UBS Digital Asset Strategy

Digital assets go mainstream

Equities

Europe including UK

Technology

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Launching coverage of UBS Global Research's Digital Asset Strategy (a ~50 slide deep dive)

Digital assets are going mainstream - as both an investible asset class (directly and via adjacent financial instruments) and as a disruption narrative relating to the underlying technology infrastructure efficiency unlock for the global financial services space. Investors frequently ask whether digital assets, including stablecoins and tokenized assets, represent a source of competition for the companies in our single-stock FinTech coverage, as well as for businesses across the broader financial sector covered by UBS Research.We therefore believe it is important to identify the themes driving this disruption, assess where the effects are likely to be greatest, and determine where established business models may remain insulated.

What's in this report?

We share our **top 5 most important themes for digital assets** - the most important concepts we expect to drive a modernization in financial services and the associated technology infrastructure in the coming years. In order, **1) Stablecoins as a real world payment rail; 2) Tokenization in capital markets; 3) Blockchain rails for the agentic economy; 4) Security, Compliance & regulation on the blockchain; and 5) Burying the infrastructure - making blockchain invisible to its users.** Further, we built several proprietary market models to derive estimates for key industry metrics such as expected stablecoin market cap and agentic payment volume TAM for stablecoin payments, which we plan to continue to build iteratively over time. During our process, we connected with 30+ operators across the industry, including digital asset native businesses, traditional financial institutions, and native FinTechs.

Our conclusion - digital assets are here to stay, but the winners and losers are not yet clear-cut

We overlay our analysis with an extrapolation to the coverage sub-sectors across the financials ecosystem. Payments & FinTech, Banks, Exchanges, and Asset Managers. We expect the impact across the entire sector to be neutral to modestly positive: Payments & FinTech (moderate positive), Banks (neutral), Exchanges (moderate positive), Asset Managers (moderate positive). There of course is nuance - certain companies in each of these subsectors could see greater impacts than others, dependent on business mix, technological innovation and change management, and speed to market. Those who lean in may be able to gain share from those moving more slowly - particularly in the instance digital assets bring tangible operational benefits (cost, speed, efficiency) to those who invest, allowing them to offer incremental features as part of their services. **Can you play the theme directly? Yes** - whilst digital asset native FinTechs, some of which are publicly listed, are leading the charge in building the underlying infrastructure, certain incumbent financial companies are also at the forefront of innovation, while others are lagging behind.

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Global Research

UBS Digital Asset Strategy

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Blockchain and Digital Assets

Table of contents

4 Executive summary
Report overview – Slides 4–7 – themes, beneficiaries, anatomy of a blockchain transaction, and company map.

8 Macro rundown
Institutional adoption and macro sensitivity – Slides 8–16 – allocations and correlations

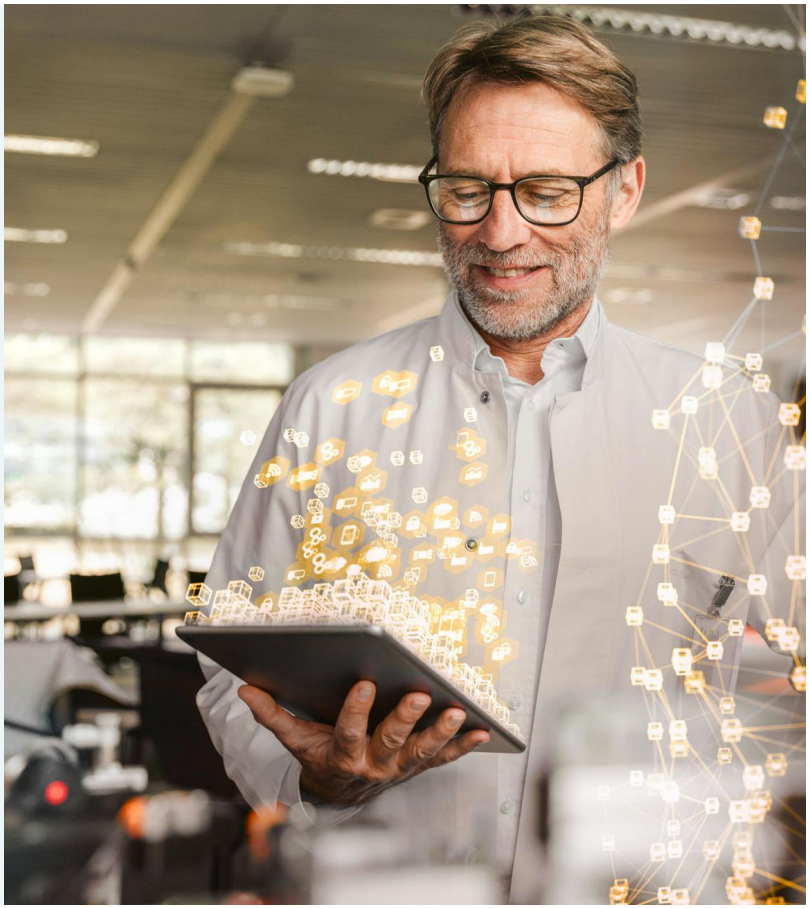
17 Stablecoins
Stablecoin payment economics – Slides 17–26 – economic volumes, prefunding and velocity

27 Tokenization and capital markets
Tokenization and collateral mobility – Slides 27–34 – market structure, settlement and 24/7 access

35 Blockchain rails for the Agentic Economy
Agentic commerce opportunity – Slides 35–43 – open commerce architecture, use cases and TAM

44 Security, compliance and regulation
Regulation, illicit activity and tail risk – Slides 44–50 – GENIUS, KYC/AML and centralised controls

51 Burying the infrastructure
Multi-chain orchestration – Slides 51–58 – interoperability, liquidity fragmentation and abstraction



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Introducing UBS Global Research Digital Asset Strategy

Introducing the UBS Global Research "Digital Asset Strategy" team – our ethos:

1) *Deep dive thematics connecting the key megatrends across all of digital assets, blockchain, and tokenization*
2) *Connecting macro and asset allocation decisions*
3) *Both detailed and industry aggregated blockchain / DA data via our UBS Evidence Lab team to aid actionable insights*
4) *Consistent publications / periodicals on the DA universe*
5) *Linking thematic conviction to single-stock opportunities across sectors*

In this report: macro considerations & our top 5 themes in digital assets

Macro factors and digital assets – access is broadening, but Bitcoin remains a risk-sensitive asset with unstable correlations.

Stablecoins, tokenization and agentic commerce – the clearest near-term use cases are infrastructure-led: settlement, collateral mobility and machine-native payments.

Security, regulation and multi-chain infrastructure – scale depends on legal clarity, robust controls, KYC/AML and interoperable orchestration.

3 Takeaways from the report

Most important things to remember

1. **Stablecoins** – *early days of stablecoin adoption are likely to be use-case oriented (in our view 'money in motion' and/or emerging markets), with market cap reaching ~$1.2tr by 2031, (the 'velocity paradox').*
2. **Capital markets** – *Perpetuals and tokenized stocks represent a democratization angle, but the greatest impact is to be realized in asset mobility via tokenization (repos, collateral management, etc.)*
3. **Agentic commerce** – *Digital assets represent a potential payment rail for machine initiated payments, full disruption of the card networks is unlikely*

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Executive Summary

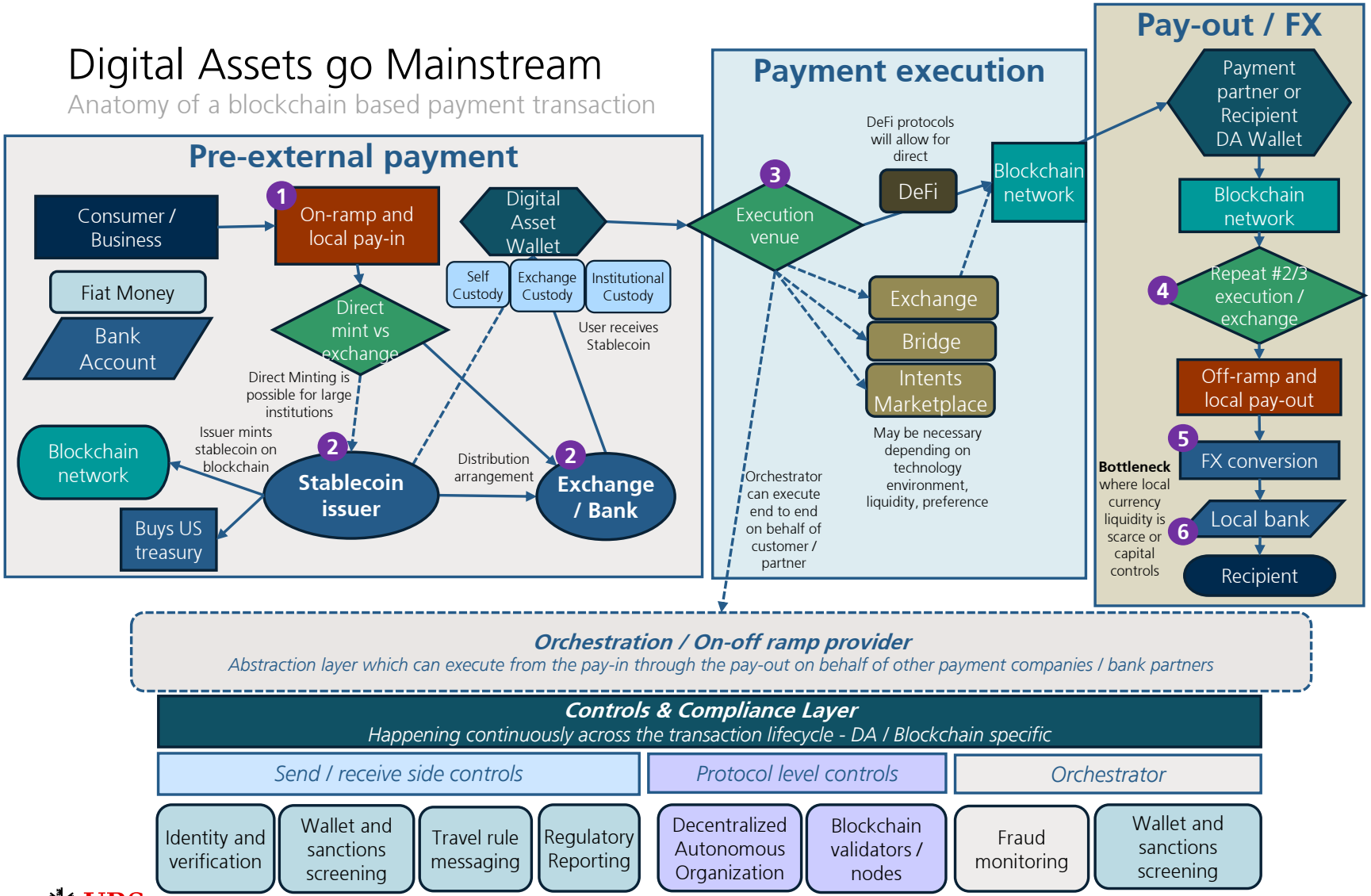
A summary of sector level beneficiaries and areas of pressure across the five themes in this report

UBS Coverage Sector	Stablecoins	Markets tokenization	Agentic commerce	Security & regulation	Burying the tech	Overall Conclusion
Payments & FinTech	+ **Card networks:** instant settlement and stablecoin-linked cards aid global expansion + **Payment service providers:** facilitate conversion, routing, payouts - **Cross-border payments providers:** lower fees / greater efficiencies	**Limited direct impact** – to the extent FinTechs are involved in account payment infrastructure on the retail side, could see possible impacts	+ **Card networks** higher yields from value added services and agentic tokenization + **Payment service providers:** provide agent to merchant connectivity and orchestration - Potential mix shift to stablecoin transactions	+ **Card networks:** remain the primary trust, fraud, and compliance layer for payments. + **Payment service providers:** lower incremental costs to add on-chain controls vs new entrants. + **Cross-border payments**: strengthens moat over last-mile payout capabilities.	+ **Payment infrastructure providers:** increased demand for orchestration, connectivity, compliance and messaging.	+**Moderate positive:** The key question will be whether current market participants can adapt their offerings to embed DA business models where necessary. Trust (i.e., card networks) and performance will continue to be at the centre of payments. Disruption in inefficient geographic corridors is more likely.
Banks	- **Transaction banking:** potential deposit flight and fee compression in bespoke corridors Limited impact: **Retail Banking / Investment banking / Trading**	+ **Trading, custody, and treasury:** greater collateral mobility and operational efficiency. - **Broker-dealers:** risk of direct trading on tokenized venues	+ **Banks retain** funding, identity and settlement roles. - **Lower payment revenue** as flows shift to stablecoin rails.	- **Legitimizes competition**, but also could become white label partners + **Large banks and scaled FinTechs**: existing licensure and compliance infrastructure moat	+ **Banks:** ownership of distribution layer remains a strong moat - **Fee compression:** fees paid to third-party orchestration providers	**Neutral:** Potential positives and negatives = net neutral. Owning distribution / client relationships, trust, scale are an advantage. Increased collateral mobility unlocks greater capital efficiency. DA technology will be built or partnered on back end.
Exchanges	**Limited direct impact** – stables as a potential funding leg are traded via competing centralized and decentralized digital asset exchanges	- **Fee compression:** increased competition. - **Non-US exchanges:** may see outflows if US securities are more accessible. + **Scale:** institutional distribution remains a moat	Limited direct impact.	- **Legitimizes competition:** although these could become white label partners. + **Regulatory compliance infrastructure requirements**: could impede new entrants.	+**Deeper markets** attract order flow and market makers in a compounding network effect. - **Fee compression:** fees paid to third-party orchestration providers	+**Moderate positive:** Tokenizing capital markets is unlikely to directly impact demand to trade, and in instances could improve it. Risks lie in potential mix shift to exchanges offering benefit of democratization and access to new asset classes
Asset managers	**Limited impact** – stables will likely be used as settlement mechanism in some instances, not impacting asset gathering, but more back-end operations	+**Tokenized product providers:** broader access and distribution -**High-fee managers** could see fee compression -**New products:** Perps, predictions, int'l US equity access could drive mix shift	Limited direct impact.	+ **Regulated providers:** capital concentrates within compliant providers with strong governance and controls.	+**Additional revenue:** ability to charge a premium for abstracting complexity across multiple networks - **Fee compression:** fees paid to third-party orchestration providers	+**Moderate positive:** Asset managers may be able to reach new global buyers of products (favouring scale managers), although could see fee pressure / movement to more passive low fee products

UBS Source: UBS Research

Digital Assets go Mainstream

Anatomy of a blockchain based payment transaction



Source: UBS Research, Company data

Digital Assets go Mainstream

Anatomy of a blockchain based payment transaction (market participants map)

Orchestrators / on-off ramps

Banxa
Bridge (Stripe)
BVNK
Conduit
Crossmint
Levl
Merge
Mesh
MoonPay
Mural Pay
Noah
OpenFX
OpenPayd
Orbital
Simplex (Nuvei)
Triple-A
Velocity
zerohash

Wallet Infrastructure

Anchorage
Crossmint
Dfns
Fireblocks
Fordefi
Ledger
Magic
MetaMask
Phantom
Particle Network
Privy / Stripe
ReOwn
Safe
Sequence
Solflare
Thirdweb
Turnkey
Web3Auth

Custodians

Anchorage
BitGo
Coinbase
Copper
Fireblocks
Gemini
Metaco (Ripple)
State Street
Sygnum
Zodia Custody

Exchanges / Market Makers

CEX

Backpack
Binance
Bitget
Bitstamp (HOOD)
Bullish
Bybit
CME
Coinbase
Crypto.com
Deribit (COIN)
Gate.io
Gemini
HashKey Exchange
HTX
Kraken
KuCoin
LMAX Digital
MEXC
OKX
OSL

DEX

Aerodrome
Balancer
CoW Swap
Curve
dydx
Hyperliquid
Jupiter
LayerZero
Lighter
Meteora
Orca
PancakeSwap
Polymarket
PumpSwap
Rain
Raydium
Uniswap

MM / Broker

Amber Group
FalconX
Flowdesk
Galaxy
GSR
Hidden Road (Ripple)
Jump Crypto
Keyrock
Wintermute

Stablecoin Issuers

Fiat Backed

Agora I AUSD
Agant I GBPA
AllUnity I EURAU
Circle I USDC
First Digital I FDUSD
Monerium I EURe
Open Standard I OUSD
Paxos I USDP, USDG
Quantoz I EURQ
Ripple I RLUSD
Stasis I EURS
StraitsX I XSGD
Tether I USDT

Non Fiat

Curve I crvUSD
Frax Finance I FRAX

Synthetic / Yield

Ethena I USDe
Midas
Ondo Finance I USDY
Sky (Maker) I USDS
Spiko

White Label

Agora
Anchorage
Brale
M0
Paxos

Cards

Baanx
Bridge (Stripe)
Rain
Reap

Consumer

DolarApp
Erebor
Juno
Kast
Morse (Sling Money)
Nala
Plasma

Oracles

Chainlink
Pyth

Other Infra

Alpaca
Augustus
Blockdaemon
Broadridge
Gattaca
Kaleido
Nethermind
Securitize
Squads
Ubyx

Lending

Aave
Kamino
Morpho
SparkLend

Interoperability

Bridging

Across
Axelar
Chainlink
Layerzero
Relay
Wormhole

Intents

0x Matcha
1inch
Bebop
CoW Swap
KyberSwap
Near
UniswapX

Chains

Layer 1

Aptos
Avalanche
Bitcoin
BSC
Ethereum
Gnosis
Near
Solana
Sonic (Fantom)
Sui
TON
Tron

Side / L2

Arbitrum
Base (COIN)
Optimism
Polygon
Robinhood
Soneium
Worldchain
zkSync

Specialist

Arc (CRCL)
Celo
Plasma
Stellar
Tempo
XRP (Ripple)

Permissioned

Canton
Fnality
JPM Kinexys
Partior
SWIFT Ledger

Compliance / Privacy

Compliance

Chainalysis
Crystal Intelligence
Elliptic
Merkle Science
TRM Labs

Travel Rule

Notabene
Sygna Bridge
Veriscope
VerifyVASP

Privacy

Aleo
Aztec
Concordium
Espresso
Iron Fish
Mina Protocol
Namada
Oasis Network
Railgun
Secret Network
Zcash

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Source: UBS Research

Macro rundown



Macro factors and digital assets

Digital assets are becoming mainstream

Digital Assets are going mainstream – and as they become incrementally investible, it will be increasingly important for capital allocators to have a view

Institutional access to digital assets has expanded through regulated ETFs and ETPs, listed derivatives and crypto-related equities, reducing the need to hold assets directly on-chain.

The first DA ETF was launched in 2021 and now represents ~$100bn of combined assets under management (~5% of the ~$2tr+ of on chain crypto assets), with trading volumes of ~$10bn per day.

Traded DA futures (first launched in 2017 for Bitcoin) represent ~$10bn in open interest and $4-6bn in daily traded volume on CME.

Institutions are increasingly making DA available to their clients.

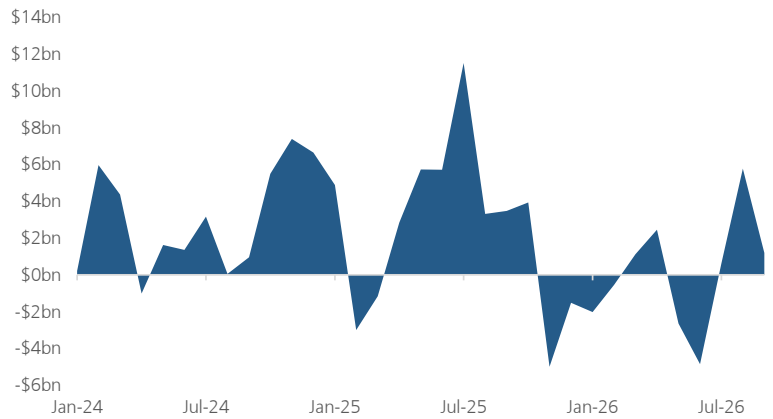
The more prevalent trade today is thematic in our view, tied to the institutional adoption curve of tokenization and digital assets rather than trading individual coins, although there are certainly tactical opportunities tied to macro impacts and individual tokens.

We discuss **5 key thematics and the potential impacts to sectors and sub-sectors** later in this report – the central debate ties to whether digital assets will help or hinder existing financial business models (across banking, FinTech, capital markets and technology).

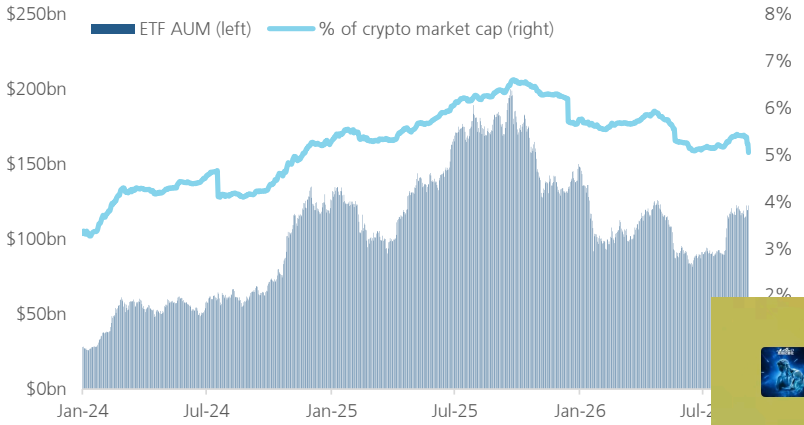
DA native equities such as DA treasury (MSTR, BMNR), exchanges, stablecoin issuers, represent a pure play equity investment thematic.

The most liquid DA tokens (and derivations) are Bitcoin, Ether, and Solana.

Crypto asset ETF net monthly flows (which skew to Bitcoin / Ethereum) are net positive from 2024, leading to…



…AuM of US digital asset ETFs now > $100b (peak ~$200b), as a greater proportion of digital assets are held by funds



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Source: Glassnode, CME, UBS Research



Macro factors and digital assets

Return profile of digital assets

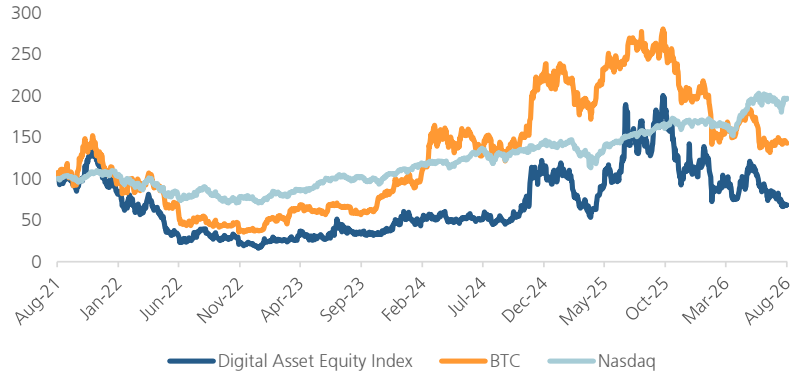
Digital assets have delivered strong returns over selected longer periods, but high volatility and severe drawdowns make the entry point and holding period important for capital allocators.

> **The valuation question (how?):** The largest DA tokens do not entitle holders to residual cash flows, but some accrue value through charging network fees.

High volatility and 24/7 trading create opportunities for quantitative and hedge-fund strategies, but we believe that drawdowns and continuous risk management make direct exposure challenging.

Digital-asset-adjacent equities may offer an alternative route for long-term investors, providing thematic participation while reducing dependence on token-specific returns.

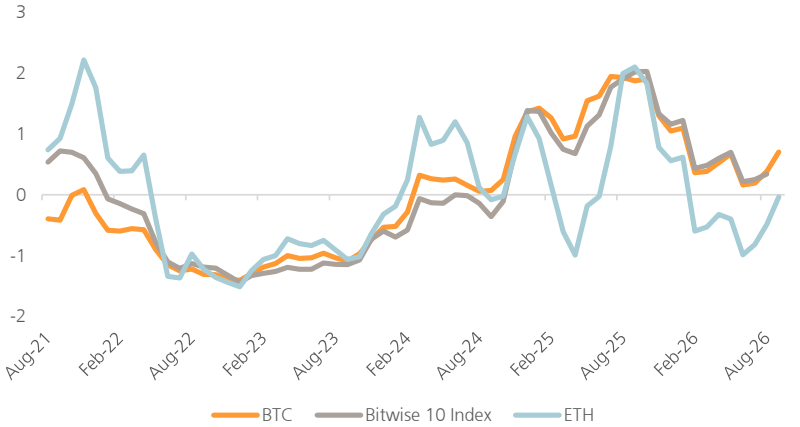
Digital asset adjacent equities have underperformed the market



Digital assets themselves have exhibited meaningful volatility (evidenced by z-scores), and have had varied performance depending on the time horizon (1yr heavily negative, but more recently recovering off of lows on a 1m / 3m timeframe)

Price Returns by asset and time horizon

	1W	1M	3M	6M	1Y	5Y	YTD
BTC	11%	11%	37%	26%	-25%	113%	-2%
ETH	10%	10%	63%	33%	-38%	1%	-8%
SOL	16%	27%	64%	36%	-50%	-4%	-6%
XRP	8%	6%	37%	9%	-48%	75%	-18%
BNB	11%	16%	37%	27%	-24%	132%	-7%
DOGE	19%	9%	21%	9%	-62%	-51%	-21%
AVAX	48%	43%	84%	22%	-66%	-81%	-17%



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Source: Glassnode, Eikon
Staking = Locking tokens in protocol smart contracts in return for a dividend-like yield
Validator income = rewards or transaction fees earned by node operators for securing the blockchain and processing transactions

Macro factors and digital assets

Digital assets increasingly trade as a common risk factor, but macro correlations are unstable

Bitcoin and other crypto assets exhibit **high cross-correlation, so owning several tokens provides little diversification.** Their relationship with equities, interest rates and the US dollar also changes over time, meaning historical correlations may not be reliable during the next market downturn.

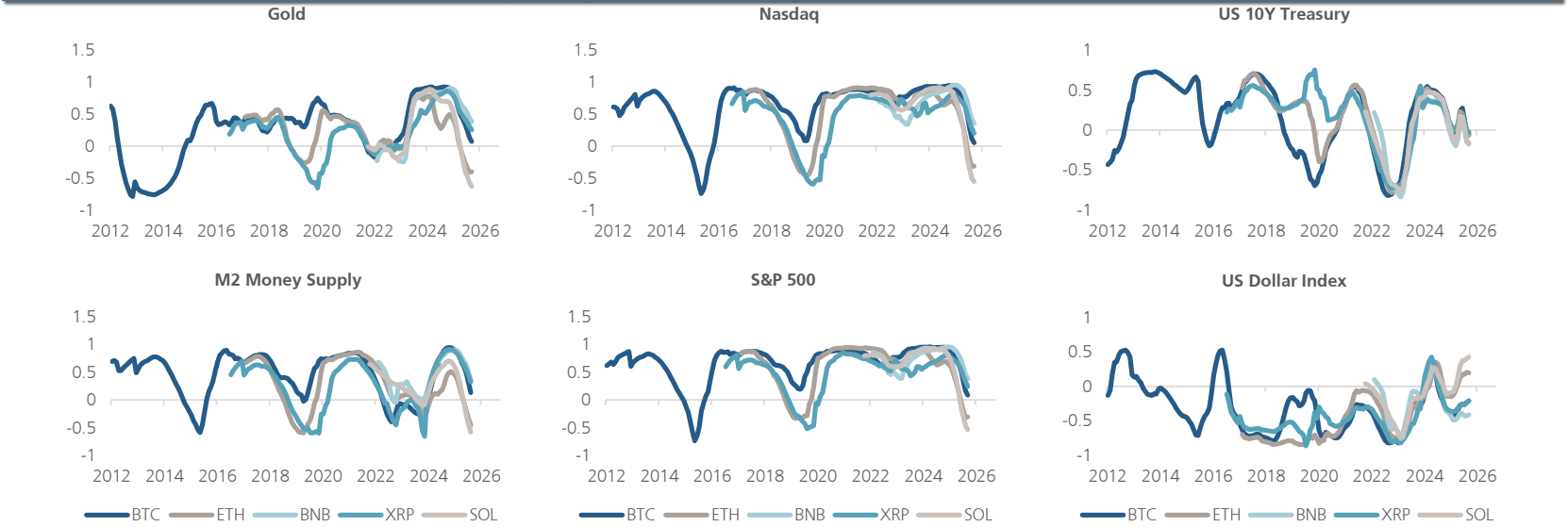
With the Digital Assets market in its infancy relative to other financial markets, there is a more limited track record to form firm conclusions on correlation and causation

Changing correlations (and therefore thematics) can mean sizeable tactical trading opportunities for investors positioned to the correct drivers.

While digital assets appear to have (at times) weaker average correlations with bonds / rates (and at times equities), this does not guarantee protection during stress because correlations and betas may rise when investors reduce risk simultaneously.

Greater institutional participation may improve liquidity and access, but it also makes crypto more exposed to the same forces that drive other risk assets, including interest rates, the dollar and investor risk appetite.

30 day rolling correlations of digital assets with macro factors



UBS Source: Eikon, IMF, Glassnode

Macro factors and digital assets

Diversification is stronger across asset classes than within crypto

In general we believe **digital assets today are more akin to a risk asset** rather than a defensive or diversification mechanism within a portfolio

Diversification within digital assets is currently limited, with tokens sharing exposure to crypto liquidity, leverage and investor risk appetite.

Within the digital asset universe, Bitcoin has a strong cross-correlation with other digital assets, but generally witnesses less severe drawdowns relative to Ethereum and other digital assets, which tend to be more sensitive to crypto-native liquidity, leverage and broad risk appetite

Low average correlations with bonds may overstate the potential diversification benefits, as relationships can strengthen when investors reduce risk simultaneously. We believe the portfolio impact therefore depends more on market conditions and the asset used to fund the allocation.

Idiosyncratic factors also play a role in trading, for instance leveraged positions liquidating or leveraged digital asset treasury companies (i.e., with debt obligations or dividend coupons) could become forced sellers to satisfy obligations (i.e., MSTR ~$323m sales in summer 2026), and lead to sentiment shifts more broadly in the asset class (negative signal)

Correlations of digital assets with macro factors

	Digital assets			Commodity	Equities			Government debt						Monetary Policy		
	BTC	ETH	SOL	BNB	GOLD	NASDAQ	S&P500	STOXX600	US 10Y	DE 10Y	JP 10Y	US 2Y	DE 2Y	JP 2Y	M2 Money supply	Fed Balance Sheet	Fed Funds Rate
BTC		0.87	0.83	0.90	0.83	0.93	0.92	0.86	0.61	0.39	0.54	0.65	0.59	0.70	0.81	0.64	0.68
ETH	0.87		0.86	0.74	0.61	0.80	0.81	0.78	0.52	0.57	0.55	0.48	0.60	0.54	0.83	0.72	0.49
SOL	0.83	0.86		0.79	0.40	0.61	0.64	0.60	0.44	0.36	0.42	0.30	0.25	0.47	0.53	(0.33)	0.33
BNB	0.90	0.74	0.79		0.72	0.81	0.84	0.81	0.54	0.52	0.70	0.33	0.33	0.74	0.72	(0.55)	0.35

UBS Source: Eikon, Glassnode

Macro factors and digital assets

Bitcoin – is it digital gold?

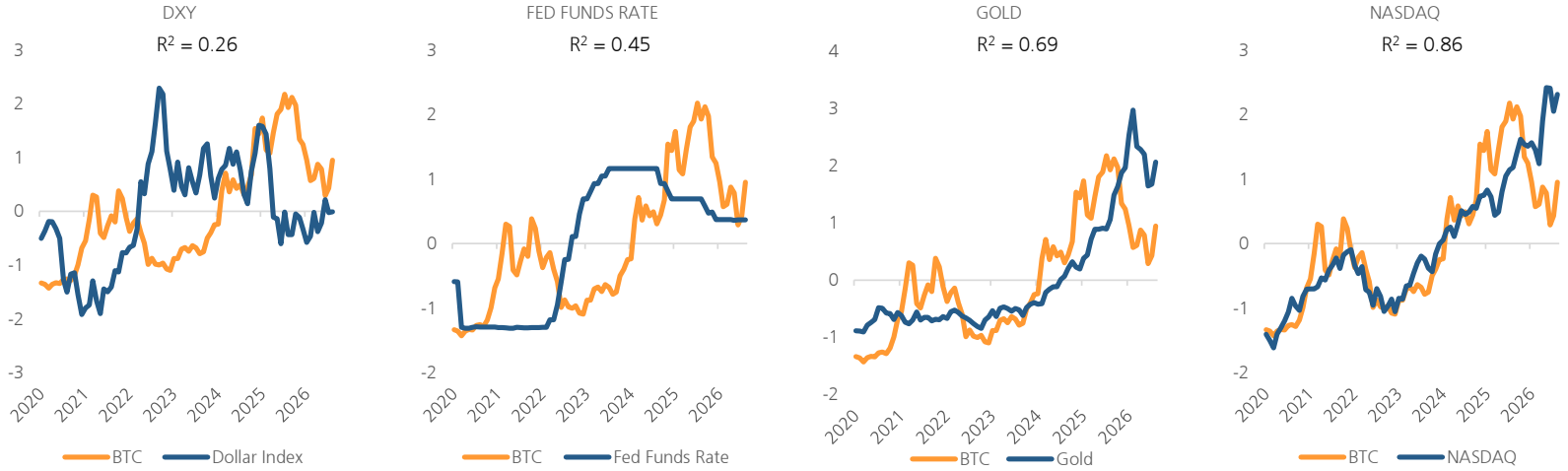
As noted previously, we believe **Bitcoin is best understood as a risk asset** (R^2 with the Nasdaq is 0.86), although it also exhibits commodity-like qualities (no direct cash flows for investors) similar to a digital version of gold (~0.69 R^2), making it **less effective for portfolio diversification.**

Bitcoin's recent divergence from gold and technology equities indicates the widely published theory that M2 money supply correlates to bitcoin price accretion is not a complete pricing model, despite historical correlations suggesting a level of explanatory power. Money supply alone exhibits correlation to many asset classes, but unlikely provides a full causation explanation – incremental Supportive system-wide liquidity can coexist with weak Bitcoin performance (marginal risk capital is directed toward AI infrastructure and profitable technology companies), or if Bitcoin-specific demand and market structure deteriorate.

The AI cycle may also affect Bitcoin through competition for power and data-centre capacity: some Bitcoin miners are redirecting infrastructure and capital toward AI and high-performance computing, while reports indicate that miners have sold Bitcoin to fund this transition.

Additionally, treasury companies (i.e., MSTR ~4% of BTC holdings), present a levered demand side impact on volumes and therefore pricing.

BTC price versus macro variables (z-score)



Source: Glassnode, The M2-BTC correlation theory is one supported by Real Vision, CrossBorder Capital, in addition to Fidelity Digital Assets; others less specifically to M2 claim that with finite supply and incremental money supply Bitcoin is likely to appreciate

Macro factors and digital assets

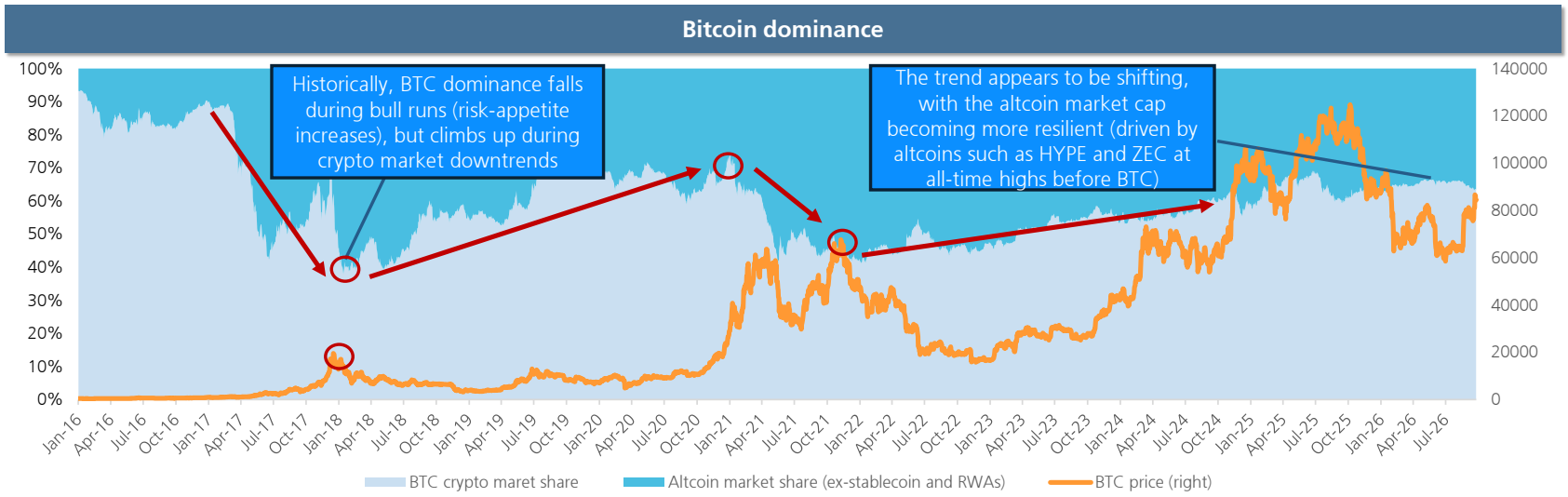
Bitcoin dominance and intra-crypto allocation

Bitcoin often acts as the relative defensive asset within the digital asset universe, with capital concentrating in BTC when liquidity tightens or confidence in smaller tokens declines. However, relative resilience within crypto should not be confused with absolute safe-haven behaviour against equities or other portfolio risks.

Falling Bitcoin dominance can signal a broadening risk cycle, but it may also indicate speculative excess rather than improving fundamentals. We therefore use dominance alongside stablecoin liquidity, market breadth and derivatives positioning rather than as a standalone allocation indicator.

Asset-specific technological risks have also become more relevant to Bitcoin's relative performance. Coinbase estimates that around ~6.5m BTC, or ~33% of supply had public keys exposed on-chain, creating potential vulnerability to a sufficiently capable quantum computer, although Coinbase states that the threat is not immediate (possibly a decade) and places signature migration at the centre of mitigation.

Others (not just Coinbase) cite Bitcoin at risk as a result of quantum, but downplay the likelihood of an existential threat



UBS Source: Glassnode, Coinbase

Macro factors and digital assets

Stablecoins create a new global channel of demand for dollars and Treasury bills

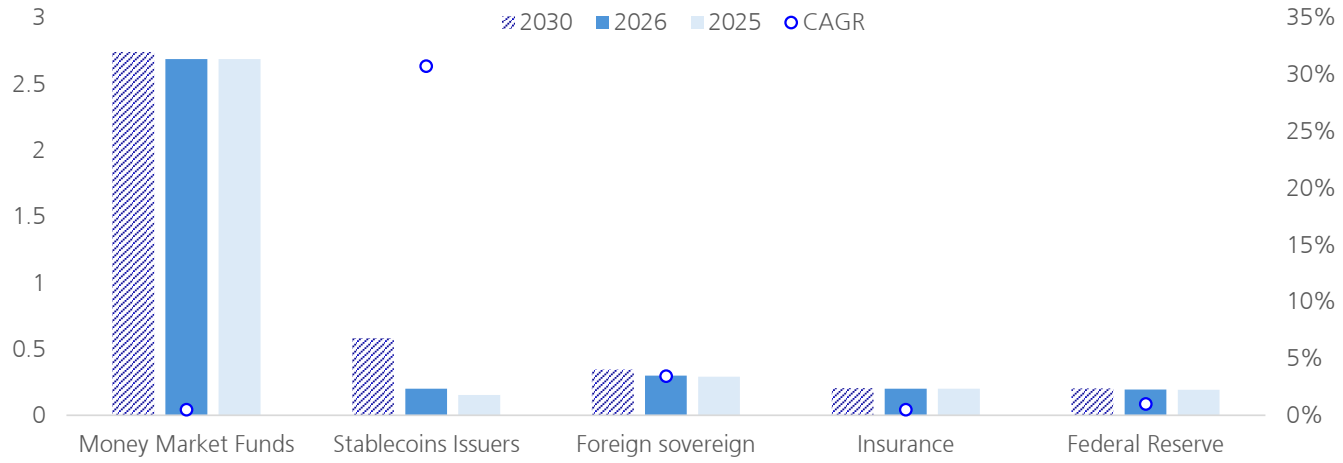
Stablecoins issuers have become one of the largest holders of short-term US government debt, holding ~$175b+ of Treasury-linked exposure (Treasury bills, government money-market funds and reverse-repurchase agreements collateralized by Treasuries).

The sector's importance is disproportionate to its size because reserves are concentrated at the very front end of the curve and have a measurable impact on near-term funding rates.

> A working paper from The Bank of International Settlements (BIS) estimates that a $3.5b stablecoin inflow lowers the three-month T-bill yield by ~0.7bps initially and by ~4bps within ten days.

US regulation is likely to make this demand increasingly structural as the GENIUS Act restricts permitted reserves to highly liquid assets.

Stablecoin issuers could become the second largest holders of short-term US treasuries by 2030



Holders of short-term (<1 year) Treasury Bills. Build assumes constant projected CAGR over the 2026-2030 period.

UBS Source: UBS estimates, BIS, Circle, Tether, Allium

Macro factors and digital assets

Digital assets have a long way to go, but will continue to become increasingly investible

Adoption of digital assets as a standalone investment class remains somewhat limited – with the market cap comprising < 1% of assets globally (i.e., equities, bonds, PE / VC, etc.) – Bitcoin and Ethereum comprise ~70% of the digital asset market cap.

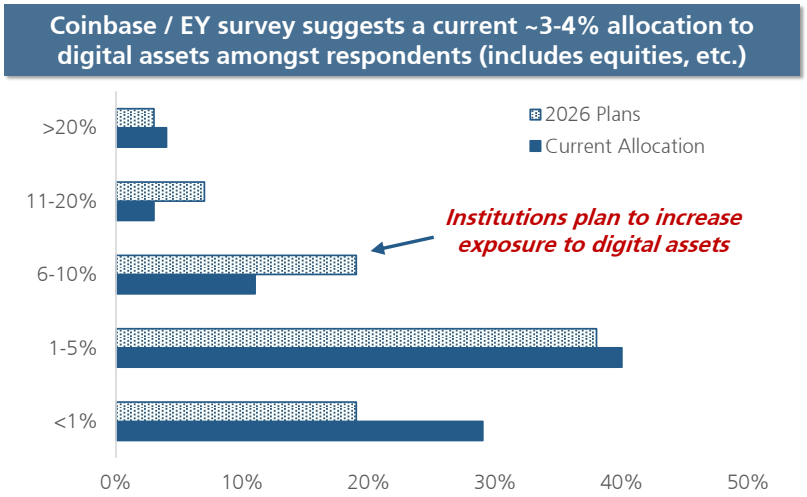
Today institutions may be constrained to trading regulated products such as listed futures of liquid digital assets, ETFs / ETPs of digital assets, and crypto adjacent equities, rather than directly trading assets on chain.

Security, Regulation, Asset Volatility, Correlation (as discussed previously) are main considerations / possible hindrances when allocating.

Specialist investors may increasingly see opportunity in trading individual tokens to generate alpha.

Trading the thematic shift of financial services and payments to digital assets (the 5 themes we discuss in the following section of this report) in the near-medium term (1-3yrs) is likely to be the primary mechanism for taking a position, rather than in the assets themselves.

Digital assets are continuing to grow in importance as an asset class, although still with a long way to go, but nonetheless tie to a broader technology disruption narrative across all of financial services – which we would argue is investible today.



UBS Source: Coinbase / EY 2026 study, UBS Research

Stablecoins as a real-world payment rail



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Stablecoins as a real-world payment rail

The landscape for digital money leads back to stablecoins

Why focus on stablecoins?

- The payment instrument at the intersection of centralization (tokenized central bank fiat money) and decentralization, also exhibiting fungibility (transferrable in exchange for value)
- Atomic settlement and programmability further enhance their appeal for payment use cases
- Usage has scaled rapidly (off a small base) evidencing the potential for real world use cases
- Stablecoins have been launched by disruptors (i.e., Circle, Tether) and therefore represent an outside threat to the incumbent banking ecosystem and payment companies

What about other forms of digital tokenized money?

- **Tokenized deposits** remain credible for 'money at rest' use cases or internal treasury – however are currently not fully fungible (operating in closed loops) requiring other interoperating networks to transfer value externally
- **CBDCs** are at varied levels of operational readiness and rollout, with different design primitives (blockchain vs digital), with several countries on the sidelines (i.e,. US)

Stablecoins

Tokenized, on-chain representation of fully reserved (1:1 backed) fiat currency (99%+ USD), reserved with US treasuries, issued by private entities. Can be used in DeFi (collateral for crypto trading, settlement leg). I.e., Circle, Tether

Tokenized Deposits

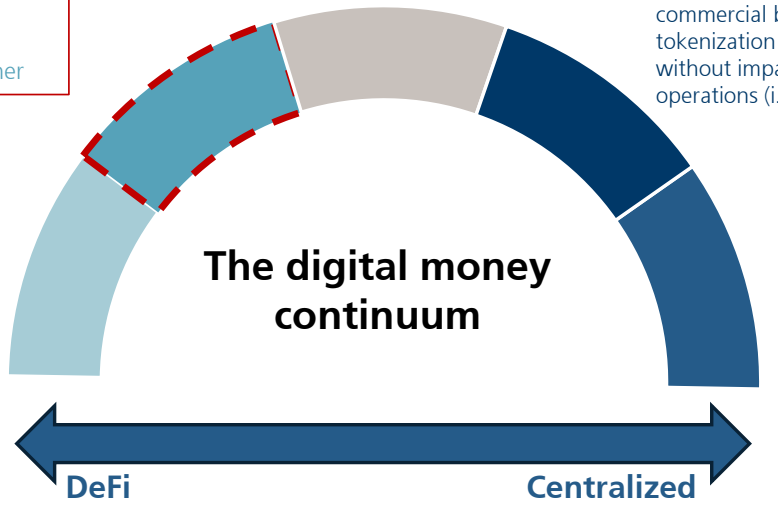
The on-chain representation of M2 money supply held at commercial banks, therefore enabling fractional banking. Not typically fungible to other banks (yet), and held in private networks (bank internal ledger)

Tokenized wholesale settlement

The layer between M1 and M2, sitting between central banks and commercial banks. Ability to use tokenization to fund instant liquidity without impacting funding or operations (i.e., Fnality, ECB Pontus)

Crypto assets / tokens

Ownership and participation in blockchain networks. Operate through decentralized governance and validation mechanisms rather than central entities such as governments or corporations. Typically exhibit high price volatility. Examples include Bitcoin, Ethereum and Solana.



Central Bank Digital Currencies (CBDC)

Digital representation of central bank money (M1), with aspirations for retail and wholesale. Designs can include blockchain and non-blockchain specifications (i.e., Digital Euro)

UBS Source: UBS research

Stablecoins as a real-world payment rail

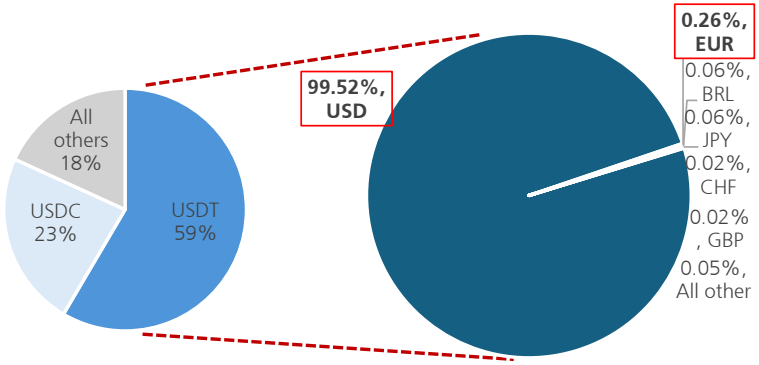
Velocity and liquidity

What (really) is a Stablecoin?

- **Stablecoins** refer to fungible tokens (exchangeable for other similar tokens) built on blockchain rails, backed by instruments ('reserves') with stable value (i.e., US Treasury bills – which underlie USD stablecoin tokens)
- Initially, stablecoins were tied primarily to crypto trading use cases, providing a stable trading leg to a volatile asset class
- A stablecoin is created via "minting" (pictured) where a party funds an issuer (i.e., Circle, Tether), the issuer then buys short-term treasuries, creating a corresponding tokenized representation on the blockchain
- 'Burning' (redeeming) stablecoins generates revenue for the issuers

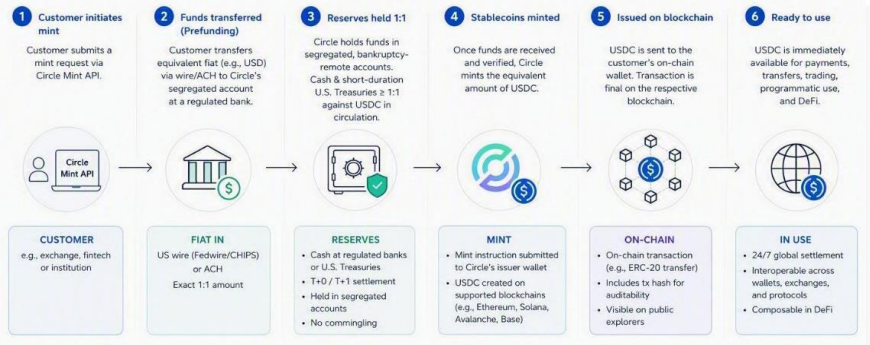
***The benefits of stablecoins**: Inherently not sovereign (in the same way central bank money is), not volatile, and able to be moved and settled instantly, immutably, and fungibly, to other counterparties globally*

USD stablecoins represent 99.5% of stablecoin market cap



UBS Source: UBS Research, Circle, Tether, BIS, IMF, Allium

How to mint a Stablecoin (Circle, USDC)



Features of a stablecoin and advantages relative to fiat

Feature	Description	Fiat comparison
Instant	Blockchain based payments are instructed and settle near-simultaneously, which can reduce needs for prefunded / locked capital	Typically operates a T+ (1-5) settlement framework often constrained by batch settlement
Programmable	Ability to easily and natively build self-executing instructions into financial instruments via 'smart contracts' recognized on the blockchain and verified by network validators	Fiat money flows can be automated, but are not inherently programmable, with software flows enabling automation (i.e., repeat direct debit)
Immutable	Blockchain transactions are not reversible – validators refute invalid transactions. Protocol owners / actors can return funds with keys in rare instances	Chargebacks and disputes are a key feature of fiat transactions, and the bifurcation between authorization and settlement leaves time for changes (most of the time)
Global / fungible	Funds, tokens, etc. can be disbursed to anyone with a wallet address, lending to rapid global scaling.	Fiat money is constrained by geographic fragmentation of currencies
Low cost (on-chain)	Cost to transact is gas and exchange fees (sub 10bps), complexity and cost lies in on/off-ramping into fiat	Local currency liquidity is required to build scale or sizeable partner networks, scale leads to lower fees

Stablecoins as a real-world payment rail

Revolution or evolution?

Stablecoins friend or foe vs incumbent financial ecosystem?

Stablecoins have taken the world by storm over the last 2 years (2026 Google searches up ~10x vs the 2021-24 benchmark), closely associated with a changing and maturing regulatory regime (GENIUS Act)

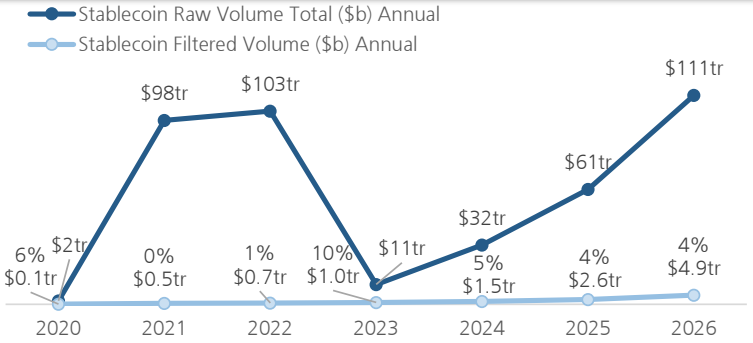
- We believe that **stablecoins provide a credible alternative** to existing transaction payment infrastructure
- Removing 'store of value' use cases (i.e., individuals or businesses in hyperinflationary currency regimes), **stablecoins** (in their current form) **are best suited for back-end infrastructure 'money in motion'**
- We have seen **~$5b in aggregate PE / venture funding of stablecoin companies** from 2024-2026 YTD

In our view, the future global financial ecosystem will require interoperability between multiple forms of money, increasing complexity, with stablecoins supporting primarily money-in-motion uses

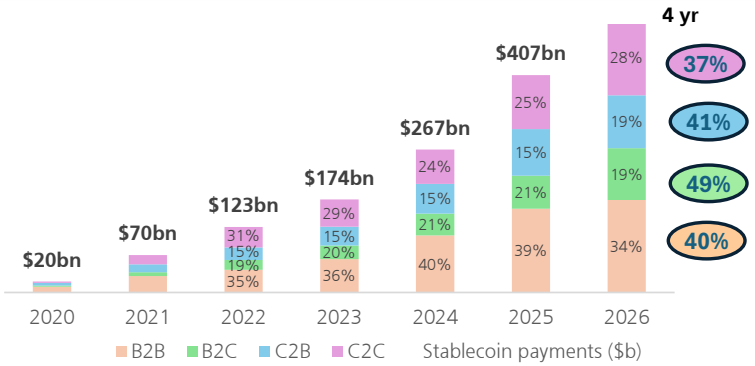
6 Key Questions for stablecoins as a real-world payment rail

1)	How big could stablecoin market cap / transaction volume become?
2)	Will stablecoins, in real world use cases, reduce working capital requirements and increase the velocity of money?
3)	Is on-chain FX necessary to achieve maximum adoption of stablecoins – do stablecoins as ~99.5% US Dollars impact adoption?
4)	Will tokenized deposits negatively impact demand for stablecoins?
5)	Do 'store of value' uses extend beyond hyperinflationary economies?
6)	Are wholesale payments an opportunity for stablecoins?

Economic payment volume on stablecoins today is 4% of raw stablecoin transaction volume



Real payments activity by use case is run-rating to ~$500b in volume < 1% of the global payments TAM



Source: Allium, 'Filtered' volume excludes transfers that aren't real economic transactions (i.e., CEX internal activity, DeFi protocol activity [smart contract interactions, liquidity provision, automated/bot trading] Infrastructure activity); 2026 Stablecoin volume = YTD Annual Runrate.

= Discussed in detail / answered in this section

Stablecoins as a real-world payment rail

Stablecoin payments volume could hit $3tr

Demand to pay in stablecoins (and therefore volume) is the primary driver of stablecoin supply (market cap), making **market cap an output rather than an input**

The availability of stablecoins could be an impediment (depth of market / sufficient liquidity) to enable the widest swath of use cases (i.e., wholesale payments)

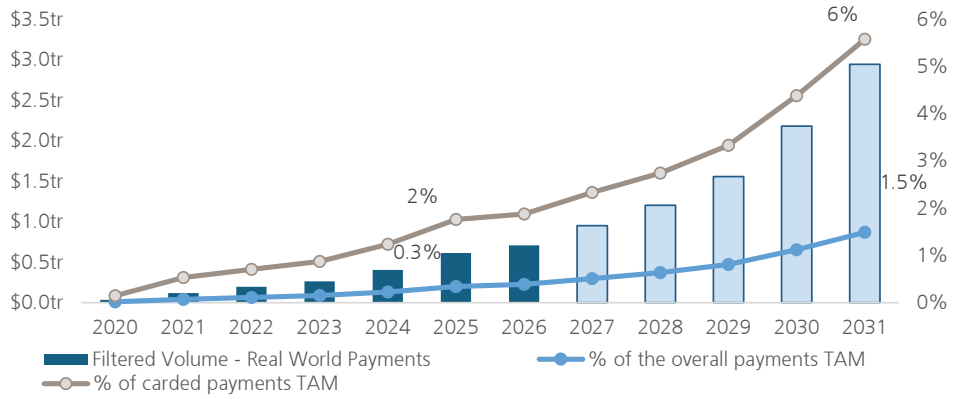
Until stablecoins become more ubiquitous general-purpose technology (and money) we believe adoption will remain fragmented and use-case specific

From a purely payments perspective (not capital markets) we believe stablecoins are best suited to emerging markets uses (lower cost vs fiat money)

We estimate **$3tr in 2031 stablecoin real world payments volume,** a function of filtered payments volume specifically tied to real world payments, and assumes:

A greater percentage penetration of EM specific flows (send, receive, both)
Benchmarked to penetration by opportunity (B2B, C2C leading)
Supported by bottom up disclosures by industry participants

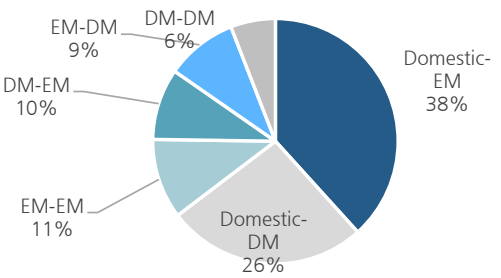
Real world payments volume on stablecoins could reach ~$3tr by 2031



Source: UBS Estimates and stablecoin model, Allium, BIS, IMF, ECB, Visible Alpha, FXC intelligence
2026 Stablecoin volume = YTD Annual Runrate

Use Case	Description	Maturity	Upside Case
Store of Value (EM)	High utility in hyperinflationary economies	Moderate	Replaces long tail currencies M2 supply
Cross border (B2B)	Supplier payments, more oriented to one EM leg	Low	Working capital efficiencies drive EM & DM adoption
Cross-border (C2C)	Remittances – sent to individuals across borders	Low	Speed, fees, traceability, drive high levels of EM adoption
Pre-funding Card networks, treasury	Just-in-time funding & settlement (i.e., weekends)	Low	Card networks and txn banking move to instant settlement
Stablecoin cards	Card issuance settled in stablecoins	Low	Used by DA native businesses
Agentic Commerce	Autonomous & micropayments by agents	Nascent	Agentic becomes 15% of txn

Stablecoin flows by corridor type (Allium) skew domestic



Stablecoins as a real-world payment rail

Just-in-time benefits for pre-funding and capital efficiency

Prefunding – a banking concept tied to the idea of storing value in local 'nostro' bank accounts to facilitate foreign currency payouts – leaves unproductive, trapped cash / minimum balances

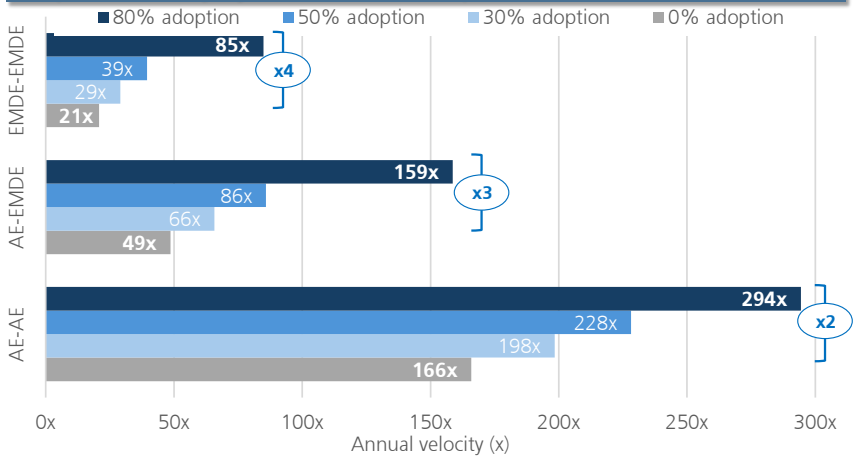
Today, nostro accounts globally account for ~$3-4tr in cash held in accounts needed to be prefunded

Emerging economies (EMDE) corridors **traditionally require 3x-4x more** pre-funding per USD than AE-AE corridors due to:

- longer settlement windows and time zone nuances,
- fragmented financial infrastructure & networks,
- capital controls,
- FX risks.

In an upside case, stablecoins enable just-in-time, near instant, funding, but still require local payout functionality (partnerships and/or liquidity)

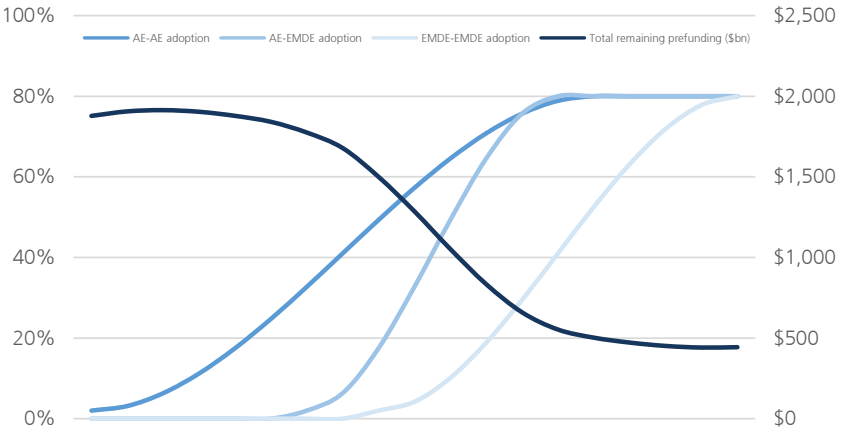
Implied Velocity by Corridor and Adoption



Source: UBS Estimates, BIS, IMF, World Bank, OpenFX, FXC intelligence
Nostro account = Latin for 'mine' – a bank's foreign currency account held at another bank

Stablecoin Adoption Runoff (illustrative, UBS model)

Illustrative scenario, shows how the dynamics of adoption affect the prefunding balances. The model uses illustrative S-curves to capture the non-linear nature of technology & innovation diffusion over 20 years.



Emerging Economies have the potential to benefit the most

In our view, stablecoins could increase payments velocity by reducing prefunding requirements (under the assumption that stablecoin recipients will recycle and further transact post receipt, rather than simply hold and receive earlier)

Consistent with IMF and BIS, our model concludes that emerging economies are set to disproportionally benefit from stablecoin-enabled settlement.

AE-AE (advanced) corridors have already built deep transaction banking networks and scaled instant bank payments networks, where stablecoins can only marginally increase velocity

Stablecoins as a real-world payment rail

Stablecoin 'velocity' as upside potential for payments efficiency

Stablecoin market cap is a function of: 1) money at rest (store of value) and 2) money in motion (payments, trading volumes, etc.)

Increased velocity (volume divided by market cap, number of turns) is the key feature of blockchain which could represent a meaningful payments unlock relative to traditional finance (constrained by daily batch processes and working hours).

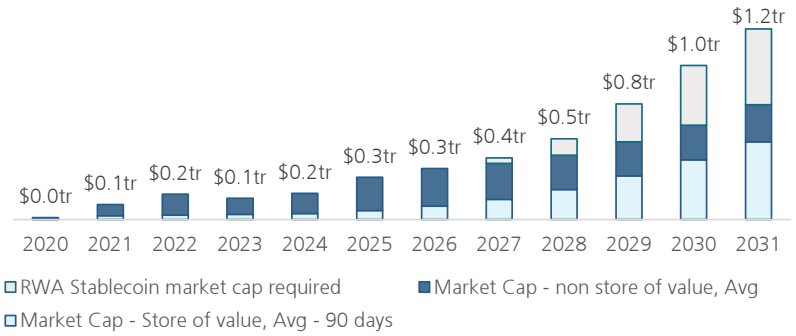
> Max daily blockchain velocity of ~5-10x faster than fiat depending on transaction mechanics
>
> We would expect velocity of payments use cases to increase over time (see chart)…
>
> …Which means that accelerating stablecoin volume, could theoretically be sustained with a similar market cap, dependent on the activity it is driving – **we call this the *Velocity Paradox***

Our math suggests a $1.2tr stablecoin market cap is possible by 2031 *– with 1/2 driven by capital markets activity (RWA), and the remainder deriving from payments and store of value. It remains clear to us that there is a meaningful opportunity for stablecoins is in capital markets (which we discuss at length in the next section)*

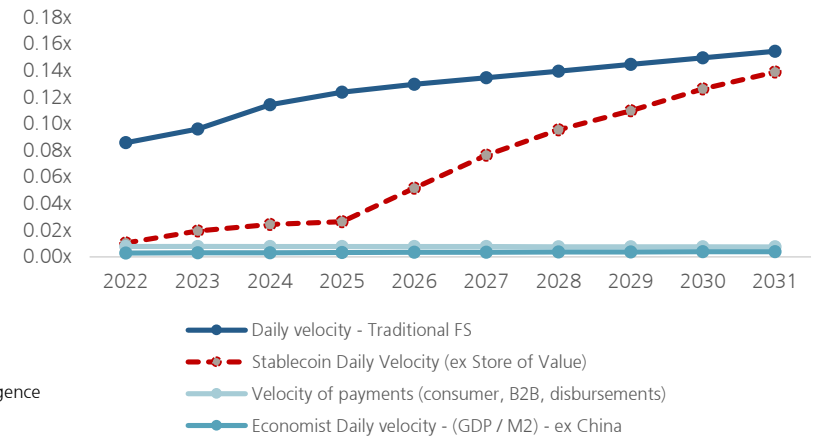
Which activities are likely to act as 'Velocity' Increasing?

Use Case	Description	Why velocity change?
Intermediary payment company flows	Payment companies in an intermediary role orchestrating external flows (instant DvP)	Payment companies can use stablecoins to accelerate and recycle money movement on the behalf of clients
Prefunding / working cap efficiency	Funds are prefunded to support local payouts, using working capital	If prefunded capital is no longer necessary, it can be used elsewhere in the business, meaning capital buffers can be lower
Agentic payments	Micropayments or autonomous payments by agent	Agents could use stables for micro-txn, increasing frequency of use
Trading margin requirements	Capital markets trading requires margin collateral	Faster settlement can drive lower margin and collateral mobility, freeing up capital

Our UBS stablecoin market cap model estimates ~$1.2tr by 2031



Stablecoin velocity remains materially below that of fiat currency, but increasing over time



UBS Source: UBS Estimates and stablecoin model, Allium, BIS, ECB, Visible Alpha, FXC intelligence
RWA = Real World Assets

Stablecoins as a real-world payment rail

Scenarios are widely dispersed but represent real upside

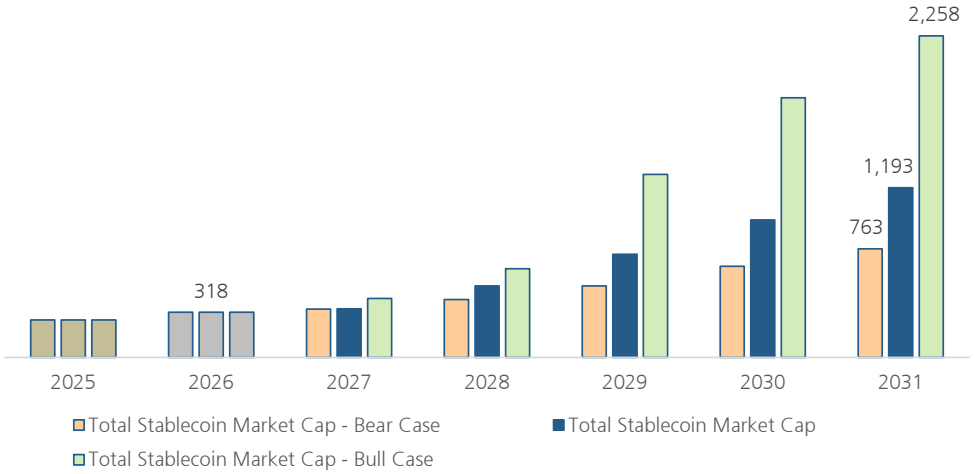
There are several widely divergent scenarios resulting from the stablecoin shift, which we capture in our upside and downside cases – flexing our estimates on a use-case basis, overlaying current adoption curves and maturity levels of use cases

Upside case – captures a portion of capital markets securities trading settlement occurring in stablecoins – the potential to largely outweigh real world payments activity. In this scenario we assume a similar level of store of value (tied primarily to M2 of hyperinflationary economies)

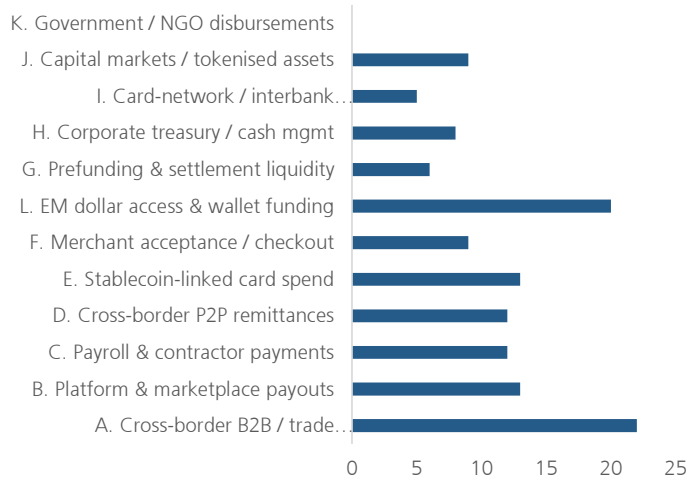
Downside case – In a downside scenario we haircut estimates across each modality of stablecoin payments, sizing it as mostly a tangential rail, rather than edging towards primary status (i.e., stablecoin agentic payments < 10% of our AI TAM, Real World Payments 20% of the FXC B2B/B2C cross border TAM)

If stablecoins work as designed (used as an accelerant of settlement finality) – we would not expect a material uplift in market cap relating to real world payment volume, as velocity increases in stablecoins (and supply) offset increases in payment volume

Upside scenario results in stablecoin market cap of ~$2.3tr in 2031 – limited by the velocity paradox on stablecoin demand



A sample of announced stablecoin partnerships shows a heavy skew to Cross Border B2B / EM dollar access



Source: UBS Estimates and stablecoin model, Allium, BIS, Company Case Studies, Visible Alpha

Stablecoins as a real-world payment rail

Challenges and potential avenues to scaling stablecoins

Potential drawbacks in the current stablecoin market infrastructure

Drawbacks	Rationale
1. Interoperability Lacking	Stablecoins are built often on different blockchains (Ethereum, Solana, Arc [Circle], Tempo [Stripe], JPM Kinexys) which require linking solutions (LayerZero, Chainlink) to bridge between chains – whilst the technology exists, it is a hindrance to adoption
2. Singleness of money / fungibility	Stablecoins received are not guaranteed to be redeemed at par value, except with an exchange or issuer where a connection exists Individuals should be indifferent between holding a stablecoin and cash (M1 deposits can be exchanged freely amongst individuals banking at different institutions)
3. Bilateral scaling mechanism	Stablecoin issuers must partner with an exchange, who then must partner with merchants to facilitate direct payment acceptance Creates silos and concentration amongst few issuers of stablecoins and their underlying technology Not feasible at scale to go 1 by 1
4. Fully reserved (1:1 backed)	Banks operate fractional reserve banking, lending deposits for return, 1:1 backed stablecoins (fully reserved) are unlikely to be popular
5. KYC / chargeback framework	Users of the ecosystem need to be 100% certain sanctions screens are bulletproof, as an n=1 can be massively damaging Chargeback mechanism is not yet developed

UBS Source: UBS Research, Ubyx Whitepaper

Potential solutions?

A rulebook – the interoperability of blockchain technology is not necessarily the issue (though it could be improved), but the interoperability of business terms, regulations, chargeback mechanism, definition of risk sharing, etc. A rulebook would solve these challenges

Global Settlement scheme – Visa connected unrelated financial institutions globally for the first time (in a way SWIFT did, but not all directly) in the 1970s, and added trust (certainty of settlement) – a settlement scheme which enables unrelated institutions to transact with trust and security eliminates the bilateral scaling challenge

Stablecoin settlement schemes as a viable solution to the problems

The Visa of stablecoins – Ubyx, Partior and others are creating stablecoin settlement schemes.

To get to global ubiquity, a common settlement layer could be the inherent forcing factor, and enable banks to settle their tokenized deposits (similar to Visa) on the same network as today's stablecoins

Stablecoins as a real-world payment rail

UBS conclusions on stablecoins

Stablecoin transaction volumes are a more meaningful indicator of digital-asset adoption than market capitalization, as they better reflect actual usage of blockchain technology.

Stablecoins add the most value as money in motion, and add the most value in emerging markets (both for payments and as a store of value)

Ultimately, due to their inherent design and regulatory treatment, stablecoins are likely to be one of several digital money forms enabling money movement – a supplement to tokenized deposits rather than ubiquitous

On average, stablecoins do not solve the "last mile" well (delivery locally in preferred method and currency to end recipient). Ultimately, local liquidity and bank partnerships are needed to deliver a cross-border payment end-to-end

We note that before adoption can scale, several challenges remain, including interoperability across institutions and geographies, adequate compliance infrastructure, and clear regulation.

View from the Industry

Today's stablecoin velocity is heavily dependent on use case, views were mixed on whether fiat money velocity could be more rapid than stablecoins

Nearly ubiquitously from our contacts – stablecoin velocity should increase over time as adoption becomes more common

On/off-ramps (local currency distribution) are not fully solved by stablecoins, where end-recipients often still require fiat

Prefunding in stablecoins could drive a meaningful unlock from a revenue perspective and deliver efficiencies for intermediaries

Positioned to benefit	Rationale	Potential risks	Rationale
Stablecoin issuers	Increasing stablecoin market cap should benefit stablecoin issuers (unless bank / industry consortia become the leaders)	**Cross border payments**	Stablecoins are naturally a threat to cross-border payments providers, particularly in corridors with great inefficiency (min one EM leg), and also an opportunity
Digital asset exchanges	Primary distribution mechanism for stablecoins	**Non-USD currencies**	Accelerated dollarization in hyperinflationary economies
Card networks	Settlement or prefunding in stables are card network native activities. Also, stablecoin linked cards are often V/MA branded	**Banks & Financial institutions**	Banks' stablecoin incentive is risk of payments / deposit flight, but may opt out because 1:1 backed (no fractional banking)
PSPs (on/off ramp)	Crypto native or traditional PSPs building into local infrastructure and facilitating 'stablecoin sandwiches'		

UBS Source: UBS Research

Tokenization and capital markets



Tokenization and capital markets

Tokenization could be a meaningful efficiency gain

Tokenization is often mentioned in payments, but practically has much broader implications, and is not simply encryption, but **a standardized digital representation of a right** (i.e., to ownership, access, consumption, information, etc)

Standardization and transferability (a shared or 'distributed' ledger) create promise for a meaningful reduction in complexity in financial services use cases (there are many other types of tokens – i.e., compute)

For capital markets specifically we believe **two main benefits** accrue:

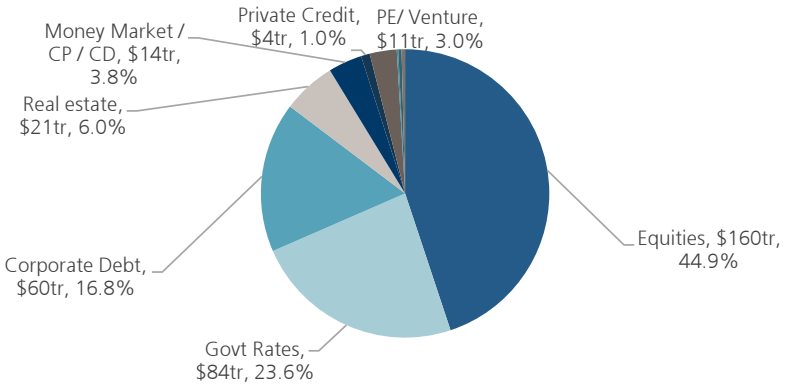
Democratize ownership -> international access to US equities, tokenize illiquid and/or private assets (Real estate, private equity / credit)

Simplify infrastructure and back-end complexity -> clearing, settlement, fund admin, custody, and reporting

6 Key Questions for tokenization and capital markets

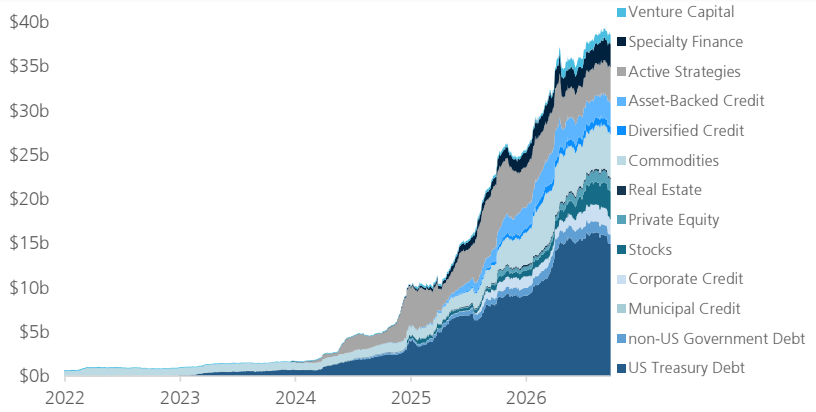
1) How will tokenization impact traditional trading / broker business models?
2) What are the benefits to tokenizing fund ownership?
3) Will tokenization compress fees (per unit) in capital markets, whilst increasing capital mobility and trading volumes?
4) How does tokenization impact collateral management (repos, regulatory capital, margin, etc)?
5) International access to US markets via perps, prediction markets, tokenized equities – regulatory arbitrage?
6) More risk or benefit to 24/7/365 and instant markets?

Global AuM of ~$350tr across all asset classes is dominated by equities and rates (govt, corp debt) …



Source: RWA.xyz, BIS, SIFMA, OECD, FSB, ICMA, ACC, AIMA

…Tokenized assets excluding stablecoins are approaching $40b market cap from < $1b in 2022, and 0.01% of total global AuM



= Discussed in detail / answered in this section

Tokenization in capital markets

Intro to topic, what is tokenization, why does it drive an unlock?

A **token** is a digital representation of an asset, claim, liability, credential, or entitlement, together with rules for how that representation is issued, held, transferred, redeemed, or used.

In payments, the token is often a substitute for sensitive data such as a PAN;

In capital markets, tokens may represent a security, fund share, deposit claim, stablecoin claim, collateral interest, or ownership record tied to legal documentation and governance

In capital markets, tokenization can compress issuance, transfer agency, custody, settlement, collateral mobility, and reporting

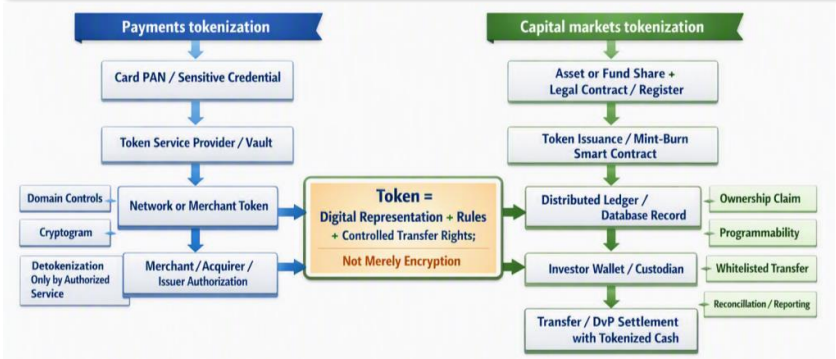
In securities trading there are three models:

Digital Mirror, where the on-chain record is a non-authoritative copy;

Digital Twin, where on-chain records are authoritative for a distributor or feeder fund; and

Digital Native, where the blockchain register is the authoritative fund register

The differences between payments tokenization and capital markets tokenization



UBS

Source: IMF, DTCC, BCG
DvP = Delivery vs Payment – where a security is delivered only if cash is available to be settled instantly; CCP = Central Counterparty; PAN = Payment Account Number

Features of tokenization, what it changes for capital markets participants

Value source	Why it matters	Areas of potential pushback
Shared record / fewer reconciliations	A shared ledger can reduce duplicate books, breaks, and reconciliation across issuers, custodians, TAs, and investors	Reconciliations remain when assets span multiple ledgers or when the legal register is off-chain
Programmability	Smart contracts can enforce transfer eligibility, mint/burn, DvP, coupon/dividend distribution, margin calls, and reporting triggers	Deterministic outcomes more easily automate; discretionary decisions like default management and margin overrides still need accountability
Atomic settlement	DvP/PvP can ensure both legs settle together or neither settles, reducing settlement risk, and potentially settlement exposure. Liquidity saving mechanisms (LSM), can ensure net settlement occurs, reducing need for gross	Constant atomic settlement means constant settlement requirement to clients for brokers which could actually increase capital requirements. Cross-ledger (blockchain) settlement creates challenges for atomicity
Portability / transferability	Tokens can be easily moved across wallets, custodians, platforms, or eligible participants if standards and permissions allow it	Portability is constrained by wallet whitelisting ('allowlist'), jurisdictional regulation, additional compliance checks, and blockchain fragmentation
Collateral mobility	Tokenized collateral can move faster and be pledged without full redemption, improving liquidity usage. As a result, assets could be redeployed profitably.	Assets need legal control, eligible collateral recognition, CCP/FMI acceptance, and settlement asset compatibility
Data and compliance automation	Wallet whitelisting, identity credentials, transfer restrictions, audit trails, and near-real-time supervisory access can be built into workflows	Lack of privacy, data protection, oracle dependence, and governance keys become new risk points (there is not less risk relative to current systems, just different).

Tokenization in capital markets

Collateral mobility and velocity the main drivers of increased efficiency

Capital markets may be the most compelling example of the potential for digital asset adoption, by way of the tokenization benefits, however it may not materialize the way most foresee…

Tokenized funds are a **small portion of overall AuM** (meaningfully < 1%)

Initiatives such as the US's DTCC's tokenization push may still not yield cash leg settlement in stablecoins or other digital assets…

Tokenization could drive efficiencies in collateral management and cost saves, by reducing frictions (settlement delays, operational overhead)

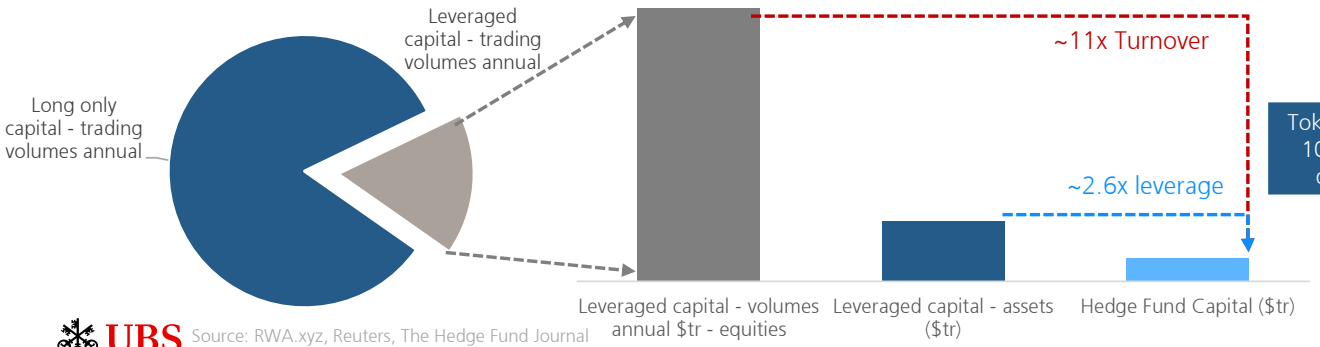
In our view, intermediaries (i.e., brokers) can benefit in a world of increased capital mobility (as the source of leverage in prime broking for example)

- When trade funding transactions settle faster via tokenization, the result is increased settlement certainty and as a result potentially reduced liquidity, settlement and operational buffers
- Tokenization does not directly impact client capital or margin requirements (risk buffers)

Illustration of decreasing buffers and liquidity requirements for broker dealers (low leverage scenario)

Component	Current Resources	% of Total Resources	Assumed Reduction	Future Resources	Future %
Client equity	100	76.9%	0%	100	80.9%
Economic funding	15	11.5%	0%	15	12.1%
Liquidity buffers	8	6.2%	-40%	4.8	3.9%
Settlement buffers	4	3.1%	-60%	1.6	1.3%
Operational reserves	3	2.3%	-30%	2.1	1.7%
Total	**130**	**100%**	**-5%**	**123.5**	**100%**

Capital mobility will see meaningful benefits for brokers facilitating leveraged trading (i.e., prime broking business with hedge funds), via decreased liquidity buffers



~$25tr in added trading volume

OR

~$800b less capital for the same output

Source: RWA.xyz, Reuters, The Hedge Fund Journal
The Federal Reserve, example assumes an illustrative trading mix for hedge funds (more active relative to long only)

Tokenization in capital markets

Tokenization unlocking efficient capital (Part 2)

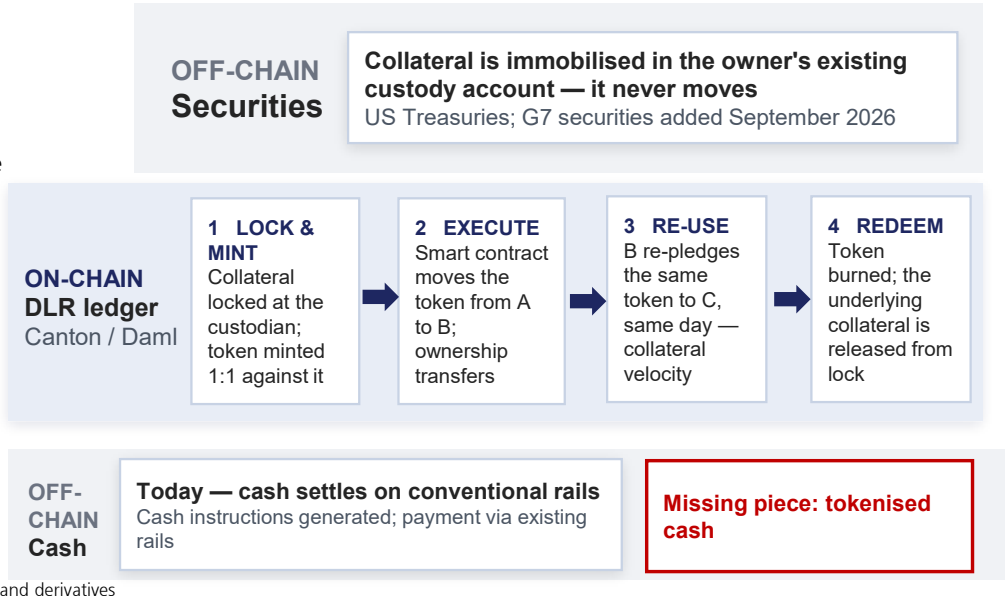
Increased capital efficiency and mobility should result from tokenization in capital markets – we could see changes to securities repo or FX collateral liability system (CLS) which are built around inefficiencies in market structure

- **Securities repurchase agreements 'Repos' (~$8tr daily volume)** – Meaningful amounts of capital markets activity is facilitated via Repos, which turns liquid securities (i.e., Treasuries) into cash balances which can be used for settlement of other obligations across the day – with two outcomes possible:
    1. Instead of typical overnight transaction (securities pledge in return for cash), typically rolled daily, repos could cover a period of hours to absorb cash outflows / trading liabilities for specific regions or groups of transactions / exposures (and re-used throughout the day)
    2. Pledged assets, if tokenized, could be used to satisfy settlement liabilities directly (tokenized money market fund becomes transferrable), but if instruments can be easily transferred, the need to convert securities to cash would be diminished, possibly decreasing the size of the repo market
- **Intra-day repos possible** (i.e., Broadridge DLR), with tokenization, securities are available to be locked and rehypothecated using the blockchain (ownership transfer), with the ability to re-pledge collateral instantly when the duration of the first repo trade culminates (i.e., hours rather than overnight)
- Broadridge DLR is generating ~$350b of volume on its platform, but is missing the tokenized settlement leg
- In our illustration (top right), we assume a portion of repo securities (which settle overnight / on a lagged basis) can be rehypothecated and used multiple times per day, illustratively 20% of all daily repo securities volume – unlocking that liquidity for other uses

In repo – if capital becomes more mobile (i.e., 20% of securities are used 2x /day), more productive investment can be unlocked

	Base Case	Less Capital	Volume Uplift
Global Repo Daily Volume ($tr)	8.00	8.00	8.98
Daily securities value collateral	8.16	7.27	8.16
Ratio	1.02	0.91	0.91
Collateral Unlocked ($tr)		**0.89**	
Uplift (Daily) ($tr)			**0.98**
Uplift (Annually) ($tr)			**246.2**

Broadridge DLR – is reshaping securities and repo mobility with tokenization, and processing $350b+ in daily repo volume



Source: DTCC, Fnality, Broadridge, ICMA, OFR, International Swaps and derivatives organization, UBS Research / Estimates

Tokenization in capital markets

Tokenization unlocking efficient capital (Part 2)

Regulatory capital ratio benefits – Basel III, Dodd Frank and other regulations create capital requirements for banks

Liquidity coverage ratio (LCR) – Basel III requirement to hold a ratio of liquid assets (HQLA) against estimated cash outflows over a 30 day period (100% minimum) to address stress scenarios

Banks and financial institutions hold more than $10tr in HQLA today, which could be more efficiently utilized

Banks typically are over-collateralized (130% vs 100% requirement) on the LCR ratio to account for tail risk (mostly market risk [price] and settlement risk [i.e., T+2])

HQLA are typically ringfenced assets by financial institutions, and in theory cannot be touched – creating instant settlement could enable greater mobility / replaceability of individual assets in the HQLA portfolio, with the potential to leverage into higher returns

Theoretically the LCR % required by regulators could be reduced if HQLA are able to settle instantly… or banks could decide to maintain lesser buffers beyond required LCR (although LCR is a B/S snapshot, not capturing contingencies covering peak trading / payments)

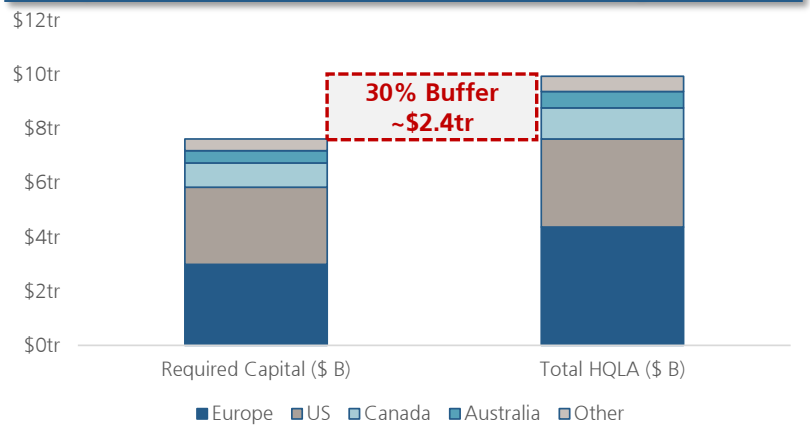
Atomic settlement on the blockchain – does it require additional capital to facilitate (continuous ability to settle for counterparties)?

Netting is possible with digital assets using smart contracts

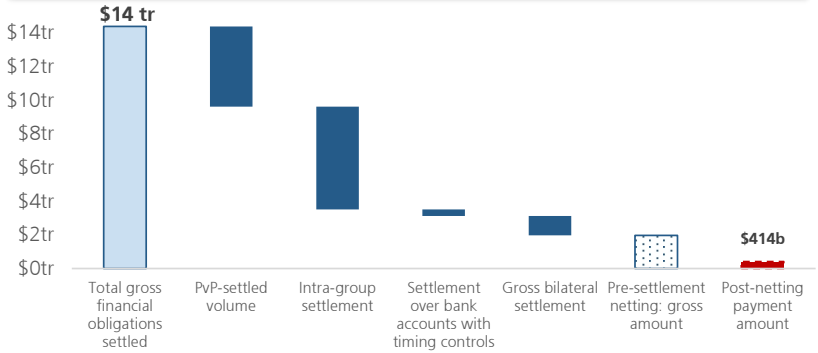
Real time gross settlement (RTGS) at scale is not feasible (insufficient money supply) when accounting for wholesale markets – RTGS requires liquidity saving mechanisms (LSMs) (i.e., order queues, algorithmic offsets, multi-lateral funding)

CLS (Continuous Linked Settlement) - $14tr in gross FX obligations per day – with minimal funding requirements. CLS has 78 direct members (banks), serving 38k indirect members. On average, only ~4% of settled payment volume is funded (~$400b), however operating hours are 7:00-12:00 CET, settling once daily

32 of the worlds largest banks hold a ~30% buffer on required HQLA… > $2tr in 30+ of the world's largest banks



CLS is a multi-lateral netting mechanism for FX trading (78 global banks direct) – DA could create greater efficiency



Source: UBS Research, CLS Group, GFXC settlement survey, IMF Working Paper 2026, Company Reports and Data (including 32 of the world's largest banks from Europe, US, Canada, Australia, Brazil, Japan who disclose HQLA metrics)

Tokenization in capital markets

Implications of 24/7 markets and prediction markets / perpetuals

Providing access when traditional markets do not operate remains a key pillar of the value proposition of tokenization and blockchains

Tokenized equities for international investors (potential low fee democratization - $17tr in foreign holdings of US equities)

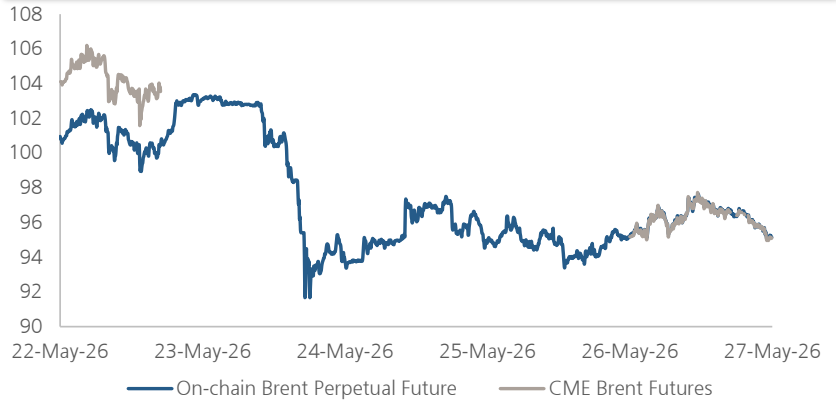
Access to illiquid or difficult to access investment products (i.e., real estate, private equity)

Perpetuals (futures traded on an exchange) both centralized (COIN) and decentralized (Hyperliquid), including 24/7 trading

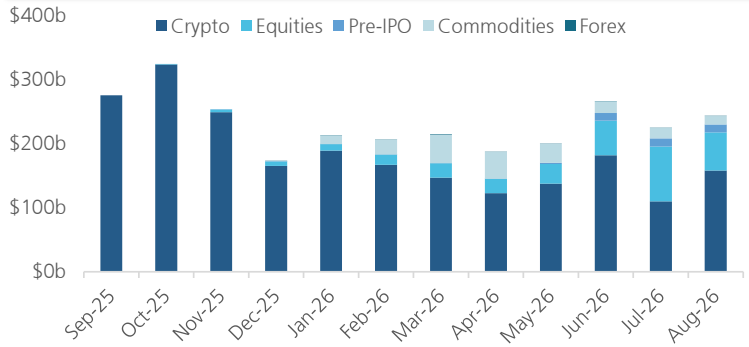
Prediction markets mainstream, with the ability to take a position on politics, weather, etc ($2b+ in daily volume vs total market of ~$120b)

Whilst perhaps viewed as niche, there are potential institutional use cases (i.e., hedging positions for election outcomes at scale, weekend volume / hedging)

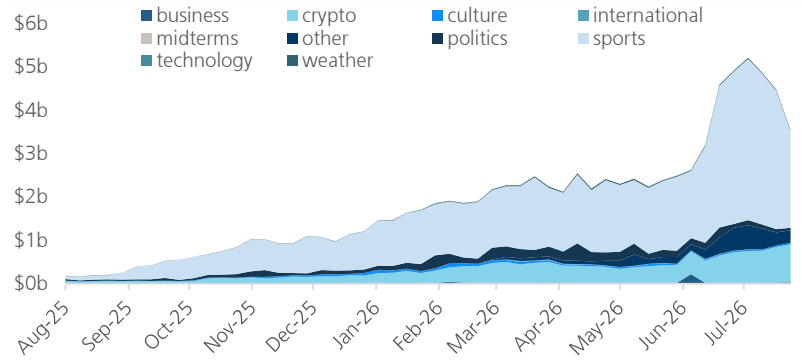
247 enables price discovery for evolving events whilst traditional markets are closed (i.e., Oil markets during Iran conflict May '26)



Hyperliquid is a DeFi exchange allowing users to trade 'perps' with a smooth UX, rivalling Binance



Prediction markets surged to more than $2b in daily volume in June 2026, skewed to sports mostly



UBS Source: Artemis, Allium

Tokenization in capital markets

UBS conclusion on tokenization

Conclusion: Whilst a debate is likely on whether capital markets benefits (prefunding, risk assets, cost base, etc.) outweigh the potential impacts (fee compression), digital assets and blockchains are becoming a key investment area at financial institutions

Tokenization can unlock assets which are ringfenced or allocated / prefunded for specified purposes – mobility can enable more efficient usage of those assets, and reduce buffers

In the medium term, trading businesses at banks will benefit from shorter settlement times, however the potential for direct tokenized trading on exchanges (without intermediaries) represents a potential threat to the traditional broker dealer model

24/7 trading could release additional risk capital (no longer needed to fund / risk manage over the weekend), with the possibility of better managing or hedging risk exposures institutionally (provided market depth is sufficient)

Tokenization should enable greater access to more assets globally – a positive for asset managers

View from the Industry

Increased capital mobility as a result of tokenization could potentially prove a meaningful unlock for global banks (who face the greatest constraints today), with capital able to be deployed in additional productive ways

Trading businesses who had been negatively impacted by T+1 or longer times, will become incrementally efficient

Back-end process simplification (delivery, confirmation, settlement, reconciliation), will almost certainly benefit banks

Positioned to benefit	Rationale	Potential risks	Rationale
Centralized / DEX DA exchanges	Venues likely to gain share with tokenized offerings of Real-World Assets as native to digital assets – although could be challenging to crack institutional business	**Traditional exchanges**	Tokenization could compress fees for exchanges. If US securities become more accessible globally, investment mix shift away from non-US exchanges is possible
Asset Managers	Investment products likely to become more accessible, although high-fee managers could see fee compression	**Global Banks & Financial institutions**	Tokenization represents a clear threat to the bank broker-dealer model, although those who lean in earlier could find themselves well insulated or on the offensive
Custody banks	Custody = Trust, amongst other things, which are unlikely to change, also tied into back-end processes	**Fund admin software**	Whilst vital to have auditable records, heavy price pressure likely, or down-selling. Add-on modules may be less valuable

UBS Source: UBS Research

Blockchain rails for the Agentic Economy



UBS

Blockchain rails for the Agentic Economy

Enabling internet-native commerce with stablecoins

Artificial intelligence represents a potentially profound technology platform shift, with the capacity to reshape established operating models across industries (financial services, legal etc)….

One of its most consequential effects will be the transformation of how products and services are discovered, evaluated and purchased. As discovery moves from search engines and traditional websites toward LLM-based interfaces, a meaningful share of commerce could become mediated, and ultimately executed, by partially or fully autonomous AI agents…..**What does this mean for the payments stack?**

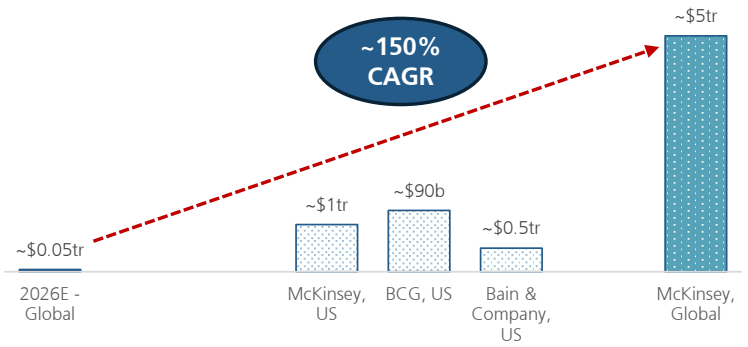
Whilst we 1) Contemplate the overall TAM of and ramp of the agentic commerce market, we more narrowly (and specific to the payments industry) contemplate 2) **Will AI agents will drive a shift in preferred payment infrastructure (to blockchain based payment methods for certain transactions?**

Why is blockchain and digital assets relevant for agentic commerce?

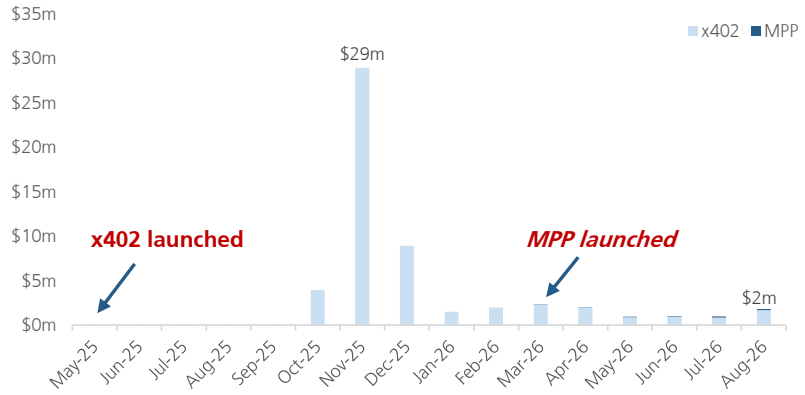
Stablecoins provide an alternative to traditional payment rails for digital commerce and have the potential to disrupt the existing payments ecosystem.

- Global interoperability and always-on settlement (operate 24/7)
- Viable for micropayments (sub-cent machine payments are currently uneconomic on card rails)
- Machine-native execution (payments can be initiated and verified programmatically by agents).

Whilst predictions size the agentic commerce market at anywhere from ~ $0.5tr to ~$$5tr in the next 5 years…



…volumes are mostly nascent today – protocols (x402, MPP) enabling AI agents pay with stablecoins only launched recently



UBS Source: UBS research, McKinsey & Company, Bain & Company, BCG, Coinbase, Stripe, Allium

Blockchain rails for the Agentic Economy

Different types of agentic commerce drive varied experiences and vendor requirements

Agentic commerce – an AI agent acts on behalf of a consumer or business to discover, evaluate and purchase goods or services.

Stablecoins can accelerate the growth of new agentic commerce models

Stablecoins are most differentiated in open, machine-native commerce, where agents transact with unfamiliar counterparties (or other agents), make high-frequency micropayments, or require programmable and immediate settlement.

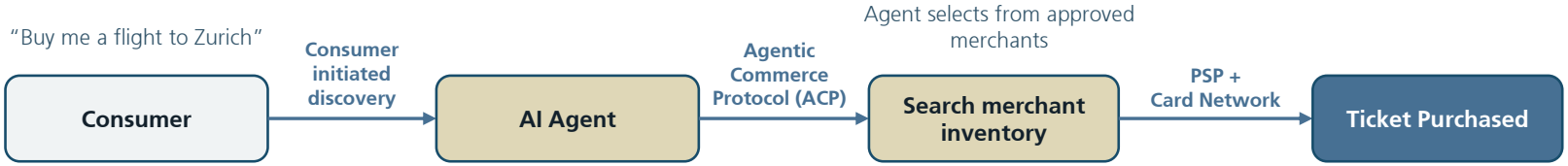
Closed ecosystems can make existing card rails agent-ready through tokenized credentials, delegated spending controls and verifiable consumer intent, limiting the need for blockchain-based settlement.

We expect open and closed models to coexist. Cards will remain more relevant within curated consumer ecosystems, while stablecoins capture a subset of agentic commerce concentrated in new transaction types that conventional rails serve less efficiently.

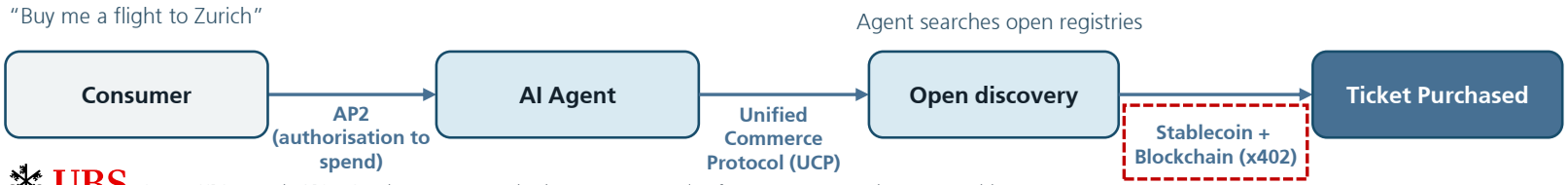
Personal AI agents (i.e., Meta Muse [Sep 8th '26] / Instinct [Aug '26]) as an alternative – Stored credential in a token vault with fully autonomous agentic shopping via text message. Credentials are stored with Stripe Link (or PayPal [Muse]). One-time use virtual card (unless Link is integrated at merchant).

Stablecoins are differentiated in open, machine-native commerce

Closed agentic commerce – operates within a curated platform where the **AI provider controls merchant access**, product discovery and checkout.



Open agentic commerce – **agents autonomously discover** and transact with any compatible merchant or service through open-source protocols.



Source: UBS research; AP2 = Google open-source technology payments mandate for autonomous agentic commerce giving agents the authorisation to spend; ACP = Agentic Commerce Protocol (ChatGPT – Stripe native shopping protocol); PSP = Payment Service Provider; Token Vault = A secure way to store sensitive payment credentials and personal info like addresses

Blockchain rails for the Agentic Economy

Enabling internet-native commerce with stablecoins

Stablecoins enable new digital commerce verticals

Agentic commerce turns **AI agents into economic participants** that can buy and sell autonomously.

Stablecoins provide AI agents an open, programmable and internet-native payment method.

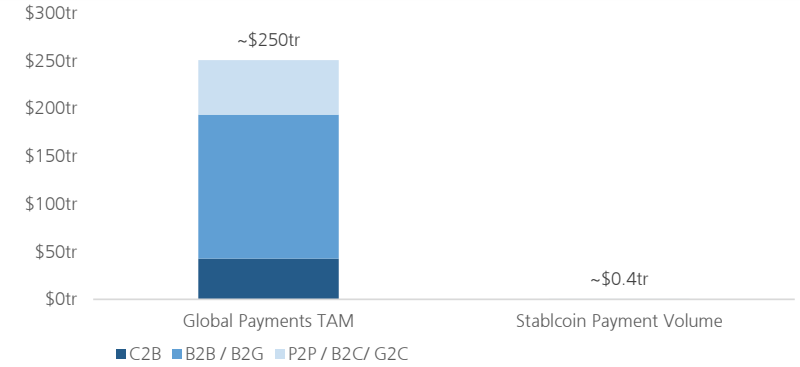
We believe that agentic commerce will expand the total eCommerce TAM as it will accelerate the shift to digital commerce and unlock new digital commerce models including:

Autonomous agent-to-agent transactions
Granular API and software purchases
Usage-based payments for tokens and compute
Shift from seat-based to usage-based billing for software

6 Key Questions for blockchain in Agentic Commerce

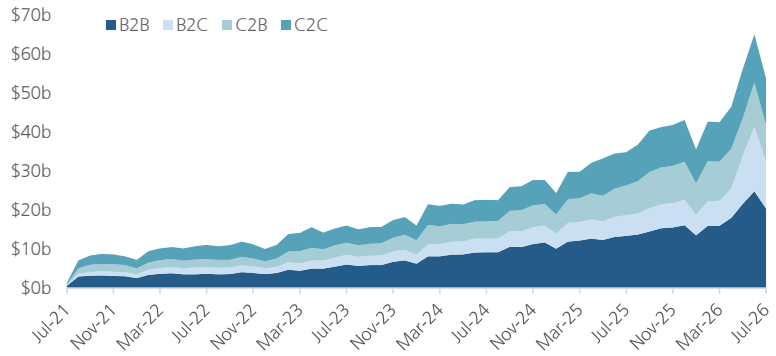
1) Will blockchain become the native payment rail for AI agents?
2) How large could stablecoin-funded agentic spending become?
3) Which use cases are best suited to agentic commerce (i.e., micro)?
4) Will agentic AI create new markets (TAM expansive) or redistribute existing consumer spend (and other categories)?
5) Are merchants ready for agentic commerce at scale?
6) Are there inherent flaws in traditional payment rails which agentic payments expose to a greater degree, and stablecoins can solve?

Stablecoin payments accounted for ~0.2% of global payments in 2025



UBS Source: UBS research, Allium, BCG, Visa

B2B payments accounted for ~40% of stablecoin payments in 2026 YTD



= Discussed in detail / answered in this section

Blockchain rails for the Agentic Economy

Stablecoins' emerging commerce use cases

Metered billing for LLM tokens and micropayments for AI applications are the clearest incremental stablecoin use case

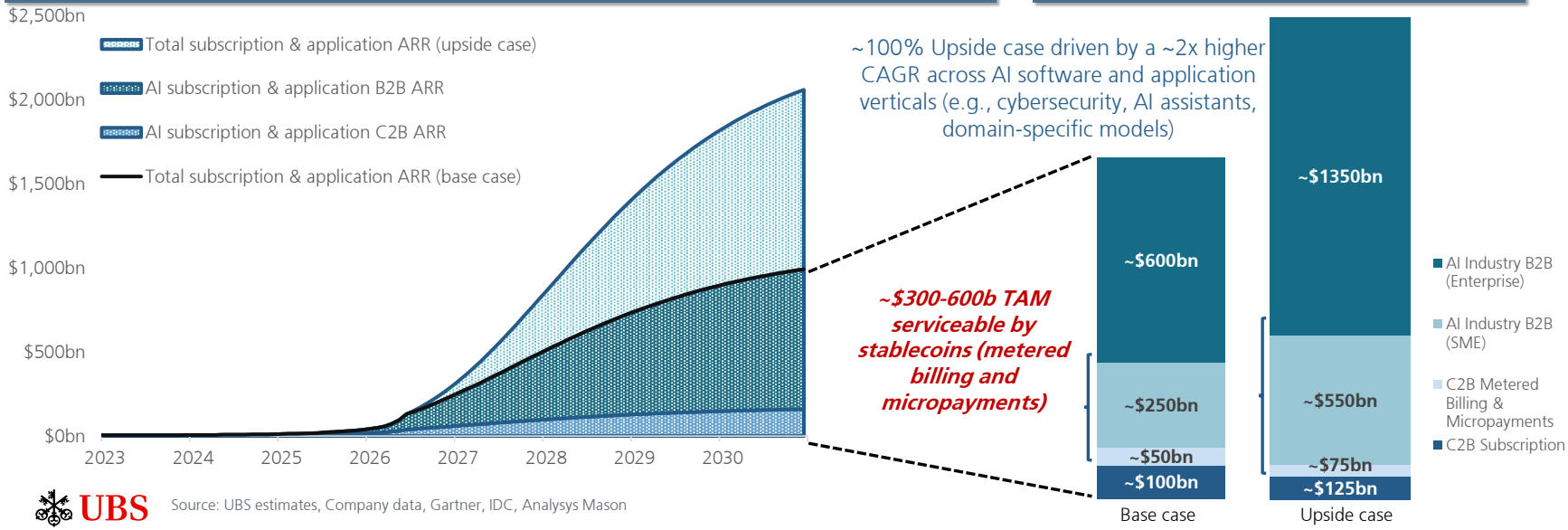
In our view, the **SME and consumer segments of the ~$1-2tr 2030 AI subscription and applications ARR are most addressable by blockchain and stablecoins** as a higher proportion of this revenue is likely to be driven by real-time usage-based billing and micropayments.

AI service providers incur compute costs in real time, but post-paid billing leaves them exposed to customer default, fraudulent usage and unexpectedly high consumption. For example, Anthropic requiring a prepaid credit balance or linked usage-based payment wallet for Fable 5.

The addressable opportunity could expand further to include the Enterprise portion of the TAM if autonomous B2B agents procure compute, data and software on a usage basis. However, bank transfers and invoicing will likely remain more relevant for larger enterprise contracts, given they are low cost to accept and are embedded in deep multi-step processes and approval flows / software (i.e., supplier procurement & payables).

We forecast the AI subscriptions and application ARR will reach ~$1-2tr by 2030….

….and ~30% of it could be enabled by stablecoins



UBS Source: UBS estimates, Company data, Gartner, IDC, Analysys Mason

Blockchain rails for the Agentic Economy

Enabling internet-native commerce with stablecoins

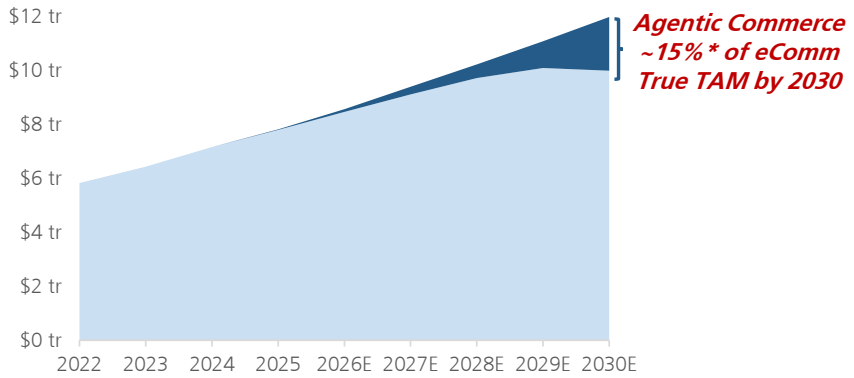
Stablecoins could capture a greater share of C2B eCommerce

Beyond new machine-native services, **agents may facilitate an increasing portion of consumer eCommerce**.

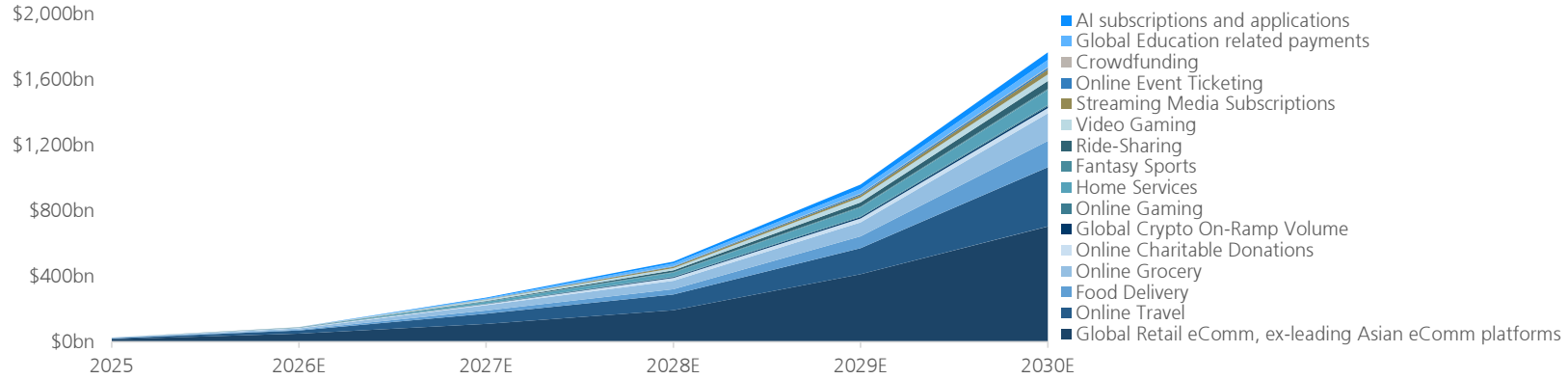
We forecast AI agents could facilitate **~$2tr, or ~15%**, of global C2B eCommerce by 2030. Our estimate layers in consumer survey data on LLM usage for product discovery and checkout across the different verticals of our bottom-up eCommerce TAM build.

While we build our SAM as the ceiling for stablecoin-enabled eCommerce, we expect **only a subset of these volumes move to stablecoins** given the coexistence of closed and open agentic commerce. We expect the majority of agentic commerce to remain on card network rails, also generating higher yields via VAS and agentic tokenization

C2B Global (ex-China) eCommerce True TAM of ~$12tr by 2030, with ~15% driven by agents



AI Platforms and Agents SAM could mediate~$2tr of C2B eCommerce by 2030



Source: UBS estimates, Checkout.com, Bain & Company, McKinsey, BCG

*We estimate the agentic commerce % by estimating the penetration agents will reach in each eCommerce vertical (online delivery, online grocery, online travel etc.)

Blockchain rails for the Agentic Economy

Stablecoins to complement existing payment infrastructure for consumer commerce

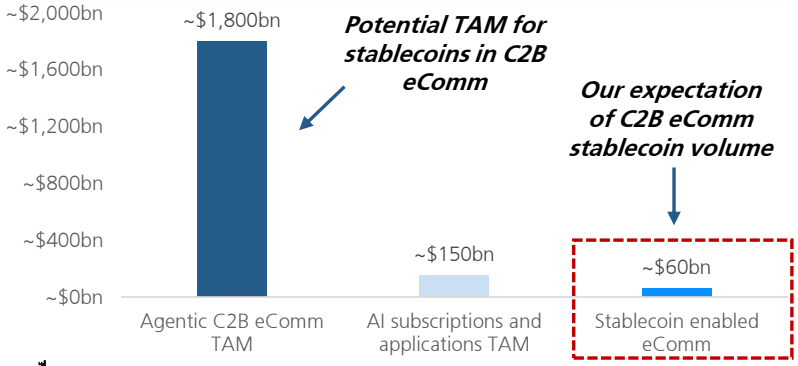
Where could stablecoins gain share in C2B eCommerce?

We estimate **stablecoins will be used for ~$60bn (~3%) of the ~$2tr agentic-commerce TAM by 2030.** Agents change discovery and transaction initiation, but not necessarily the payment rail.

Stablecoins may sit as the payment mechanism behind developing AI related markets (which are mostly nascent today but growing fast) – such as, enabling API micropayments, metered agentic AI apps and autonomous purchases of data and compute. Our $2tr True TAM (prior slide) only contemplates only the penetration within existing eCommerce spend verticals.

Stablecoins could enable software-native merchants and participants in under-served markets to enter digital commerce without conventional card acceptance, expanding the addressable eCommerce market rather than redistribute existing card volume.

~0.5% of 2030 eComm TAM to be facilitated via stablecoins…



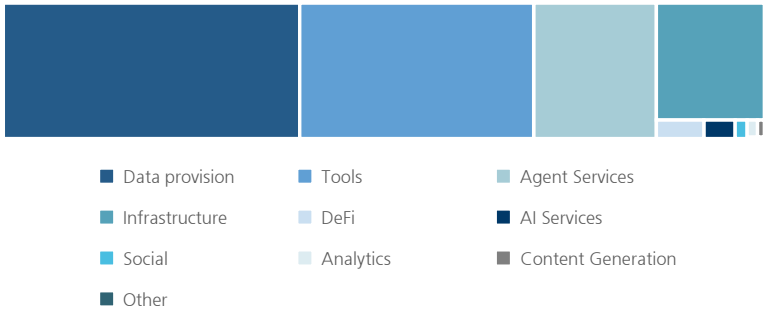
Source: UBS estimates, Allium

Cards networks have strong moats in developed markets

Consumer proposition	Rewards, fraud protection, and chargebacks
Established acceptance	Widely accepted by merchants
Smaller implied savings	Merchants still require compliance, conversion, liquidity, reconciliation, etc.
Agentic compatibility	Tokenized credentials with programmable spending controls.
Incumbent adaptability	Networks and PSPs can support stablecoins through stablecoin-linked cards.

…but our stablecoin agentic TAM represents just a % of our eComm True TAM, and does not consider new stablecoin-enabled volumes

Current share AI application services (~$15m ARR) purchased by AI agents via stablecoins

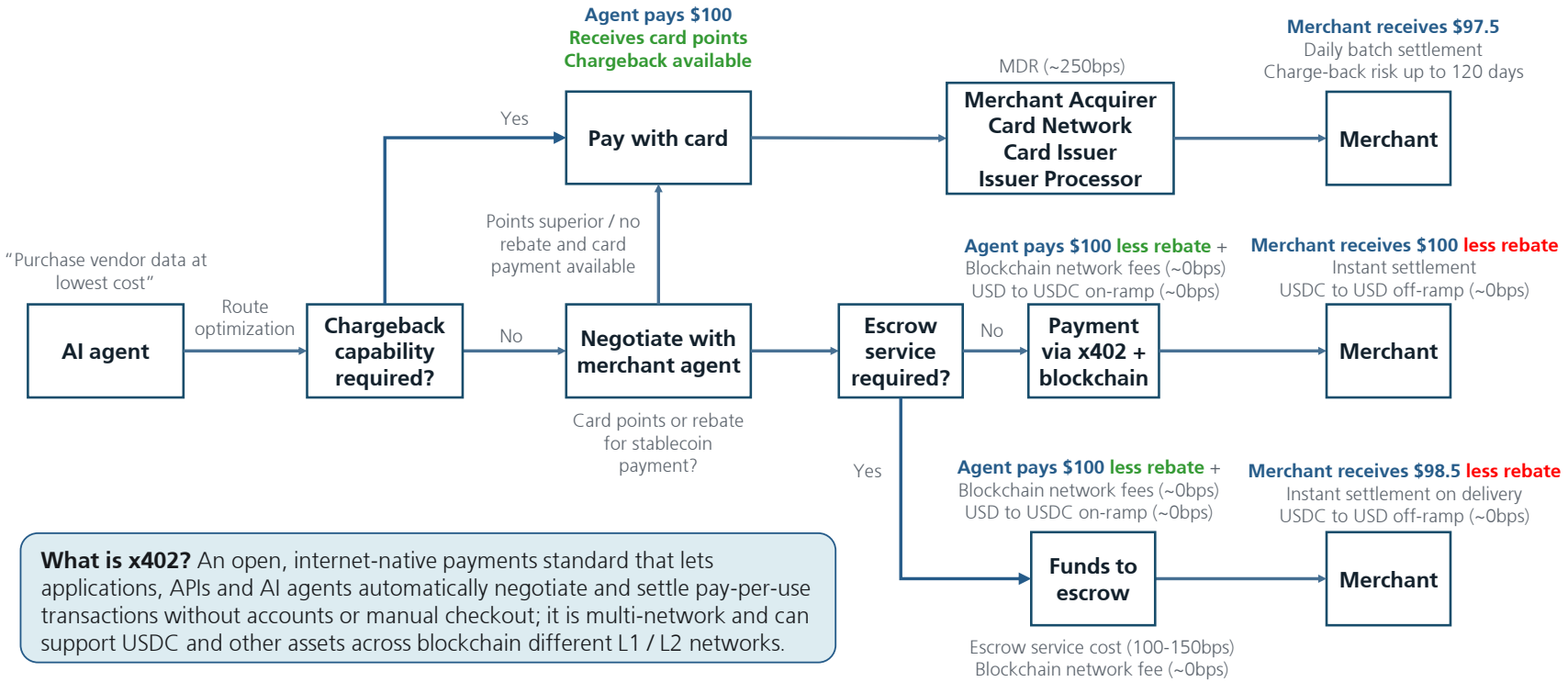


Blockchain rails for the Agentic Economy

Stablecoins to complement existing payment infrastructure for consumer commerce

Agents will optimize transactions for the highest benefit to the consumer (lowest cost route, chargeback protections, card points, etc.). Stablecoin payments carry lower fees and risk for merchants (instant settlement and no-chargebacks). The benefits merchants receive from stablecoin payments can be used to incentivize consumer agents through rebates.

Illustrative agent payment decisioning and cost structure



What is x402? An open, internet-native payments standard that lets applications, APIs and AI agents automatically negotiate and settle pay-per-use transactions without accounts or manual checkout; it is multi-network and can support USDC and other assets across blockchain different L1 / L2 networks.

UBS Source: UBS research, Glenbrook Partners, Coinbase, Stripe

Blockchain rails for the Agentic Economy

Who captures value—and who is at risk

Stablecoins will expand agentic commerce, but are unlikely to replace cards at scale

Conclusion: Agentic commerce will create a new payment opportunity for stablecoins, but adoption will likely be concentrated within open, machine-native use cases (pay-per-use access to APIs, data, tokens and compute). In our view, stablecoins will complement, rather than replace, cards and payment service providers across mainstream consumer commerce.

We expect stablecoins payments to gain traction within the payment mechanisms behind developing AI related markets such as enabling API micropayments, metered agentic AI apps and autonomous purchases of data and compute.

View from the Industry

It remains early days for agentic payments, but B2B could be a first mover use case

Stablecoins can be a compelling mechanism for facilitating machine initiated agentic payments (autonomous payments)

Economic model alone (micropayments not supported) is not a strong rationale for volumes shifting from traditional card payments (i.e., V/MA) to stablecoins

Positioned to benefit	Rationale	Potential risks	Rationale
Providers of AI agents	Become the primary interface for consumer intent, discovery and decision-making. Control over agent memory, delegated authority and transaction initiation creates influence over product ranking, merchant selection and payment routing.	**Merchants**	Merchants risk losing direct customer relationships, loyalty and brand affinity and potentially face pricing pressure (premium brands products) if agents optimize for cost and quality. Consumers also could instruct agents to prioritize favourite brands.
Commerce enablement platforms (enable agent product discovery and purchases)	Structured catalogues, inventory, pricing, checkout APIs and fulfilment capabilities to make merchants discoverable and executable by agents. This role can be played by PSPs (i.e., Adyen, Stripe) or software companies (e.g., Shopify)	**Card networks**	If stablecoins or digital assets become the native currency for agents transacting – mix shift to non-card rails is a negative. As a caveat, if consumer agents prioritize reward points, etc. card rails may benefit
Blockchain infrastructure providers	Infrastructure providers will be able to capture a portion of fees (e.g., network fees, escrow service fees, etc). Also could develop the protocols for agentic payments (i.e., x402 – COIN)	**Payment service providers**	Stablecoin payments by agents could cut out PSPs via alternative rails. It is also possible that merchants will want PSPs to maintain an orchestration role due to increasing fragmentation of protocols

Security, Compliance, & Regulation on the blockchain



UBS

Security, Compliance, & Regulation on the blockchain

Institutional adoption requires regulation, operational resilience and financial-crime controls

Blockchain enables programmable, always-on transactions without relying on a centralized ledger. However, it also **redistributes risk across wallets, smart contracts, validators, issuers and governance structures**, changing how assets are safeguarded and how failures are managed. Institutional adoption therefore requires more than effective technology.

Institutions must understand customers and counterparties (KYC/B), monitor transactions, satisfy legal obligations and establish accountability when something goes wrong. **Security, compliance and regulation create the trust required for blockchain adoption to scale.**

Why is this topic relevant for investors?

Regulation and compliance can determine which blockchain-enabled businesses scale, capture institutional capital, and sustain valuation, regulatory failures tend to exhibit tail risk behaviour (kurtosis) - low frequency + large value

Security (hacked protocols / centralized products) is the largest source of non-market loss in the asset class

Historically, limited regulatory clarity led to a lack of institutional investment and buy-in

6 Key Questions for stablecoins in security, compliance and regulation	
1)	Was additional US regulatory clarity (GENIUS) the unlock for digital asset adoption?
2)	Can blockchain provide sufficient privacy while still meeting regulatory requirements (KYC, AML, etc.)?
3)	Are smart contracts, wallets, bridges and oracles secure enough to support institutional-scale assets and transactions?
4)	Will institutions utilise public blockchains at scale or will activity concentrate on private ledgers?
5)	Do Blockchains and DeFi still contain centralization risk (i.e., keys concentrated with protocol developers / creators)?
6)	Can blockchains really govern themselves (i.e., DAOs)?

UBS Source: UBS research, Company Data, The Clearing House, Reuters

= Discussed in detail / answered in this section

Security, Compliance, & Regulation on the blockchain

Stablecoins move on public blockchains while issuance, redemption, and controls remain centralised by the issuer

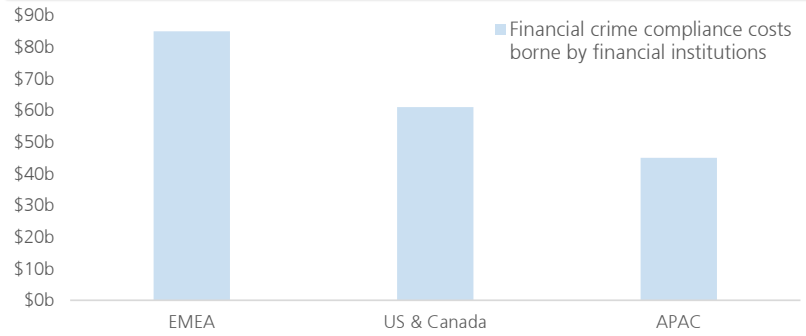
Decentralised Rails, Centralised Controls

Financial crime compliance consists of four components (KYC, KYB, Sanctions, AML) and costs financial institutions **~$200b+ per annum.** Utilisation of blockchain does not remove compliance obligations.

The potential implications of non-compliance are severe, as banks can face consequences such as large fines (**banks have paid $45b+ in AML and Sanctions related fines over the last two decades**) and growth restrictions.

Compliance with blockchain related transactions will be an additive cost in the near-term. It is possible that operational efficiencies build in the long term (e.g., lower reconciliation, verification costs because blockchain transactions are independently verifiable and wallet attribution capabilities improve over time).

Financial crime compliance costs at FIs average ~5-15% of operating expenses, ~80% attributable to headcount related costs



Illustrative blockchain-enabled transaction and financial institution compliance stack

Business A Initiates supplier payment	**KYC / KYB** (onboarding, risk rating)	Existing compliance stack
Bank A Fiat account of Business A	**Screening** (sanctions, monitoring)	
On-ramp / stablecoin issuer converts fiat or mints stablecoin	**Mint controls** Stablecoin issuer KYB	**Additional crypto related functions**
Custodian A Wallet signing policy	**Pre-transfer checks** Address risk profiling	
Blockchain Network transfers funds	**On-chain monitoring** Analytics	
Custodian B Receiving wallet	**Inbound wallet checks** Travel rule compliance	
Off-ramp / stablecoin issuer Converts to fiat	**Redemption controls** KYC, KYB, provenance of inbound funds	Existing compliance stack
Bank B and Business B Fiat credited to payee	**Fiat inbound screening** Sanctions monitoring, case management	

UBS

Source: Financial Crime News, LexisNexis Risk Solutions, UBS research, Company data

Security, Compliance, & Regulation on the blockchain

Regulatory clarity is moving digital assets into licensed financial infrastructure

Regulation supports institutional adoption

Regulatory clarity is influencing both product design and institutional commitment, shifting blockchain technology and digital assets from experimentation toward regulated financial infrastructure.

In our view, increased regulation **shifts value in the ecosystem toward institutions** that can combine distribution with licensing, reserves, custody and compliance.

However, as regulated assets move on-chain, control architecture becomes the next gating factor.

US Regulation

GENIUS Act: Signed into law on 18 July 2025, establishing the federal framework for payment stablecoins.

✓ 1:1 backed stablecoin reserves

CLARITY Act: Failed to advance in the Senate on 15 September 2026. The bill sought to establish clear laws for tokenized RWAs to trade securely on blockchain rails.

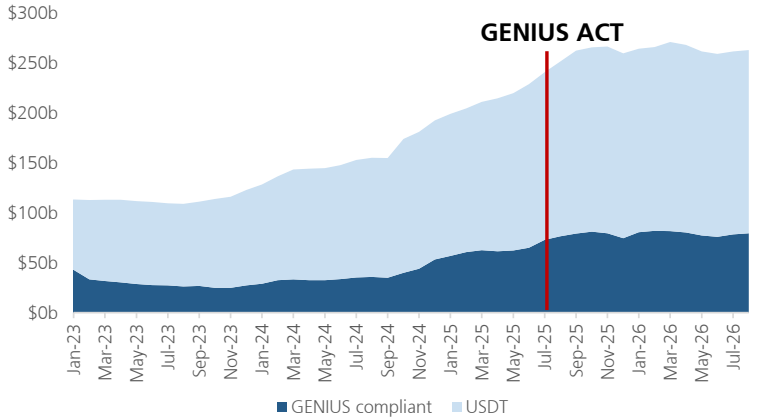
Innovation Exemption: The SEC subsequently issued an "innovation exemption" for tokenized stocks on 17 September 2026, a temporary and conditional exemption that allows approved tokenized securities to trade on blockchain-based platforms without registering as traditional exchanges.

EU Regulation

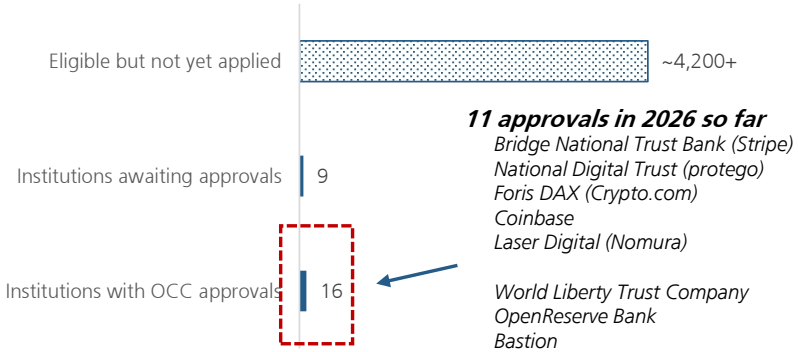
MiCA: applicable from 30 December 2024, a phased framework covering stablecoins, crypto-asset issuers and service providers

✓ Custody established as a regulated crypto-asset service

Compliant stablecoin supply has modestly outpaced USDT growth post GENIUS Act



GENIUS issuer-approval framework not yet finalized, only a handful of issuers have received preliminary charters



Source: UBS research, OCC, ESMA

USDT is one of several (but the largest) non-GENIUS compliant stablecoins (and is working to build a GENIUS compliant USAT)

Security, Compliance, & Regulation on the blockchain

Institutional risk increasingly sits in the control layer, not the ledger

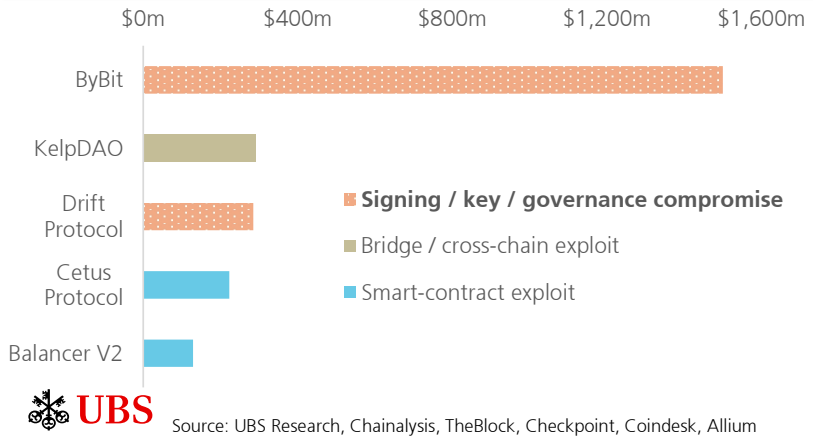
Control over transactions is critical for institutional adoption

As tokenized money and financial products move into production, **the key risk sits within the compliance and control layer** (wallet signer, custodian, asset issuer and compliance screening) rather than the underlying blockchain network.

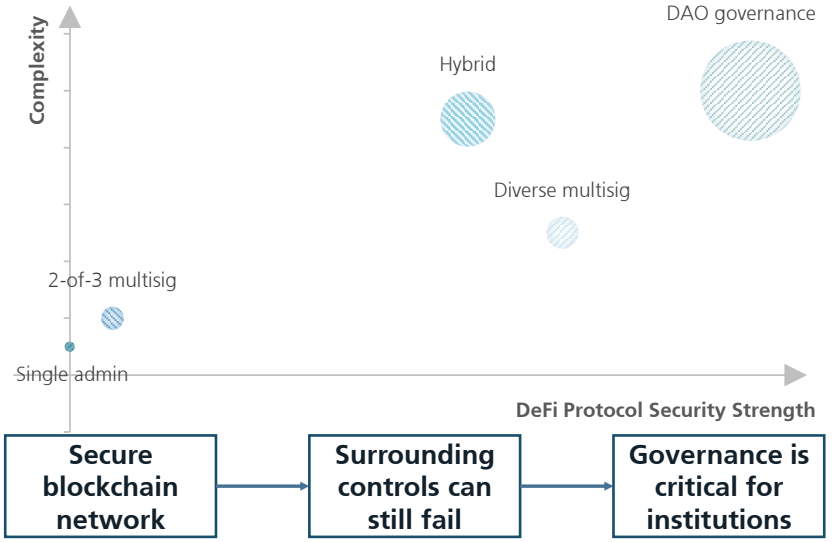
Infrastructure and operational compromises (private keys, admin access, insider trust, social engineering) were ~15% of incidents in 1H26 but accounted for ~76% of losses.

Capital flows will favour platforms that are secure, supervisable and capable of controlled intervention *(although centralization itself can be a security risk).*
Institutions will need to develop balanced governance structures that decentralize oversight, but also remain flexible to respond quickly .

Five major attacks account for ~$2.4bn of gross value affected since 2025



DeFi protocols with the largest value secured on average (largest bubbles) utilise DAO* or Hybrid (DAO + multisig) governance models



AI should reduce smart contract code related vulnerabilities, code and logic flaws (e.g., flash loan manipulation, oracle price data manipulation, etc.), further shifting the critical institutional risk to people and control systems.

These risks are most pertinent to centralized entities with concentrated control. Large DeFi protocols often utilize decentralized governance models, which require a qurom from token holders to approval a proposal before protocol modifications or key administrative actions can be executed.

Source: UBS Research, Chainalysis, TheBlock, Checkpoint, Coindesk, Allium

*Decentralised Autonomous Organisation (DAO) internet-based collaborative organization that coordinates people and resources using rules expressed in computer code.

Security, Compliance, & Regulation on the blockchain

Rising illicit activity increases the value of compliance infrastructure

Compliance determines who can scale

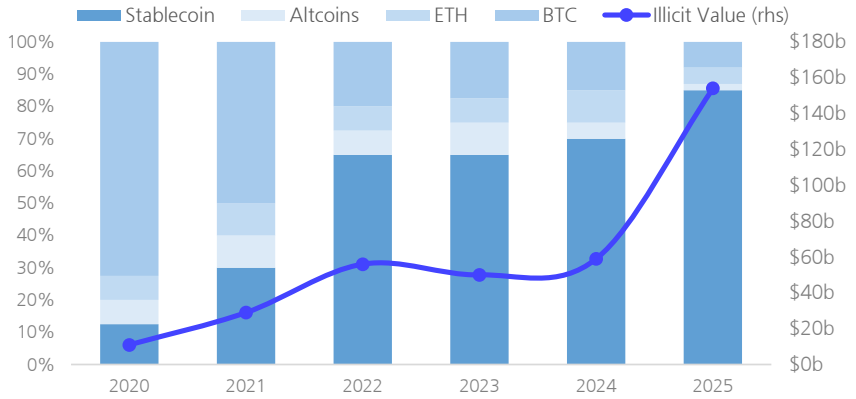
Sanctions evasion and consumer fraud, rather than hacks, drove the largest categories of illicit on-chain activity in 2025. In addition, illicit funds increasingly flowed through stablecoins (up from ~10% in 2021 to ~80% in 2025 according to Chainalysis).

The absolute value of illicit activity through blockchain channels (~$154b in 2025 +162% YoY – ~1% of overall digital asset transaction volume) is small (~4%) in comparison to global illicit financial activity volume (~$4.4tr +19% YoY in 2025).

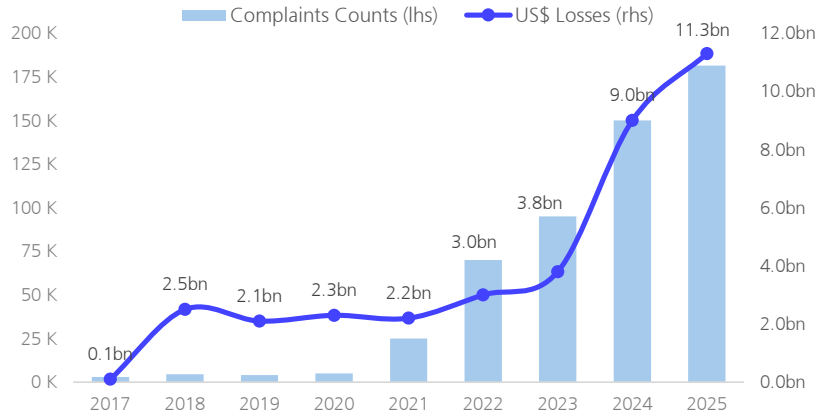
However, institutions handling stablecoin flows require bank-grade compliance processes as **financial authorities apply a zero-tolerance approach to cross-border payment fraud.**

Consequently, **increasing compliance requirements favour scaled operators** (as the costs of setting-up a compliance stack are more fixed in nature) **and supports durable demand for blockchain analytics and identity infrastructure** (~$200b annual compliance spend by FIs).

Illicit activities on the rise, increasingly through stablecoins channels



US crypto consumer fraud losses amounted to ~$11b in 2025



Source: UBS Research, Chainalysis, Federal Bureau of Investigation, Nasdaq Verafin 2026 Global Fincrime Report

Security, Compliance, & Regulation on the blockchain

UBS conclusion on security, compliance and regulation

Conclusion: regulation will concentrate value among intermediaries that can combine licenses, distribution and institutional-grade controls.

Increasing regulation, security, and compliance requirements raises the fixed cost of operating a regulated business that interfaces with the blockchain and digital asset ecosystem.

Incumbent financial institutions and scaled FinTechs are best positioned to benefit as incremental add-ons are required to their stacks, compared to crypto-native or unlicensed participants that will need to build out these functions from scratch.

Furthermore, as security related incidents are the largest non-market source of losses when interfacing with blockchain technology, we expect that capital will concentrate within businesses that demonstrate secure infrastructure and strong governance procedures.

Industry view

As blockchain execution commoditises, **economics should migrate toward providers controlling regulated distribution**, custody, liquidity and risk infrastructure.

Participants on balance favour scaled platforms that can monetise several of these layers and are **cautious on subscale providers and standalone permissionless protocols** whose economics depend on transaction growth, but are unable to provide the equivalent level of control or transparency required by institutional participants.

Positioned to benefit	Rationale	Potential risks	Rationale
Compliance infrastructure vendors (data analytics	Additional compliance layers will increase the demand for third party services. Providers may also benefit from network effects (e.g., proprietary wallet attribution data) that scales over time.	**Regional / subscale banks**	An increase in fixed compliance costs can undermine business economics.
Regulated stablecoin issuers	Institutional adoption will enabled regulated providers to scale.	**Unlicensed exchanges and VASPs**	Access to large markets such as the US and EU will be restricted.
Incumbent banks and scaled FinTechs	Already own the compliance stacks (KYC, monitoring etc.), adding on-chain layers is an incremental cost.	**Permissionless business models (DeFi)**	Institutions willy likely be unable to interface with permissionless protocols.

Burying the infra – making blockchain invisible to its users



UBS

Burying the infra – making blockchain invisible to its users

Fragmented rails create an opportunity for abstraction and reshape where value accrues

There are a plethora of blockchains in the market today (some estimates suggest as many as 5,000 if you include private chains), with new chains seemingly forming daily… to an outside observer it would seem such fragmentation would create a head-spinning amount of complexity

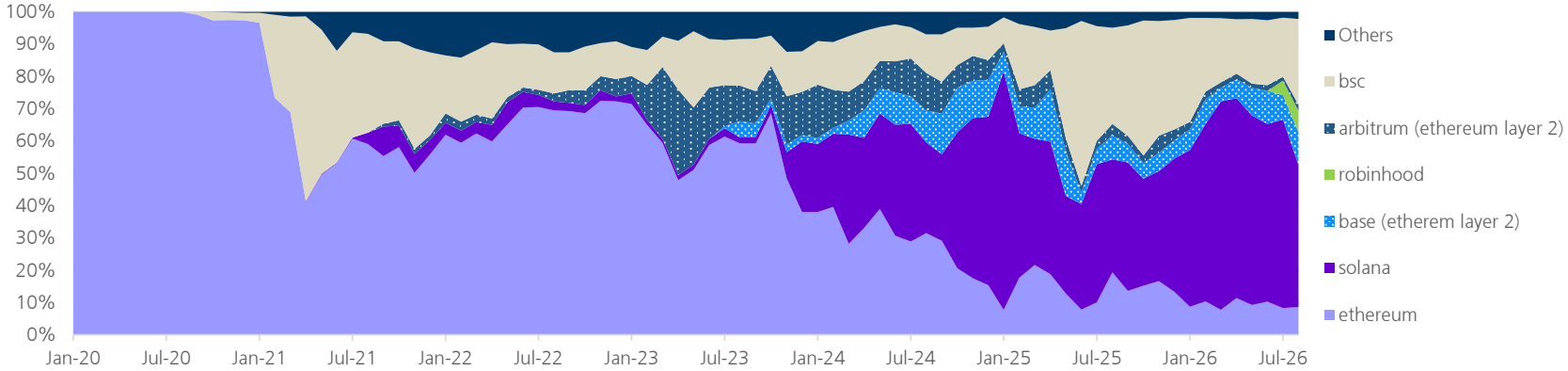
Why does blockchain infrastructure need to become invisible? More chains create fragmented liquidity and a clunky user experience. In the same way fiber-optic changed telco equipment, blockchains need to be buried for users.

There are now 15+ economically significant L1 and L2 blockchains that have assets that cannot natively interact with applications or liquidity on another, leading to poor capital efficiency and user friction. Financial institutions will therefore require orchestration providers that connect networks and hide routing, conversion and settlement complexity (or attempt to build themselves if ambitious – i.e., JPM Kinexys).

As well-established frameworks lead to more easily reproduceable blockchain technology (the moat is not building a blockchain itself), the **competitive advantage shifts toward** providers that:

1) **Control distribution and customer access**
2) **Concentrate liquidity and benefit from compounding network effects**
3) **Orchestrate activity across fragmented networks**

Decentralized exchange trading volume has fragmented across blockchains over time



UBS Source: UBS research, Allium

Burying the infra – making blockchain invisible to its users

Building financial products directly on blockchain infrastructure

The multi-chain end-state will be invisible to users

The likely end-state is neither one chain nor thousands of user-visible chains. It is a limited set of specialized execution applications (for individuals and institutions) connected by orchestration platforms.

Users may experience one balance and one interface, while providers dynamically orchestrate transactions between blockchains and institutional networks.

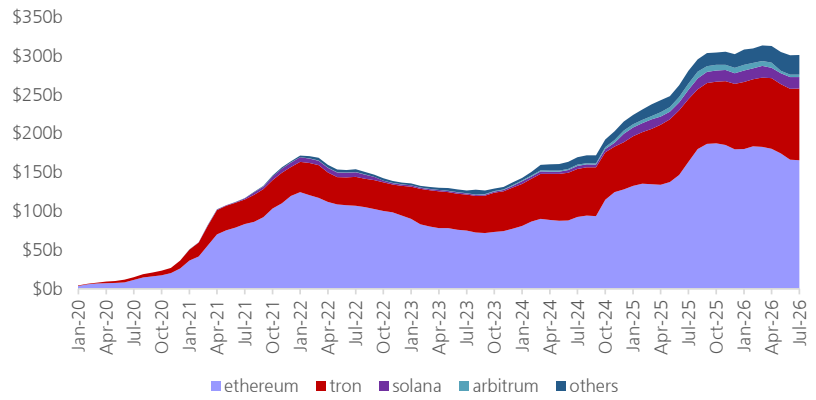
Private chains may continue to proliferate due to bespoke needs (privacy standards, risk appetite, scale of existing distribution)

6 Key Questions for stablecoins in burying the infrastructure

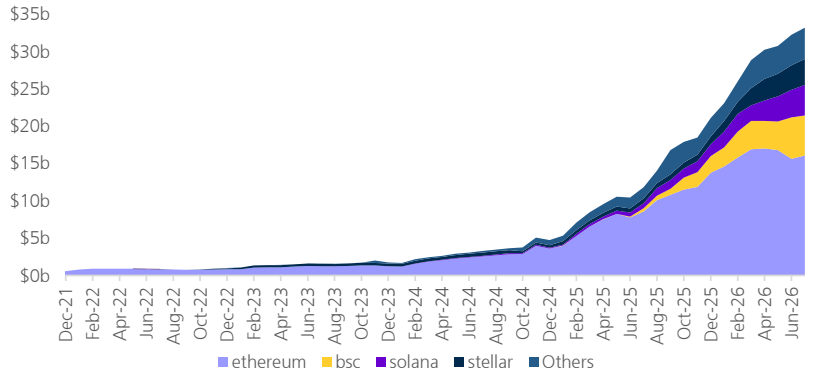
1)	Does multi-chain architecture create efficiency or only increase the overall complexity and cost of blockchain infrastructure?
2)	How many chains will exist, and will different chains serve different purposes (i.e., payments, trading, tokenized deposits, NFTs)?
3)	Can a multi-chain environment support institutional adoption?
4)	Is fragmented liquidity a hindrance to adoption?
5)	Will many orchestration layers (i.e., bridges, CEXs, payment orchestrators etc.) be needed to realize efficiency?
6)	Will banks participate and to what degree?

UBS Source: UBS research, Allium

Stablecoin supply is fragmented across different blockchains



The total value of RWAs issued on-chain is also fragmented across different blockchains



= Discussed in detail / answered in this section

Burying the infra – making blockchain invisible to its users

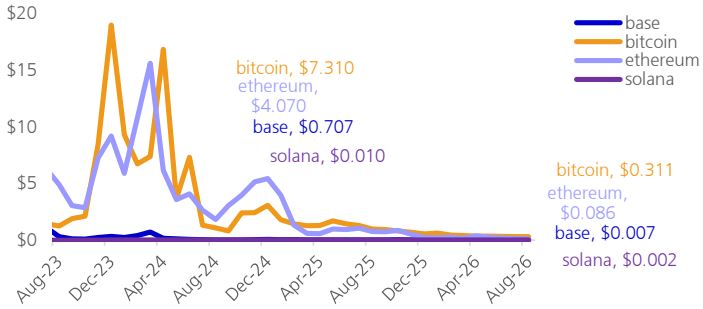
Building financial products directly on blockchain infrastructure

Multi-chain architecture is structural within the blockchain ecosystem

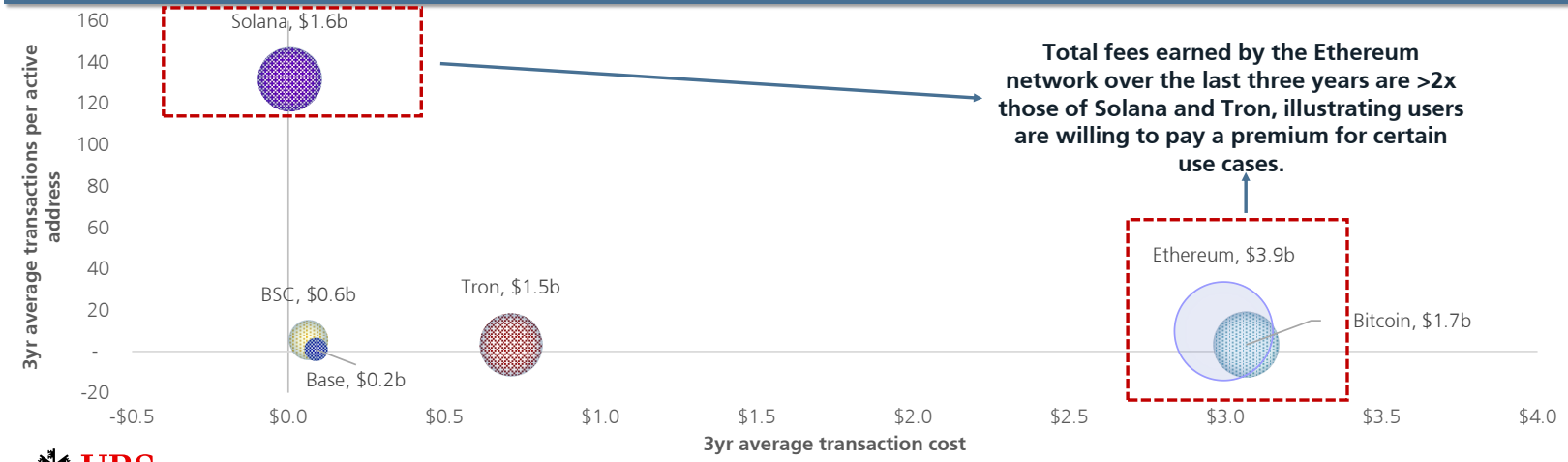
Multi-chain architecture exists because blockchains are being utilized in different ways resulting from deliberate design choices (i.e., Bitcoin used for store of value, Ethereum used for lending, bond issuance & settlement, etc.)

- Blockchains are increasingly developed for more individual and nuanced use cases (Hyperliquid – DeFi order book), creating efficiencies above and beyond prior iterations
- This fragmentation creates meaningful complexity to abstract across use-cases and chains (liquidity, interoperability, distribution and risk management)
- Despite higher transaction fees, Ethereum retains a meaningful share of network fee revenue, owing to positive network effects. Users are willing to pay a premium for greater perceived settlement assurance and ecosystem depth

Transaction fees are two to three orders of magnitude lower on high-throughput blockchains



Depending on the use case factors such as security and liquidity depth can out-weigh low transaction fees, illustrating that fragmentation is a structural feature



UBS Source: UBS research, Allium, Binance, Coinbase, Crypto.com

Burying the infra – making blockchain invisible to its users

Building financial products directly on blockchain infrastructure

Why does liquidity become a durable moat?

Our view: as blockspace becomes easier to reproduce, durable value shifts toward platforms that control distribution or concentrate liquidity.

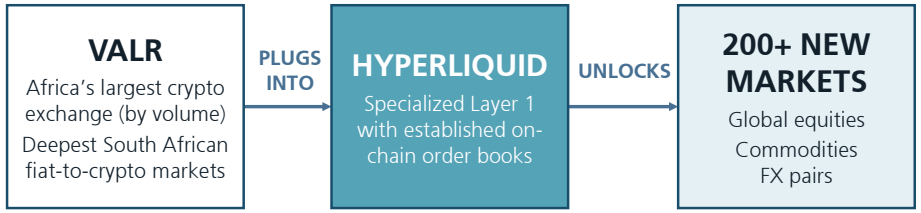
Will network effects lead to concentration into a handful of liquidity hubs? **Partially.** Concentration does not necessarily imply a winner-takes-all end-state because different users optimize for different requirements

Liquidity will concentrate, but not necessarily on one network as settlement, trading and distribution may consolidate in different venues.

Liquidity is difficult to replicate because it is a network effect rather than a technology feature.

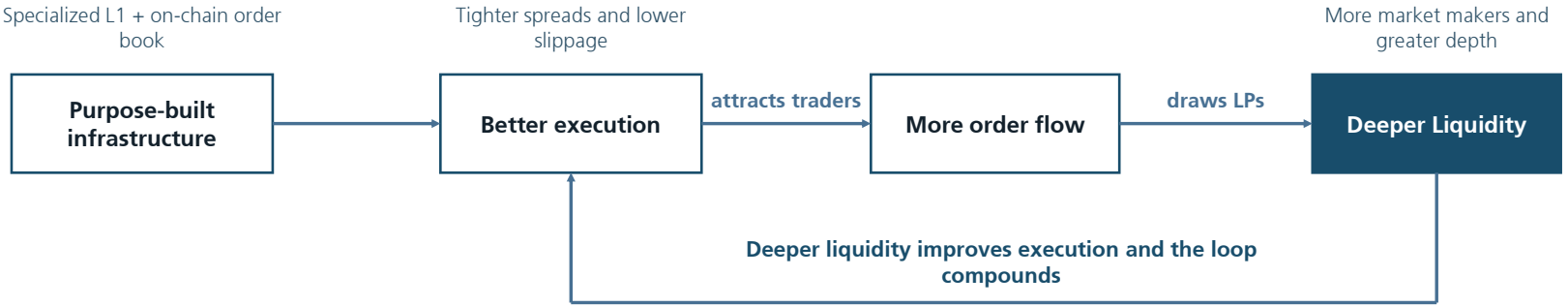
DeFi offers Liquidity as a Service – VALR and Hyperliquid example

WHY IT WORKS: BOOTSTRAPPING LIQUIDITY IS DIFFICULT



VALR instantly monetized its distribution without fragmenting liquidity

How liquidity moats develop on-chain



Source: UBS research, Allium, VALR

Burying the infra – making blockchain invisible to its users

Building financial products directly on blockchain infrastructure

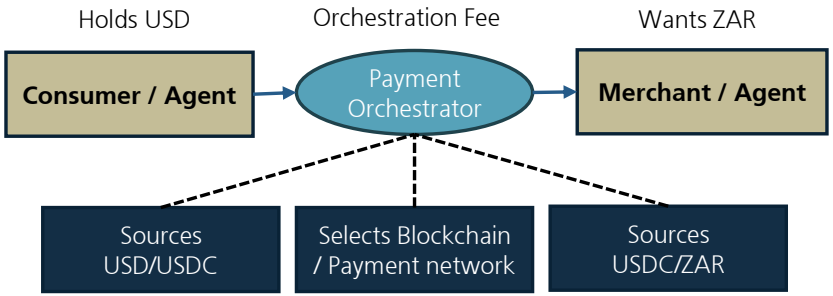
Our view: Blockchain does not eliminate the need for financial intermediation. Multi-chain fragmentation requires orchestrators to step in and abstract away the complexity.

Multi-chain infrastructure can be unified by orchestrators

Financial markets already operate across multiple exchanges, clearing venues, custodians, currencies and payment systems. Institutions do not require a single venue. They require reliable market connectivity and common operating standards.

Fragmented liquidity can support institutional adoption, but needs to be abstracted away by intermediaries.

Complexity from fragmentation will move behind orchestration providers

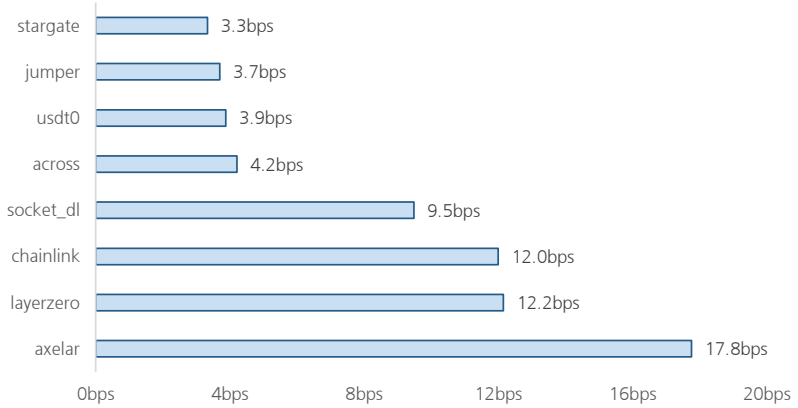


Technical challenges remain as bridges are not risk-free…

Making blockchain invisible does not make its risks disappear. It concentrates responsibility for selecting, monitoring and controlling those risks in the orchestration layer. Some large bridge failures:

Date	Bridge / protocol	Value impacted
Aug 2021	Poly Network	~$600m
Feb 2022	Wormhole	~$325m
Mar 2022	Ronin Bridge	~$620m
Jun 2022	Harmony Horizon Bridge	~$100m
Aug 2022	Nomad Bridge	~$190m
Oct 2022	BNB Bridge	~$586m
Jul 2023	Multichain	~$125m
Apr 2026	LayerZero	~$290m

…and bridging / messaging take rates can be meaningful



UBS Source: UBS research, Allium, Chainalysis; bridging & messaging fees are based on the median. Messaging protocols charge flat per-message fees; bridges/aggregators charge proportional %.

Burying the infra – making blockchain invisible to its users

Building financial products directly on blockchain infrastructure

Who is likely to orchestrate institutional activity?

Our view: The institutional end-state will mirror today's financial system. Banks will retain the client relationship, while aggregating specialist providers across execution, custody, liquidity, connectivity and settlement into a single institutional service.

Live products and infrastructure initiatives point to a bank-led + partner-enabled end-state

BANK-LED SETTLEMENT

J.P. Morgan + Ondo + Chainlink

Bank-led settlement with specialist interoperability

Kinexys supplied tokenised USD deposits and payment settlement; Ondo supplied the tokenised Treasury asset; Chainlink coordinated the cross-chain DvP workflow.

Regulated money and client settlement remain with the bank; specialists provide asset and connectivity layers.

MODULAR PRODUCT STACK

State Street + Galaxy + Anchorage

Onchain Liquidity Sweep Fund

State Street retained the fund, investment management and securities custody; Galaxy supplied tokenisation; Anchorage provided digital custody; Chainlink supplied NAV data and interoperability.

The client buys a familiar institutional product assembled from modular digital-asset capabilities.

INCUMBENT CONNECTIVITY

Swift + participating banks

Swift Ledger for tokenized deposit orchestration

Swift is adding a shared orchestration layer for banks' tokenised deposits, while banks retain authority over keys, assets, funding and final settlement through existing systems.

Existing market infrastructure is extending its trusted connectivity role rather than being bypassed.

Banks remain positioned to monetize distribution and adjacent services (e.g., deposits, cash management, FX, financing, collateral, custody etc.), while specialist providers capture part of the underlying infrastructure economics.



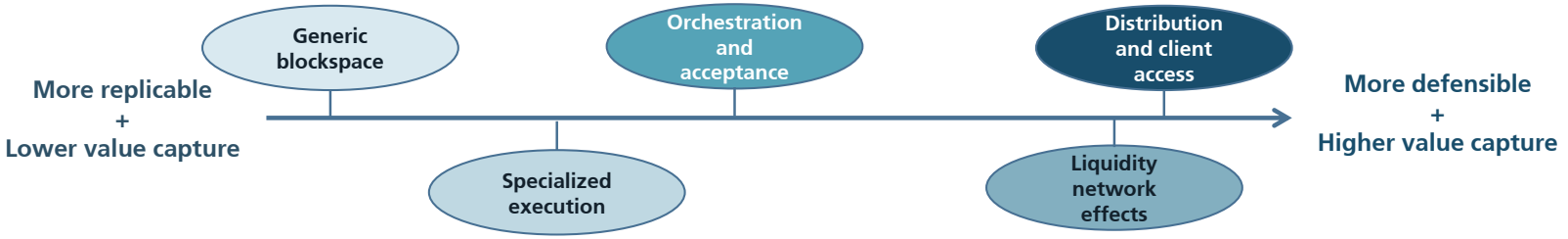
UBS Source: UBS research, J.P. Morgan, Ondo, Chainlink, State Street, Galaxy Digital, Swift

Burying the infra – making blockchain invisible to its users

Building financial products directly on blockchain infrastructure

Conclusion: the largest beneficiaries are likely to be participants that own institutional distribution, concentrate liquidity or connect fragmented infrastructure. The most exposed are providers who are slow to adopt new technology and are unable to develop network effects.

Positioned to benefit	Rationale	Potential risks	Rationale
Investment banks (first movers)	Ownership of distribution layer remains a strong moat, but possible fee compression	**Regional banks (slow to adopt)**	Risk losing customers and flows where they cannot provide integrated digital-asset access.
Liquidity-rich exchanges and venues	Deeper markets attract order flow and market makers in a compounding network effect.	**L1s and L2s that don't have liquidity network effects**	Cheap, fast blockspace is increasingly reproducible without distribution or liquidity.
Crypto-native exchanges	Coinbase and others are acting as orchestrators and are therefore likely white-label partners for institutions.	**Traditional exchanges**	Unlikely to be the primary orchestrator or connector into blockchains.
Custody, compliance and data providers	Institutions require technical controls, provenance and monitoring across multiple networks.		
Bridge and messaging protocols	Benefit from greater cross-chain activity and can charge for connectivity, liquidity, and messaging.		



UBS Source: UBS research

Valuation Method and Risk Statement

Risk statement

Risks include: 1) Regulatory and policy uncertainty, including changes to stablecoin frameworks, tokenization rules, securities classifications, anti-money laundering requirements, custody regulations, or taxation regimes, which may reduce adoption, increase compliance costs, or limit the addressable market for digital asset business models; 2) Slower-than-expected adoption of stablecoins, tokenized assets, blockchain-based settlement infrastructure, and agentic commerce, resulting in lower transaction volumes, reduced network effects, and weaker valuation outcomes than currently anticipated; 3) A deterioration in digital asset trading activity, liquidity, institutional participation, venture investment, or overall risk appetite due to macroeconomic pressures, higher interest rates, tighter financial conditions, or digital asset price weakness, adversely impacting transaction-driven business models; 4) Competitive pressures across exchanges, payment providers, stablecoin issuers, custody providers, tokenization platforms, and blockchain networks, resulting in fee compression, reduced profitability, and increased customer acquisition costs; 5) Security, operational, and governance risks, including smart contract vulnerabilities, cyberattacks, bridge exploits, validator concentration, key management failures, custody breaches, protocol governance failures, and other operational incidents that may result in financial losses, reputational damage, or reduced user confidence; 6) Fragmentation across blockchain networks, standards, liquidity pools, and regulatory jurisdictions, requiring increasing levels of interoperability, orchestration, compliance investment, and infrastructure spending to support adoption at scale; 7) The potential for incumbents including banks, payment networks, exchanges, and market infrastructure providers to successfully leverage existing distribution, compliance capabilities, regulatory licenses, and customer relationships to limit disruption from digital-asset-native competitors; and 8) Continued volatility in digital asset prices and market sentiment, which may negatively impact transaction activity, asset values, treasury holdings, capital formation, retail participation, and institutional adoption across the broader ecosystem.