Cryptocurrencies as an Asset Class (Part II)

ECOM215: Blockchain Economics and Digital Assets

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Today's Agenda

Recap and Motivation

The 2024 Spot ETF Approvals

Institutional Adoption

Investment Vehicles: A Summary

Market Integrity and Manipulation

Summary and Next Steps

Recap and Motivation

Where We Left Off

Last lecture we established the foundations:

- Crypto markets are structurally different from traditional markets (fragmented, 24/7, custody risk)
- Valuation is fundamentally challenging—no cash flows, alternative frameworks are suggestive but unreliable
- Returns have been high but volatility and drawdowns are extreme
- The diversification benefit has weakened as correlations with equities increased

This lecture we ask: Given all of that, **how do investors actually access crypto markets?**

- The regulatory breakthrough that enabled institutional access (ETFs)
- The full menu of investment vehicles (direct and indirect)
- The risks that regulation has not yet solved (manipulation, fraud)

The 2024 Spot ETF Approvals

Why ETFs Matter

Exchange-Traded Funds (ETFs) are investment vehicles that:

- Trade on regulated stock exchanges (like ordinary shares)
- Track the price of an underlying asset or basket of assets
- Provide exposure *without* requiring investors to hold the asset directly

Why this is transformative for crypto:

1. **Accessibility**: Any investor with a brokerage account can buy—no wallets, no private keys, no exchanges
2. **Regulatory wrapper**: ETFs are regulated securities products with investor protections
3. **Institutional mandates**: Many pension funds, endowments, and wealth managers *cannot* hold crypto directly but *can* hold ETFs
4. **Tax and reporting**: Standard tax treatment, integrated into existing portfolio reporting

The approval of **spot** crypto ETFs in 2024 was the single most significant event for crypto's integration into traditional finance.

Spot vs. Futures ETFs: A Critical Distinction

Futures-based ETFs (e.g., ProShares BITO, approved October 2021):

- Hold CME Bitcoin futures contracts, not actual Bitcoin
- Must "roll" contracts—selling expiring futures, buying new ones
- **Roll cost**: when futures trade at a premium to spot (*contango*), rolling destroys value over time.

Spot ETFs (approved January 2024):

- Hold actual Bitcoin in custody through a qualified custodian
- Price tracks the spot market directly
- No roll cost, no contango drag

Why the Distinction Matters

The SEC approved futures ETFs in 2021 but resisted spot ETFs for years, arguing that the spot market was susceptible to manipulation. This reflects a fundamental regulatory judgment about market integrity.

The Road to Approval: A Decade of Rejection

The SEC rejected spot BTC ETF applications from 2013 to 2023.

Timeline of key events:

Date	Event
2013	Winklevoss twins file first Bitcoin ETF application
2017	SEC rejects Winklevoss ETF; cites market manipulation risk
2021	Futures-based ETFs approved (ProShares BITO)
2021	Grayscale files to convert GBTC trust to spot ETF; SEC rejects
2023 (Jun)	BlackRock files for iShares Bitcoin Trust (IBIT)
2023 (Aug)	Court rules in *Grayscale v. SEC*: rejection was "arbitrary and capricious"
2024 (Jan)	SEC approves 11 spot Bitcoin ETFs simultaneously
2024 (May)	SEC approves spot Ethereum ETFs

The *Grayscale v. SEC* ruling was decisive: the court found the SEC could not logically approve futures ETFs while rejecting spot ETFs, since both reference the same underlying market.

The SEC's Concerns and How They Were Addressed

The SEC's core objection was market manipulation in the unregulated spot market.

Specific concerns:

- No regulated market of "significant size" for price discovery
- Wash trading and potential for fraud with no market surveillance

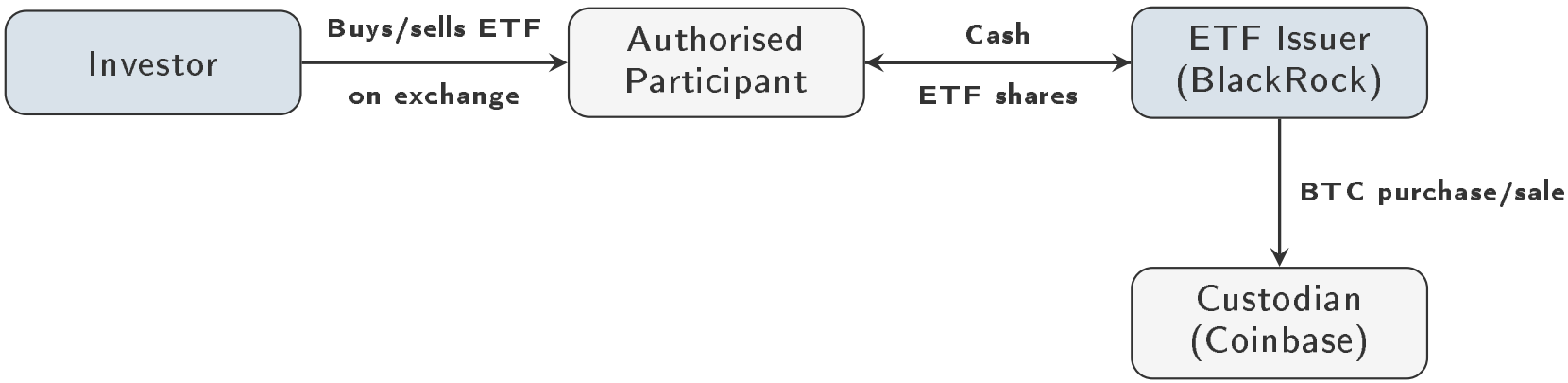
What changed:

- **CME futures market matured**: Deep liquidity, regulated, with surveillance—the SEC accepted that CME futures *lead* price discovery
- **Qualified custody**: Coinbase Custody (regulated by NYDFS) designated as custodian for most approved ETFs
- **The court forced the issue**: After losing *Grayscale*, the SEC's legal position was untenable

Note

SEC Chair Gensler emphasised that approval of Bitcoin ETFs did *not* constitute SEC endorsement of Bitcoin itself. The SEC approved a *product structure*, not the underlying asset.

How Spot Bitcoin ETFs Work



Key design feature—cash creation/redemption:

- The SEC required **cash-only** creation/redemption (no in-kind BTC delivery)
- APs deliver cash to the issuer, who then buys Bitcoin on the market
- This adds a small layer of friction and cost compared to in-kind ETFs (e.g., equity or gold ETFs), but avoids broker-dealers handling Bitcoin directly

ETF Flows and the Fee War

The launch of spot Bitcoin ETFs was one of the most successful ETF debuts in history.

Key data points (as of early 2025):

- Combined net inflows exceeded $30 billion in the first year
- iShares Bitcoin Trust (IBIT) alone surpassed $50 billion in AUM, making it one of the fastest-growing ETFs ever launched
- Grayscale's GBTC experienced significant *outflows* as investors rotated from the legacy trust (1.5% fee) into cheaper alternatives

The fee war:

ETF	Issuer	Expense ratio
IBIT	BlackRock	0.25%
FBTC	Fidelity	0.25%
ARKB	ARK/21Shares	0.21%
GBTC	Grayscale	1.50%
BTC (mini)	Grayscale	0.15%

ETF Flows and the Fee War

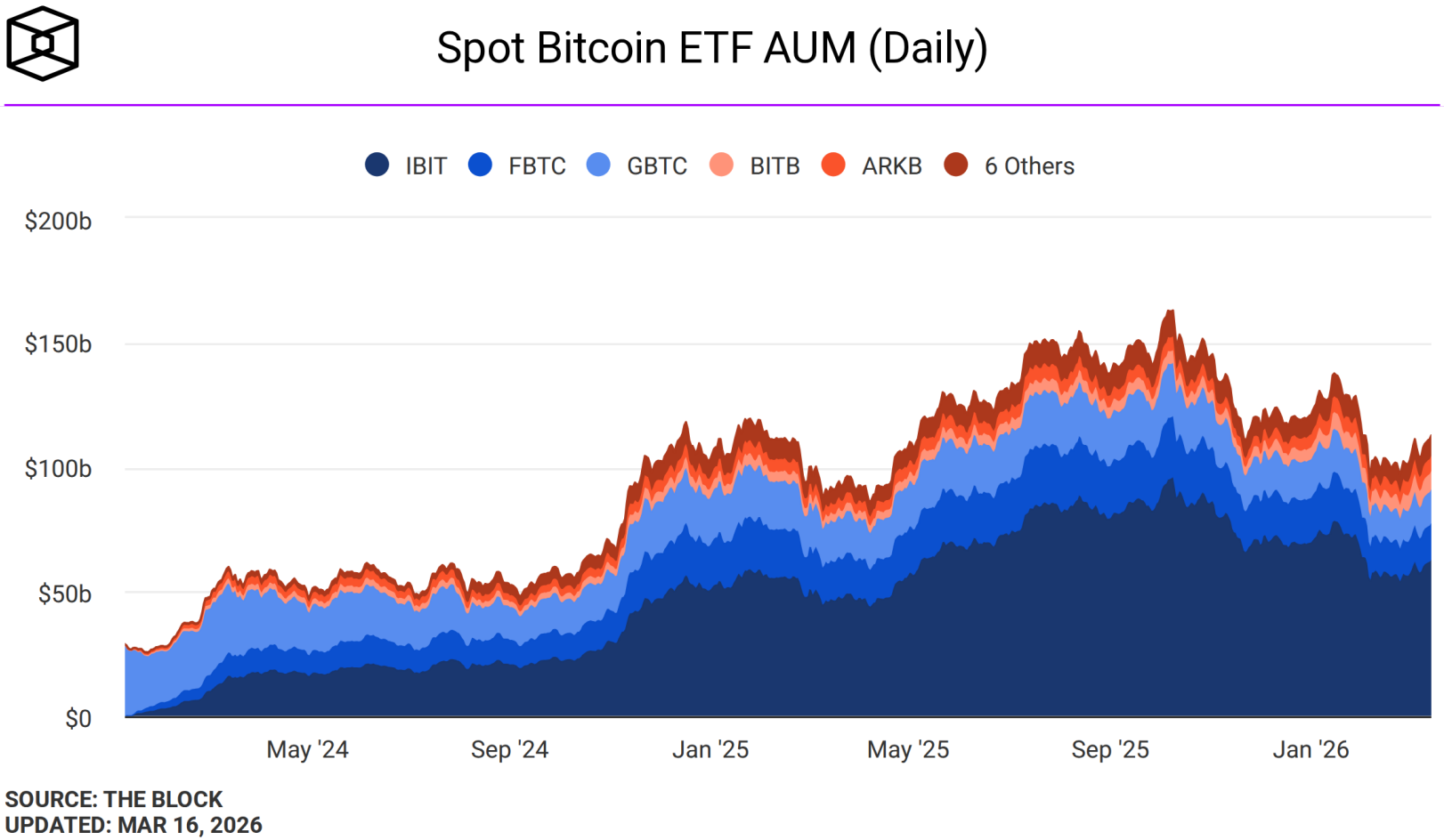


Figure: Cumulative Asset Under Management (AUM) into spot Bitcoin ETFs by issuer. Source: theblock.co

Ethereum Spot ETFs

In May 2024, the SEC also approved spot Ethereum ETFs.

Key differences from Bitcoin ETFs:

- **No staking**: The SEC required that ETH held by ETFs *not* be staked. This means ETF holders forgo the ∼3–4% staking yield—a significant economic cost.
- **Lower demand**: ETH ETF inflows were substantially smaller than BTC ETFs, reflecting lower institutional demand and the staking restriction.
- **Narrative complexity**: Bitcoin's "digital gold" pitch is simple; Ethereum's value proposition (programmable platform, fee revenue, DeFi ecosystem) is harder to convey to traditional allocators.

Open Question

If the SEC eventually permits staking within ETH ETFs, the product becomes considerably more attractive—investors would earn yield on top of price exposure. This decision remains pending.

Ethereum Spot ETFs

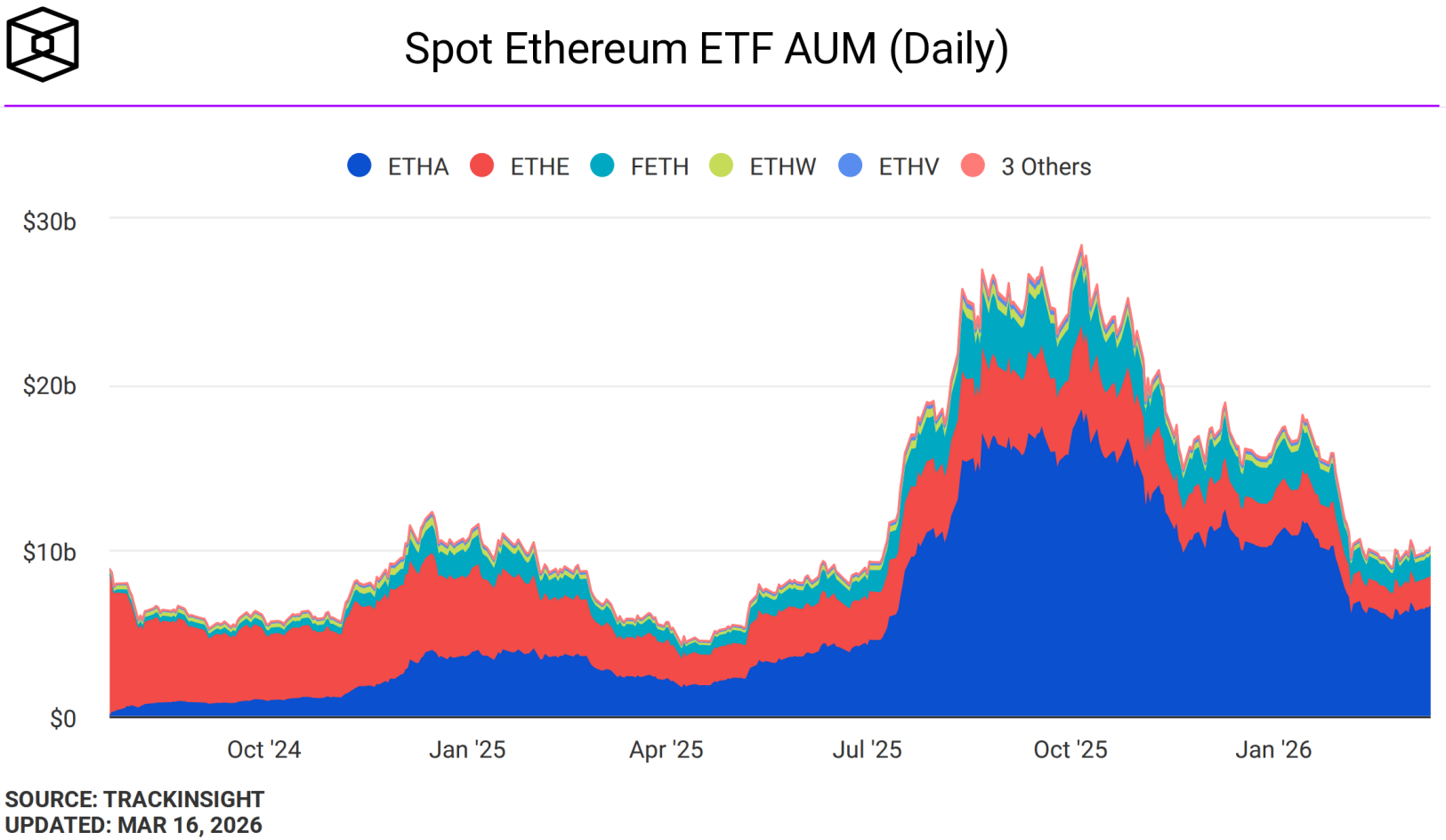


Figure: Cumulative Asset Under Management (AUM) into spot Ethereum ETFs by issuer. Source: theblock.co

ETF Impact on Price Discovery and Market Structure

The introduction of spot ETFs has changed *how* Bitcoin's price is formed.

Observed effects:

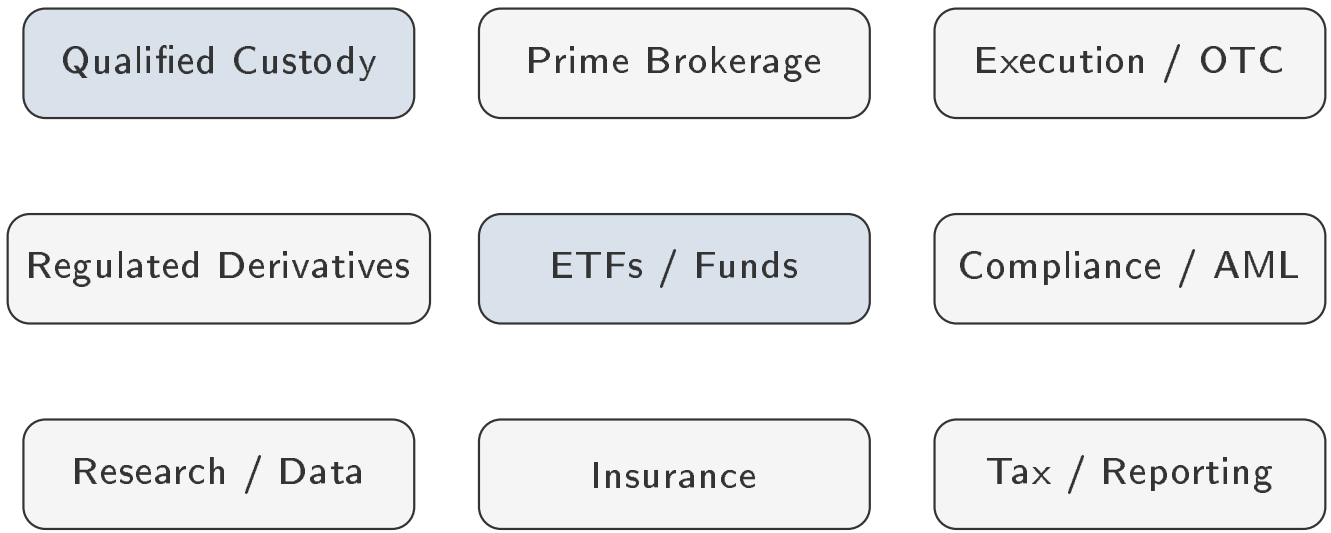
- **Reduced volatility**: Daily volatility declined in the months following ETF launch, consistent with broader, more stable participation
- **Stronger link to macro**: ETF flows respond to equity market sentiment, CPI data, and Fed signalling—reinforcing the correlation increase discussed last week
- **Volume shift**: A growing share of Bitcoin "exposure" now trades on regulated US equity exchanges rather than crypto-native venues

Economic interpretation: ETFs have improved market efficiency and access, but at the cost of making Bitcoin behave more like a traditional risk asset. The diversification benefit weakens as the asset becomes more mainstream.

Institutional Adoption

The Institutional Ecosystem

ETFs were the catalyst, but institutional adoption requires a broader infrastructure:



Each layer had to be built before institutions could participate at scale. This infrastructure was largely absent before 2020 and is now substantially in place for BTC and ETH—though still incomplete for smaller assets.

Custody Solutions

As discussed last week, institutional custody is a **prerequisite** for large-scale allocation.

Major qualified custodians:

- **Coinbase Custody**: Custodian for the majority of US spot ETFs (IBIT, ARKB, and others). Regulated by NYDFS.
- **Fidelity Digital Assets**: Custodian for Fidelity's own FBTC. Operates under existing trust company charter.
- **BitGo**: Independent custodian; insurance-backed; widely used by funds and family offices.

The concentration risk:

- Coinbase custodies a very large share of institutionally held Bitcoin
- A single point of failure—operational, regulatory, or security—would have systemic consequences
- This is a recognised risk that has not yet been fully mitigated

Corporate Treasuries: The MicroStrategy Model

Some publicly listed companies have allocated corporate treasury reserves to Bitcoin.

MicroStrategy (now "Strategy"):

- Began purchasing Bitcoin in August 2020 under CEO Michael Saylor
- Accumulated +400,000 BTC by 2025; the largest corporate holder
- Funded purchases through a combination of cash, debt issuance, and equity raises (convertible notes, at-the-market share offerings)
- Stock price has become a leveraged proxy for Bitcoin

Economic assessment:

- Shareholders gain BTC exposure through a listed equity with no management fee
- Leveraged strategy: If Bitcoin declines significantly, debt servicing becomes difficult and the company faces forced selling pressure
- The strategy works spectacularly in bull markets and is extremely dangerous in bear markets

Other adopters (Tesla, Block) have taken much smaller positions. The MicroStrategy model remains an outlier, not a template.

Derivatives Markets

Derivatives have become a major component of crypto market structure, often exceeding spot volume.

Key instruments:

1. **Perpetual futures** (crypto-native innovation):
   - No expiry date—held indefinitely
   - **Funding rate mechanism**: Periodic payments between longs and shorts to keep the contract price aligned with spot
   - If perp price $>$ spot: longs pay shorts (discourages excess bullishness)
   - If perp price $<$ spot: shorts pay longs (discourages excess bearishness)
   - Dominant instrument on crypto exchanges (Binance, Bybit, OKX)
2. **CME futures and options** (regulated):
   - Standard expiring contracts, regulated by CFTC
   - Used by institutions for hedging and basis trading
   - Open interest has grown substantially since 2023

Derivatives Markets

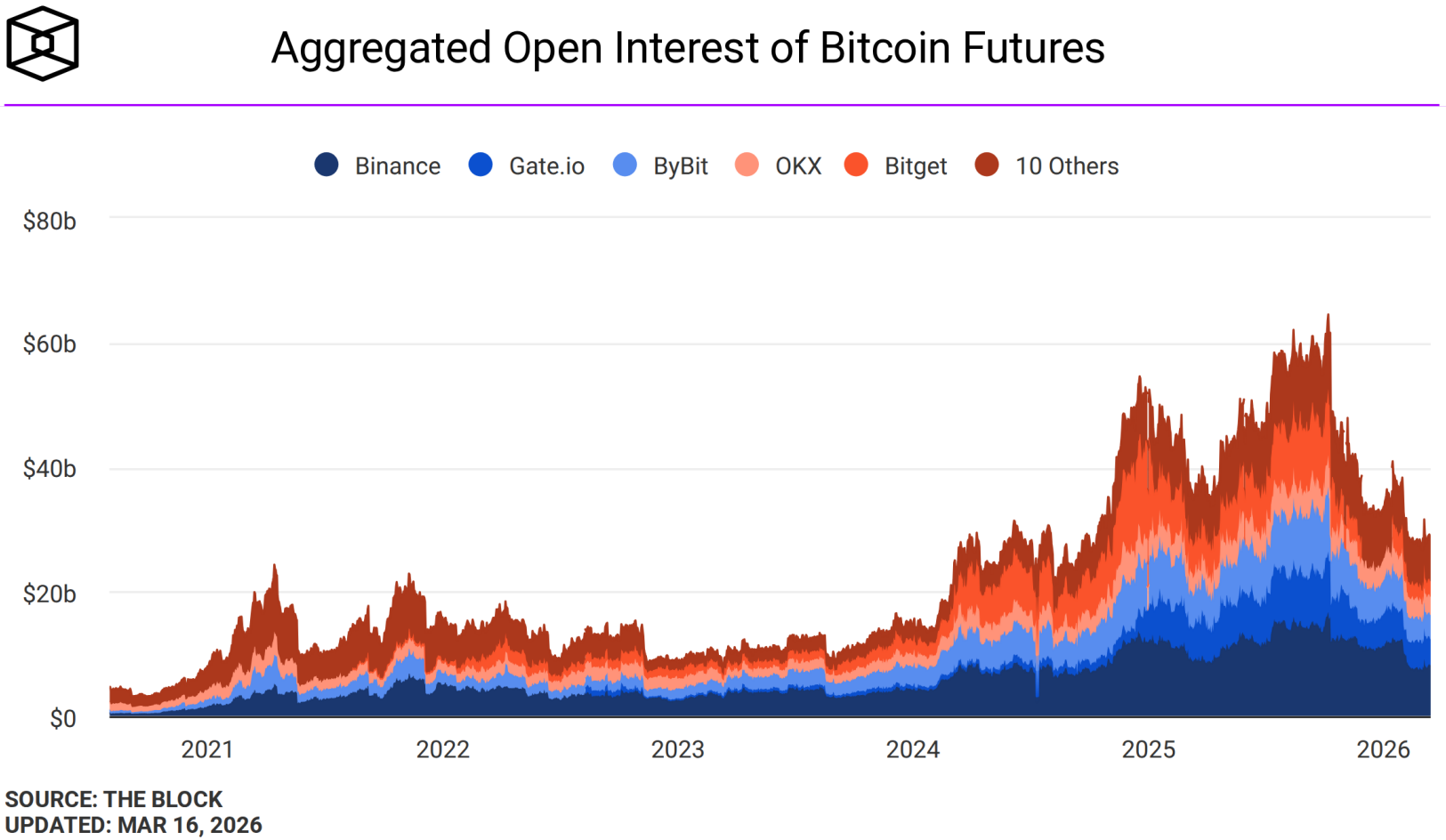


Figure: Bitcoin futures open interest across major exchanges. Source: theblock.co

Reading Funding Rates

Funding rates on perpetual futures contain information about **market positioning and sentiment**.

Interpretation:

Funding rate	Price trend	Signal
High positive	Rising	Crowded long—potential correction
Low / negative	Falling	Crowded short—potential reversal
Declining	Rising	Shorts growing despite rally—divergence
Rising	Falling	Longs adding despite decline—divergence

Economic intuition: Extreme funding rates indicate one-sided positioning. When most traders are on the same side, small price moves can trigger cascading liquidations, amplifying volatility.

Basis trade opportunity: Some institutional investors buy spot BTC (or the ETF) and short futures to earn the funding rate—a strategy called **cash-and-carry**. This is a real, measurable return and has attracted significant capital since ETF approval.

Reading Funding Rates

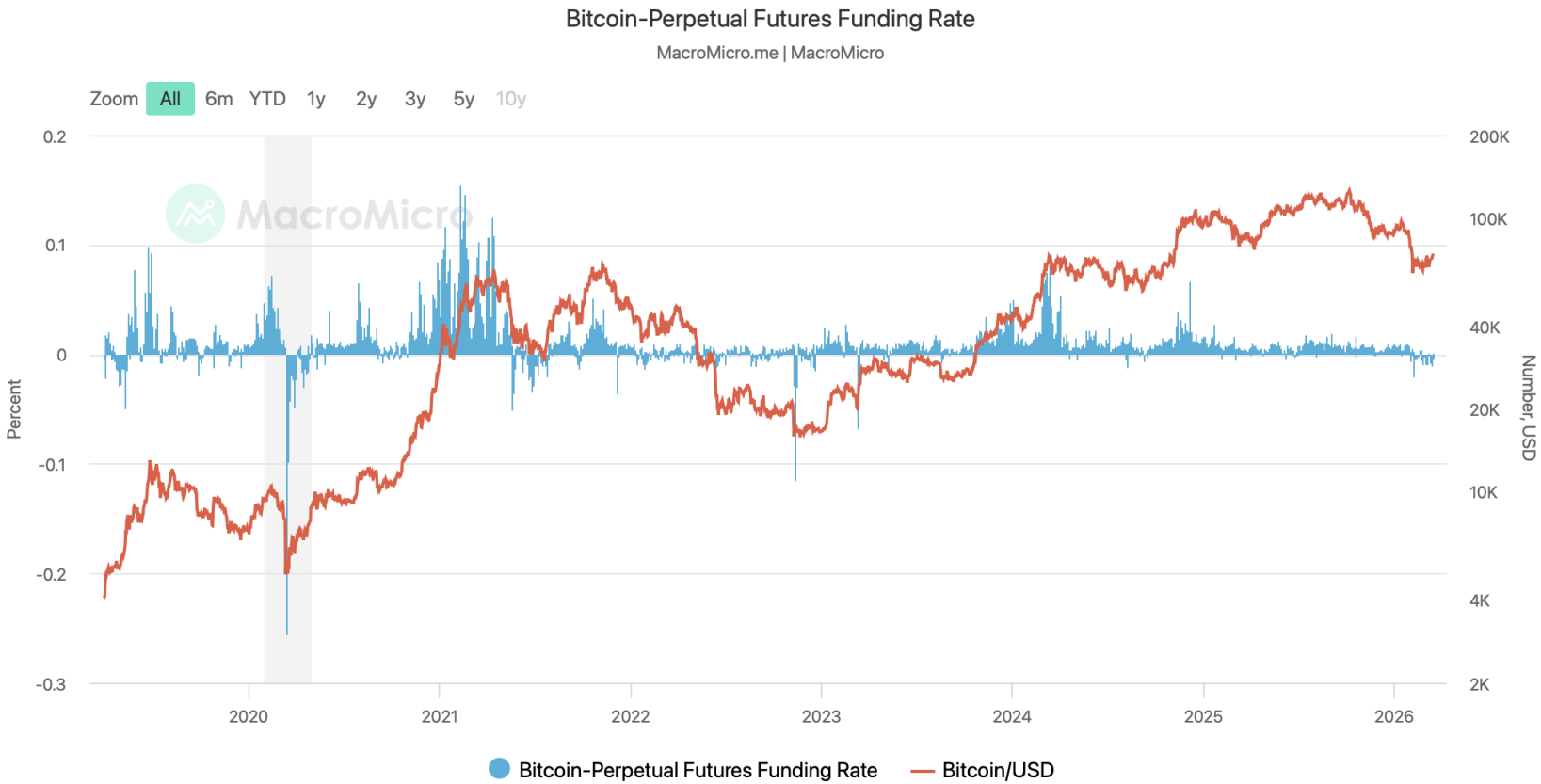


Figure: BTC funding rates (7DMA, annualised) across major exchanges.
Source: https://en.macromicro.me

Options Markets

Bitcoin options have grown rapidly, primarily on Deribit (dominant, >85% market share) and the CME.

Why options matter:

- **Hedging**: Protective puts allow holders to limit downside
- **Income generation**: Covered call writing generates yield on BTC holdings
- **Market information**: Option prices reveal the market's expectations about future volatility (implied volatility) and the probability of extreme moves

Current state:

- BTC options open interest: multi-billion dollar notional
- Growing institutional use, but still thin compared to equity options
- Put/call ratios and implied volatility surfaces are increasingly used by analysts for sentiment and risk assessment

Options Markets

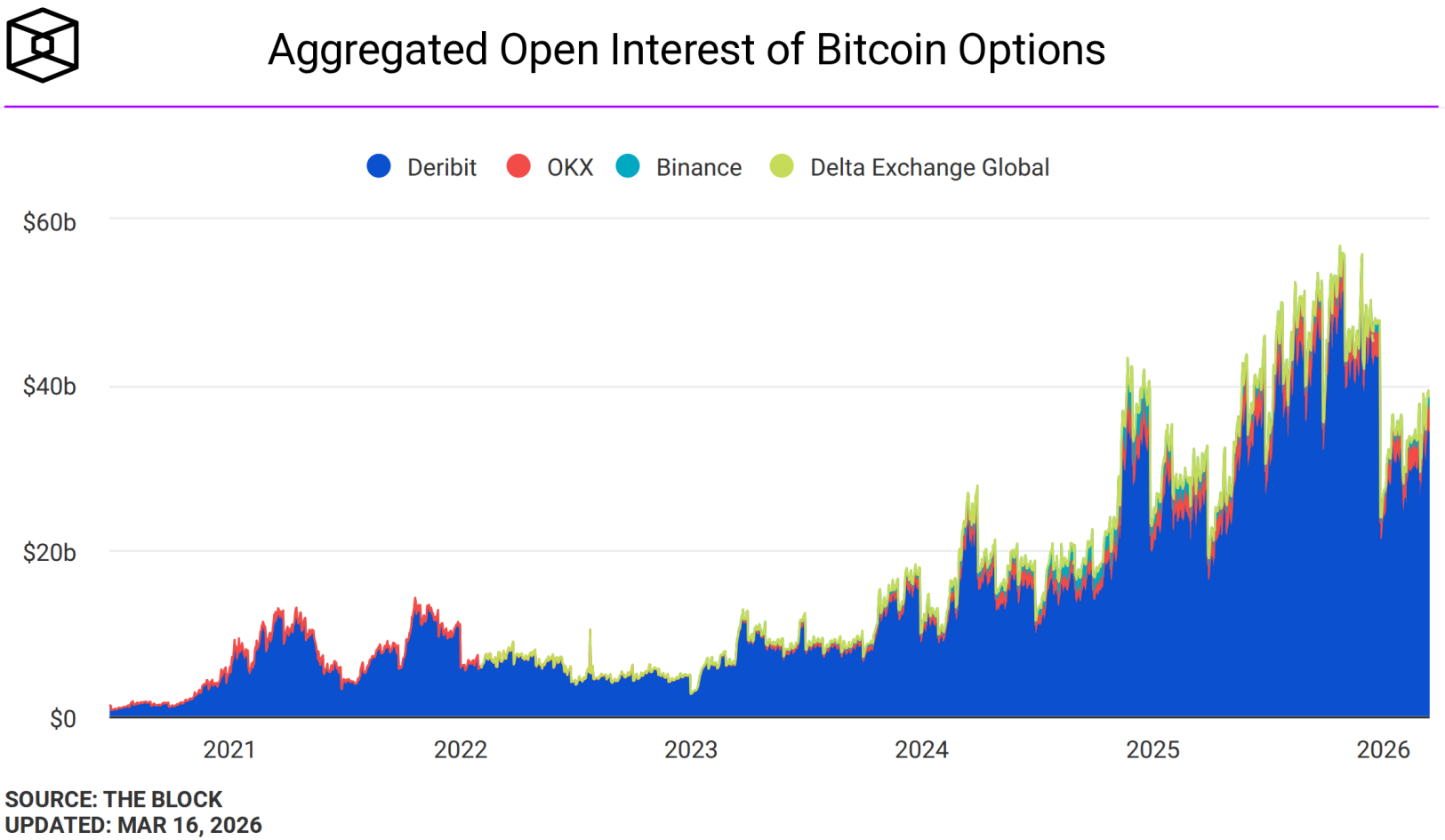


Figure: BTC options open interest across exchanges. Source: theblock.co

Investment Vehicles: A Summary

Direct vs. Indirect Exposure

Investors can access crypto through a range of channels with different risk profiles:

	Direct	**Indirect**
What you hold	The token itself	A financial product referencing the token
Custody	Self or third-party	Fund custodian
Regulation	Varies by jurisdiction	Securities regulation
Counterparty risk	Exchange risk	Fund issuer risk
Fees	Trading fees, gas	Management fees
Flexibility	Full (DeFi, staking, etc.)	Limited to product features
Tax treatment	Complex, varies	Standard capital gains

The choice between direct and indirect depends on the investor's **sophistication, regulatory environment, and investment objectives**. Most institutional capital now enters through indirect channels (ETFs, funds, futures).

Direct Investment Channels

1. **Buy and hold** (via CEX or DEX):
   - Purchase on exchange, withdraw to personal wallet
   - Full ownership and control; full responsibility for security
2. **Active trading:**
   - Higher frequency buying and selling on exchanges
   - Requires market knowledge; higher transaction costs
   - Evidence from traditional markets suggests most retail traders *underperform* passive strategies net of costs
3. **DeFi participation** (covered in this course):
   - Staking, liquidity provision, lending
   - Generates yield but introduces impermanent loss and specific risks
   - This is direct investment *plus* active strategy risk

N.B. Direct investment requires managing **private keys, tax reporting, and regulatory compliance**—barriers that are non-trivial for retail investors and prohibitive for most institutions.

Indirect Investment Channels

1. **Spot ETFs** (most significant development):
   - Covered in detail earlier this lecture
   - Regulated, accessible, low fees, no custody burden
   - Now the dominant institutional on-ramp
2. **Crypto-related equities:**
   - Public companies with significant crypto exposure: MicroStrategy, Coinbase (COIN), Marathon Digital (MARA), Riot Platforms (RIOT)
   - Provides equity-market-regulated exposure with crypto beta
   - Company-specific risk layered on top of crypto risk (management, business model, leverage)
3. **Crypto funds** (hedge funds, venture capital):
   - Active management of crypto portfolios
   - Typically restricted to accredited/institutional investors
   - Higher fees (2% management + 20% performance is common)
   - Mixed track record (e.g., collapse of Three Arrows Capital, 2022)

Market Integrity and Manipulation

Why Market Integrity Matters

For crypto to function as a legitimate asset class, markets must be **fair and orderly**. Without confidence in market integrity, institutional participation is limited and retail investors are at risk.

Traditional market safeguards:

- Securities laws prohibit insider trading and market manipulation
- Exchanges conduct real-time surveillance
- Self-regulatory organisations (FINRA in the US, FCA in the UK) monitor broker-dealer conduct
- Consolidated audit trails enable investigation after the fact

Crypto market gaps:

- Most trading volume occurs on venues outside the reach of regulators
- No comprehensive market surveillance across venues
- Pseudonymous trading makes identifying manipulators difficult
- Insider trading in token listings and protocol upgrades is common and largely unpunished

Types of Manipulation in Crypto Markets

1. Wash trading:

- Simultaneously buying and selling to inflate volume
- Studies estimate 50–70% of reported exchange volume may be artificial
- Motivation: attract listings, earn trading rewards, inflate exchange rankings

2. Pump and dump:

- Coordinated buying to inflate a low-cap token's price, followed by selling to latecomers
- Often organised via Telegram/Discord groups
- Primarily affects small-cap tokens; less relevant for BTC/ETH

3. Spoofing:

- Placing large orders with no intention to execute, to create a false impression of supply or demand
- Order is cancelled before execution
- Illegal in regulated markets; largely unmonitored in crypto

Case Study: The FTX Collapse (November 2022)

FTX was the world's third-largest crypto exchange before its collapse.

What happened:

- FTX mixed customer funds with its trading firm, Alameda Research
- Alameda used customer deposits to fund speculative trades and venture investments
- When a bank-run-like withdrawal wave hit in November 2022, FTX could not honour redemptions
- $8–10 billion in customer funds were missing
- Founder Sam Bankman-Fried convicted of fraud (sentenced to 25 years, March 2024)

Lessons for the asset class question:

- Counterparty risk on unregulated exchanges is real and catastrophic
- "Proof of reserves" is insufficient—you need proof of *liabilities* too
- The collapse accelerated the push for regulation and strengthened the case for *regulated* access channels like ETFs

Regulatory Responses to Market Integrity

The manipulation and fraud problems have prompted regulatory response.

EU—Markets in Crypto-Assets Regulation (MiCA):

- Comprehensive framework effective from December 2024
- Requires licensing for crypto-asset service providers (CASPs)
- Prohibits market abuse: insider trading, market manipulation, unlawful disclosure

US—Fragmented approach:

- SEC: Asserts jurisdiction over tokens that are "securities"
- CFTC: Treats Bitcoin and Ethereum as "commodities"
- Enforcement-led approach: SEC has brought cases against Ripple, Coinbase, Kraken, and others

UK—FCA:

- Crypto marketing rules tightened (since October 2023)
- Registration required for crypto firms operating in the UK
- No comprehensive licensing regime yet (lagging behind MiCA)

Summary and Next Steps

Key Takeaways

1. **Spot ETFs transformed crypto's accessibility**
   - The 2024 approvals were the result of a decade-long regulatory battle
   - Record-breaking inflows; fee competition driving costs down
   - But ETFs also make Bitcoin behave more like a correlated risk asset
2. **Institutional infrastructure is now largely in place**
   - Qualified custody, regulated derivatives, prime brokerage
   - Concentration risk (especially Coinbase) remains a concern
3. **Multiple investment channels exist with different risk profiles**
   - Direct: Full control, full responsibility
   - Indirect (ETFs, equities, funds): Regulated access, limited flexibility
   - Derivatives: Leverage, hedging, and sentiment information
4. **Market integrity remains the weakest link**
   - Wash trading, manipulation, and fraud persist on unregulated venues
   - MiCA, SEC enforcement, and ETF surveillance are partial solutions
   - Regulatory classification (security vs. commodity) is still unresolved for most tokens

Putting It All Together: The Asset Class Verdict

After two weeks of analysis, where does the evidence leave us?

Criterion	Assessment	Trend
Return potential	High	Moderating with maturity
Risk (volatility, drawdowns)	Very high	Declining but still extreme
Liquidity (BTC/ETH)	Adequate	Improving via ETFs
Liquidity (altcoins)	Poor	Fragmented
Regulatory framework	Mixed	Improving (MiCA, ETFs)
Correlation / diversification	Weakening	Higher with institutionalisation
Market integrity	Poor	Slowly improving

Bottom line: Bitcoin and Ethereum are increasingly *investable*—the infrastructure, regulation, and products now exist.

But "investable" is not the same as "attractive". Whether crypto *deserves* a place in a diversified portfolio depends on the investor's risk tolerance, time horizon, and willingness to accept that many fundamental questions remain unanswered.

What's Next

Week 9: Blockchain in Traditional Finance

- Tokenization of securities: bonds, equities, money market funds
- Settlement and clearing: from T+1 to near-instant
- Institutional blockchain initiatives (JPMorgan Onyx, DTCC)
- Central bank experiments: wholesale CBDCs and cross-border payments
- Integration challenges: legacy systems, interoperability, and regulation

Preparation:

- Think about: Why does it still take one business day to settle a stock trade, when Bitcoin settles in 10 minutes? What are the obstacles to faster settlement?
- Explore: Look up BlackRock's BUIDL fund (tokenized treasuries) and compare its structure to a traditional money market fund

Questions?