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TRADE LENS

Bringing investing into focus.

CRYPTO INSIGHT / No.05

Research on crypto leverage, liquidation and liquidity

U.S. Inflation Shocks and Crypto Liquidation Cascades

BTC/ETH leverage, collateral and market liquidity

TWO LAYERS

Macro catalyst

CPI/PPI and risk repricing

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Margin amplification

Forced flow and executable depth

Liquidated notional is not cash lost.

Normalization requires margin and liquidity repair.

Align event times, contract units and collateral rules. Separate a price rebound from a reduction in risk.

Analysis date: 17 October 2026

TRADELENS.KR

Market structure · margin · forced liquidation · KRW returns



01 / RESEARCH VIEW

Margins and liquidity determine the amplification

TradeLens view | Separate the macro catalyst from the mechanics of forced trading.

Core conclusion

Inflation news can reprice risk, but the scale of a liquidation cascade depends on margin headroom, collateral resilience and executable liquidity. A price rebound or a smaller liquidation total does not, by itself, establish that risk has normalized.

What changed?

Align post-CPI repricing and forced closures on one clock. A liquidation snapshot published before PPI cannot be an outcome of that later release. [\[1\]](#) [\[2\]](#) [\[3\]](#)

Why does it matter?

The same market move reaches forced-trading thresholds at different times depending on leverage and collateral.

Who bears the cost?

Losses can move between position holders, liquidators, reserve funds and some opposing positions. Liquidated notional is not exchange profit. [\[12\]](#) [\[14\]](#)

What confirms the view?

Read contract quantities, dollar open interest, funding, depth and collateral together. KRW returns also embed FX and local premiums.

The unit of analysis

This study combines a reported BTC/ETH futures snapshot with official venue and protocol rules. It explains conditions for amplification rather than reverse-engineering individual losses or unreported exchange economics.

A decision framework

Catalyst → margin erosion → forced execution → liquidity absorption → residual risk. Distinguishing these stages separates the source of volatility from the conditions for normalization.

Analysis date: 17 October 2026. Event data retain their source observation windows. Illustrations are not exchange liquidation quotes or trading thresholds.



02 / EVENT CLOCK

The liquidation snapshot preceded the PPI release

Release time, publication time and a rolling observation window are different.

Event chronology

Korean Standard Time



September 2026 measure	Month on month	Definition
Headline CPI [1]	+0.6%	Consumer prices; seasonally adjusted
CPI excluding food and energy [1]	+0.3%	A separate core measure
Final-demand PPI [2]	+1.3%	Producer prices; seasonally adjusted

Year-on-year CPI inflation was 3.7% overall and 2.6% excluding food and energy. Monthly and annual rates have different comparison periods. PPI is not interchangeable with CPI or consumption-expenditure inflation. [1] [2]

What the clock establishes

The story was published 8 hours 5 minutes before PPI. That snapshot cannot be attributed to the subsequent PPI release. Its rolling 24-hour window may also include pre-CPI trading, so the entire total cannot be assigned to CPI alone.

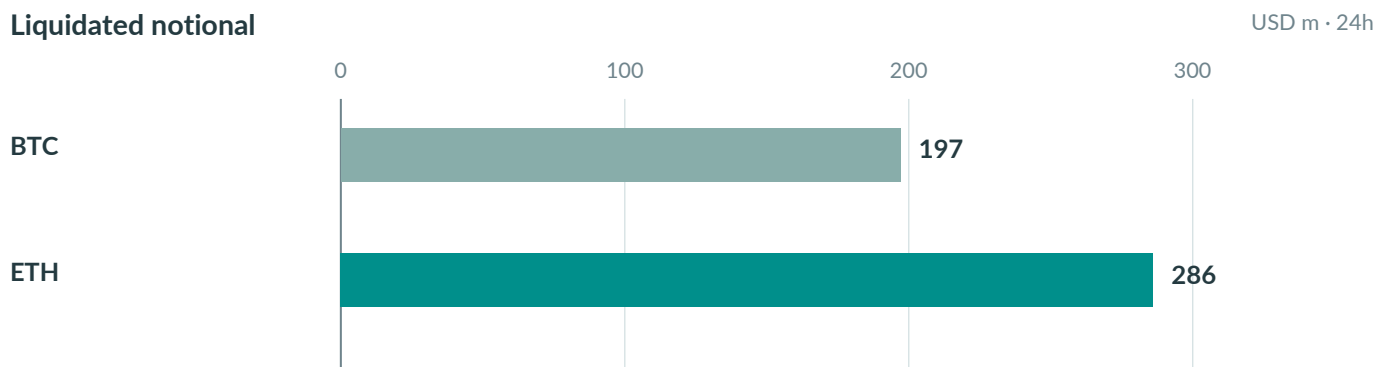
EDT=UTC-4; KST=UTC+9: a 13-hour difference. 13:25 KST is publication time, not a precisely documented feed cutoff. Technology-stock weakness and other pressures were also reported after CPI. [3] [4]

03 / LIQUIDATION SNAPSHOT

ETH pressure remains higher after a size adjustment

Compare only BTC and ETH in the same report; liquidation flow and OI are different measures.

Liquidated notional



Measure	BTC	ETH
Open interest, approximate, US\$bn	52	30
Liquidations / open interest ¹	0.38%	0.95%
Share of the two-asset liquidation total	40.8%	59.2%

Source: CoinDesk, 15 Oct 2026, citing a CoinGlass snapshot [3]. The two assets total US\$483m. Liquidations cover a trailing 24 hours; OI is a reported point-in-time stock. ¹197/52,000 and 286/30,000. Inputs are rounded.

TradeLens interpretation | About 2.52 times the intensity

The descriptive flow-to-stock ratio for ETH is about 2.52 times BTC's. This shows why the size of the position market matters alongside absolute closures. It is not an account-level liquidation probability or an ex-ante hazard rate.

Price changes also alter dollar OI. The observed stock may already reflect closures, while collateral rules and venue composition can differ across assets. This comparison does not establish that ETH always carries greater structural risk.



04 / DATA INTERPRETATION

Notional closed is neither cash lost nor cash withdrawn

Data definitions and collection methods are part of the market analysis.

Observed measure	What it captures	What it does not establish
Liquidated notional	Face value of forcibly closed contracts	Investor principal lost or exchange earnings
Open interest (OI)	Outstanding contract stock	Cumulative turnover or net cash inflow
Trading volume	Contracts changing hands over a period	Unique investors or outstanding balances
Insurance-fund balance	Resources under a venue's loss rules	Public deposit insurance or spot protection
Rolling 24-hour total	Flow over the preceding 24 hours	Additive totals across overlapping windows

Even official feeds require field-level interpretation

Bybit's full liquidation stream is pushed every 500ms. Its side field identifies the liquidated position, and its price field is the bankruptcy price. Neither should be automatically read as a normal order side or the market execution price. [7]

In February 2025, Bybit marked its legacy one-event-per-second feed for deprecation and introduced a full feed. An old sampling limit is not a valid blanket claim about current data; availability of a new feed does not prove complete ingestion by every aggregator. [8]

Measurement rule

Fix venues, instruments, units, time zones, deduplication and price fields before comparison. Do not invent a multiplier for unobserved events. Keep volume separate from open interest, consistent with exchange definitions. [13]



05 / MARGIN MECHANICS

Liquidation can begin before initial margin is exhausted

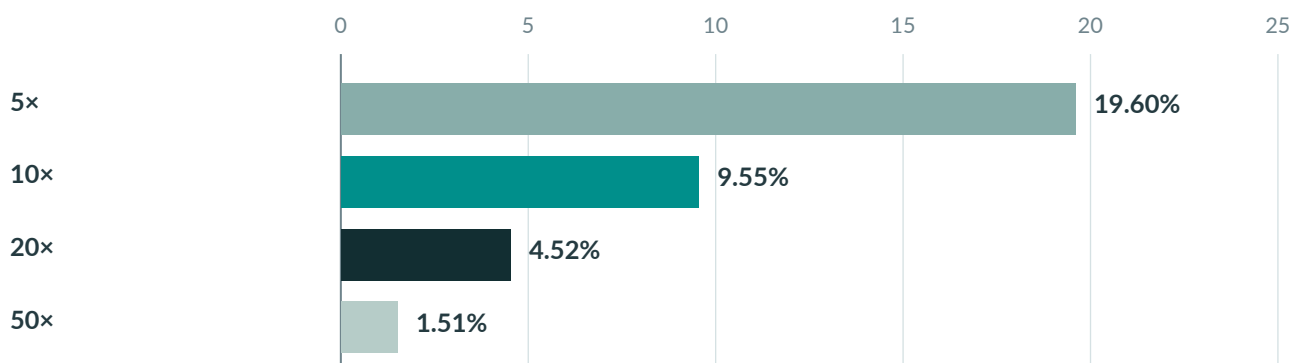
Illustrative model A | A dollar-collateralized linear long with a fixed maintenance ratio.

Assumptions

Entry $P_0=100$; quantity q ; initial margin $M=qP_0/L$; maintenance margin $=mqP$; $m=0.5\%$. Exclude fees, funding, top-ups and margin tiers. The threshold is reached when equity $E=M+q(P-P_0)$ equals required maintenance margin.

Price decline to the modeled threshold

% · illustrative



Initial leverage	Threshold price	Decline from entry
5x	80.40	19.60%
10x	90.45	9.55%
20x	95.48	4.52%
50x	98.49	1.51%

$P_{liq}=P_0 \times (1-1/L)/(1-m)$. Under these assumptions the bankruptcy price is $P_0 \times (1-1/L)$. These are not any venue's current margin tiers, permitted leverage or actual account terms.

Economic meaning

Higher leverage turns a smaller price move into a forced-trading condition. Real venues can use mark prices, risk tiers and partial-liquidation procedures. A simple $1/L$ price move is not an actual liquidation quote. [\[5\]](#) [\[6\]](#)

06 / COLLATERAL RISK

Falling collateral can erode the buffer twice

Illustrative model B | Begin with equal recognized collateral and vary its resilience.

Cross margin shares collateral across positions; isolated margin separates a specified margin pool. Sharing can improve capital efficiency, but losses elsewhere can also change account-wide headroom. [9]

Assumptions, US\$	Price-stable collateral	Risk collateral
Initial collateral market value	2,000	2,500
Collateral recognition ratio	100%	80%
Initial recognized collateral	2,000	2,000
Collateral price change	0%	-30%
Recognized collateral after shock	2,000	1,400
Futures mark-to-market loss	-1,000	-1,000
Recognized equity after shock	1,000	400
Assumed maintenance requirement	450	450

Both: entry notional 10,000; futures price -10% gives current notional 9,000. Assumed 5% maintenance gives 450. Risk collateral: $2,500 \times 70\% \times 80\% = 1,400$. Separate from model A; not a real venue haircut.

TradeLens interpretation | Position and collateral deteriorate together

The same futures loss leaves recognized equity of 1,000 or 400; the latter falls below 450. A collateral haircut adjusts recognized margin value. It is not an immediate realized cash loss of the same amount.

Price-stable collateral is a modeling assumption. Actual stablecoins retain price, redemption and platform risks. Transferable assets can still be unavailable as immediate margin because of settlement, bridge or transfer delays.

07 / LIQUIDITY AMPLIFICATION

Order-book depth changes the impact of the same sale

Illustrative model C | A 600-unit sell order meets two static bid books.

Identical sell flow, different execution depth

Price index · illustrative



Static-book assumption	Deeper book	Thinner book
Bid quantity at each price 100 through 95	200	100
Average fill for 600 units	99.00	97.50
Last fill	98	95
Average slippage from reference 100	1.00%	2.50%

No replenishment, cancellations, other orders or fees. Deep book: 200 at 100, 99 and 98. Thin book: 100 at each price from 100 to 95. The last fill is not automatically the mark price for subsequent liquidations.

Conditions for a cascade

Repricing can lead to maintenance breaches, forced orders and liquidity depletion. A single venue's last trade is not every venue's liquidation trigger. Mark-price construction and cross-market hedging or arbitrage determine transmission. [\[5\]](#) [\[10\]](#)

Round-the-clock trading does not imply uniform depth. Alongside event counts, assess the price movement required to absorb a fixed quantity, the bid-ask spread and the speed at which executable depth rebuilds.

08 / LOSS ALLOCATION

Liquidation reallocates losses; it does not erase them

Rules comparison—not a finding of insurance-fund depletion or ADL during this event.

Structure	After ordinary liquidation	Who takes the residual exposure
Bybit insurance example [14]	Compare takeover and actual fills with the bankruptcy price	Surplus adds to reserves; deficits consume their loss capacity
Hyperliquid backstop [10]	Rule-based backstop if order-book liquidation is insufficient	A component HLP strategy inherits positions and market risk
Hyperliquid ADL [12]	Negative account or isolated-position value	Ranked opposing positions are reduced to resolve the shortfall

Revenue flows also need separate accounts

Trading fees, liquidation inventory P&L, reserve changes and funding are distinct flows. Hyperliquid funding, in particular, is a peer-to-peer payment rather than a fee collected by the platform. [11]

The risk follows the revenue opportunity

A liquidity provider can earn a spread or takeover benefit while inheriting inventory and further downside. Higher turnover does not establish higher net earnings for an exchange, liquidity provider or token holder.

Backstop and automatic deleveraging (ADL) are rule-specific mechanisms. Centralized venues and onchain protocols do not have identical procedures, funds or account rights.

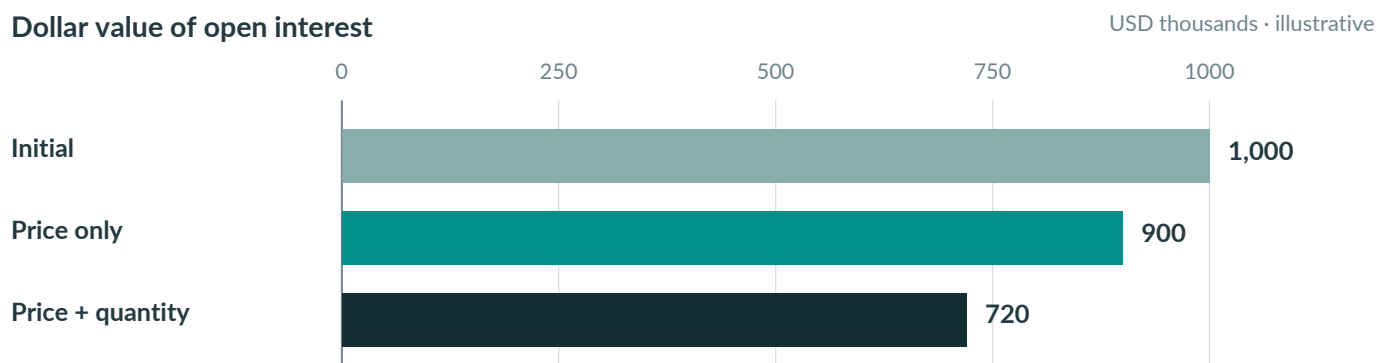


09 / OPEN INTEREST

Lower dollar OI is not all position reduction

Illustrative model D | Separate price and quantity effects in a linear contract.

Open interest is the stock of contracts not yet closed, not turnover during a period. The dollar value of linear exposure changes with both the underlying price and outstanding quantity. [\[13\]](#)



Measure	Initial	Price only	Price + quantity
Price	100	90	90
Underlying-equivalent quantity	10,000	10,000	8,000
Dollar OI	1,000,000	900,000	720,000
Dollar OI change	—	-10%	-28%
Quantity change	—	0%	-20%

Quantity change=(1+dollar OI change)/(1+price change)-1. Last column: $0.72/0.90-1=-20\%$. Illustrative linear contract with fixed units and multiplier.

Limits of the observation

Even a real quantity decline can reflect forced closures, voluntary exits or venue migration. Each contract has a long and a short side; more OI does not prove net buying or long dominance. Recalculate inverse contracts under their own definitions.



10 / FUNDING & BASIS

Normalize the payment interval before comparing funding

A transfer that aligns contract prices is not an exchange trading fee.

Hyperliquid documentation describes recurring payments between longs and shorts, reflected hourly. Comparisons with an eight-hour quote require a common time unit. Rates below are fixed assumptions, not observed funding. [\[11\]](#)

Illustration; US\$10,000 notional	A: 0.010% / 8h	B: 0.004% / 1h
Payments over 24 hours	3	24
Simple daily burden	0.030%	0.096%
One-day payment	US\$3.00	US\$9.60

Fixed notional and positive rates; a long pays over a continuous 24-hour holding period. No compounding, fees or price changes. Actual rates vary; the example is not a long-run yield forecast.

Indicator	Information it provides	Interpretation limit
Positive funding	Long-to-short payment in that interval	Borrowing, hedging and structural demand can coexist
Negative funding	Short-to-long payment in that interval	Not evidence of an imminent price rebound
Dated-futures basis	Spot-relative financing, time and hedge conditions	Not the same measure as perpetual funding

TradeLens assessment

Cumulative payments can reduce margin headroom even with a flat market. Normalization is not a neutral funding print alone; quantities, collateral buffers and executable liquidity must also improve.



11 / KOREAN MARKET TRANSMISSION

KRW returns combine global prices, FX and local premiums

Illustrative model E | A price identity for the same asset at matched times.

Decomposition

$\text{KRW price} = \text{USD reference price} \times \text{KRW per USD} \times (1 + \text{local premium})$. The premium is the residual defined by this comparison. A USDT quote is not automatically a USD quote; the USDT/USD rate can also matter.

Assumed, not market quotes	Initial	FX cushion	Premium compression
USD reference price	100	94	94
KRW per USD	1,400	1,428	1,428
Local premium	5%	5%	1%
KRW price	147,000	140,943.6	135,574.32
KRW return from initial	—	-4.80%	-7.77%

Both end states: USD price -6%, KRW per USD +2%. Final column: $0.94 \times 1.02 \times 1.01 / 1.05 - 1 = -7.7726\%$. A price difference does not establish a risk-free arbitrage after transfer, FX and fees.

Domestic spot exposure is not offshore margin exposure

Unleveraged spot ownership is not directly governed by an offshore futures maintenance rule. Repricing and execution costs can still matter. Assets held locally for potential collateral use introduce a separate question of transferability and timing.

Match the daily clock as well

Upbit calculates daily returns and candles from 00:00 UTC, or 09:00 KST. This is not the same window as a rolling 24-hour report or a Korean equity-market close. [\[15\]](#)

12 / SCENARIO MATRIX

A rebound must be read alongside positioning and depth

Conditional market analysis, not a price target or a trading-timing framework.

Scenario	Conditions observed together	Economic interpretation
Persistent macro pressure	Rate/dollar pressure, weak spot demand, slow depth recovery	Less liquidation can coexist with continued repricing risk
Orderly deleveraging	Contract quantity declines; funding, spread and depth stabilize	Remaining positions may have stronger buffers
Leverage rebuild	Prices and contract quantities rise; funding burden returns into shallow books	A rebound can coexist with renewed forced-flow vulnerability
Local-price divergence	USD and KRW returns separate through FX or premiums	Global direction alone cannot explain domestic returns

What the available event evidence establishes

The reported snapshot identifies a period of concentrated forced closures in BTC and ETH. It does not establish that subsequent deleveraging finished or spot demand recovered. [3] The models in this report specify conditions needed to make that distinction.

What would weaken the risk assessment

A price recovery accompanied by stable price-adjusted contract quantities, rebuilding two-sided depth, normalized funding and liquid collateral would reduce concern about residual forced-flow risk. Rapid releveraging into thin books would undermine that conclusion.

No scenario probabilities, return estimates or target prices are assigned. Cross-venue differences must first be reconciled by contract, unit and observation time.

13 / RESEARCH VERDICT

Use time to test causation and structure to test amplification

Combine macro context and market mechanics without inventing a causal effect size.

1. Align time

Separate pre- and post-release windows. Do not add overlapping 24-hour totals or treat a publication timestamp as a trade timestamp.

2. Normalize exposure

Liquidated notional is not realized loss. Separate price and quantity effects in OI and retain each contract's definition.

3. Test execution capacity

Distinguish mark, last and fill prices. Spreads, depth and immediately usable collateral matter together.

4. Separate the Korean channel

Connect offshore futures stress to local spot prices without omitting FX, premiums or the daily measurement clock.

Test	Required alignment
Event window	Official release time, symmetric intervals and competing news
Derivative exposure	Venue/contract quantities, dollar OI, liquidation side and price fields
Prices / liquidity	Matched spot, mark and fills; executable two-sided depth
Normalization	Price recovery + less excessive leverage + restored liquidity

Final assessment

U.S. inflation news is a catalyst for risk repricing. Leverage, collateral and liquidity determine how the shock is amplified, and improvement in all three is needed to judge normalization. Korean investors face an additional KRW price-decomposition layer.

The checklist defines follow-up observations; it does not claim that every variable was measured or improved in this episode. This is market-structure research, not price forecasting or individualized advice.



14 / SOURCE REGISTER

Sources for the event and liquidation rules

Select a teal citation, source title or right-hand link to open the source.

01. U.S. Bureau of Labor Statistics Consumer Price Index — September 2026 2026.10.14 · Official statistics · CPI composition and release time	Open source
02. U.S. Bureau of Labor Statistics Producer Price Indexes — September 2026 2026.10.15 · Official statistics · final-demand PPI and release time	Open source
03. CoinDesk, citing CoinGlass Nearly \$1 billion in crypto bets liquidated as bitcoin, ether and XRP slide 2026.10.15 00:25 EDT · Reported snapshot · BTC/ETH liquidations and open interest	Open source
04. CoinDesk Live updates: Bitcoin bounces back to \$82,000 after first fall below \$80,000 in one month 2026.10.15 · Market reporting · post-CPI volatility and technology selloff	Open source
05. Bybit Trading Rules: Liquidation Process (Unified Trading Account) 2026.08.07 · Venue rules · isolated margin, mark price and liquidation formula	Open source
06. Bybit Risk Limit (Perpetual and Expiry Contracts) 2026.09.04 · Venue rules · position-size tiers and margin requirements	Open source
07. Bybit API All Liquidation — Public WebSocket As of 17 Oct 2026 · Official API · 500ms feed, position side and bankruptcy-price field	Open source
08. Bybit API V5 Changelog — All Liquidation Update 2025.02.20 · Official changelog · legacy sampled feed versus full feed	Open source
09. Hyperliquid Margining As of 17 Oct 2026 · Protocol documentation · cross/isolated margin and account equity	Open source
10. Hyperliquid Liquidations As of 17 Oct 2026 · Protocol documentation · order-book liquidation and backstop	Open source
11. Hyperliquid Funding As of 17 Oct 2026 · Protocol documentation · peer-to-peer funding and payment intervals	Open source
12. Hyperliquid Auto-deleveraging As of 17 Oct 2026 · Protocol documentation · opposing-position reduction and loss allocation	Open source
13. CME Group Open Interest As of 17 Oct 2026 · Exchange education · trading volume versus outstanding contracts	Open source
14. Bybit Insurance Fund 2026.03.24 · Venue rules · liquidation surplus and deficit relative to bankruptcy price	Open source
15. Upbit Trading Guide As of 17 Oct 2026 · Official guide · KRW/USDT markets and UTC-based daily data	Open source

Scope: market figures retain their reported snapshot; rules are venue-specific. Illustrative models are not observed order books, account P&L or price forecasts.

15 / METHODOLOGY & USE

Methodology, disclaimer and use

Separate official statistics, reported snapshots, venue rules and illustrative calculations.

Item	Basis
Date / scope	17 Oct 2026. September U.S. CPI/PPI and an Asian-hours BTC/ETH snapshot published 15 October. Later live prices and liquidation totals do not retrospectively replace that observation.
Event / causality	Liquidations are a rolling flow; OI is a point-in-time stock. Publication time is not an exact feed cutoff. No standalone CPI/PPI causal effect is estimated.
Models A / B	Page 6: entry 100; 0.5% maintenance; leverage 5/10/20/50. Page 7: separate 5% maintenance; recognized collateral 2,000; risky collateral 80% recognition and -30% price.
Models C / D	Page 8: static depth and a 600-unit sale, without replenishment. Page 10: price and quantity decomposition of dollar OI in a fixed-multiplier linear contract.
Time / KRW models	Page 11: US\$10,000 notional and fixed funding assumptions. Page 12: USD price -6%, KRW/USD +2%, premium 5%→1%. Not observed products or quotes.

Compute using underlying values and round for display. USD m=million, USD bn=billion; 1bp=0.01 percentage point. Do not add liquidation notional, losses, withdrawals, reserves and fees. No venue or trading activity is recommended.

Disclaimer

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