TALOS

ANALYSIS

From Bitcoin ETF to Global Crypto ETP

Regulation, Access, and the Institutional Infrastructure Imperative

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TL;DR

The past 18 months have settled the foundational regulatory question: crypto ETPs are a permanent feature of the institutional investment landscape. What they have not settled is the operational complexity of running those products across multiple regulatory regimes simultaneously, and that complexity is now the defining challenge for institutions active in this market. With regulated products live across the US, Hong Kong, Australia and Europe – and Japan and South Korea advancing toward launch – the question for banks, prime brokers, hedge funds and custodians is no longer whether to engage, but whether their infrastructure is built for what engagement now requires. Key takeaways for institutions:

- In-kind redemptions have raised the bar for US authorized participants. Firms that routed all activity through cash-settled intermediaries now need direct crypto custody, net capital capacity for the associated haircut, and operational connectivity to ETP trust custodians before they can participate in-kind.
- The US product pipeline is accelerating, not stabilizing. Staking-integrated ETFs, multi-token index funds and actively managed structures are live or pending, each carrying distinct compliance, custody and operational demands that single-asset cash-settled products do not.
- European and UK exposure does not mirror the US model. UCITS rules structurally prevent a retail spot crypto ETF in both jurisdictions. Institutions building cross-border strategies must account for ETN booking treatment, distribution mandate restrictions and diverging UK versus EU regulatory trajectories.
- Japan and South Korea represent pipeline opportunity, not near-term certainty. Both markets require multi-step primary legislation before spot crypto ETFs can launch. Institutions should monitor legislative progress but plan infrastructure accordingly..
- Operational infrastructure is now the differentiator. Divergent creation and redemption mechanics, custody architectures, benchmark requirements and disclosure regimes across jurisdictions cannot be managed on a single-stack assumption. Firms whose infrastructure was built for this complexity from the outset are better positioned to move with the market.

Introduction

The approval of spot bitcoin and ethereum ETFs in the United States marked a turning point for institutional digital asset investment, but the story does not end there. Across Hong Kong, Australia, the European Union, the United Kingdom, and – in the near term – Japan and South Korea, regulators are building or refining frameworks that bring crypto exchange-traded products within the reach of institutional and retail investors alike. Global crypto ETP assets under management reached an estimated $184 billion by the end of 2025, driven by record inflows, landmark product launches, and a wave of regulatory activity that has fundamentally redrawn the institutional access map. (See Figure 1.) For banks, hedge funds, prime brokers and custodians, navigating this landscape now means managing divergent regulatory regimes, product structures, custody requirements and disclosure obligations simultaneously, across multiple jurisdictions. This article sets out where each major market stands, what the product pipeline looks like, and what the operational complexity of a genuinely global crypto ETP market demands from institutional infrastructure.

Figure 1. Global crypto ETP assets under management (as of year-end 2025)

Source: CoinShares, FarSide Investors. Talos Analysis

Throughout this piece, "ETP" refers to the broad category of exchange-traded products, encompassing fund structures, commodity trusts and debt instruments. Where a jurisdiction's regulatory framework or market convention uses the term "ETF" specifically – as in the United States, Hong Kong and Australia – we use that term here to reflect local usage. One structural distinction, however, warrants flagging upfront: the oldest US spot bitcoin and ethereum products widely called "ETFs" are not exchange-traded funds in the legal sense. They are grantor trusts, a form of commodity-based trust share registered under the Securities Act of 1933. The "ETF" label is applied by market convention and, in some cases, by the product's own marketing materials, but it is a commercial description rather than a legal one. The "ETF" label is market convention rather than legal form, and that distinction has direct operational consequences – including for in-kind redemption eligibility and the applicable securities law framework – as explained in the sections below.

With the recent expansion of the crypto funds sector comes a proliferation of distinct legal structures sharing the ETF label. For example: US grantor trusts registered under the Securities Act of 1933 (the structure used for most US spot bitcoin and ethereum products), European exchange-traded notes structured as unsecured debt obligations of the issuer, and US open-end funds registered under the Investment Company Act of 1940. Each carries different counterparty exposures, redemption mechanics and regulatory obligations – distinctions that matter for institutional due diligence even when the ticker and the underlying asset look identical.
See Figure 2.

Figure 2: Exchange Traded Product Taxonomy

Understanding what regulatory infrastructure each jurisdiction has built – and what it has not – is now a practical requirement for any institution active in this market.

The US: Crypto ETFs structural reform in three moves

The US has driven the bulk of global crypto ETP growth, and the regulatory framework that produced that growth has undergone material changes starting in 2024.

1. Spot ETF approvals and the cash-only constraint (January 2024)

The Securities and Exchange Commission (SEC) approved the first spot bitcoin ETFs (technically grantor trusts, as discussed below) for listing in January 2024, followed by spot ether ETFs in May 2024. Both approvals required all creations and redemptions to settle in cash. Authorized participants (APs) could only deliver or receive US dollars; they could not transact in the underlying crypto assets directly. The SEC cited concerns including the absence of broker-dealer registration among many APs, custody uncertainty under existing securities law, and risk management challenges for bank-affiliated entities. That structure enabled a rapid product launch but with certain drawbacks: tracking error, spread widening and cost inefficiencies relative to commodity-based ETPs that had always operated on an in-kind basis.

2. In-kind mechanics approved but only for commodity vehicles (July 2025)

On July 29, 2025, the SEC issued Release No 34-103571, granting accelerated approval to rule changes proposed by Nasdaq, Cboe BZX and NYSE Arca, permitting in-kind creations and redemptions for certain bitcoin and ether-based commodity-based trust shares.

The approval applies only to 1933 Act grantor trusts and other commodity-based trust products that are not registered as investment companies under the Investment Company Act of 1940 (the "40 Act"). This exclusion is not a technicality. Section 22(e) of the 1940 Act imposes requirements around the suspension of redemption rights when an exchange is closed or trading restricted. In plain terms, the products that can offer in-kind redemptions today are the single-asset bitcoin and ether commodity trusts approved in 2024. Multi-asset funds and actively managed structures face a separate and unresolved regulatory pathway.

Those requirements do not map cleanly onto crypto assets, which trade continuously on a 24/7 basis, creating unresolved ambiguity about operational timing and redemption mechanics. A 40 Act-registered fund seeking to offer in-kind bitcoin or ether redemptions would need to resolve those issues through separate engagement with the SEC's Division of Investment Management, potentially including exemptive relief.

All existing spot bitcoin and ether ETFs approved in 2024 are commodity-based trust shares registered under the Securities Act of 1933 and listed under the Securities Exchange Act of 1934. They are not investment companies registered under the 40 Act, and Release No. 34-103571 applies to them on that basis. However, that distinction matters for product structuring decisions going forward, particularly for multi-asset index funds or actively managed vehicles that may prefer 40 Act registration for investor protection or tax reasons.

The in-kind approval also depended on a precondition that first had to be resolved. Before APs could transact in the underlying bitcoin or ether directly, they needed legal certainty that broker-dealers could hold crypto assets at all. That certainty had been absent since a 2019 Joint Statement by the SEC Division of Trading and Markets and FINRA's Office of General Counsel, which created significant compliance uncertainty around broker-dealer crypto custody. On May 15, 2025, the SEC withdrew that statement and published Frequently Asked Questions (the "Crypto FAQs"), which confirmed three things:

- Broker-dealers may take custody of non-security crypto assets including bitcoin and ether;
- Custody and capital requirements do not prohibit a broker-dealer from facilitating in-kind ETP creations and redemptions; and
- Proprietary positions in bitcoin or ether held by a broker-dealer in connection with ETP activity are treated as readily marketable commodities subject to a 20% haircut under Rule 15c3-1 (the net capital rule).

These clarifications collectively unlocked the in-kind mechanism. A firm seeking to operate as an in-kind AP now needs direct crypto custody capabilities adequate to hold bitcoin or ether – Rule 15c3-3 possession and control requirements are not implicated for non-security crypto assets; what the May 2025 FAQs established is that broker-dealers may hold such assets and that proprietary positions are treated as readily marketable commodities subject to a 20% haircut under Rule 15c3-1 – together with net capital capacity to carry that haircut and operational connectivity to the ETP trust's custodian. Firms that had routed all activity through cash-settled intermediaries will need to build or source direct crypto custody capabilities and net capital capacity before they can participate as in-kind APs.

The practical effects are material. In-kind redemptions eliminate the need for the ETF issuer to execute a market order when processing redemptions, removing a systematic source of price slippage. Tighter arbitrage mechanics reduce bid-ask spreads for secondary market investors. The in-kind structure can also improve tax efficiency at the fund and AP level: in-kind redemptions avoid the need for the fund to sell assets to meet redemptions, reducing the realization of gains that would otherwise be distributed to fund shareholders.

3. Generic listing standards for commodity vehicles

On September 17, 2025, the SEC issued Release No. 34-103995, approving generic listing standards for commodity-based trust shares, including those holding digital assets. Before this approval, each proposed crypto ETF required a separate rule change filed by the listing exchange under Section 19(b) of the Securities Exchange Act of 1934, subject to SEC review within a statutory 240-day window. Under the new framework, products that meet specified eligibility criteria can proceed to listing under Rule 19b-4(e) without individualized SEC review, reducing the launch timeline to as little as 60 to 75 days.

Eligibility requires the underlying asset to satisfy at least one of the following criteria:

- It trades on a market that is a member of the Intermarket Surveillance Group (ISG), with surveillance-sharing arrangements in place
- It underlies a futures contract listed on a Commodity Futures Trading Commission (CFTC)-regulated designated contract market (DCM) for at least six months, with a comprehensive surveillance-sharing agreement covering that DCM
- An ETF providing at least 40% economic exposure to the asset is already listed and trading on a national securities exchange (applicable on an initial basis only)

The framework is significant, but its exclusions matter as much as its scope. Four product categories fall outside the generic standards and continue to require individual Section 19(b) approval.

Actively managed ETFs: Products that employ discretionary investment strategies cannot use the generic standards, which apply only to vehicles designed to passively reflect the performance of a reference asset or index. The T. Rowe Price Active Crypto ETF (S-1 filed October 22, 2025), designed to outperform the FTSE Crypto US Listed Index by holding between 5 and 15 digital

assets selected on the basis of fundamentals, valuation and momentum, requires individual Commission approval. Any other actively managed crypto product does as well. Commissioner Peirce's September 17, 2025 statement made explicit that the framework operates via Rule 19b-4(e), which does not accommodate active management discretion.

Leveraged and inverse leveraged ETFs: The definition of Commodity-Based Trust Shares requires that the product is designed to "reflect the performance" of a reference asset, a formulation that is structurally inconsistent with leveraged or inverse mechanics. These products continue to require individualized rule changes.

Novel-feature products. ETPs incorporating lending, staking, revenue-sharing, or rehypothecation of trust assets as core structural features cannot rely on the generic listing standards. In practice, however, two separate legal pathways enabled staking-integrated products to come to market in 2025 without triggering the standard 19b-4 review process.

The first is the Investment Company Act of 1940 (the "1940 Act") route. A registered investment company that includes staking as part of its investment strategy does not require a separate 19b-4 rule change and becomes effective automatically if the SEC does not intervene. REX-Osprey exercised this pathway twice. The REX-Osprey SOL + Staking ETF (SSK) launched on July 2, 2025 on Cboe BZX, the first US ETF offering Solana exposure with staking rewards, with approximately $12 million in first-day inflows, growing to over $300 million in assets by September 2025. The REX-Osprey ETH + Staking ETF (ESK) followed on September 25, 2025 as the first US ETF offering ether exposure with staking rewards. Both are 1940 Act funds that distribute staking rewards to investors as cash payments. The SEC's May 29, 2025 Division of Corporation Finance statement, confirming that protocol staking activities do not constitute the offer or sale of securities, was the enabling threshold clarification.

The second is amendment of existing 1933 Act commodity trust listing rules. Grayscale took this route for its two spot ether products. The Grayscale Ethereum Trust ETF (ETHE) and the Grayscale Ethereum Mini Trust ETF (ETH) became the first US-listed spot crypto ETPs under the 1933 Act to enable staking, activating on October 6, 2025. Both were renamed to the Grayscale Ethereum Staking ETF and the Grayscale Ethereum Staking Mini ETF respectively, and declared their first staking rewards distribution on January 5, 2026.

Dedicated spot Solana ETPs with staking also launched in late October via individual 19b-4 approval. The Bitwise Solana Staking ETF (BSOL) began trading on the New York Stock Exchange on October 28, 2025 as the first US ETP with 100% direct SOL exposure, recording approximately $69.5 million in first-day inflows and $56 million in trading volume – the largest opening-day volume for any ETF in 2025. The Grayscale Solana Trust ETF (GSOL) listed on NYSE Arca the following day. Both are 1933 Act commodity trusts with staking integrated from launch; staking rewards are reinvested into NAV rather than distributed. Fidelity's FSOL ETF and further Solana products from other issuers also launched or were in the market by late 2025. BlackRock filed an S-1 for a new dedicated staked ether ETF (the iShares Staked Ethereum Trust, ticker ETHB) on December 5, 2025.

LST-based structures, products incorporating lending or rehypothecation, and leveraged or inverse vehicles continue to require individual approval and cannot rely on the generic standards.

Assets lacking adequate surveillance-sharing. Digital assets that trade primarily on decentralized exchanges (DEXs), or on centralized platforms outside the ISG with no qualifying futures market, cannot satisfy the eligibility criteria. This creates a structural ceiling on how broadly the altcoin ETF universe can expand under the generic pathway.

The practical consequence is a bifurcated approval environment. Passive index-tracking crypto ETFs covering well-surveilled assets move through an accelerated process. More complex or yield-generating structures, which represent much of the next phase of product development, remain in the individually reviewed queue. With approximately 155 crypto ETF filings pending as of late October 2025 across 35 different digital assets, issuers should assess which pending filings qualify for the generic pathway and whether any structural adjustments could bring products within scope.

The expanding US ETF product universe

Alongside the generic standards approval, the SEC approved the Grayscale Digital Large Cap Fund, a multi-token ETP tracking the CoinDesk 5 Index, providing exposure to bitcoin, ether, XRP, Solana and Cardano within a single product wrapper. Cardano was then replaced by BNB during the fund's February 2026 rebalance. Bitwise's 10 Crypto Index Fund conversion and filings from Franklin Templeton and Hashdex for index-based structures are in process.

The staking product sequence unfolded in four distinct steps across 2025. SSK launched on July 2 as the first US ETF with Solana exposure and staking; ESK followed on September 25 as the first with ether exposure and staking – both via the 1940 Act route. Grayscale activated staking on its existing 1933 Act spot ether ETPs on October 6. Then BSOL (Bitwise, NYSE, October 28) and GSOL (Grayscale, NYSE Arca, October 29) launched as dedicated spot Solana ETPs with staking via individual 19b-4 approval. Each step in this sequence resolved a distinct regulatory question about how staking interacts with the applicable securities law framework.

The T. Rowe Price Active Crypto ETF S-1 represents a qualitatively different development. T. Rowe Price, managing approximately $1.77 trillion in assets primarily through mutual fund vehicles, is entering a market it has historically observed rather than participated in. Actively managed ETPs of this type carry substantially greater compliance, operational and portfolio management demands than passive single-asset structures. Their arrival signals that the institutional product development cycle for crypto ETPs is accelerating rather than plateauing.

In March 2026, the SEC approved NYSE Arca's proposed rule change (Release No. 34-105040) removing the 25,000-contract position and exercise limits that had applied to options on 11 spot bitcoin and ether ETFs since their respective launch phases. The affected products include funds from BlackRock, Fidelity, ARK 21Shares, Grayscale and Bitwise. The change became operative immediately under Rule 19b-4(f)(6), with the SEC waiving the standard 30-day operative delay on the basis that the revision aligned crypto ETF options treatment with rules already applied to comparable products on other exchanges. Options on these products may now also trade as FLEX contracts. NYSE American filed a parallel proposal on the same date. The development marks a further normalization of the US spot crypto ETF market: options on these products are now subject to the same position-limit framework applied to other eligible exchange-traded products, reducing one structural friction that had distinguished crypto ETF options from the broader options market.

Europe: Regulatory clarity without a spot ETF market

Understanding Europe's position requires first establishing a structural distinction that the US crypto product landscape tends to obscure: in Europe, an exchange-traded fund (ETF) and an exchange-traded product (ETP) are not interchangeable terms. They describe fundamentally different legal structures, regulated under entirely different frameworks. That difference directly determines what crypto exposure investors can and cannot access, and why the market has evolved the way it has. The EU and the UK share the same structural constraint, but have diverged meaningfully on how far they have opened the ETN market to retail investors.

How European crypto ETPs work: UCITS constraints and ETN structures – What institutions need to know

In the EU, an ETF is a fund that qualifies as an Undertaking for Collective Investment in Transferable Securities (UCITS) under Directive 2009/65/EC. UCITS is the dominant fund framework for retail-accessible investment products in the EU, covering approximately €15 trillion in assets across more than 33,000 funds. A UCITS authorization from one member state allows the fund to be distributed to retail investors across the entire EU under a passport mechanism. "UCITS ETF" and "EU retail ETF" are, in practice, synonymous for this purpose.

The UK exited the EU in 2020, but retained EU financial regulation as onshored domestic law. UK UCITS funds operate under the FCA's Collective Investment Schemes sourcebook (COLL), which mirrors the EU UCITS framework in all material respects relevant here. The same structural constraints apply in both jurisdictions.

UCITS funds are subject to strict requirements on eligible assets, diversification, and liquidity. Article 50 of the UCITS Directive defines the permitted investment universe: transferable securities (listed equities and bonds), money market instruments, deposits, qualifying derivative instruments, and units in collective investment schemes meeting equivalence criteria. Physical crypto assets, including bitcoin and ether, do not appear in any of these categories and have no legal basis for inclusion under the current framework in either the EU or the UK. UCITS funds are also expressly prohibited from direct investment in physical commodities.

Even if crypto assets could be treated as UCITS-eligible, a second structural constraint would apply independently: the 5/10/40 diversification rule under Article 52 of the UCITS Directive. This

rule caps investment in any single issuer at 10% of the fund's net asset value, and requires that positions above 5% in a single issuer do not collectively exceed 40% of the portfolio. A single-bitcoin UCITS ETF would breach the 10% cap on day one: the entire portfolio would be concentrated in one asset. The rule does not map cleanly onto assets like bitcoin that have no "issuer" in the traditional sense, but the practical consequence is the same regardless of how that question is resolved. Even under the more permissive 20/35 rule available to index-tracking UCITS, a portfolio concentrated in one or two crypto assets would fail. A bitcoin-only UCITS ETF is not currently permissible under UCITS eligible-assets rules, with the diversification rules creating an additional obstacle, in both the EU and the UK.

These are not policy preferences subject to administrative discretion. In the EU, they are constraints embedded in the UCITS Directive, a Level 1 legislative instrument requiring co-decision by the European Parliament and the Council to amend, a process that typically spans several years. In the UK, the equivalent constraints sit in onshored legislation and FCA rules; the UK could in theory diverge from the inherited EU framework, but the FCA has so far shown no inclination to do so in this area.

ESMA's technical advice: The door stays closed, and may narrow further

In June 2025, the European Securities and Markets Authority (ESMA) published its Technical Advice to the European Commission on the review of the UCITS Eligible Assets Directive, Final Report dated 26 June 2025 (ESMA34-2087785638-1548). The report explicitly categorized crypto assets as "alternative assets" alongside commodities and real estate, outside the scope of direct UCITS investment eligibility. ESMA's stated position is that large-scale crypto investment is more appropriately situated under the Alternative Investment Fund Managers Directive (AIFMD), which provides "more suitable risk management, valuation and safekeeping provisions for such asset classes." ESMA also confirmed that the Eligible Assets Directive (a delegated regulation supplementing UCITS) cannot expand the list of eligible assets set out in the UCITS Directive itself (a Level 1 measure), meaning only primary legislative action at EU level can change the position. ESMA's advice does not bind the FCA, but the FCA has separately given no indication it intends to diverge on this point.

In a further development with direct market implications, ESMA proposed that UCITS funds should be prohibited from gaining indirect exposure to crypto through wrapper instruments such as ETNs and delta-one instruments, except within a capped 10% "trash bucket." If adopted as EU legislation,

this proposal would restrict existing UCITS funds that currently achieve limited crypto exposure through ETNs. The European Commission is not bound by ESMA's advice and is expected to issue its own consultation before proposing any amendments. No Commission proposal had been published at the time of writing, and no legislative timeline has been set.

What actually is a European ETP?

Because UCITS rules prevent both direct and concentrated fund investment in crypto, institutional and retail crypto exposure in both the EU and the UK flows through exchange-traded notes (ETNs). These are debt instruments, not funds. An ETN is issued by a special purpose vehicle (SPV), physically collateralized by the underlying crypto asset held in custody, and listed on a regulated exchange. Key issuers in the market include CoinShares, 21.co (21Shares), ETC Group, WisdomTree and Bitwise Europe.

These products trade on Deutsche Börse Xetra, Euronext, SIX Swiss Exchange and the London Stock Exchange, among other venues. Because ETNs are not UCITS funds, they are not subject to the eligible asset rules, the 5/10/40 diversification constraint, or the depositary requirements that apply to regulated funds. A single-bitcoin or single-ether ETN is structurally straightforward under this framework.

The UK: a separate path on retail access for crypto ETNs

While the structural impossibility of a crypto UCITS ETF is common to both the EU and the UK, the two jurisdictions have diverged on how far they have opened the ETN market. The UK has moved faster.

The FCA imposed a total ban on selling crypto ETNs and derivatives to retail investors in January 2021. In March 2024, it partially reversed course, allowing professional investors (investment firms and credit institutions) to access crypto ETNs (cETNs) listed on UK recognized Investment Exchanges (RIEs) such as the London Stock Exchange and Cboe UK. Following a consultation launched in June 2025, the FCA confirmed on August 1, 2025 that the retail ban on crypto ETNs would be lifted, with the change taking effect on October 8, 2025. The ban on crypto derivatives for retail investors remains in force.

UK-listed crypto ETNs are classified as Restricted Mass Market Investments (RMMIs) under the FCA's financial promotions regime, meaning they can be promoted to retail investors subject to

specific appropriateness checks and prescribed risk warnings. From October 2025, cETNs became eligible for inclusion in UK ISA and SIPP tax wrappers; from April 6, 2026, they will be reclassified as qualifying investments for Innovative Finance ISAs (IFISAs) and will no longer qualify for Stocks and Shares ISAs, a transition that carries its own operational and client communication requirements and complications for platforms and distributors.

The UK is not subject to MiCA. UK crypto asset firms operate under a separate FCA registration and authorization regime, which is still being developed. The FCA's ongoing work on a broader crypto regulatory framework, separate from the ETN access question, will shape the UK's longer-term market infrastructure in ways that may diverge further from the EU position over time.

The role of the EU's Markets in Crypto Assets Regulation (MiCA)

MiCA governs who can provide crypto-asset services and under what conduct standards – exchanges, custodians, portfolio managers, advisers – not how ETNs are issued, how they are regulated as securities, or what assets a UCITS fund may hold. An ETN is typically issued as a debt security under the Prospectus Regulation (for public offer or admission to trading) and is often admitted to trading on a MiFID II-regulated venue such as a regulated market or MTF; MiCA does not enter that chain. Its only direct touchpoint with the ETP ecosystem is at the collateral layer: a MiCA-authorized firm can provide custody of the crypto assets held by the ETN issuer's SPV. Distribution of the ETN and operation of the trading venues on which it lists are MiFID II activities.

MiCA cannot make crypto assets eligible investments for a UCITS fund, and was never designed to. Its full application across the EU from January 2025 has improved regulatory clarity for firms providing crypto services cross-border, but it has not opened a retail fund distribution channel and does not affect the UCITS eligibility question.

The European Commission's Market Integration and Supervision Package (MISP) , announced in December 2025, included UCITS and AIFMD harmonization measures focused on cross-border marketing mechanics, management company governance, and supervisory convergence between member states. However, crypto eligibility under UCITS was not addressed. Based on ESMA's explicit preference for keeping crypto funds under the AIFMD framework, and the multi-year timeline required for any primary legislative amendment to the UCITS Directive, a UCITS-eligible spot crypto ETF in the EU is not a near-term regulatory outcome.

What the ETN vs. ETF distinction means in practice

The structural gap between a UCITS ETF and an ETN carries practical consequences for institutional participants that are easy to underestimate when mapping European or UK crypto exposure against the US model.

Investor protection and insolvency treatment: UCITS fund assets are held by an independent depositary and are ring-fenced from the management company's insolvency. ETN holders are legally creditors of the issuer SPV. Physical collateralization substantially mitigates this risk in practice, but the legal form remains that of a debt obligation rather than a beneficial interest in a segregated fund. This affects how institutions book these instruments, how they are treated under internal risk frameworks, and how insolvency scenarios are assessed for counterparty credit purposes.

Distribution channel restrictions: Many European and UK institutional mandates, pension fund investment policies, insurance company general account frameworks, and wealth management platform agreements are structured to allow UCITS products only. ETNs do not qualify under those mandates without a specific policy amendment. This materially constrains the distribution universe for crypto ETPs relative to what would be available if a UCITS-eligible structure existed, and is a primary reason why the European and UK crypto ETP markets remain significantly smaller relative to the overall investor base than the US market.

Tax and wrapper eligibility: UCITS ETFs benefit from standardized tax reporting frameworks in most EU member states and typically qualify for pension and savings wrappers with favorable tax treatment. In the UK, the ISA and SIPP eligibility of crypto ETNs from October 2025 partially closes this gap, but the April 2026 reclassification to IFISAs introduces transition complexity. Across the EU, ETN tax treatment is not uniform and requires country-by-country analysis.

Disclosure: UCITS ETFs publish a Key Investor Information Document (KIID) or PRIIPs Key Information Document (KID) under a standardized format with defined content and liability obligations. ETNs produce a PRIIPs KID as packaged retail products, but the governance and liability framework differs. Some institutional client agreements specify UCITS KID-format disclosures. ETNs cannot satisfy that requirement.

AIFs as an institutional alternative: Alternative Investment Funds (AIFs) governed by AIFMD can hold crypto assets directly and are not subject to UCITS eligible asset rules or the single-asset concentration prohibition. AIFs carry a higher investor qualification threshold, are not UCITS-passported for retail distribution, and do not replicate the liquidity profile of an exchange-listed ETF. They remain a viable institutional vehicle but address a different part of the market.

The EU and UK in short

Both the EU and the UK have functioning institutional crypto ETP markets via ETNs, and the UK has now extended retail access to those products under FCA supervision. What neither jurisdiction has, and neither can have without primary legislative change to the UCITS framework, is a retail-eligible spot crypto ETF. The two jurisdictions are no longer fully aligned: the UK has moved faster on retail ETN access and operates a separate regulatory regime that may diverge further over time. Institutions building cross-border strategies that assume European or UK crypto exposure will mirror the US ETF model will encounter distribution, custody, booking and disclosure architecture that diverges at multiple layers – and that differs between the EU and the UK as well as between both and the US.

Asia-Pacific: Different speeds, one direction

Hong Kong's crypto ETF model: In-kind structures, ETH staking, and the SFC regulatory framework

Hong Kong launched six spot bitcoin and ether ETFs on April 30, 2024, through three approved issuers: ChinaAMC, Bosera HashKey and Harvest Global. Structured by the SFC with in-kind creation and redemption from day one, Hong Kong's product regime anticipated by 15 months a design choice the SEC ultimately adopted. In 2025, new product launches have added ether staking exposure within the ETF structure under SFC oversight, with the SFC approving ETH staking in April 2025 – six months before the first US 1933 Act spot ethereum ETP added staking (Grayscale, October 2025). ChinaAMC's spot Solana ETF launched on HKEX on October 27, 2025 – Asia's first. BSOL and GSOL, the first US 1933 Act spot Solana ETPs with staking, listed on October 28 and 29 respectively, one day after Hong Kong's debut. The US 1940 Act SSK had been trading since July 2, 2025.

The most significant product development in 2025 has been the introduction of staking within the ETF structure. Following SFC guidance published on April 7, 2025 permitting licensed virtual asset trading platforms (VATPs) to offer staking services, Bosera HashKey and ChinaAMC received approval to stake a portion of ether holdings within their spot ETH ETFs. The SFC capped staked holdings at 30% of the fund's ethereum position. Staking rewards accrue to net asset value rather than being distributed separately, preserving the single-instrument structure. Pre-approval is required for each fund, and staking is not a feature that can be added by issuers unilaterally.

Hong Kong expanded its eligible asset universe further in October 2025 with the SFC's approval of Asia's first spot Solana ETF. ChinaAMC's Solana product began trading on the Hong Kong Stock Exchange (HKEX) on October 27, available in HKD, RMB and USD currency counters. The approval is notable in its timing: it went live ahead of the first US spot Solana ETP reaching the market. US Solana ETPs do satisfy the generic listing standards (CME Solana futures crossed the required six-month trading threshold in September 2025) but the S-1 registration review process meant that US issuers were still awaiting SEC Division of Corporation Finance clearance when Hong Kong launched.

The SFC published its ASPIRe roadmap in February 2025, a 12-initiative framework organized across five pillars: Access, Safeguards, Products, Infrastructure and Relationships. The product pillar explicitly contemplates derivatives on virtual assets, tokenized money market funds, and continued expansion of staking-enabled structures. Operationally relevant regulatory changes already implemented under the roadmap include:

- Removal of the previous requirement for fund management companies to demonstrate at least three years of ETF management experience;
- Removal of the restriction limiting virtual asset futures to CME-traded contracts; and
- Approval for licensed managers to access Deribit and Binance in addition to previously approved venues.

The three-year experience requirement removal is particularly significant for new entrants.

Two open infrastructure questions will shape the institutional buildout. First, the custody chain for VA funds is prescribed by regulation: SFC circulars require fund managers to conduct all spot transactions through SFC-licensed VATPs or authorized institutions, with most holdings in cold wallets.

Second, the regulatory perimeter around custody is expanding. On June 27, 2025, the FSTB and SFC launched a consultation on establishing a dedicated VA custodian licensing regime – the first time custody has been proposed as a standalone regulated activity in Hong Kong. Currently, VATP-linked custodians operate as wholly-owned VATP subsidiaries under the Trust or Company Service Provider (TCSP) framework, which was not designed for digital asset custody obligations. The FSTB and SFC published consultation conclusions on December 24, 2025, confirmed broad support for the proposals, and stated their intention to introduce a bill into the Legislative Council in 2026 via amendment to the Anti-Money Laundering and Counter-Terrorist Financing Ordinance (Cap. 615). Institutions providing or relying on custody services as part of ETF infrastructure in Hong Kong should monitor that legislative timeline closely.

Japan's legislative path

Japan is operating on a longer timeline but with increasing regulatory specificity. On December 10, 2025, the Financial System Council's Working Group on Crypto Assets released a report recommending that approximately 105 crypto assets, including bitcoin and ether, be moved from the Payment Services Act (PSA) into a new dedicated framework under the Financial Instruments and Exchange Act (FIEA). The FSA is not classifying crypto as securities (the report designates them a "separate regulatory subject" under the FIEA) but the shift would impose insider trading prohibitions, mandatory pre-sale disclosure requirements for initial exchange offerings, third-party code audits and enhanced enforcement against unregistered platforms. NFTs and fiat-linked stablecoins are explicitly excluded and remain under the PSA.

The path to crypto ETFs and investment trusts requires two sequential legislative steps, not one. FIEA reclassification provides the investor-protection framework but does not by itself permit crypto assets to be held within investment trusts. A separate amendment to the Act on Investment Trusts and Investment Corporations is required to add crypto to the list of "specified assets" that investment trusts may hold. The FSA has indicated it expects to pursue that amendment after the FIEA bill passes. Legislative amendments covering both steps were submitted to the National Diet on 10 April 2026.

In parallel, Japan's tax reform cycle is examining a reduction in the effective capital gains rate on crypto from a maximum of approximately 55% (under the current miscellaneous income treatment) to a flat 20%, aligning it with listed equities and bonds. Asset managers have made clear that product launches are contingent on both the FIEA reclassification and the tax change. A Nikkei survey published in November 2025 identified six major firms preparing product strategies: SBI Global Asset Management, Nomura Asset Management, Daiwa Asset Management, Mitsubishi UFJ Asset Management, Asset Management One and Amova Asset Management. SBI Global has publicly targeted ¥5 trillion in assets under management within three years of launch, while Nomura has stated that internal systems are ready to deploy at short notice once regulations are finalized. Full implementation of the package, including Investment Trust Act amendment and Tokyo Stock Exchange listing approval, is not expected before 2028.

South Korea's constraints

South Korea's FSC submitted a roadmap to the Presidential Committee on Policy Planning on June 19, 2025, outlining potential implementation measures for domestic spot crypto ETFs, in line with campaign commitments made by President Lee Jae-myung. The FSC clarified the following day that the reported details were not confirmed or finalized, and the roadmap should be read as a statement of direction rather than a settled implementation plan.

The FSC's February 13, 2025 Virtual Asset Committee roadmap separately provided for a phased pilot program allowing listed companies and qualified professional investors to trade digital assets. Originally targeted for the second half of 2025, the pilot slipped: final guidelines were issued in Q1 2026, with trading expected to commence during 2026. Under the finalized framework, approximately 3,500 eligible entities, listed companies and professional investment corporations registered under the Financial Investment Services and Capital Markets Act (FISCMA), may allocate up to 5% of equity capital annually to the top 20 cryptocurrencies by market capitalization on Korea's five major exchanges. Financial institutions remain excluded.

The critical constraint is frequently underreported. At the February 13, 2025 press conference, an FSC official stated directly: "Financial companies, such as banks and brokerage houses, will be banned from selling or buying crypto assets as we need to further assess potential risks when they participate in the market." This exclusion creates a structural blockage to ETF distribution: a securities firm distributing an ETF tracking a crypto asset must be able to hold the underlying virtual assets, and it cannot. The causal logic is explicit in the FSC's own regulatory design: the financial institution ban makes ETF distribution legally impossible under the current framework. Spot ETF approval is not an outcome the FSC can deliver administratively. At minimum, four sequential legislative changes are required:

- Enactment of the Digital Asset Framework Act (DAFA), establishing virtual assets as recognized underlying assets within the regulated financial system and providing the legal basis for institutional custody and OTC infrastructure;
- An amendment to the Financial Investment Services and Capital Markets Act (FISCMA) to permit asset managers to register collective investment schemes investing in spot virtual assets;

- Consequential amendments to foreign exchange regulations to permit the fund flows that creation and redemption mechanics require; and
- An expansion of the corporate crypto trading regime to include licensed financial institutions, or a targeted carve-out permitting securities firms to hold virtual assets for ETF-related purposes.

Even with President Lee's ruling party holding a substantial National Assembly majority and opposition leaders broadly supportive, the implementation pipeline for these changes extends across multiple legislative sessions. Institutions should treat South Korean ETF timelines as a regulatory intention requiring legislative action, not a confirmed outcome.

The Digital Asset Framework Act (DAFA) is the gateway legislation for spot crypto ETFs in Korea. It establishes virtual assets as legally recognized underlying assets within the regulated financial system, and creates the institutional basis for custody and OTC infrastructure – both of which must be in place before an asset manager can operate a spot ETF. Multiple versions have been introduced: by Democratic Party lawmakers Min Byung-duk and Park Sang-hyuk, and by PPP lawmaker Kim Jae-seop, each bill explicitly establishing grounds for virtual assets as underlying assets within the regulated financial system. DAFA was not placed on the National Policy Committee's Legislation Review Subcommittee agenda on March 31, 2026. The Democratic Party's own party-government consultative meeting on the bill was also postponed, with the issue of controlling shareholders' stake limits in crypto exchanges still unresolved. Democratic Party officials indicated that H1 2026 passage may be difficult, citing geopolitical pressures as a factor delaying legislative attention. Industry participants have warned that if DAFA discussions continue to stall, preparations for ETF-related businesses may have to halt entirely.

Australia's ETP market

Australia entered 2026 with a functioning spot crypto ETP market and a significant piece of platform legislation that passed both houses of Parliament on April 1, 2026 and awaits Royal Assent. Spot bitcoin ETFs have traded on the Australian Securities Exchange (ASX) since June 2024, with VanEck (VBTC), DigitalX (BTXX), and BlackRock's iShares product (ASX:IBIT, listed November 2025) among those live. Ethereum ETFs trade on both ASX and Cboe Australia. The primary institutional demand driver is Australia's AUD 1.07 trillion self-managed superannuation

fund (SMSF) sector, for which a listed, ASIC-regulated vehicle offers the clearest compliant access pathway to digital assets.

The key platform legislation is the Corporations Amendment (Digital Assets Framework) Bill 2025, which passed both houses of Parliament on April 1, 2026 and received Royal Assent on April 8, 2026, creates two new financial product categories under the Corporations Act 2001: Digital Asset Platforms (DAPs), broadly capturing custodial exchange arrangements, and tokenized Custody Platforms (TCPs), covering wrapped-token structures where operators hold an underlying asset against a single digital token. Operators of both will require an Australian Financial Services Licence (AFSL), with commencement 12 months after Royal Assent and an 18-month transition period for compliance.

Alongside the legislative process, ASIC published updated Information Sheet 225 (INFO 225) on October 29, 2025, following its CP 381 consultation. The update provides 18 worked examples clarifying how existing financial product definitions apply to digital assets, including managed staking arrangements, wrapped tokens and stablecoins. ASIC simultaneously issued a class no-action letter giving firms until June 30, 2026 to lodge AFSL applications, providing transitional runway while the DAP/TCP regime is finalized. For institutional operators, the relevant compliance question is not whether to engage the AFSL pathway but how quickly to move: the no-action window has a fixed end date, and INFO 225 is explicit that ASIC views a wide range of digital asset custody and exchange activities as already within scope of existing financial services law.

What the global divergence means for market participants

Multiple regulatory regimes moving at different speeds mean that global institutions cannot run a single ETF infrastructure stack across jurisdictions. Benchmark construction, creation and redemption workflows, settlement conventions, custody arrangements and reporting obligations all differ in ways that compound under operational load.

Creation and redemption mechanics: In-kind versus cash settlement imposes different custody, capital and counterparty requirements on APs across the US, Hong Kong and pending markets. The collateral delivery mechanisms for European ETNs operate against an SPV custodian structure that differs from both the US trust model and the Hong Kong SFC-regulated fund model.

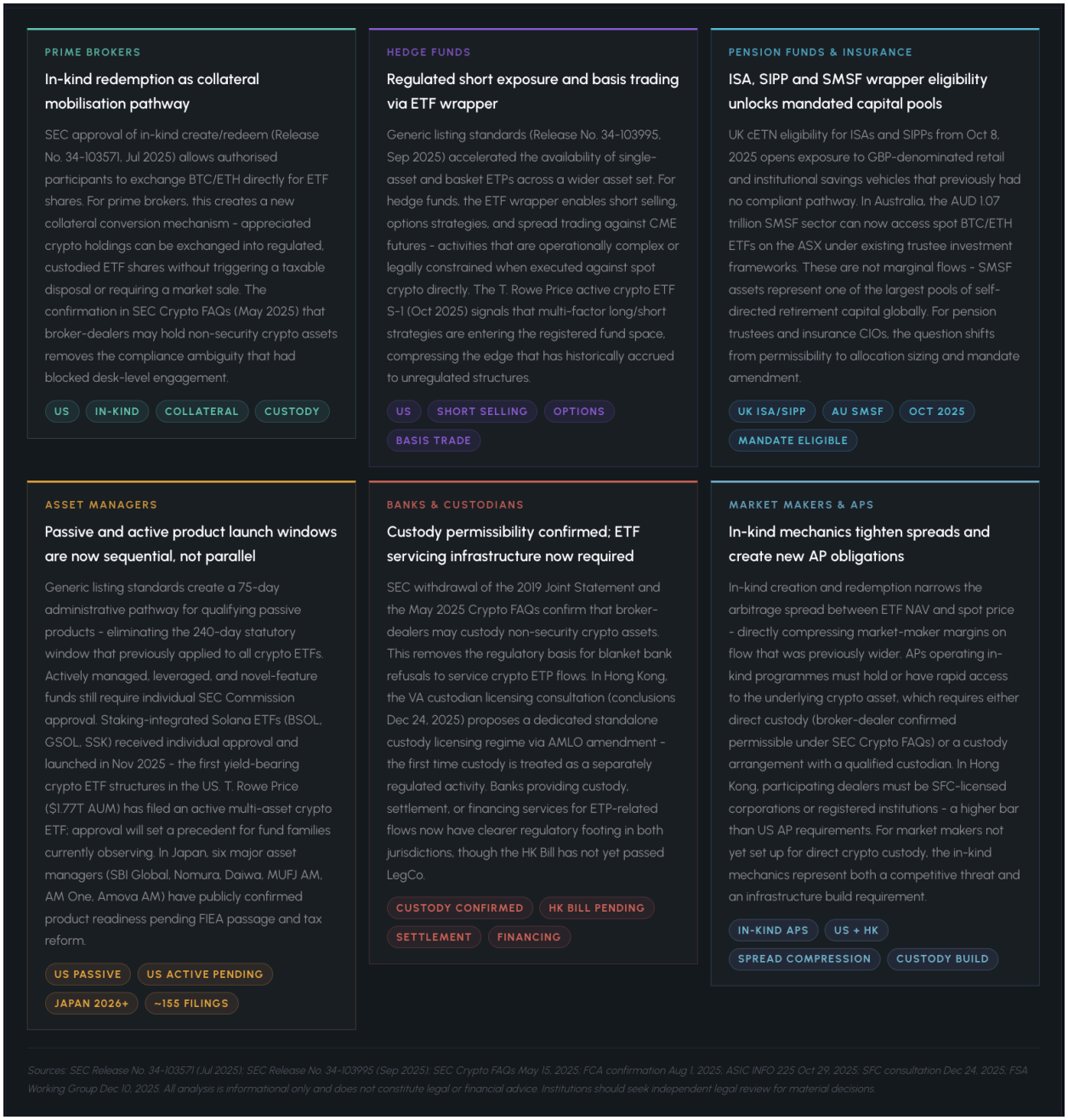
Multi-asset and active structures: Index rebalancing, per-asset liquidity management and creation baskets spanning 10 or more assets with different liquidity profiles and settlement timings require operational design that single-asset cash-settled products do not. The growing pipeline of multi-token and actively managed products amplifies this complexity.

Benchmark pricing: Benchmark eligibility and methodology requirements vary by jurisdiction. European ETPs must use benchmarks compliant with the EU Benchmark Regulation (BMR). Many benchmark administrators used by US ETP issuers are not registered under the EU BMR, nor under the UK's onshored equivalent, meaning cross-listed or cross-distributed products may face a quiet compliance gap that is easy to overlook when mapping a US product structure into European or UK distribution.

Custody integration: The in-kind mechanics approved under SEC Release No. 34-103571 require direct broker-dealer custody of bitcoin and ether, a function confirmed permissible by the SEC's May 2025 Crypto FAQs. Firms that had not previously built this capability will need to source it before they can serve as APs under the in-kind structure.

Reporting and disclosure: MiCA CASPs, SEC-registered ETP issuers and SFC-licensed platforms each operate under distinct disclosure regimes. For firms active across all three, these obligations need to be managed as a coherent compliance program rather than in jurisdictional silos.

Figure 3: Institutional Takeaways



How Talos supports global crypto ETP operations

The regulatory developments since 2024 have resolved one foundational question: crypto ETPs are a permanent feature of the institutional investment landscape. They have not resolved the operational complexity of running those products across multiple regulatory regimes simultaneously. The product pipeline in the US advanced across multiple fronts in 2025. Staking-integrated products are live across two asset classes and two legal pathways: '40 Act structures and 1933 Act commodity trusts (Grayscale ETH staking from October 6, BSOL and GSOL from late October). Multi-token index products are live. Actively managed, LST-based, leveraged and other novel-feature structures remain in the individually reviewed queue. BlackRock filed an S-1 for a new dedicated staked ether ETF (ETHB) on December 5, 2025, with Nasdaq's 19b-4 still pending, indicating that major issuers are now treating staking as a standard product feature rather than a novel risk. The remaining pipeline signals infrastructure demands that will increase before they stabilize.

Talos was built to solve the infrastructure problem that sits underneath these regulatory developments. Our RFQ platform supports ETF create and redeem workflows across both cash-settled and in-kind structures. Portfolio and settlement tools handle per-asset execution, allocation and reconciliation demands of multi-token structures within a single interface, with direct custodian integration. As regulatory frameworks mature across markets and new product types extend the complexity curve, institutions whose operational infrastructure was built for that complexity from the outset are better positioned to move with the market, rather than behind it.

Learn more about how Talos supports ETF issuers.

Explore our interactive ETP dashboard

Discover regulatory frameworks, product approvals and institutional access patterns across regions.

talos.com