



Inside the wrapper: how bitcoin ETPs function

WisdomTree Market Insights



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Introduction

2024 redefined the institutional bitcoin narrative. The U.S. Securities and Exchange Commission's (SEC's) long-awaited spot bitcoin exchange-traded fund (ETF) approval finally cracked open the floodgates — ushering in a wall of institutional money and new competitive dynamics. This rapid shift sparked a new wave of institutionalisation, with bitcoin increasingly recognised as a strategic asset in diversified portfolios.

Why the surge in interest? Because direct crypto investment is still a logistical and security nightmare. Wallets, private keys, opaque fees and fragmented exchanges make crypto ownership a poor fit for scalable institutional investment. Physically backed bitcoin exchange-traded products (ETPs) solve this problem by offering clean, familiar access via exchange-traded structure — no wallets, no keys, no admin. Just a single security, created for institutional convenience.

What is often overlooked, especially in the U.S. narratives, is that Europe has been ahead of the curve. Physically backed crypto ETPs such as [WisdomTree Physical Bitcoin \(BTCW\)](#) have been trading in Europe since 2019; half a decade before the SEC moved. While both regions aim to provide secure bitcoin access, subtle structural differences can have far-reaching consequences for costs, execution efficiency and overall security.

Structure

Most U.S. ETFs are established as trusts under the legal framework of the Securities Act of 1933. This act plays a critical role in enabling access to single commodities, such as physical spot products, that fall outside the scope of the more restrictive Investment Company Act of 1940. The latter imposes diversification and income distribution requirements that physical commodities, by their nature, cannot meet. Despite this distinction, U.S. listed products offering exposure to single commodities are still widely referred to as 'funds', a term that diverges from European conventions.

In Europe, the situation is notably different. The UCITS¹ framework — the gold standard for retail fund regulation — explicitly prohibits single commodity exposures due to its strict diversification criteria. As a result, issuers looking to provide access to physical spot commodities have adopted alternative structures, most commonly the perpetual debt model. While this structure does not carry the 'fund' label, it delivers a similar investment experience. It offers robust investor protections, full asset transparency, as seen in [BTCW](#), and the oversight of an independent trustee who holds legal title to the underlying assets and acts in the interest of investors.

1 UCITS: Undertakings for the Collective Investment in Transferable Securities.

For most investors, the ETF versus ETP label is a matter of regional semantics, a reflection of differing legal structures and regulatory frameworks rather than any material divergence in investment outcomes. Much like a U.S. ETF, a European ETP such as [BTCW](#) offers institutional grade access to bitcoin: liquid, transparent and cost-efficient.

In-kind vs cash

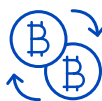
All investors in ETPs transact on the secondary market, typically via stock exchanges, either directly as professional investors or indirectly through brokers. However, a critical and often overlooked component of ETPs lies in the primary market where shares are created and redeemed daily at fair value, without any explicit limit, by specialised institutions known as authorised participants (APs).

APs are typically large, reputable financial entities that act as market makers and liquidity providers. Their role is vital: they sit at the intersection between investors and issuers, ensuring that ETPs efficiently track the value of their underlying assets throughout the trading day. This tight tracking is enabled by the creation and redemption mechanism, which adjusts the number of ETP shares in circulation in line with market demand.

Crucially, whenever new shares are created or existing ones redeemed, there must be a corresponding change in the quantity of underlying assets held by the ETP. This ensures the product maintains 1:1 backing with the asset it represents. There are two primary methods for processing these transactions:



Cash: APs and the issuer exchange cash for ETP shares. This requires the issuer to buy or sell the underlying asset on the open market.



In-kind: APs deliver or receive the actual underlying asset in exchange for ETP shares.

In the U.S., crypto ETFs used to be limited to cash creations and redemptions, whereas Europe's more flexible framework has always accommodated both in-kind and cash transactions — a distinction that carries meaningful implications.

On 29 July 2025, the U.S. SEC approved in-kind creation and redemption for physical Bitcoin and Ethereum ETFs.

Figure 1: Cash

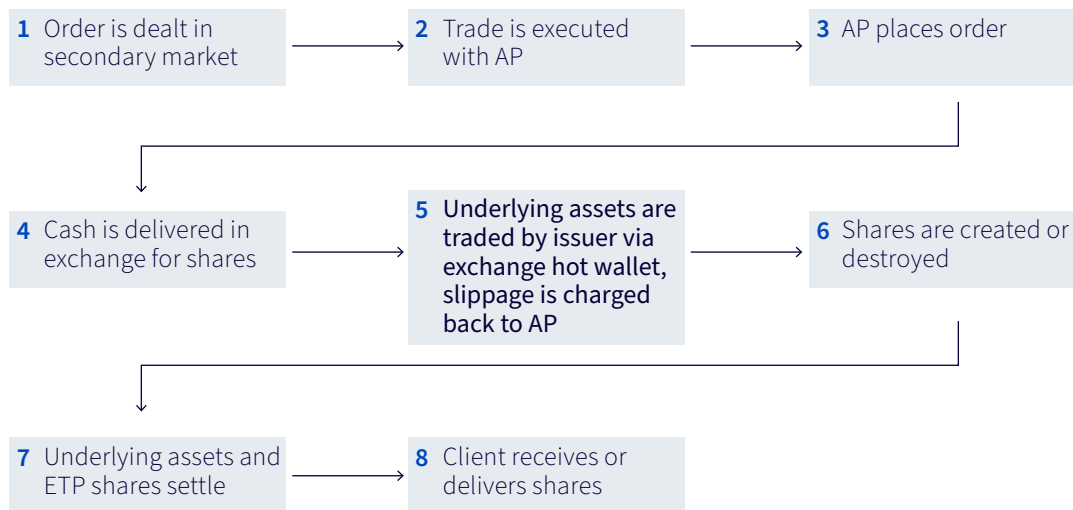
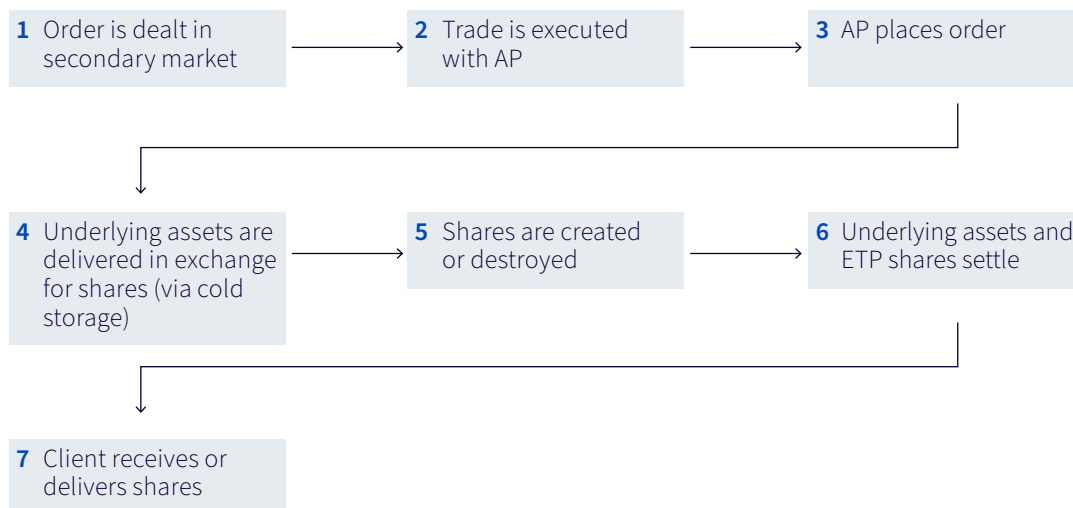


Figure 2: In-kind



At first glance, cash-based creations and redemptions may seem operationally straightforward. However, this simplicity masks several hidden inefficiencies and risks that can impact end investors:

- + **Slippage costs:** accepting cash orders forces issuers to execute crypto trades at a product’s end-of-day net asset value (NAV), but market volatility often makes exact execution impossible. The resulting slippage, combined with trading commissions and possible issuer charges for additional operational tasks, may widen bid/ask spreads.
- + **Delayed settlement:** relying exclusively on cash orders introduces a time lag between receiving funds and entering the crypto market. This gap not only prevents same-day (T+0) creations but also exposes issuers to market timing risks that can affect execution quality.
- + **Funding and counterparty risks:** to ensure smooth primary market operations, issuers may need to pre-fund crypto purchases or maintain short-term credit lines, exposing them to

funding costs and risks. Simultaneously, reliance on centralised exchanges or over the counter (OTC) desks introduces counterparty and operational risks, particularly in the absence of instant settlement or during market stress.

- + **Hot wallet exposure:** executing crypto trades on exchanges requires the use of hot wallets: online, operational wallets that, despite limited balances, remain vulnerable to cyber threats and operational failures.

While the structural inefficiencies of cash-based flows may seem significant, they are generally negligible in actual impact on performance and spreads, and they do offer certain benefits such as wider AP participation. Specifically, traditional broker-dealers and market makers without digital asset capabilities can still act as APs, supporting liquidity and reinforcing the integrity of the primary market mechanism.

Conclusion

Ultimately, while primary market mechanics may seem abstract to end investors, they directly shape the real-world performance, cost efficiency and risk profile of crypto ETPs.

The flexibility to operate in-kind is not a technical footnote; it is a structural advantage that sharpens execution, compresses fees and strengthens custody safeguards. In a volatile and fast-moving asset class, these operational nuances translate into meaningful investor outcomes.

For institutional investors seeking crypto exposure, wrapper design matters.

Glossary

Primary market: where APs create or redeem ETP shares directly with issuers.

Secondary market: public exchanges where investors buy and sell crypto ETP shares.

Authorised participant (AP): a regulated institution acting as a liquidity provider between issuers and the market.

Hot wallet: internet-connected wallet used for active trading; higher cyber risk.

Cold wallet: offline wallet used for secure asset storage.

Slippage: the cost difference between NAV and the actual market execution price.

Cash: issuer receives/delivers fiat and buys/sells the underlying asset.

In-kind: issuer receives/delivers the crypto asset directly, bypassing the open market.

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