# Spot vs Futures ETF

*Two funds tracking one asset, and a structural gap between them — the roll, the term structure that decides its sign, and the interest income almost nobody counts on the other side.*

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A spot ETF holds the asset. A futures ETF holds contracts on the asset. Both track the same price and can sit side by side in the same brokerage account looking nearly identical — and over a long holding period they can deliver materially different returns, for reasons that have nothing to do with whether the underlying went up. The gap comes from a mechanism called the roll, whose direction and size are set by the shape of the futures curve. This report explains that mechanism properly, and the legal and cost differences that travel with it. If you need the underlying wrapper explained first, start with what is a spot bitcoin ETF.

AT A GLANCE

| | | |
|---|---|---|
| SPOT HOLDS<br>**The asset itself** | FUTURES HOLDS<br>**Contracts, rolled forward** | THE GAP<br>**Roll yield — not the fee** |
| SIGN SET BY<br>**Contango or backwardation** | OVERLOOKED OFFSET<br>**Interest on posted collateral** | ALSO DIFFERS<br>**The legal wrapper itself** |

01

## What each fund actually owns

A spot fund buys the asset and stores it with a custodian. Its holdings are simply the thing itself, and its performance is the asset's performance minus its fee. There is nothing else moving inside it.

A futures fund owns no asset at all. It holds exchange-traded contracts obliging it to transact at a set price on a future date, alongside a pile of cash posted as collateral. Because every contract expires, the fund cannot simply hold: it must repeatedly sell the contract approaching expiry and buy a later-dated one to maintain continuous exposure. That recurring transaction is the roll, and it is the single structural difference from which every other difference follows.

02

## The curve, and why its shape decides everything

Futures for different delivery months trade at different prices, and the pattern they form is called the term structure. Two shapes matter.

In *contango*, later-dated contracts cost more than nearer ones. The fund is therefore selling something cheap and buying something expensive at every roll, and it ends up holding fewer contracts than it had before. In *backwardation*, the opposite: later contracts are cheaper, so each roll sells high and buys low, and the fund accumulates contracts. Nothing about the asset's price has changed in either case — this is purely the geometry of the curve acting on a fund that is forced to trade.

Which shape prevails is not random. Contango is the normal condition when holding an asset carries costs and when demand for leveraged long exposure is strong, since paying up for future delivery is the price of getting exposure without owning the thing. Crypto markets have generally exhibited contango for that second reason, punctuated by periods of backwardation during sharp sell-offs when the demand flips. The same forces show up as funding payments on perpetual contracts, which we cover in position sizing with leverage on a perps DEX.

03

## Roll yield: the drag, and the tailwind

The return a fund gains or loses purely from rolling is the roll yield, and it is the heart of the comparison. In contango it is negative — a persistent, recurring cost that accrues every time the fund rolls, entirely independently of the fee. In backwardation it is positive, and a futures fund can genuinely outperform a spot fund holding the identical underlying.

Two properties make this worth taking seriously. First, it compounds: a small negative roll repeated many times a year becomes a substantial cumulative divergence over multi-year

holding periods, which is why futures products are generally poor long-term vehicles in persistently contangoed markets and why they are best understood as tactical rather than buy-and-hold instruments. Second, it is invisible in the headline cost. Nothing in the expense ratio discloses it; it shows up only as the fund quietly failing to keep pace with the asset it tracks. Commodity markets supply the cautionary history here — certain oil funds became famous for tracking their underlying poorly through sustained contango — and the mechanism is identical whatever the asset.

> *The expense ratio is the cost you are shown. In a futures fund, the roll is the cost you are not — and in a contangoed market it is routinely the larger of the two.*

04

## The offset nobody mentions

There is a genuine counterweight that most comparisons omit entirely. Futures give exposure with only a fraction of the notional posted as margin, which leaves the fund holding a large cash balance. That cash is not idle: it is typically invested in short-term government instruments and earns interest, and that interest accrues to the fund.

The consequence is that a futures fund's total return is not simply the asset's move minus fee minus roll. It is the asset's move, minus fee, minus roll cost, *plus* collateral income. When short-term interest rates are meaningful, that income can offset a large portion of the roll drag — occasionally most of it. When rates are near zero, the offset disappears and the drag stands naked. This is why the relative merit of futures products is not a fixed fact but a function of the prevailing rate environment as much as of the curve, and why comparisons drawn from one period travel badly to another. A spot fund, holding no meaningful cash, has no equivalent income stream.

05

## Different funds, different rulebooks

The distinction is not only economic. In the United States these products are typically constituted under different statutes, and the difference is more than paperwork. Futures-based funds are generally organised as registered investment companies under the Investment Company Act of 1940 — the same framework as a conventional stock or bond

ETF, carrying that regime's governance requirements, including an independent board and prescribed limits on how the fund operates.

Spot commodity products, including the bitcoin funds, generally cannot use that framework because their holding is a commodity rather than a security. They are instead structured as trusts registered under the Securities Act of 1933, with disclosure obligations but not the 1940 Act's fund-governance architecture. Neither structure is inherently safer — the protections differ rather than rank — but they are genuinely different legal products, and an investor comparing only tickers and fees will not see it. This structural asymmetry also explains the sequencing: futures funds could be launched first because they held contracts traded on a regulated, surveilled derivatives exchange, which satisfied a supervisory concern that direct holdings of the asset did not.

The wrapper can follow through to your tax return as well. Because the two structures hold different things and are constituted under different regimes, the treatment of gains and any distributions is not automatically the same — some jurisdictions apply specific rules to regulated futures contracts that differ from the treatment of a trust holding a commodity directly, and a fund trading contracts may generate distributions that a passive holding does not. The specifics depend entirely on where you are resident and on the account the shares sit in, so this is a question for the fund's tax disclosures and a professional rather than an assumption. The point is simply that two products tracking one price can reach you differently after tax, which is another reason the comparison cannot be settled on the expense ratio alone.

06

## Capacity, limits, and tracking in practice

Futures funds face constraints that spot funds do not. Derivatives exchanges impose position limits capping how many contracts a single holder may control, so a rapidly growing futures fund can approach a ceiling on the exposure it is permitted to hold — forcing it into longer-dated contracts with different roll characteristics, or into other instruments, subtly changing the product an investor thought they bought. Growth itself can therefore degrade tracking.

The roll is also a scheduled, publicly known event, which invites others to trade ahead of a large and predictable participant — a cost borne by the fund and, ultimately, by its holders. Spot funds have their own frictions, principally custody and the mechanics of creation and redemption, but nothing structurally comparable: a spot fund that doubles in size simply

holds twice as much of the asset. This is the practical reason spot products became dominant once permitted, and it feeds the flow patterns discussed in what are bitcoin ETF flows.

07

## When futures is still the right tool

The comparison is not a rout, and three cases favour the futures structure. The first is availability: where no spot product exists for an asset, or where an account or jurisdiction permits only certain instruments, a futures fund may be the only regulated route to exposure. The second is backwardation — when the curve inverts, the roll pays rather than costs, and the futures product can outperform for as long as that persists. The third is that leveraged and inverse strategies are generally built on derivatives, so anyone seeking those profiles is necessarily in futures-based territory, with the additional decay and rebalancing risks those products carry.

The honest generalisation is about holding period. Futures-based exposure is a tactical instrument whose costs accrue with time; spot exposure is a holding instrument whose only recurring cost is its fee. Short horizons blunt the roll's impact and can make the futures route perfectly reasonable. Long horizons let it compound into the dominant term.

08

## What to check before you buy either

Four checks separate an informed purchase from a guess. Read what the fund actually holds — the name is not always explicit, and "strategy" or "trust" in a title often signals the answer. Compare the fund's return against the underlying asset over a long window rather than against its own benchmark; persistent underperformance beyond the fee is the roll made visible. Look at the current curve, since a product that behaved well in backwardation will behave differently once contango returns. And check the collateral position and the prevailing short-term rate, because that income is doing quiet work in the fund's favour and its size is not constant.

The framing to carry away is that these are not two versions of the same product. They are two different instruments that happen to reference the same price: one that owns a thing, and one that owns a rolling series of agreements about it. Most of the time the first is the

simpler way to hold an asset. The second is a tool with specific uses, and it is worth being certain you have one of them.

> *“Divers weights are an abomination unto the LORD; and a false balance is not good.”*
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> PROVERBS 20:23

## Methodology & Sources

This report compares two fund structures; it contains no fund names, tickers, expense ratios, roll-yield figures, interest rates, position limits, or performance data, all of which vary by product, venue, and period — consult current fund documentation. Contango and backwardation are standard descriptions of futures term structure, and roll yield is the return arising from replacing expiring contracts, negative in contango and positive in backwardation; the assertion that crypto futures have generally traded in contango is a directional characterisation of typical conditions, not a constant, and the curve inverts at times. Collateral income is described as a genuine offset whose magnitude depends on prevailing short-term rates. The statutory distinction described — futures-based funds typically registered under the Investment Company Act of 1940, spot commodity products typically as trusts under the Securities Act of 1933 — applies to the United States and is a general characterisation; specific products vary and non-US regimes differ. The reference to commodity funds tracking poorly through sustained contango describes a well-documented general phenomenon, with no specific fund or period asserted. Nothing here is a recommendation regarding any product or structure.

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