

Funding rates: how perpetual futures pay to stay near spot

A funding rate is the regular payment between buyers and sellers of a perpetual futures contract, and each exchange sets its own formula for it.

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1. How to read it / Where it misleads

A funding rate is the regular payment that passes between the buyers and sellers of a perpetual futures contract, a derivative that tracks a coin's price and never expires, to keep the contract's price close to the coin's. The rate shows which side is paying to hold its position, but every exchange writes its own formula, so two venues can show different rates for the same market on the same hour.

That is the first limit. Hyperliquid computes an eight-hour rate and pays one eighth of it every hour (source 1), while dYdX computes and charges a rate each hour (source 2), and the two use different interest terms and caps. A single reading turned into an annual figure also assumes it lasts a year, which a rate set hour by hour does not promise.

The rate also describes one venue only. It is measured against that venue's chosen reference price and paid only by holders of that venue's contract, so it is not a cost borne by people who simply own the coin.

This explains how a metric is calculated. It is not a signal, forecast or recommendation, and past readings do not predict prices. Le Coin does not publish live readings of this metric.

2. The formula starts with a premium

Both venues begin by measuring how far the contract trades above or below a reference price for the coin, called the index or oracle price. Each uses impact prices, the average price at which a set trade size would fill on the buy or sell side of the order book.

Premium = (impact price gap) / index price

When the contract trades above the index, the premium and the rate are positive and longs, the buyers, pay shorts, the sellers. When it trades below, shorts pay longs (sources 1 and 2).

Hyperliquid then applies the formula "Funding Rate (F) = Average Premium Index (P) + clamp (interest rate - Premium Index (P), -0.0005, 0.0005)" (source 1). The clamp limits the interest adjustment to 0.05 percentage points either way. dYdX uses "Funding Rate = (Premium Component / 8) + Interest Rate Component" (source 2).

Payment = position size x price x funding rate

Hyperliquid says it converts position size to notional value at the spot oracle price, "not the mark price" (source 1).

3. Example data

The figures below are invented to show the arithmetic, using the same illustrative prices as Hyperliquid's own documentation. An imaginary coin has an index price of \$10,000, and the contract's impact bid is \$10,100, so the premium is \$100 / \$10,000 = 1%. A trader holds a long position of 2 coins.

Step	Hyperliquid method	dYdX method
Premium	1%	1%
Interest term	0.01% - 1% = -0.99%, clamped to -0.05%	0% (default for cross markets)
Funding rate	1% - 0.05% = 0.95% per 8 hours	1% / 8 + 0% = 0.125% per hour
Rate charged this hour	0.95% / 8 = 0.11875%	0.125%
Payment on \$20,000	\$23.75	\$25.00

The same premium produces two different hourly payments, \$23.75 and \$25.00, paid by the long to the short in both cases. The gap comes from Hyperliquid's clamped interest adjustment; the premium is the same in both columns.

4. Who publishes it and how definitions differ

Hyperliquid, a crypto derivatives exchange whose validators compute its reference prices, describes funding as "purely peer-to-peer and no fees are collected on the payments" (source 1). Its validators set the oracle price as a weighted median of spot prices on centralized exchanges, and it samples the premium every 5 seconds and averages it over the hour (source 1).

As of Oct. 16, 2026, Hyperliquid's documentation sets the interest term at 0.01% every eight hours. Hyperliquid says the term is "predetermined" at that level "For consistency with CEXs," meaning centralized exchanges, and that its process is designed to closely match theirs (source 1). Funding is capped at 4% an hour, and the cap and the interval are the same for every asset (source 1).

dYdX, another derivatives exchange, documents the default rules of its open-source v4 software. Block proposers, the network participants that propose each block, submit premium votes, the median vote becomes each one-minute sample, and the samples are averaged over the hour (source 2).

As of Oct. 16, 2026, its interest term is 0% by default for cross markets and 0.125 basis points an hour for isolated markets, set by governance vote 220 (source 2). A basis point is one hundredth of a percentage point. dYdX caps each sample and each hourly rate, and ties the eight-hour cap to the gap between a market's initial and maintenance margin, so the cap differs by market tier (source 2). Its governance community can change these settings (source 2).

In Le Coin's view, the two designs answer the same question with different defaults. Hyperliquid builds in a small standing payment from longs to shorts, while dYdX's default cross markets have none, so a gap between the two venues' rates is not by itself evidence that traders on one venue are more eager.

5. Where the measure comes from

No originator of the funding rate formula used by crypto exchanges today could be confirmed.

The idea of a futures contract without expiry predates crypto. In a 1993 paper, issued as an NBER working paper and published in the *Journal of Finance* in July 1993, Robert J. Shiller proposed one. The paper's NBER summary says "A perpetual futures contract is proposed that would cash settle every day in terms of both the change in the futures price and the dividend or rent index for that day" (source 3). His proposal concerned indices of dividends or rents, not coins.

On May 13, 2016, BitMEX, a crypto exchange, announced the launch of XBTUSD, which it billed as the world's first "perpetual XBTUSD leveraged swap product" (source 4). In that post, the exchange said "Longs and shorts receive or pay interest each day based on the Bitfinex USD and Bitcoin lending market" (source 4). The post does not mention Shiller, and neither source shows who first combined the premium and interest terms that venues use now.

6. What it means

In Le Coin's view, a funding rate is best read as one venue's price for holding one side of one contract for one interval. Before comparing two readings, check the interval, the interest term, the cap and the reference price each venue uses.

Sources

- 1 Hyperliquid docs, Trading, "Funding", <https://hyperliquid.gitbook.io/hyperliquid-docs/trading/funding>, accessed 2026-10-16, 10:55 p.m. ET.
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