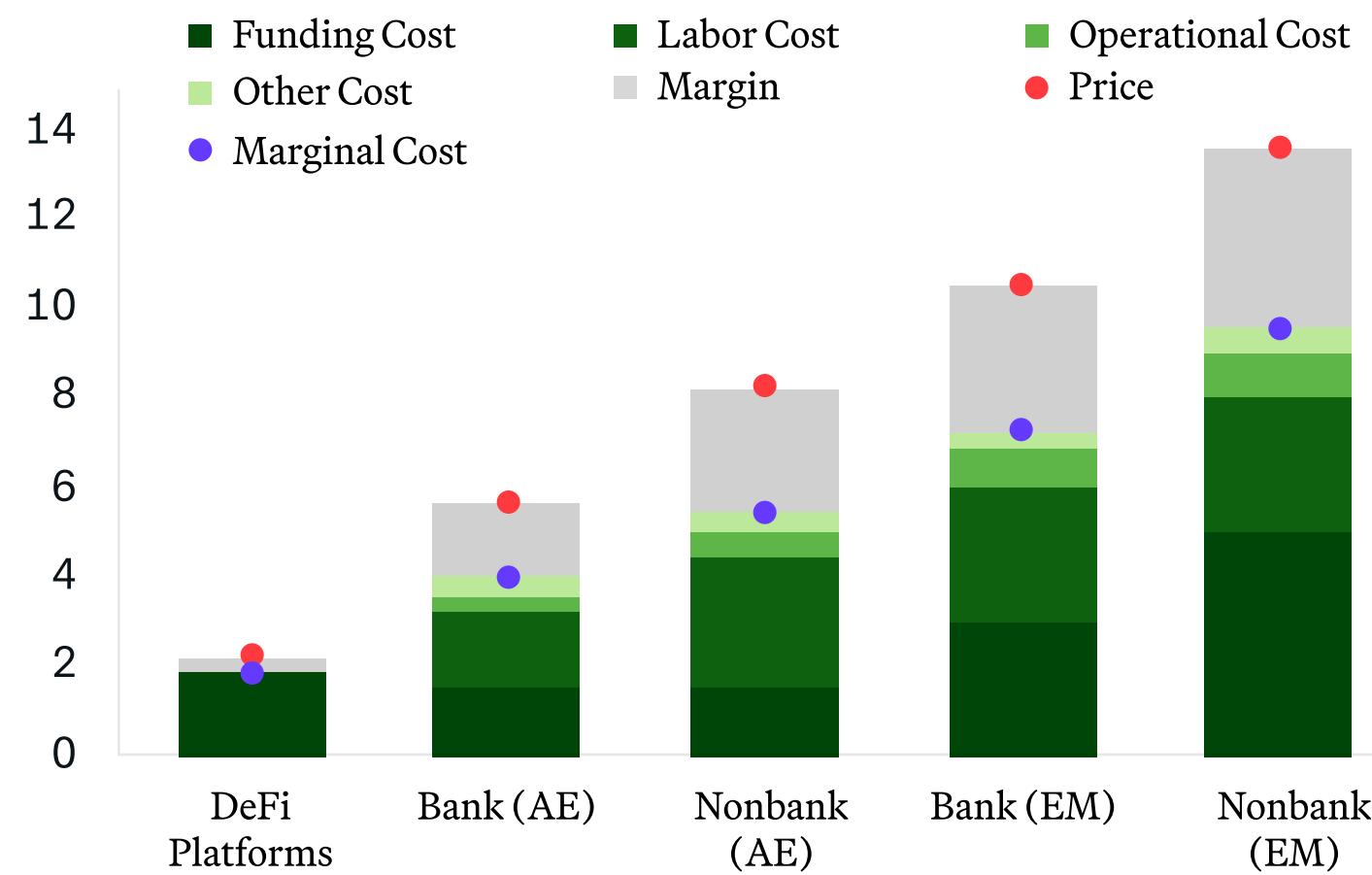
TradFi firms are looking at new technologies as a way to drive down costs and boost returns.



Research from the IMF has shown that DeFi protocols have extremely low marginal cost of labor relative to centralized institutions

DeFi is cost-efficient in lending compared to incumbents, having lower marginal costs.

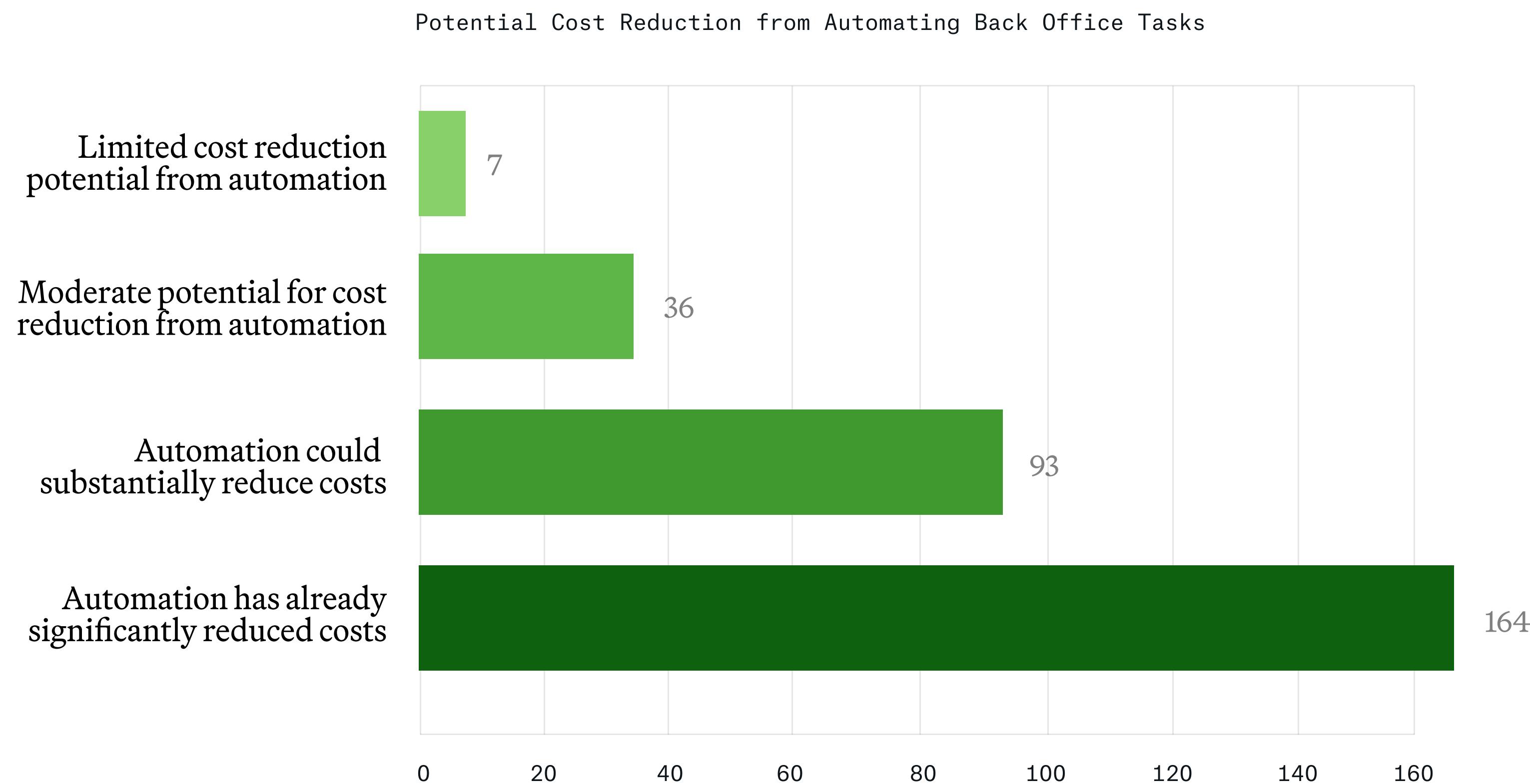
Estimated Marginal Costs & Margins (in %)



AE means Advanced Economies, and EM means emerging markets.



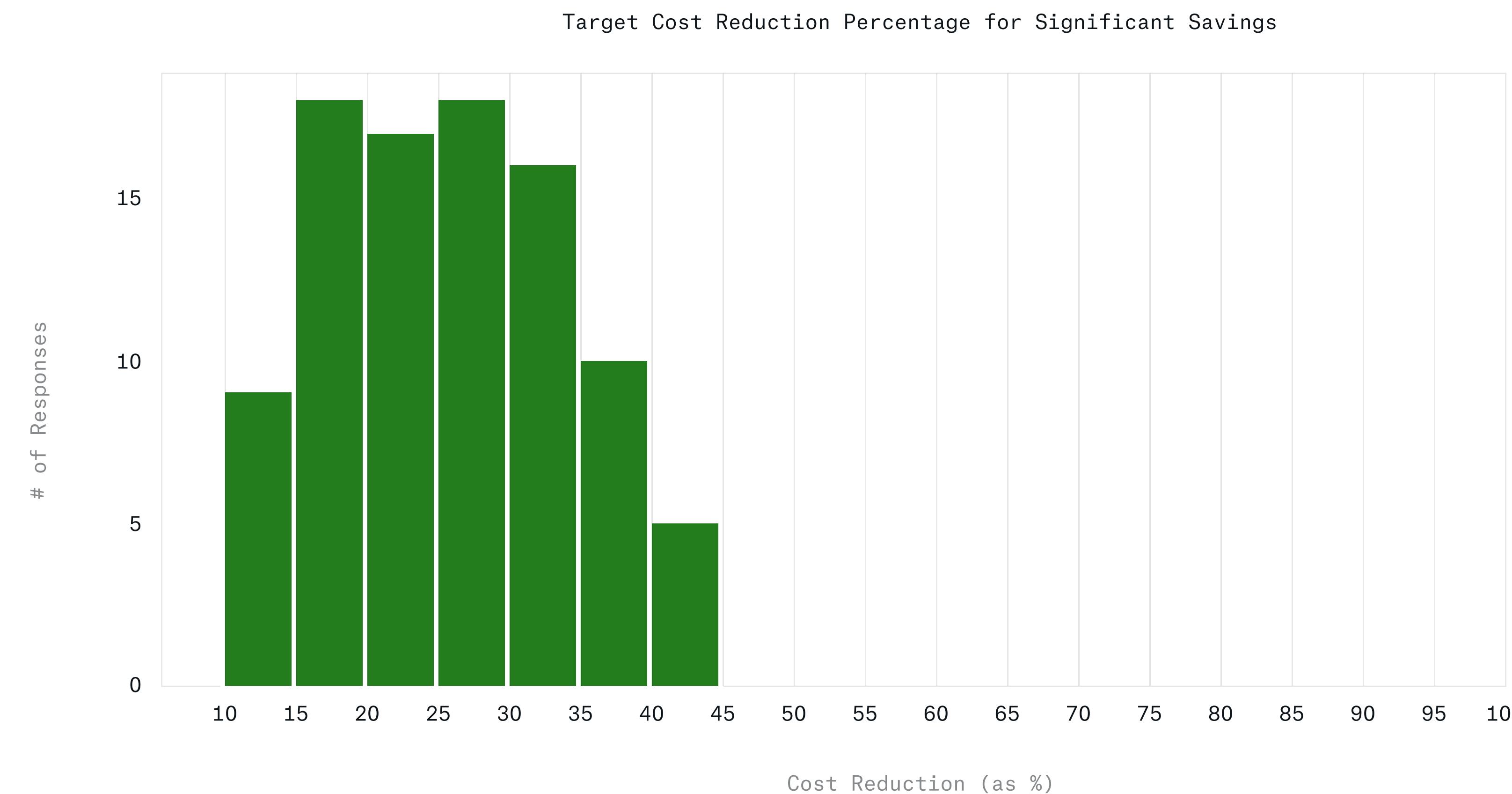
For example, ~86% of those surveyed estimate that automation already has or could significantly reduce costs from back-office tasks.



By combining programmability with a shared, global settlement layer, public blockchains allow for much more automation and straight-through-processing (STP) compared to traditional systems.

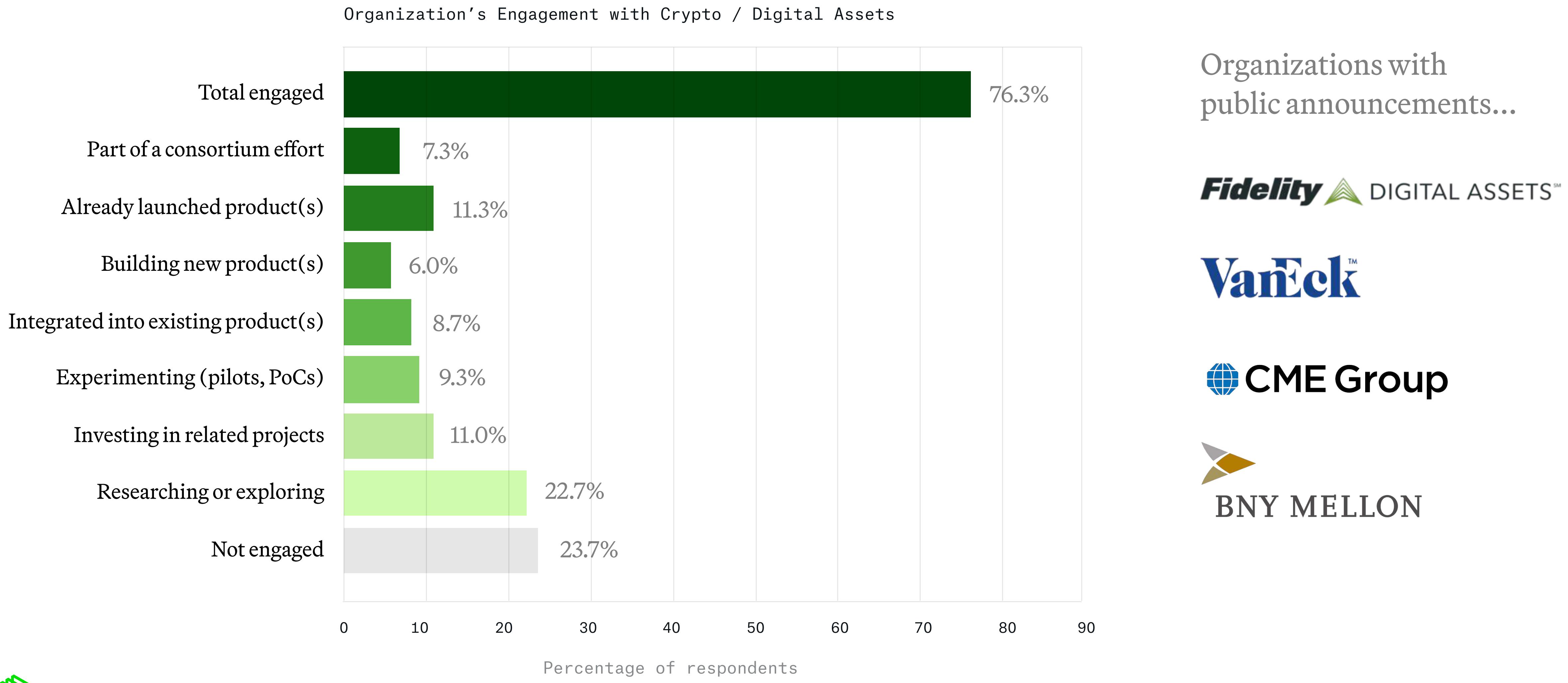


Automation can drive an estimated 25% in cost savings. Since many financial services are thin-margin businesses, this amount of cost savings is a big motivator.



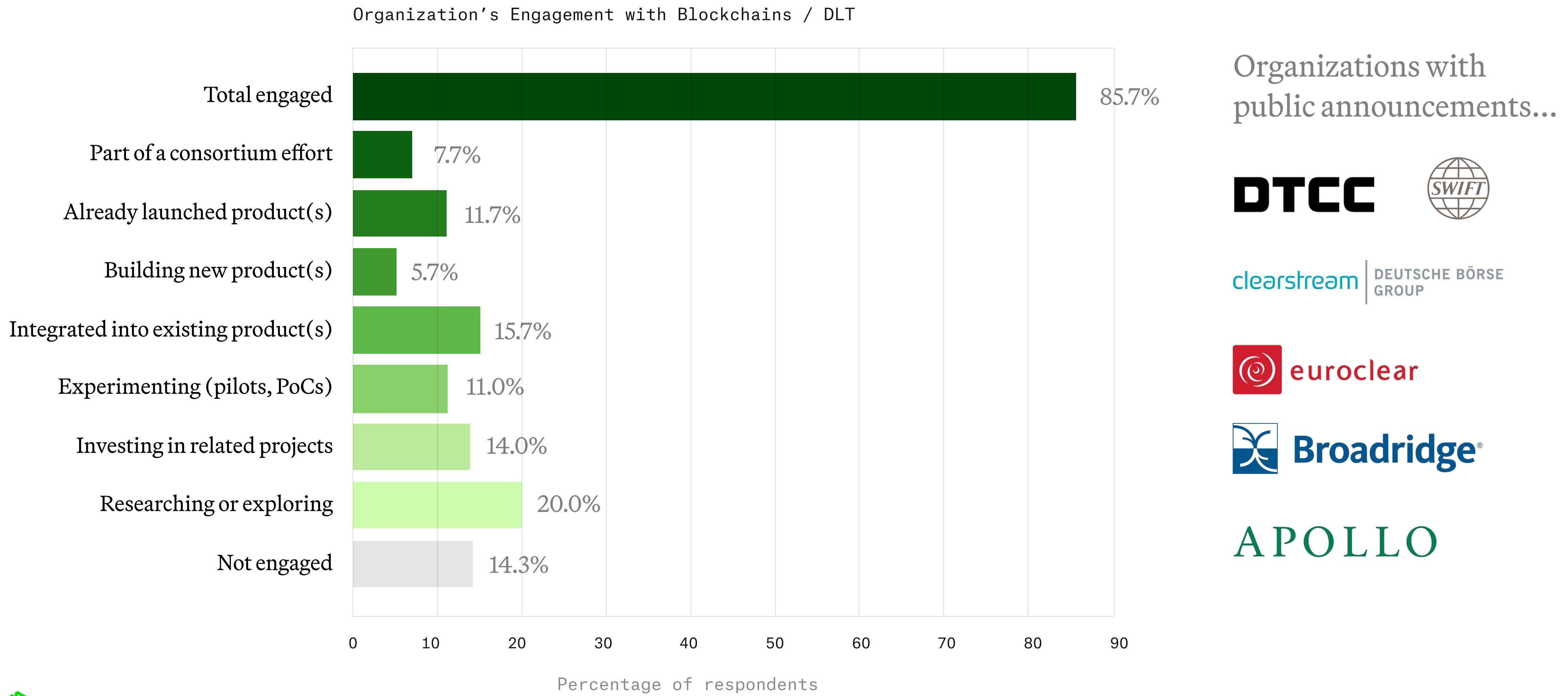
Increasingly, crypto, blockchain &
Distributed Ledger Technology
(DLT), and DeFi are becoming
embedded in firms' strategies.

~76% of firms are currently involved with crypto.



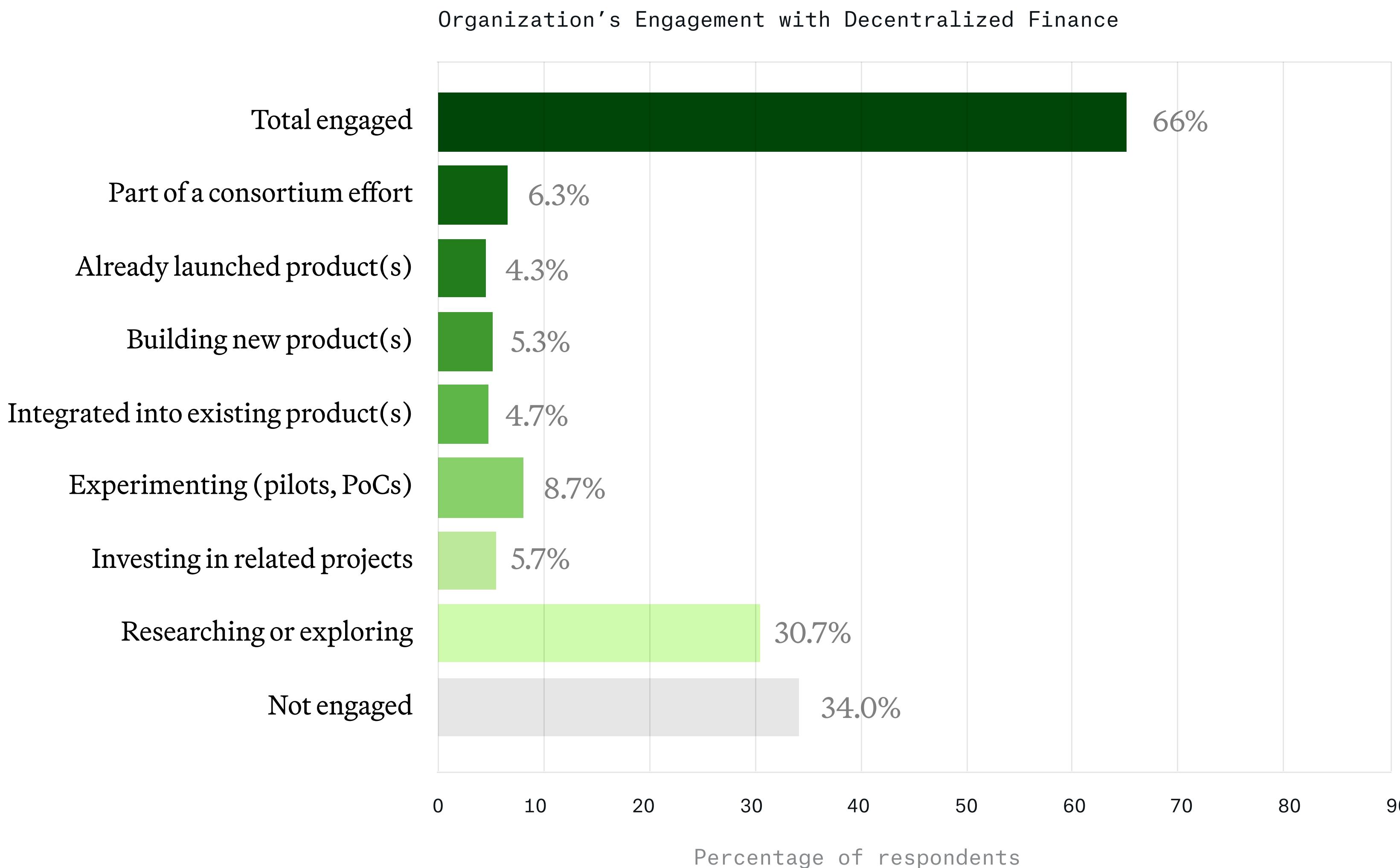
Source: internal data. See the appendix for more details.

~86% of firms are currently involved with blockchain & DLT.



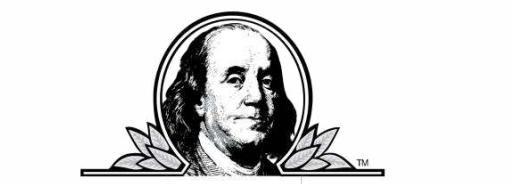
Source: internal data. See the appendix for more details.

~66% of TradFi firms are doing something with DeFi.



Organizations with
public announcements...

BLACKROCK



FRANKLIN TEMPLETON
INVESTMENTS

kinexys by J.P.Morgan

VISA

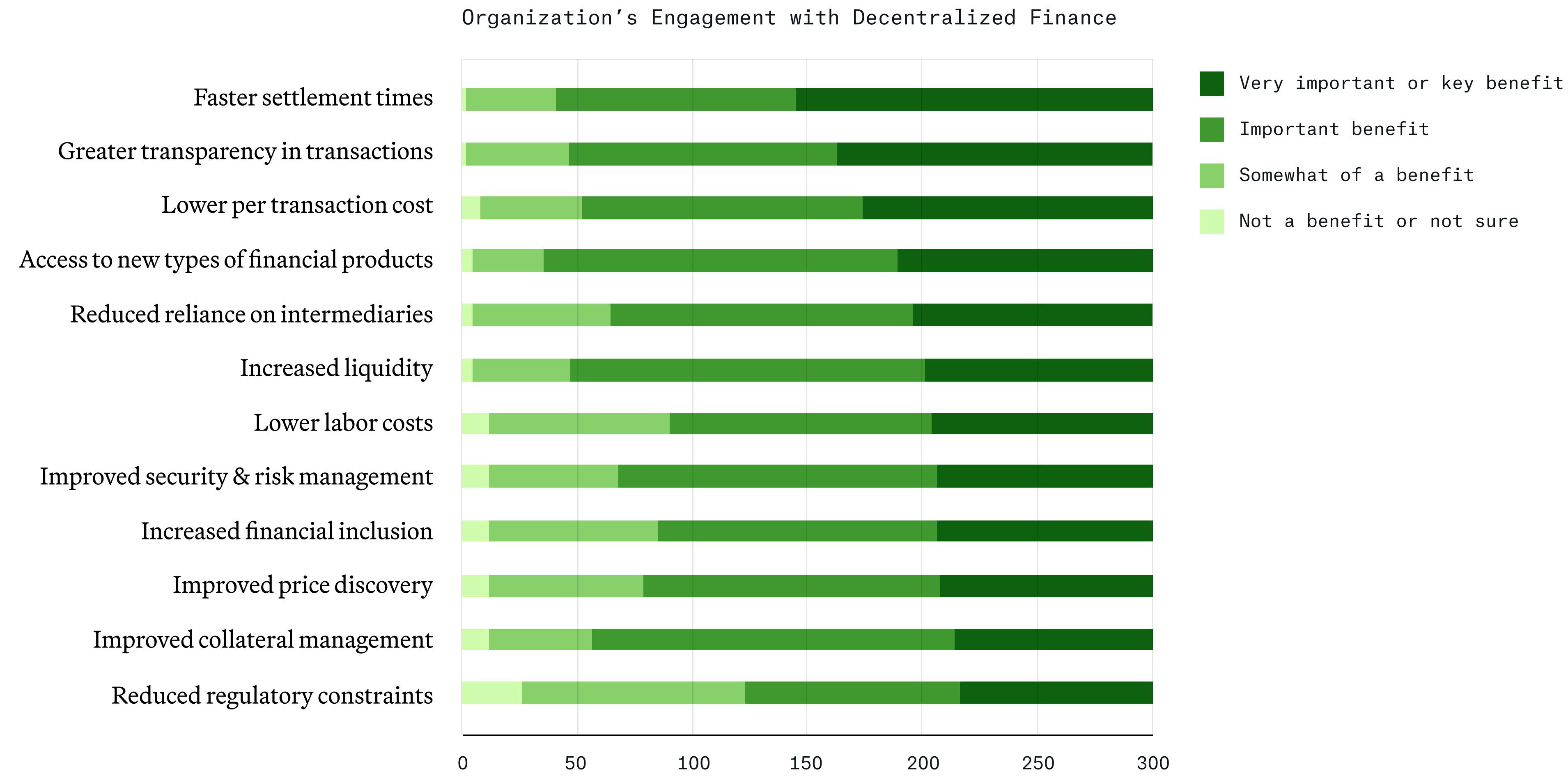
Source: internal data. See the appendix for more details.



We asked those familiar with DeFi about their perceptions of its potential benefits relative to the existing systems they rely on.

Faster settlement times, increased transparency, and lower transaction costs were most-often cited as “very important” benefits.

Perceived benefits of DeFi for financial services.



A comparison of settlement times across transfer methods.

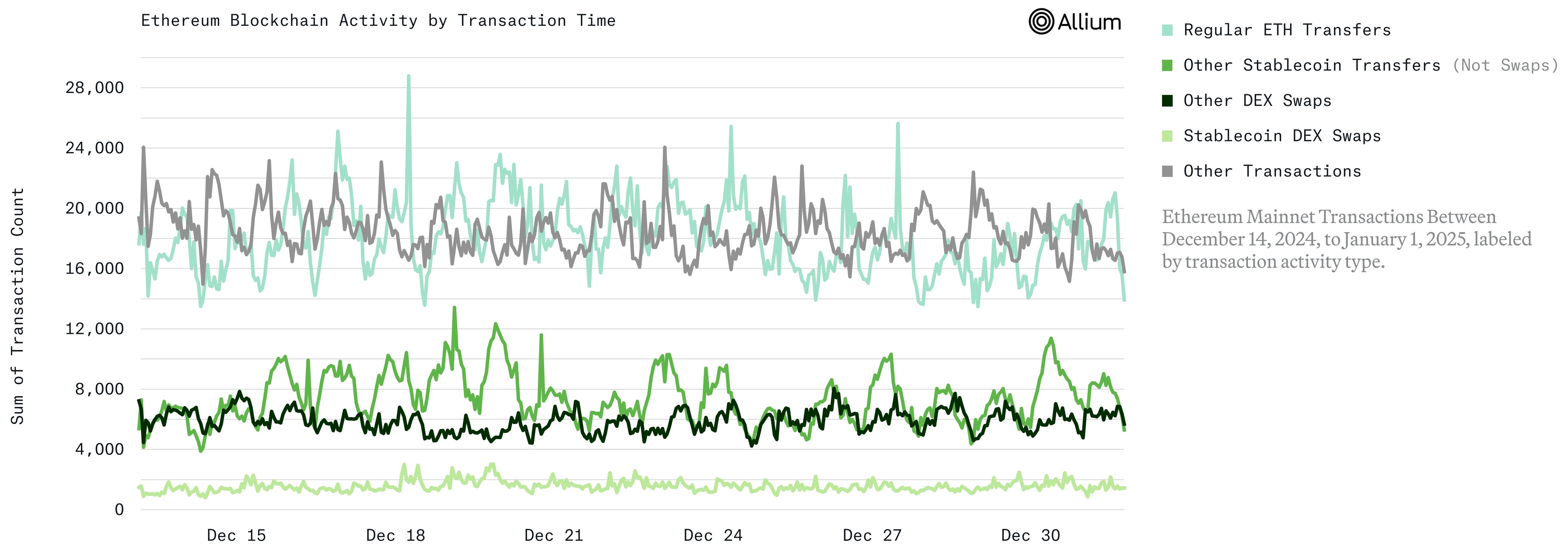
Type	Method	Settlement Time	Operating Hours	Bank Holidays	Global Connectivity	Source
Traditional	Wire Transfers (Fedwire & CHIPS)	Few minutes to a few hours if sent before the bank's cutoff time	From 9PM on preceding calendar day to 6:30PM ET	Not processed on Federal Reserve holidays	Relies on SWIFT & correspondent banks, slowing settlement to 1-5 business days with additional fees	Federal Reserve
	ACH Transfers	Standard is 1-3 business days Same business day if initiated early	Varies by bank; typically during business hours	Not processed on Federal Reserve holidays	Relies on SWIFT and specific Gateway Operators for different jurisdictions, slowing settlement	U.S. Bank, Nacha
	FedNow Service	Instant settlement, 24/7/365	Continuously, including weekends & holidays	No impact	US only — requires a US correspondent bank for international payments	Federal Reserve
Blockchain	Ethereum Mainnet	12 to 15 seconds	Always operating	No impact	Native	Allium
	Base (Layer 2)	~1-2 seconds	Always operating	No impact	Native	Allium
	Solana	~400ms (sub-second)	Always operating	No impact	Native	Allium

TPS (Transactions Per Second) figures represent the daily average of all onchain transactions, calculated over the period from January 1, 2024, to January 1, 2025. Values are rounded to the nearest whole number. These metrics include all transaction types (transfers, smart contract interactions, etc.) processed on the respective networks.



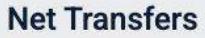
Settlement happens 24/7 on blockchain networks.

Unlike traditional financial markets that operate on fixed schedules with trading hours and weekend closures, blockchain networks operate 24/7/365. The chart below shows round-the-clock activity on Ethereum network, with DEX swaps, stablecoin transfers, and other transactions continuing uninterrupted throughout the hour, day & week.



Increased transparency means payments are no longer lost in transit.

Transaction volumes and patterns are publicly observable, token holdings and movements can be tracked across addresses, and market activity and liquidity can be monitored in real time.

② Transaction Hash:	0x0b6649464dada4f1c44cd67f7e742890de75356336cb91241f0fcf5d7e3459c0	
② Status:	 Success	
② Block:	 21947414	6 Block Confirmations
② Timestamp:	⌚ 1 min ago (Feb-28-2025 09:04:23 PM UTC)	⌚ Confirmed within 20 secs
⚡ Transaction Action:	▶ Transfer 996,921.011183 (\$996,717.64)  USDC To FalconX: 0x115...101	
② Sponsored:		
② From:	0x9E8Bc62941E6b9B69fA865d29a3C4c1C6dF18c0e 	
② Interacted With (To):	 0xA0b86991c6218b36c1d19D4a2e9Eb0cE3606eB48 (Circle: USDC Token)  	
② ERC-20 Tokens Transferred:	 All Transfers	 Net Transfers
	▶ From 0x9E8Bc629...C6dF18c0e To FalconX: 0x115...101 For 996,921.011183 (\$996,717.64)  USDC (USDC)	
② Value:	◆ 0 ETH (\$0.00)	
② Transaction Fee:	0.000025689722347048 ETH (\$0.06)	
② Gas Price:	0.636325234 Gwei (0.000000000636325234 ETH)	

Etherscan Transaction Reflecting USDC Transfer By FalconX



Source: <https://etherscan.io/tx/0x0b6649464dada4f1c44cd67f7e742890de75356336cb91241f0fcf5d7e3459c0>

Lower transaction costs are possible by cutting out the middleman and lowering infrastructure costs.

The cost of transferring of assets on the blockchain is independent of transaction value and geographic boundaries.

Unlike traditional banking where fees often scale with the transaction amount, blockchain transaction fees (gas fees) are based on computational complexity rather than the value being transferred. In other words, this equates to paying the same amount of network fees for a \$10 and \$1 million transaction.

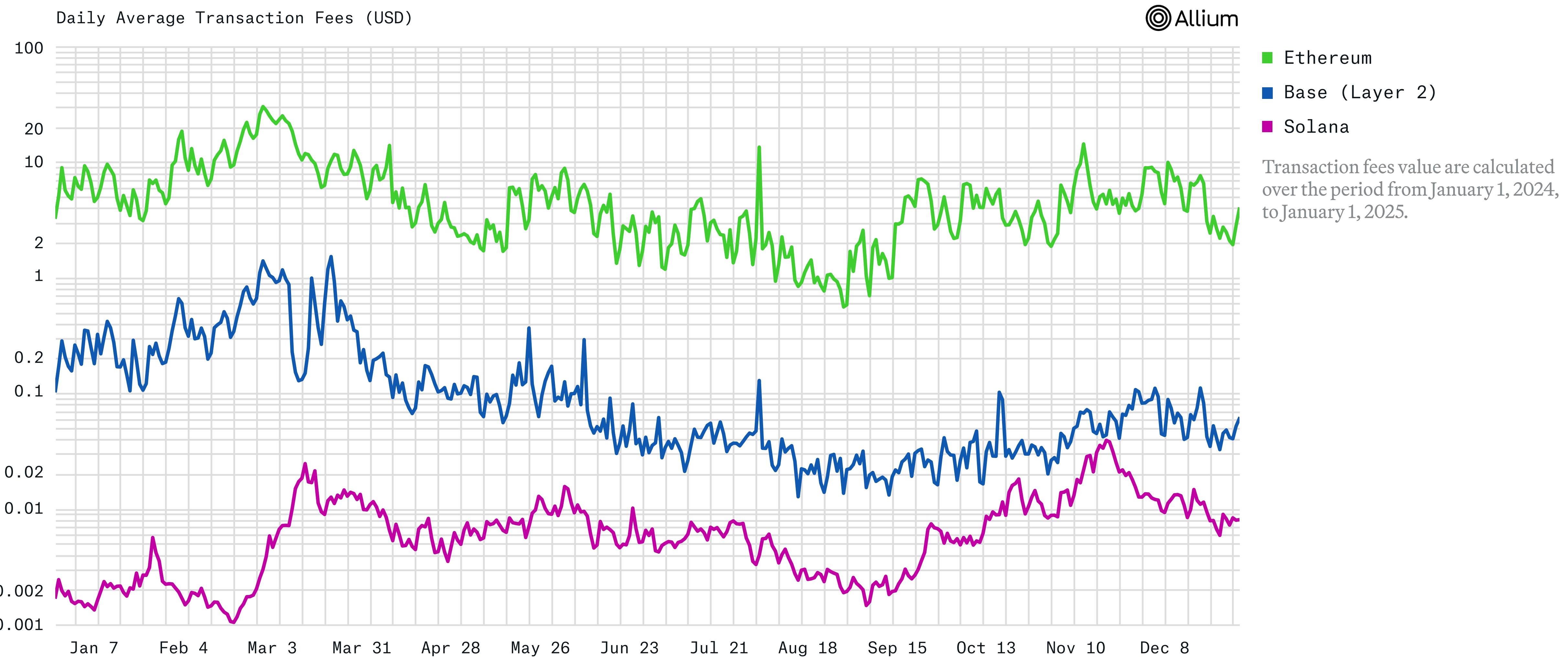
Banks	Outbound Domestic Wire Fee ^	Inbound Domestic Wire Fee	Blockchains	Average Transaction Fee (USD) *
Overall Median	\$25.00	\$5.00	Solana	\$0.0075
Credit Union	\$21.20	\$4.00	Ethereum	\$5.65
Online Banks	\$25.00	\$0.00	Base (Layer 2)	\$0.16
Traditional Banks	\$30.00	\$15.00		

* Transactions processed refers to the total number of all transactions on the respective Blockchain networks. Transaction fees value are calculated over the period from January 1, 2024, to January 1, 2025.

[^] Median Wire Transfer Fees of traditional financial institution.



Diving deeper into lower transaction costs...

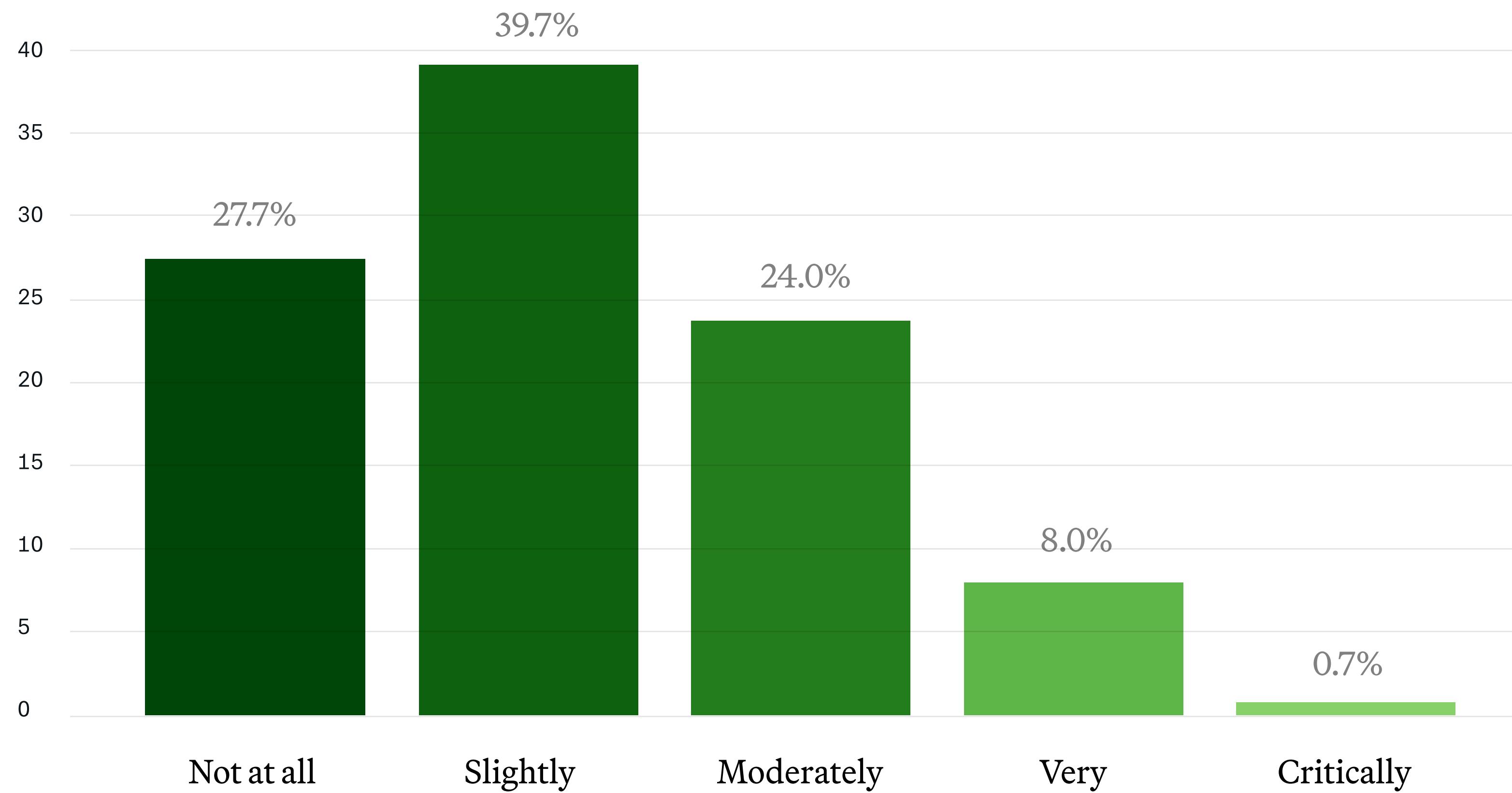


II

TradFi firms think it's inevitable that DeFi will eventually be critically important to most core businesses.

In the next 1-5 years, the majority of respondents think DeFi will have little impact on their core business.

How important will DeFi be in 1 to 5 years?

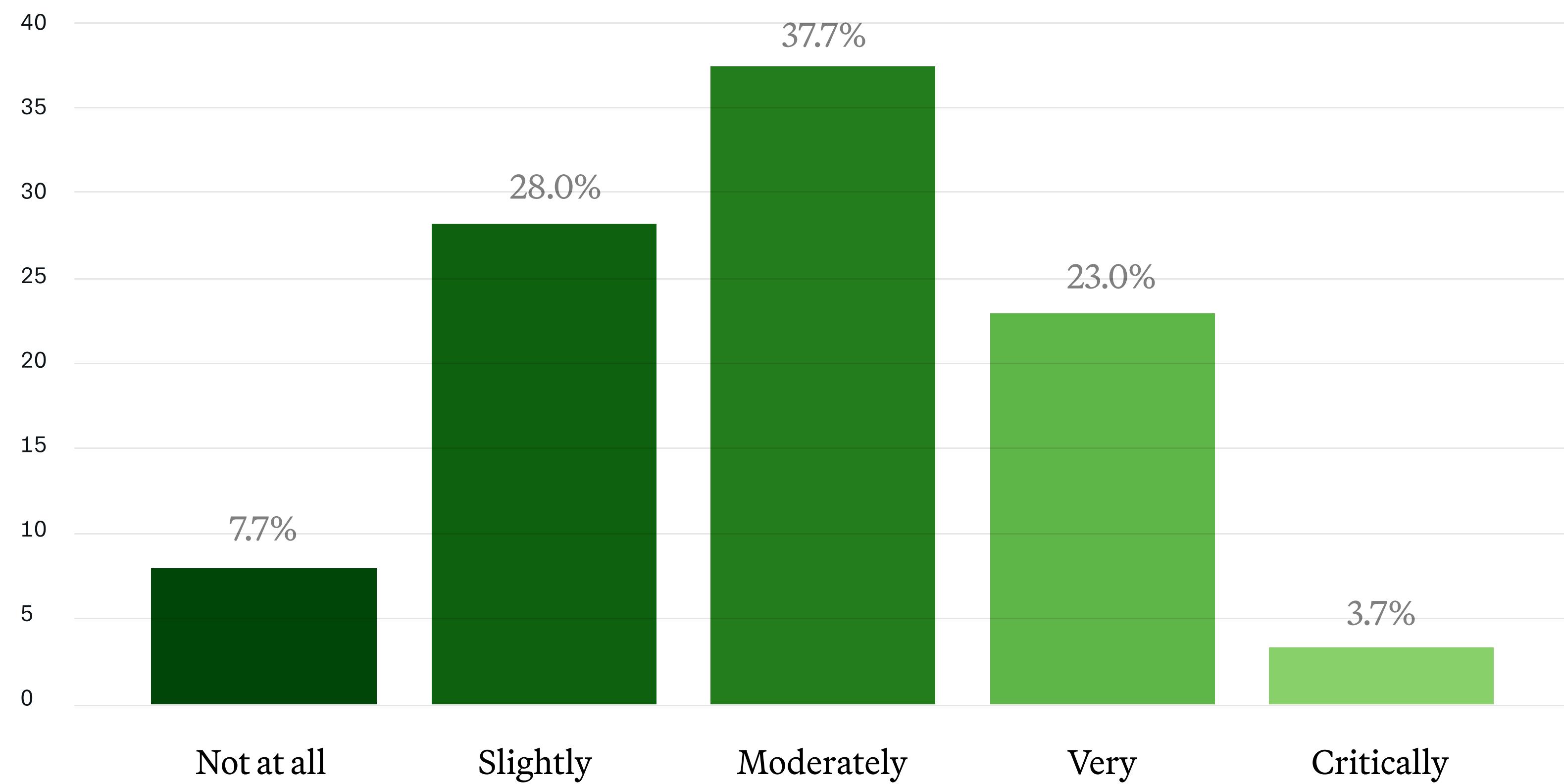


■

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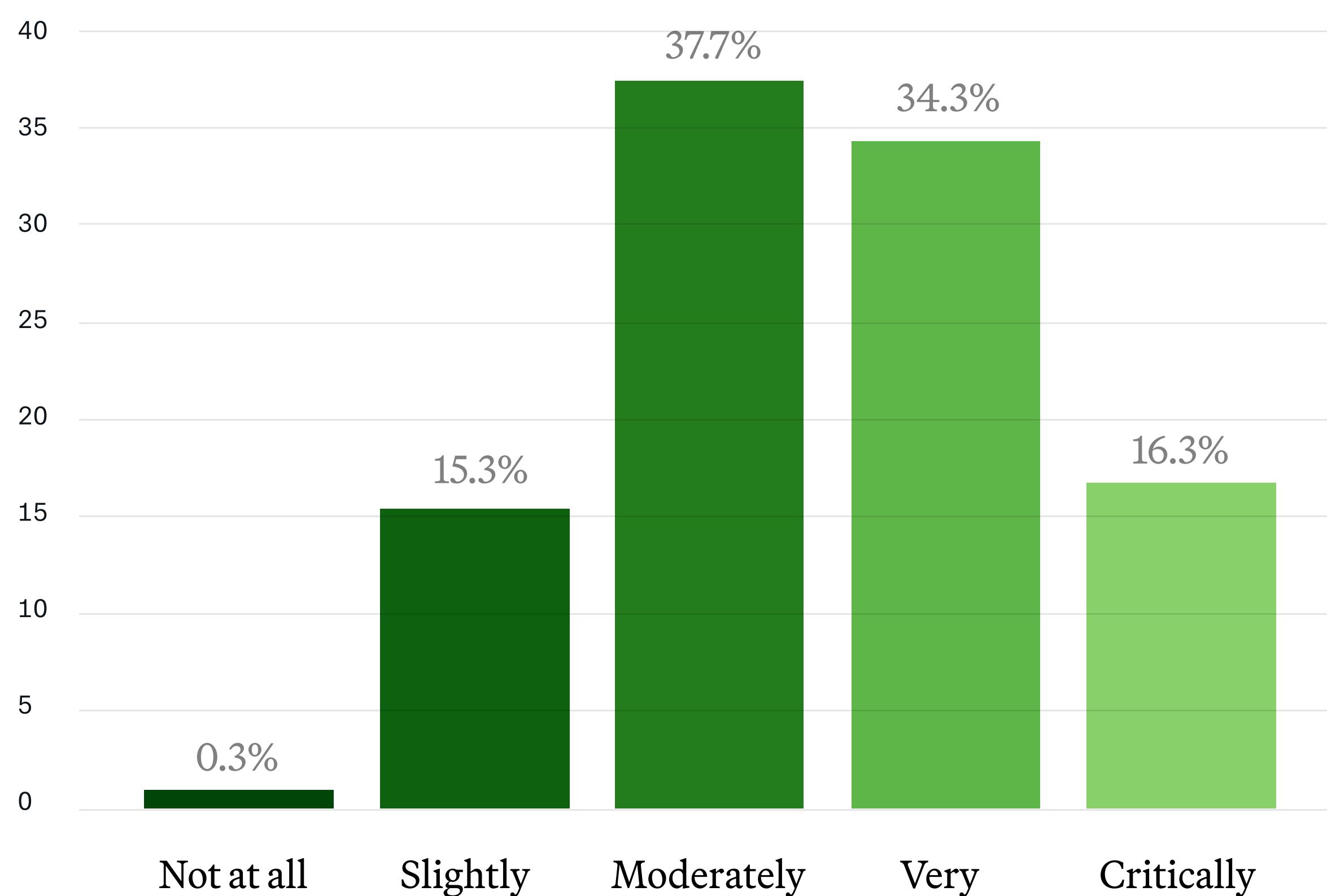
Sentiment starts to shift looking at 6-10 years from now.

How important will DeFi be in 6 to 10 years?

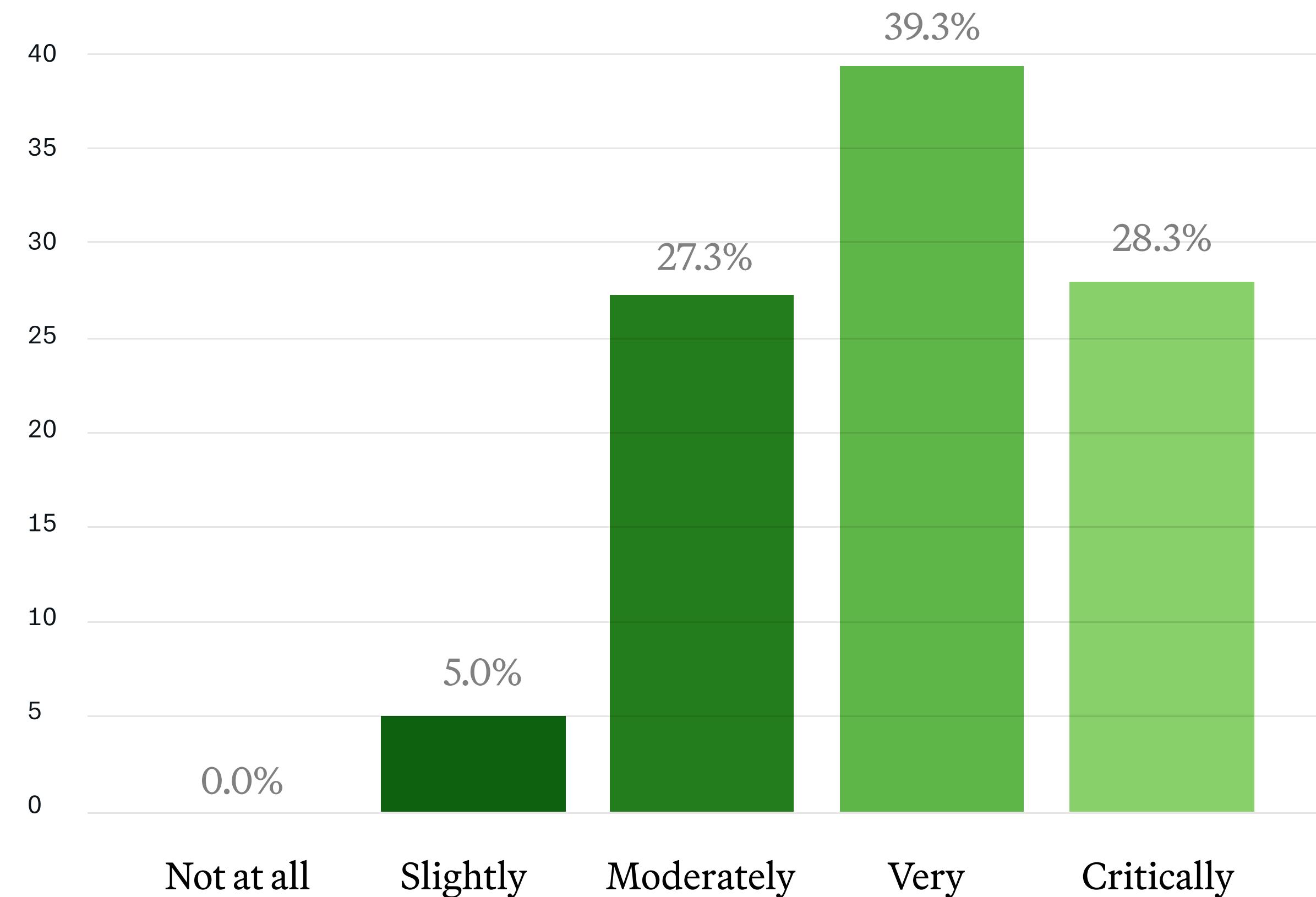


And, as you lengthen the time horizon, traditional finance starts to think that DeFi is inevitable.

How important will DeFi be in 11 to 15 years?



How important will DeFi be in 15+ years?



This impending change mirrors what happened in prior eras of transformation in TradFi.

The acceleration of e-trading

With the launch of Instinet in 1969 and NASDAQ in 1971, electronic trading began to replace the in-person open outcry trading that had been dominant for centuries. Just a few decades later, the birth of the internet and mobile platforms made trading accessible from anywhere.

These waves of electronification brought many of the same benefits respondents see in DeFi today: faster transactions, greater transparency, and lower costs.

Shortening the settlement cycle

In 1993, the SEC reduced the trade settlement cycle from 5 to 3 business days - moving from T+5 to T+3 to reduce settlement risk & costs. It took 24 years for the SEC to shorten the cycle again to T+2 in 2017, but improvements in technology and online trading enabled the move to T+1 just 7 years later in 2024.

DeFi offers the opportunity to reduce settlement times to near-instant levels - with many institutions already testing that potential today.



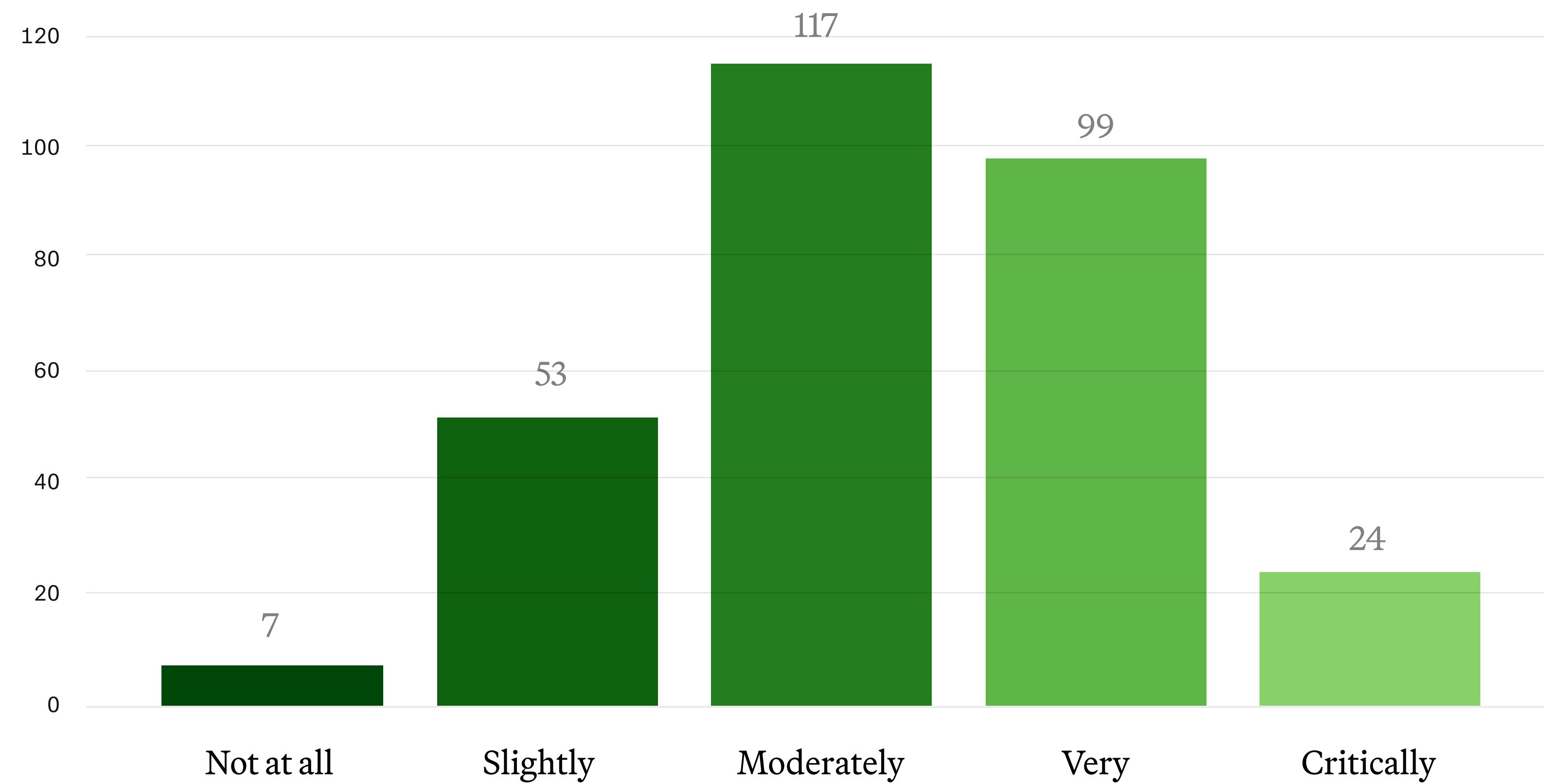
III

TradFi rejects the notion that private blockchains are as valuable as public, permissionless blockchains.

■

Public blockchains are important to fully leveraging the benefits of smart contracts and/or tokenization.

How important do you believe public blockchains (as opposed to private and/or permissioned blockchains or traditional database technologies) are for fully leveraging the benefits of smart contracts & tokenization?



Public blockchains enable fairer, easier participation with better connectivity vs. private or permissioned chains.

Broker neutrality

Public blockchains provide broker-neutrality through decentralization, enabling fairer participation and reducing conflicts of interest.

Network effects

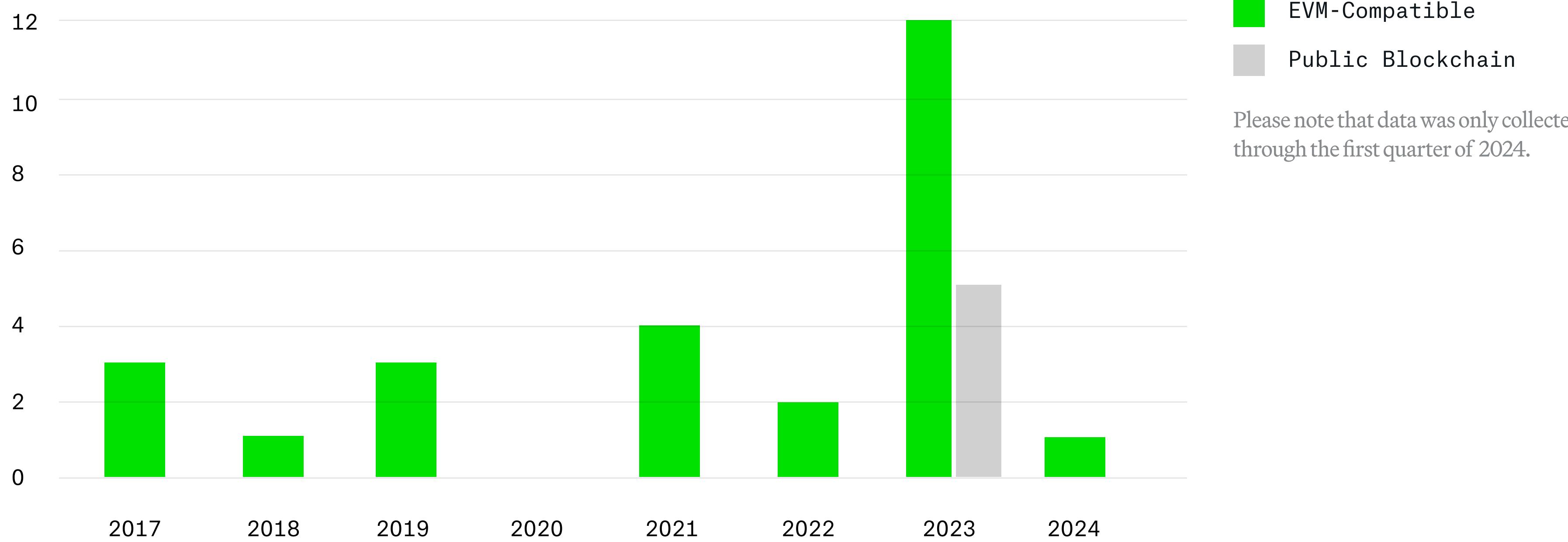
Public blockchains are open networks with lower barriers to entry, enabling faster user & liquidity growth compared to private or permissioned networks.

Liquidity aggregation

Public blockchains freely allow interoperability solutions like bridges to aggregate users & capital, while private or permissioned chains restrict external connectivity by design.

This aligns with our earlier findings showing that a gradual shift in focus among central banks from proprietary-permissioned blockchains to permissionless networks and open-source platforms.

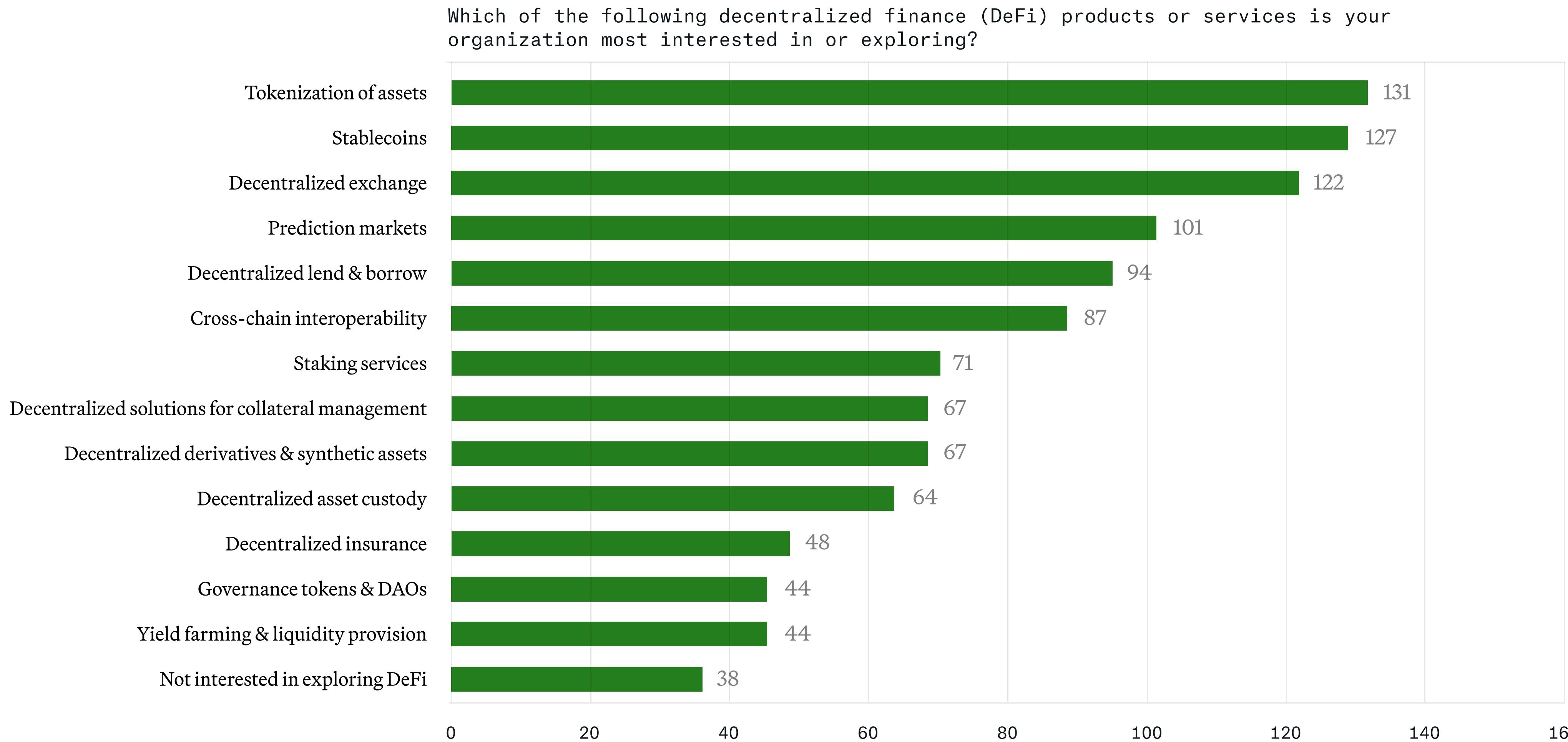
Where Central Banks Deploy Projects



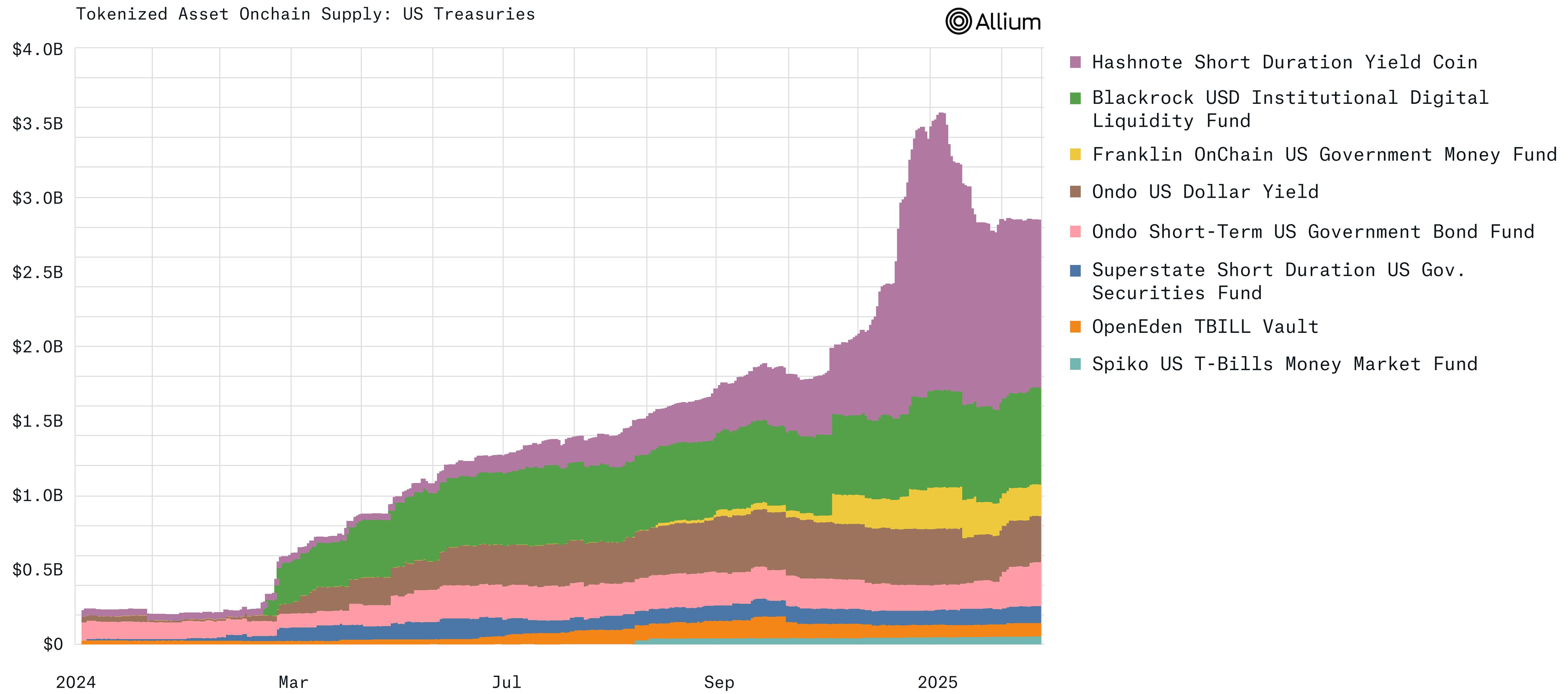
IV

Today, TradFi is most interested in stablecoins, tokenized assets, and decentralized exchanges.

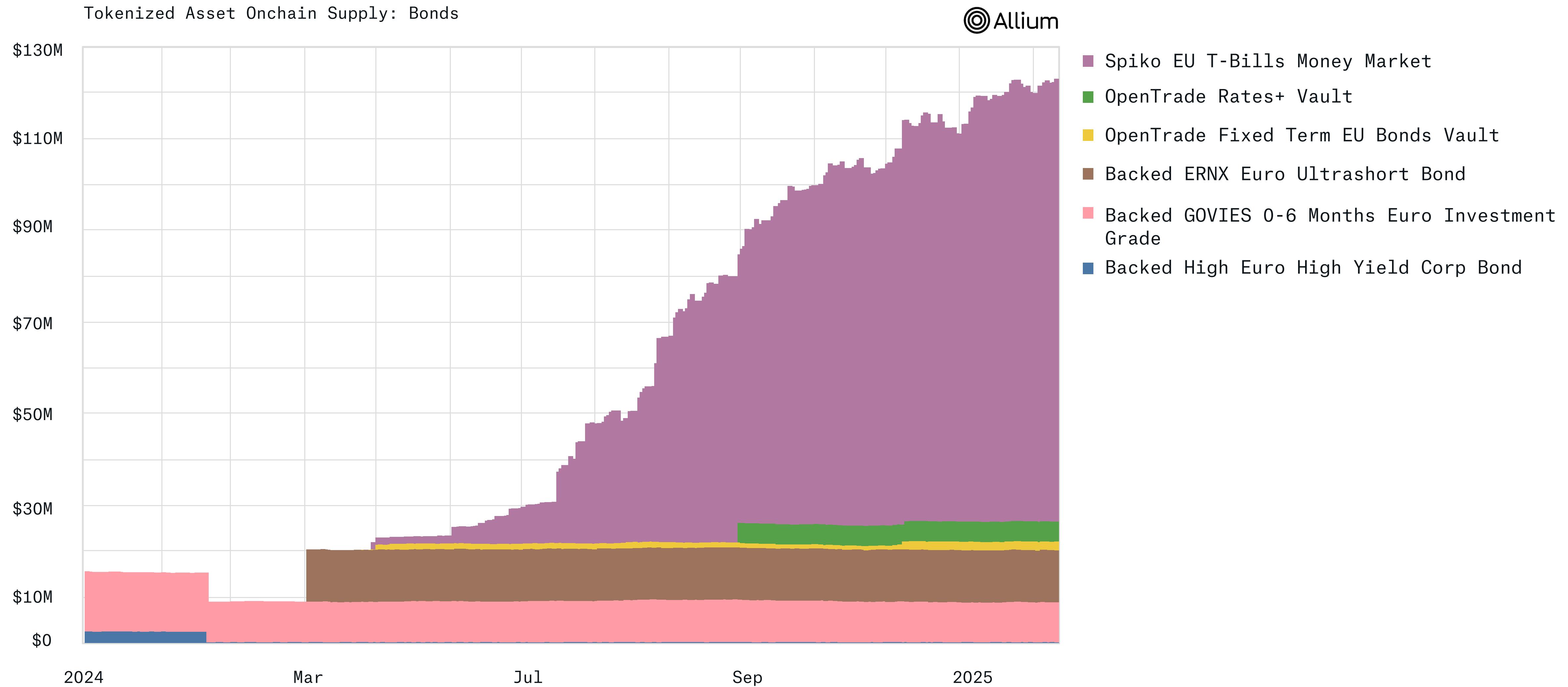
TradFi cares about tokenization, stablecoins, DEXs, prediction markets, lending, interoperability, staking, and much more.



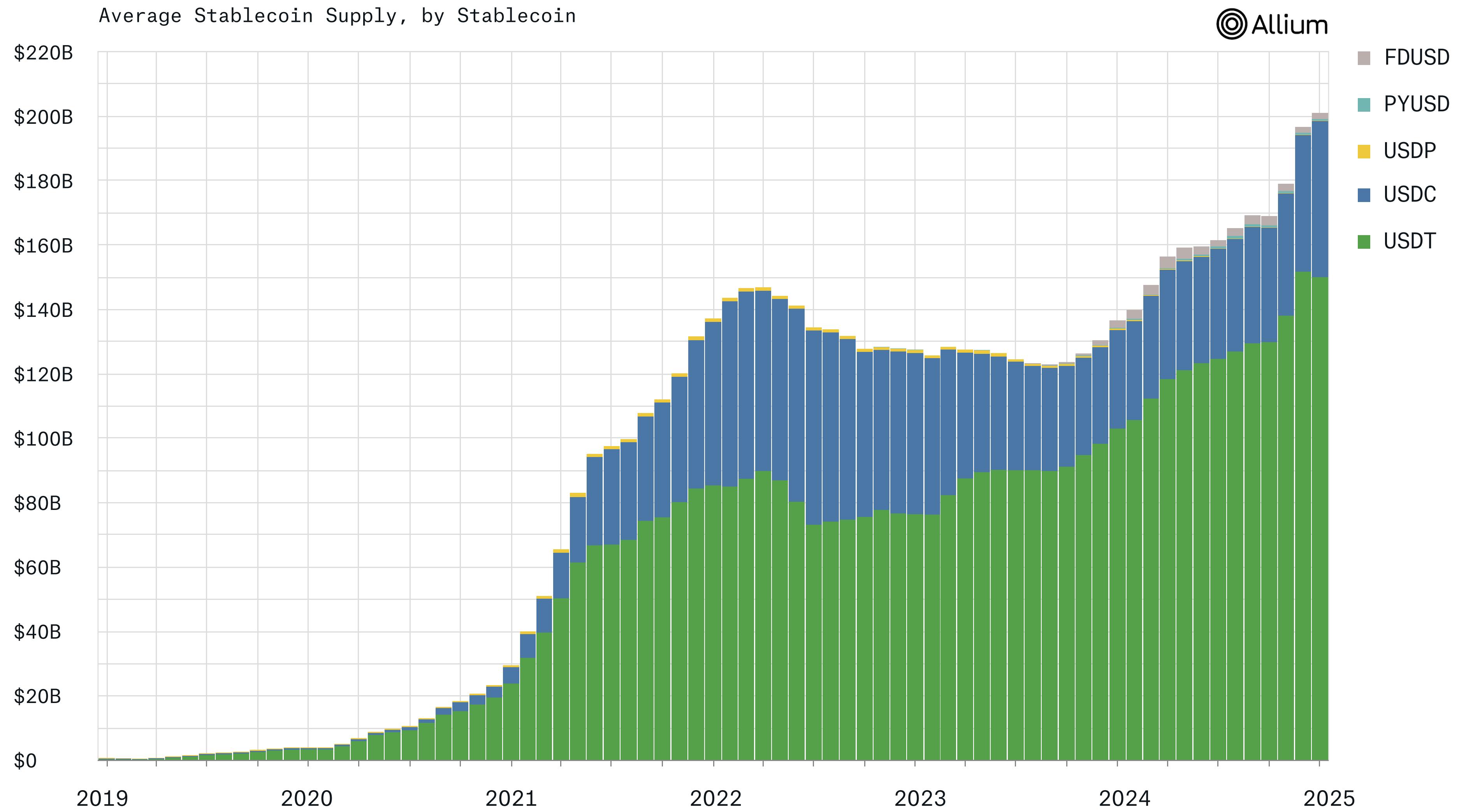
US treasuries are being tokenized & offered onchain.



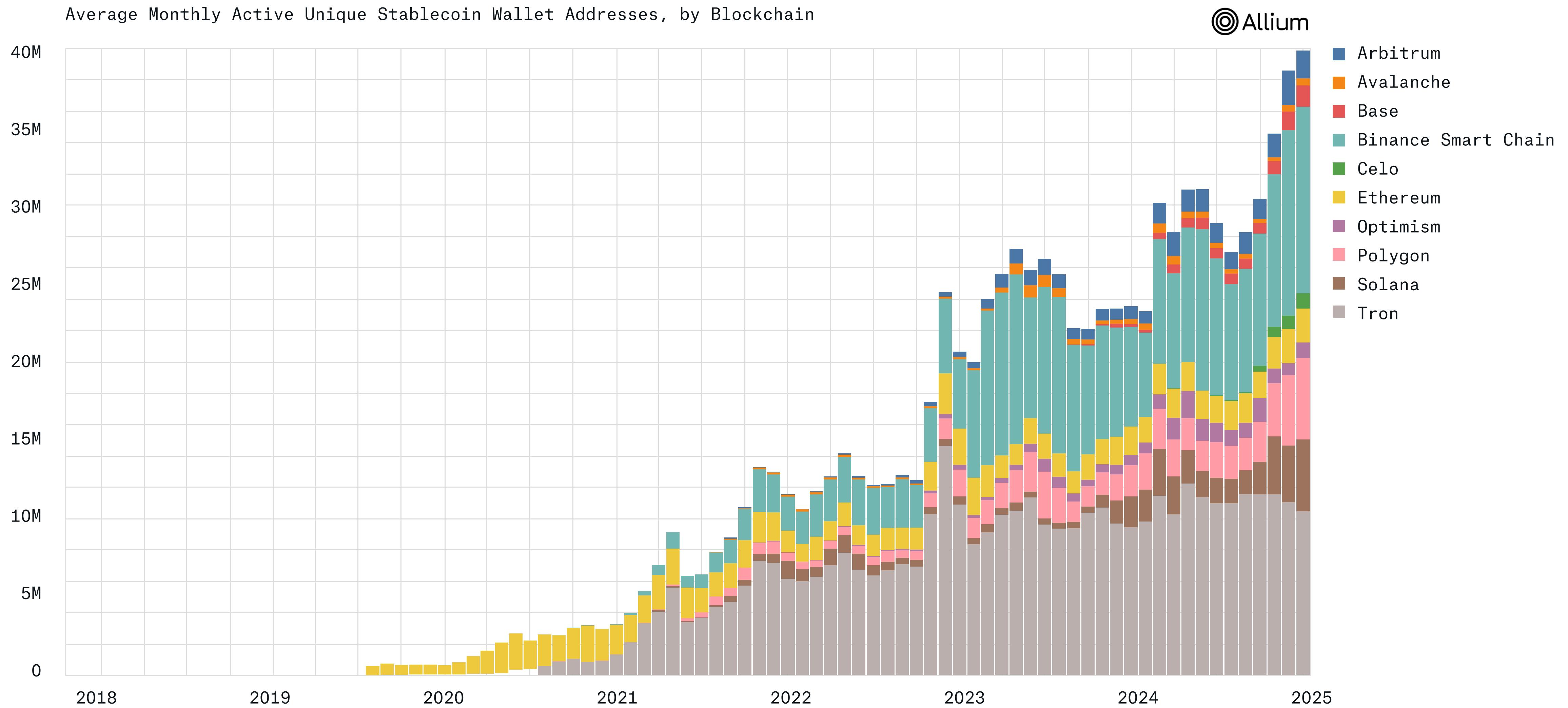
Bonds are coming onchain.



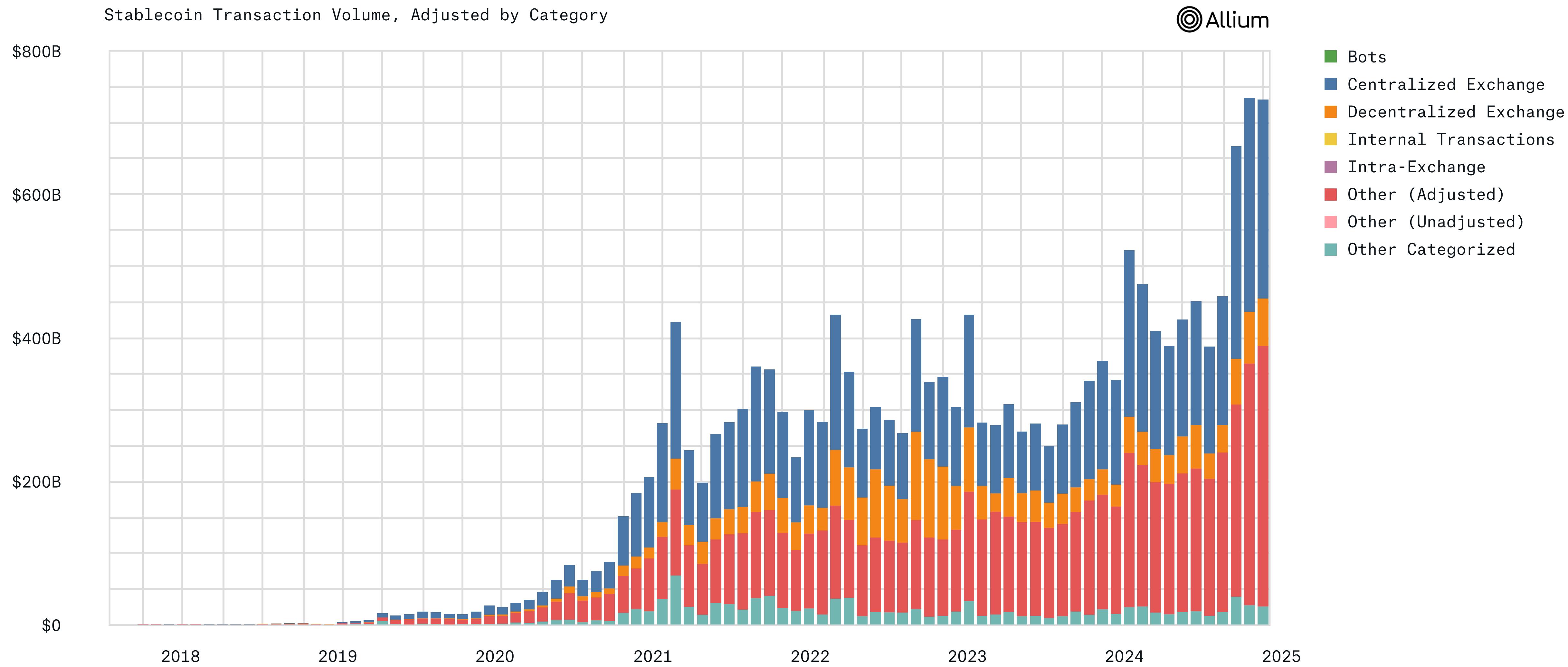
USDC & USDT are the most popular stablecoins by supply.



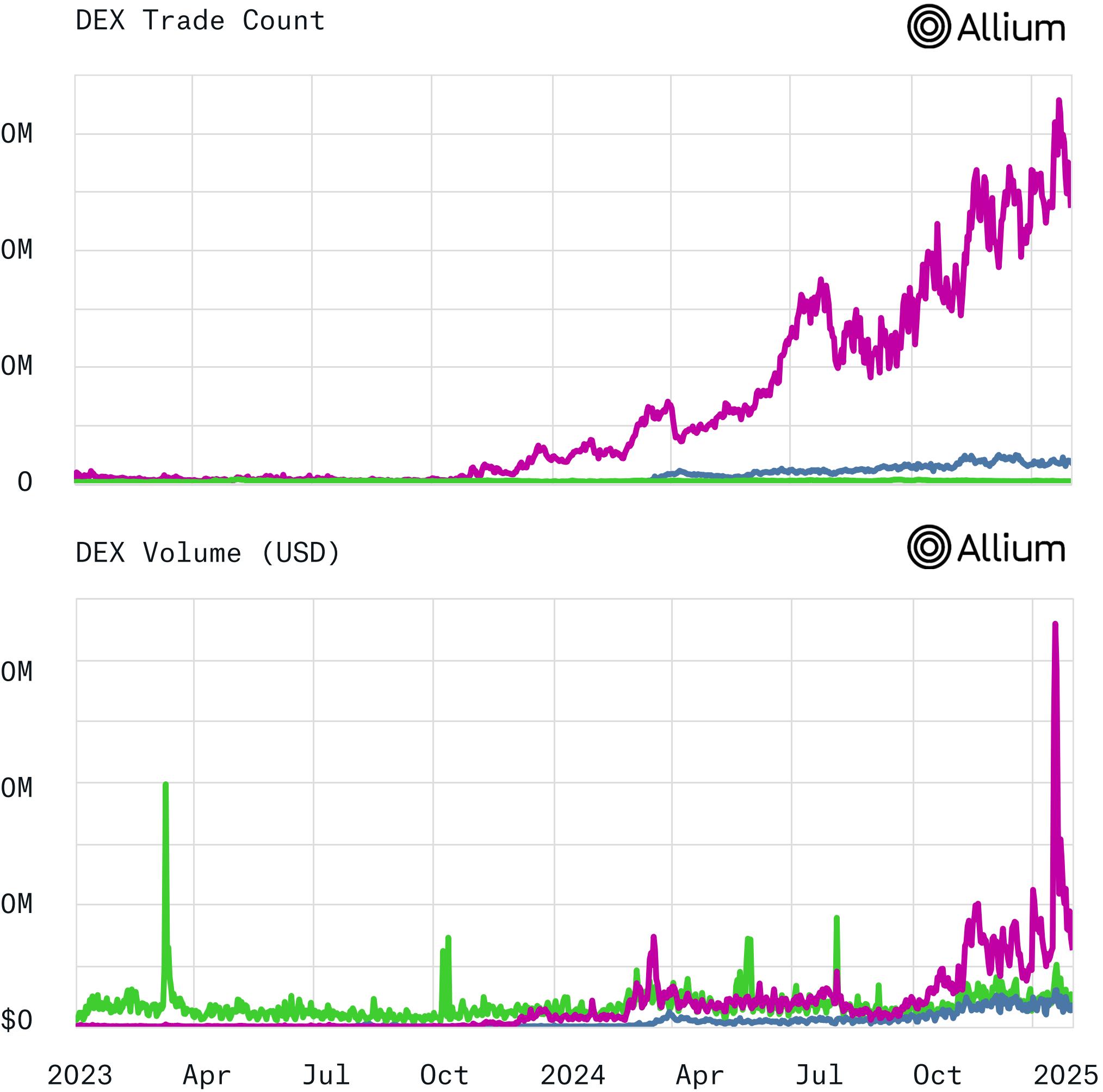
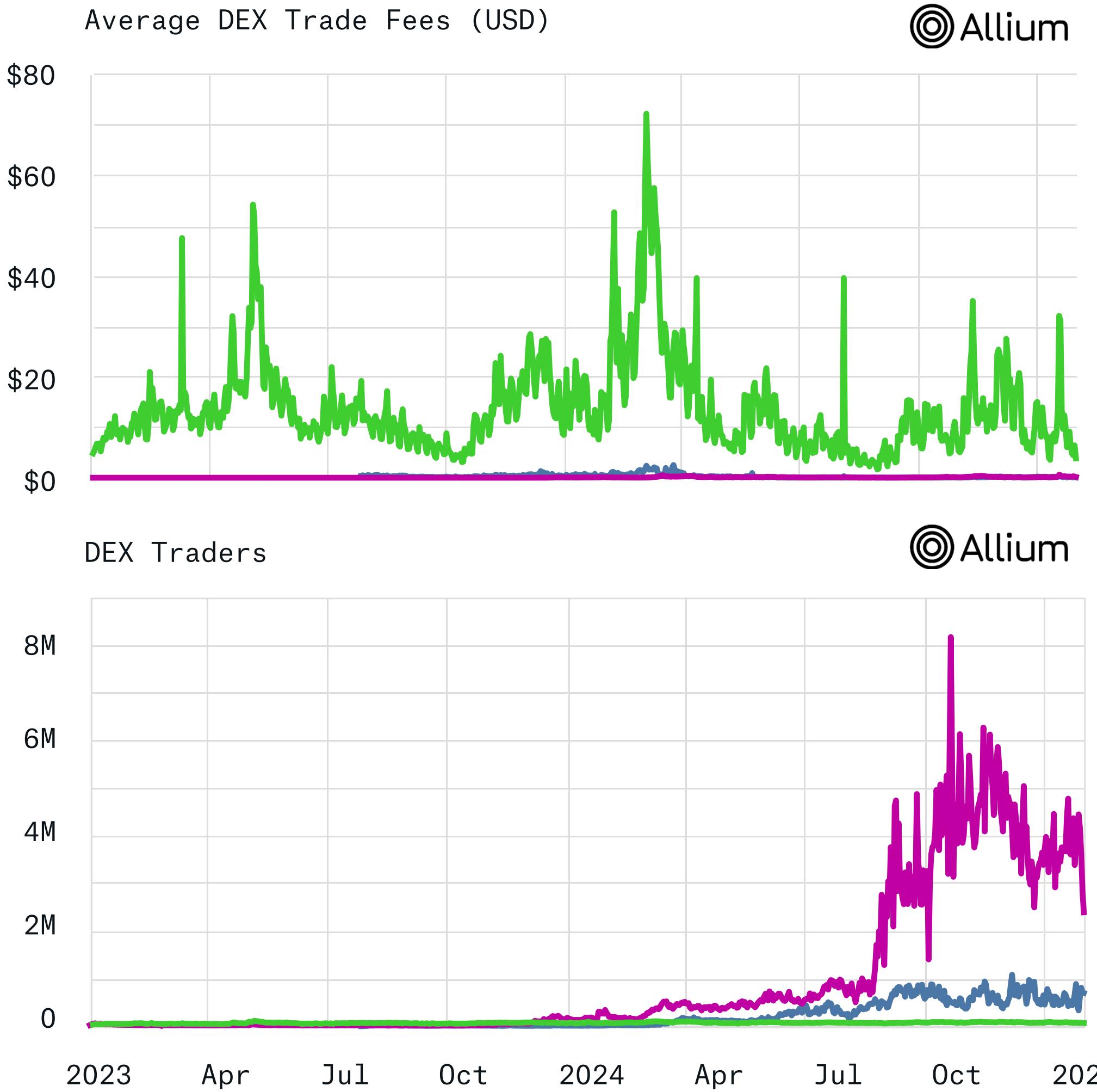
Unique onchain addresses holding stablecoins grows rapidly.



Transaction volume for stablecoins is increasing rapidly as well.



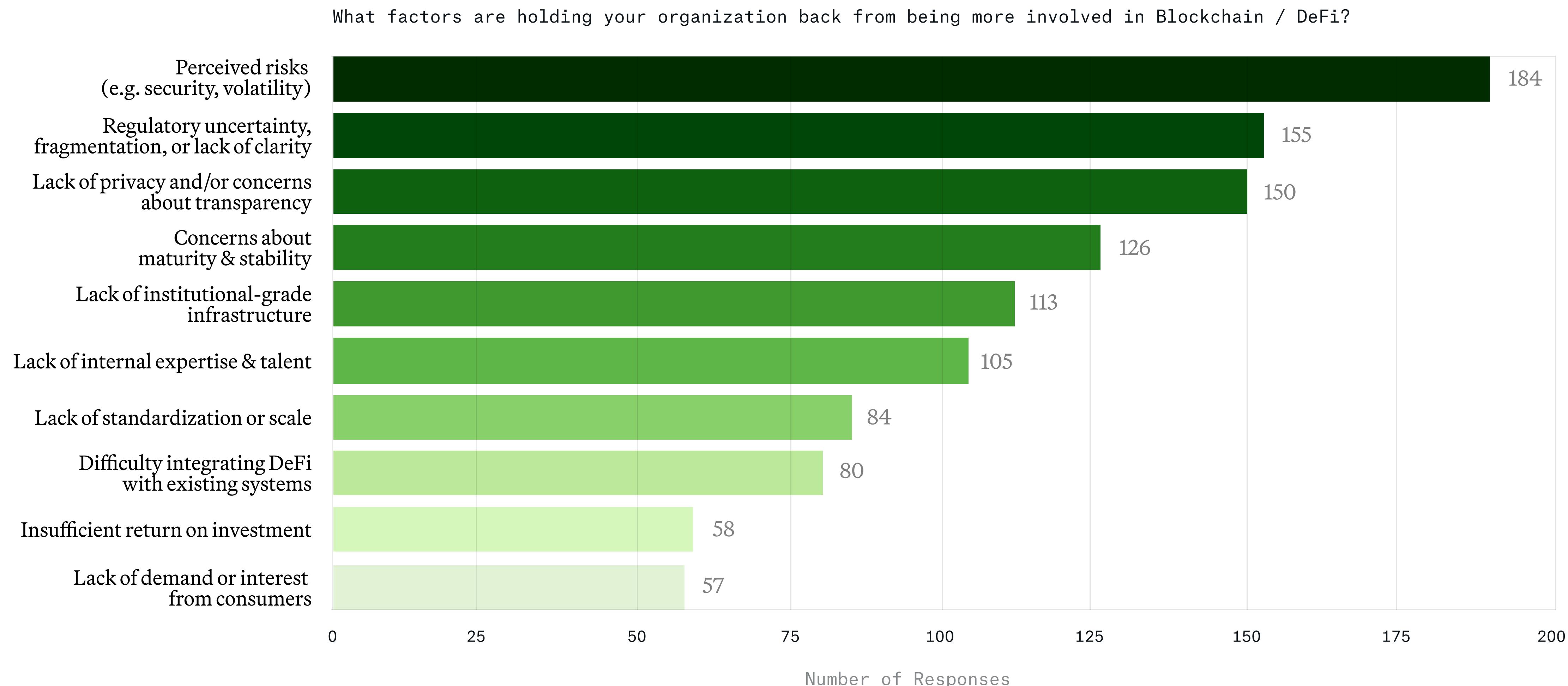
Decentralized exchanges are gaining both volume & adoption.



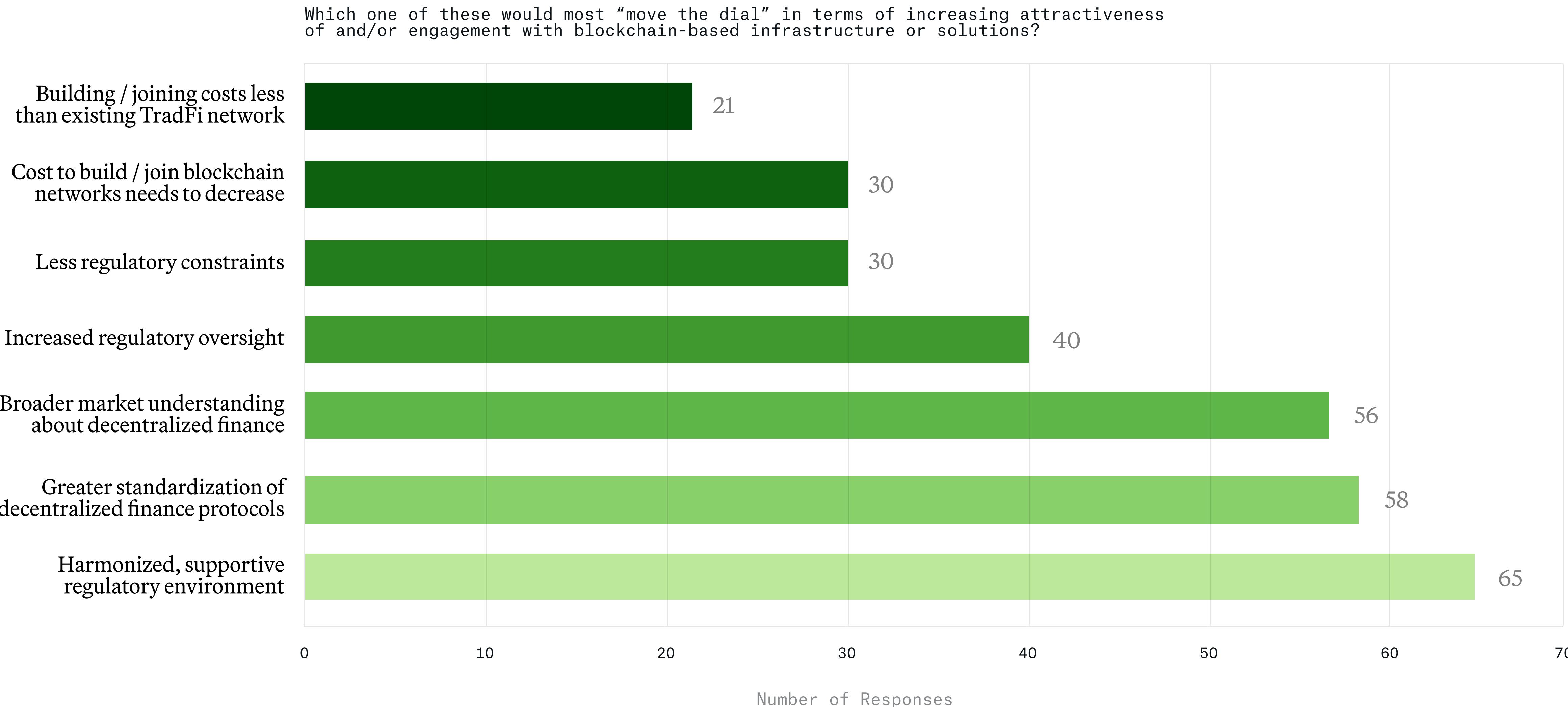
V

The biggest headwind preventing DeFi from unlocking real economic efficiencies in the short term is the regulatory environment. Policymakers have a generational opportunity to accelerate.

TradFi firms would be *even more* involved with DeFi if not for regulatory uncertainty, which 52% cited as a factor holding them back.



TradFi wants regulatory clarity.



If policymakers are serious about reducing inefficiency in the financial system, it's *imperative* that they adopt policies that allow firms to build on open, public infrastructure.

Appendix

Public statements or services:

- Fidelity: <https://www.fidelitydigitalassets.com/>
- VanEck: <https://www.vaneck.com/us/en/investments/bitcoin-etf-hodl-fact-sheet.pdf>
- CME Group: <https://www.cmegroup.com/markets/cryptocurrencies.html>
- BNY Mellon: <https://www.bny.com/corporate/global/en/solutions/digital-assets.html>
- SWIFT: <https://www.swift.com/campaign/unlocking-potential-digital-asset-securities>
- DTCC: <https://www.dtcc.com/digital-assets>
- Clearstream: <https://www.clearstream.com/clearstream-en/securities-services/issuance-1-/electronic-securities>
- Euroclear: <https://www.euroclear.com/services/en/primary-issuance/digital-financial-market-infrastructure.html>
- Broadridge: <https://www.broadridge.com/financial-services/capital-markets/transform-trade-life-cycle/distributed-ledger-repo>
- Apollo Global Management: <https://www.prnewswire.com/news-releases/apollo-and-securitize-announce-partnership-and-launch-tokenized-access-to-credit-fund-on-aptos-avalanche-ethereum-ink-polygon-and-solana-networks-302364212.html>
- Blackrock: <https://securitize.io/blackrock/buidl>
- Franklin Templeton: <https://www.franklintempleton.com/about-us/our-teams/specialist-investment-managers/digital-assets/>
- J.P. Morgan: <https://www.jpmorgan.com/kinexys/>
- Visa: <https://visaonchainanalytics.com/>, <https://usa.visa.com/solutions/crypto.html>



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