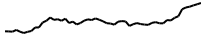
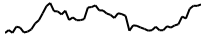
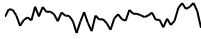
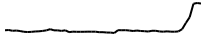
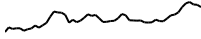
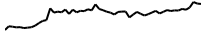
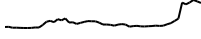
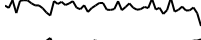
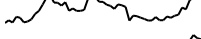
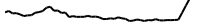


Crypto Leaderboard

| Rank | Name | Ticker | Price | 24h | 7d | 30d | 24h Vol \$m | MC \$m | 1-Year Chart |
|------|------------|--------|-----------|-----|-----|------|-------------|-----------|---|
| 1 | Bitcoin | BTC | \$103,768 | 1% | 7% | 15% | 91,467 | 2,054,252 |  |
| 2 | Ethereum | ETH | \$3,918 | 1% | 5% | 25% | 33,776 | 471,668 |  |
| 3 | Tether | USDT | \$1.00 | 0% | 0% | 0% | 121,975 | 140,092 |  |
| 4 | XRP Ledger | XRP | \$2.37 | -2% | 7% | 111% | 6,703 | 135,132 |  |
| 5 | Solana | SOL | \$215 | -2% | -1% | 0% | 5,359 | 102,972 |  |
| 6 | BNB | BNB | \$705 | -1% | 2% | 13% | 1,440 | 102,855 |  |
| 7 | Dogecoin | DOGE | \$0.40 | -2% | -5% | 9% | 3,718 | 58,149 |  |
| 8 | USD Coin | USDC | \$1.00 | 0% | 0% | 0% | 6,769 | 42,038 |  |
| 9 | Lido stETH | STETH | \$3,913 | 1% | 5% | 25% | 127 | 38,407 |  |
| 10 | Cardano | ADA | \$1.06 | -3% | 5% | 43% | 1,366 | 37,871 |  |

Top & Bottom Performers - Top 100 Tokens

| 24h | | 7 Days | | 30 Days | | 90 Days | | 365 Days | |
|---------|-----|---------|------|---------|------|---------|-------|----------|--------|
| VIRTUAL | 18% | VIRTUAL | 86% | VIRTUAL | 439% | VIRTUAL | 9098% | OM | 16329% |
| HYPE | 16% | AAVE | 46% | HBAR | 206% | HBAR | 456% | PEPE | 1630% |
| ONDO | 11% | LINK | 32% | ENS | 145% | ENA | 413% | SUI | 661% |
| BGB | 9% | ONDO | 31% | BGB | 136% | XLM | 333% | JASMY | 611% |
| HBAR | -5% | BONK | -11% | FDUSD | 0% | USDC | 0% | ATOM | -22% |
| XLM | -5% | PEPE | -12% | BRETT | -4% | USDT | 0% | POL | -28% |
| WIF | -5% | WIF | -13% | WIF | -26% | FDUSD | 0% | TIA | -49% |
| KAIA | -9% | SOS | -15% | BONK | -27% | KAS | -13% | SOS | -54% |

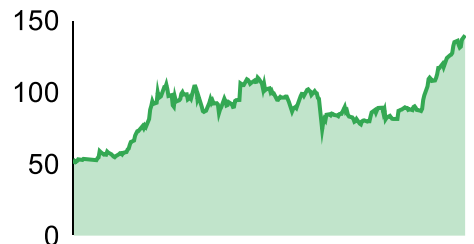
Category Performance

| Category | 7d | 30d | 90d | 180d | 365d | Ecosystem | 7d | 30d | 90d | 180d | 365d |
|-----------------|-----|-----|------|------|------|-----------|-----|-----|------|------|------|
| DEX | 0% | 61% | 122% | 75% | 58% | Ethereum | 6% | 93% | 138% | 82% | 63% |
| Other DeFi | 6% | 58% | 90% | 40% | 55% | Avalanche | 6% | 59% | 104% | 67% | 77% |
| Privacy | 1% | 53% | 87% | 75% | 45% | Solana | 21% | 51% | 90% | 43% | 56% |
| CEXs | 0% | 46% | 77% | 59% | 65% | Polkadot | 2% | 42% | 73% | 33% | 30% |
| Currency | 1% | 45% | 134% | 133% | 125% | Polygon | 1% | 42% | 82% | 42% | 31% |
| Smart Contract | 0% | 42% | 103% | 84% | 75% | Cosmos | -1% | 30% | 59% | 23% | 21% |
| Gaming/Entertai | -4% | 42% | 93% | 48% | 14% | BSC | -2% | 23% | 50% | 12% | 24% |
| Scaling | 1% | 41% | 76% | 23% | 28% | Tron | 1% | 22% | 46% | 101% | 147% |
| IoT/Data/Comp. | 2% | 40% | 78% | 51% | 39% | | | | | | |
| Lending | 5% | 37% | 80% | 64% | 84% | | | | | | |
| Meme | -9% | 15% | 130% | 102% | 237% | | | | | | |

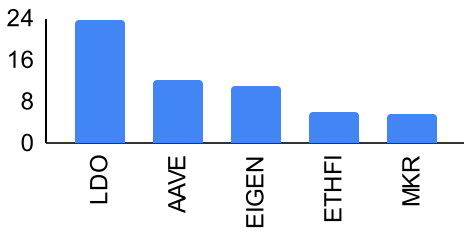


DeFi

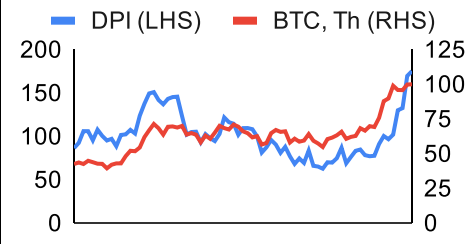
Total Value Locked, LTM, \$b



Top TVL By Protocol, \$b

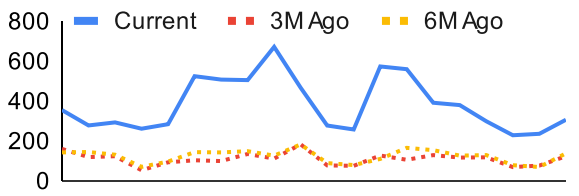


DefiPulse Index, LTM

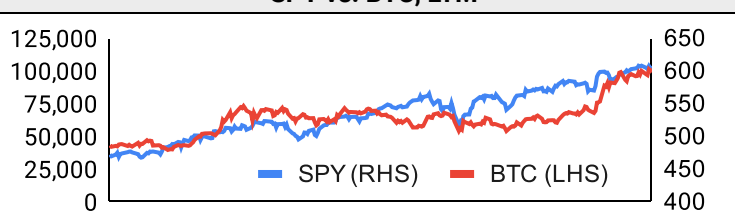


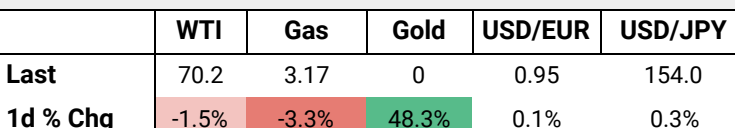
Trading Volume

| Aggregate Volumes by Product, \$b | | | | | Top Derivatives Exchanges, \$m and bps | | | | | Top Spot Exchanges, \$m | | |
|-----------------------------------|-----|--------|-------|-------|--|--------|--------|-----|-----|-------------------------|-------|--------|
| Product | 1d | 7d | 30d | O/I | Exchange | 1d Vol | O/I | Mkr | Tkr | Exchange | Mkts | 1d Vol |
| Spot | 77 | 765.55 | 3550 | n/a | Binance | 82,838 | 35,833 | 2.0 | 4.0 | Binance | 1,744 | 25,972 |
| Perpetuals | 236 | 1,880 | 9,160 | 1,120 | Bybit | 33,120 | 25,805 | 2.0 | 5.5 | Bybit | 1,079 | 6,534 |
| Futures | 0 | 3 | 12 | 1 | Bitget | 31,197 | 20,746 | 2.0 | 6.0 | Coinbase | 417 | 4,340 |
| Options | 2 | 19 | 98 | n/a | OKX | 29,624 | 10,391 | 2.0 | 5.0 | OKX | 817 | 4,600 |

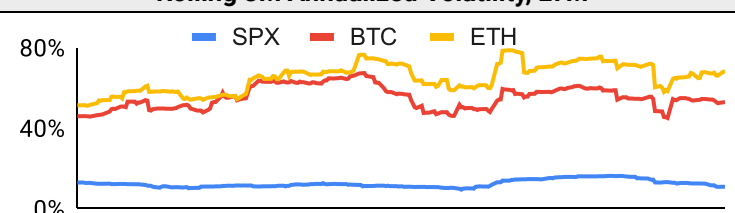
| Daily Spot Volume, Top 100 Tokens Last 20d, \$b | | | | Top Volume, 1d, \$m | | Top Volume, %20d Avg | | Low Volume, %20d Avg | |
|--|--|--|--|---------------------|---------|----------------------|------|----------------------|-----|
|  | | | | USDT | 142,984 | AAVE | 145% | XLM | 25% |
| | | | | BTC | 67,481 | STX | 142% | ALGO | 32% |
| | | | | ETH | 32,307 | HNT | 138% | SHIB | 33% |
| | | | | USDC | 9,771 | ENA | 138% | HBAR | 35% |
| | | | | FDUSD | 7,224 | VIRTUAL | 137% | XRP | 41% |

Traditional Finance

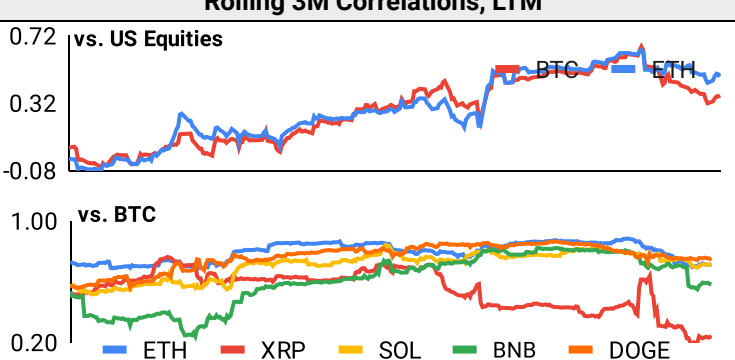
| Global Equity Markets | | | | | | | SPY vs. BTC, LTM | | | | |
|-----------------------|-----|---------|-----|---------|-------|-----|---|--|--|--|--|
| | US | USGrwth | UK | Germany | Japan | HK |  | | | | |
| 1D | 0% | 1% | 0% | 0% | -1% | -1% | | | | | |
| 7D | -1% | 1% | 1% | -1% | -2% | 0% | | | | | |
| 90D | 8% | 12% | 6% | 2% | 0% | 9% | | | | | |
| 365D | 28% | 32% | 10% | 12% | 9% | 1% | | | | | |

| 10-Year Treasury Yields | | | | | | | Commodities & FX | | | | | |
|-------------------------|-------|--------|-------|---------|-------|-------|--|-------|-------|-------|------|-------|
| | US | Brazil | UK | Germany | Japan | HK |  | | | | | |
| Last | 4.37% | 13.91% | 4.43% | 2.23% | 1.06% | 3.44% | Last | 70.2 | 3.17 | 0 | 0.95 | 154.0 |
| 1d Chg | -0.03 | 0.00 | 0.02 | -0.02 | 0.00 | -0.06 | 1d % Chg | -1.5% | -3.3% | 48.3% | 0.1% | 0.3% |

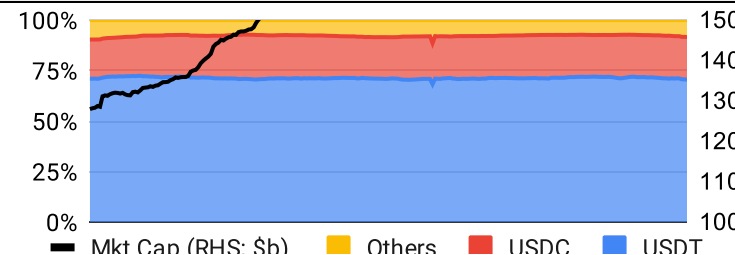
Volatility

| Annualized Volatility | | | | | | | Rolling 3M Annualized Volatility, LTM | | | |
|-----------------------|-----|-----|------|-----|-----|------|--|--|--|--|
| | BTC | ETH | XRP | SOL | BNB | DOGE |  | | | |
| 30D | 43% | 71% | 156% | 77% | 69% | 82% | | | | |
| 90D | 47% | 64% | 120% | 71% | 52% | 115% | | | | |
| 180D | 52% | 66% | 101% | 78% | 54% | 99% | | | | |
| 365D | 53% | 64% | 83% | 85% | 60% | 102% | | | | |

Correlations

| Intra-Crypto Correlations, LTM | | | | | | | Rolling 3M Correlations, LTM | | | | |
|--------------------------------|------|------|------|------|------|------|--|--|--|--|--|
| | BTC | ETH | XRP | SOL | BNB | DOGE |  | | | | |
| BTC | | | | | | | | | | | |
| ETH | 0.79 | | | | | | | | | | |
| XRP | 0.43 | 0.42 | | | | | | | | | |
| SOL | 0.72 | 0.65 | 0.37 | | | | | | | | |
| BNB | 0.61 | 0.59 | 0.28 | 0.52 | | | | | | | |
| DOGE | 0.77 | 0.65 | 0.43 | 0.60 | 0.47 | | | | | | |

Stablecoins

| Stablecoin Market Size and Volume, \$m | | | | | Stablecoin Dominance (LHS) & Market Cap \$b (RHS), LTM | |
|--|-------|---------|-------------|------------|--|--|
| Ticker | Price | 1d Vol | 20d Avg Vol | Market Cap | | |
| USDT | 1.00 | 142,984 | 176,178 | 140,204 |  | |
| USDC | 1.00 | 9,771 | 11,179 | 42,076 | | |
| USDe | 1.00 | 141 | 167 | 5,901 | | |
| DAI | 1.00 | 146 | 151 | 5,366 | | |
| USDO | 1.00 | | | 862 | | |
| USDD | 1.00 | 3 | 3 | 744 | | |
| | | | | | | |

Ethereum Mainnet & Layer 2s

| Mainnet & Layer 2 Transactions (m/day) and L2 TVL (\$m) | | | | | Transactions (m/day), Rolling 90-Day Average, LTM | | | | | |
|---|-----|---------|-----|-------------------|---|--|--|--|--|--|
| Network | 1d | 30d Avg | TVL | Tech Type | | | | | | |
| Base | 8.1 | 243.0 | | Optimistic Rollup | | | | | | |
| Taiko | 4.2 | 119.3 | | Optimistic Rollup | | | | | | |
| Arbitrum One | 1.9 | 67.1 | | Optimistic Rollup | | | | | | |
| Ethereum | 1.2 | 38.3 | - | mainnet | | | | | | |
| World Chain | 1.4 | 37.8 | | | | | | | | |
| OP Mainnet | 1.0 | 30.2 | | Optimistic Rollup | | | | | | |
| Blast | 0.3 | 13.7 | | Optimistic Rollup | | | | | | |
| Linea | 0.2 | 6.2 | | ZK Rollup | | | | | | |
| Starknet | 0.2 | 6.1 | | ZK Rollup | | | | | | |
| Mint | 0.3 | 5.8 | | Optimistic Rollup | | | | | | |

| Layer 2 Token Performance & Market Cap (\$b) | | | | | |
|--|---------|---------|---------|---------|---------|
| | ARB | MNT | STX | X | OP |
| 24h Return | -1% | -3% | +5.49% | -1% | +2.94% |
| Market Cap | \$ 3.99 | \$ 3.97 | \$ 3.73 | \$ 3.51 | \$ 3.14 |

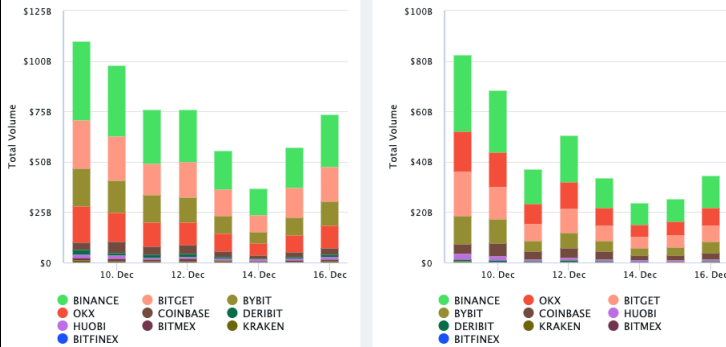
NFTs and DAOs

| NFT Collection Stats (\$; Volume, MC in \$m) | | | | | | DAO Treasury Amount (\$m) and Composition | | | | | |
|--|---------|----------|---------|---------|------------|---|----------|---------|---------|------------|-------|
| Collection | Floor | % Listed | 3M Ret. | 3M Vol | Market Cap | DAO | Treasury | Stables | BTC/ETH | Own Tokens | Other |
| CryptoPunks | 150,742 | 41% | 131% | 146,599 | 1,500 | Uniswap | 6,580 | 0% | 0% | 100% | 0% |
| Pudgy Penguins | 116,805 | 57% | 374% | 195,740 | 1,000 | Optimism | 5,054 | 0% | 0% | 100% | 0% |
| Bored Ape Yacht C | 75,980 | 54% | 182% | 88,150 | 760 | Mantle | 3,599 | 1% | 3% | 93% | 3% |
| Azuki | 41,967 | 40% | 238% | 58,890 | 420 | ENS | 3,324 | 1% | 4% | 93% | 3% |
| Lil Pudgys | 15,086 | 42% | 635% | 77,897 | 327 | Arbitrum | 2,949 | 0% | 1% | 99% | 0% |
| Autoglyphs | 509,568 | 32% | 125% | 513 | 261 | Ethereum | 1,067 | 0% | 100% | 0% | 0% |
| Mutant Ape Yacht | 13,120 | 60% | 185% | 53,325 | 256 | Golem | 527 | 0% | 89% | 11% | 0% |
| Milady Maker | 23,369 | 53% | 211% | 45,089 | 234 | Gnosis | 508 | 5% | 8% | 55% | 32% |
| Chromie Squiggle | 21,167 | 28% | 144% | 3,572 | 212 | Merit Circle | 477 | 4% | 1% | 93% | 2% |
| Fidenza by Tyler H | 176,389 | 50% | 150% | 3,963 | 176 | CoWSwap | 436 | 1% | 2% | 96% | 2% |

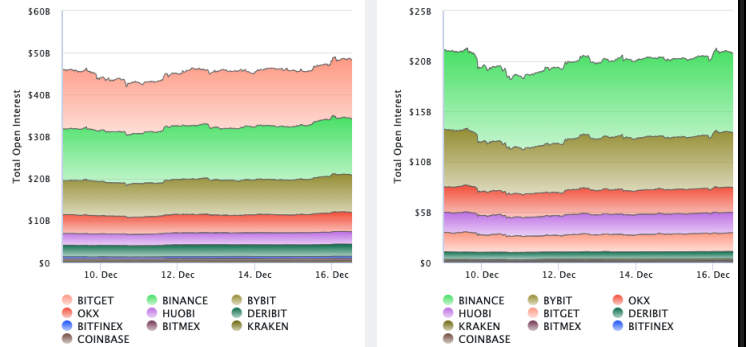
Crypto News
[Bitcoin rises to new record above \\$106,000 as investors await this week's Fed decision - CNBC](#)
[Bitcoin goes 'Santa Claus mode' as hopes raise for US reserve status - Cointelegraph](#)
[MicroStrategy's Saylor hints at first Bitcoin purchase above \\$100K - Cointelegraph](#)
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[World Liberty's Recent Cryptocurrency Acquisitions - Blockchain.News](#)
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[Michael Novogratz's Galaxy Appoints Former Point72 Exec as CFO - CoinDesk](#)
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[Polygon DAO Weighs \\$1.3B Stablecoin Deployment to Generate \\$70M Annual Yield - CoinDesk](#)

Crypto Futures

Futures Volume (BTC LHS ; ETH RHS), 1d



Futures Open Interest (BTC LHS ; ETH RHS)



OI Weighted Funding Rate (BTC LHS ; ETH RHS), 1d

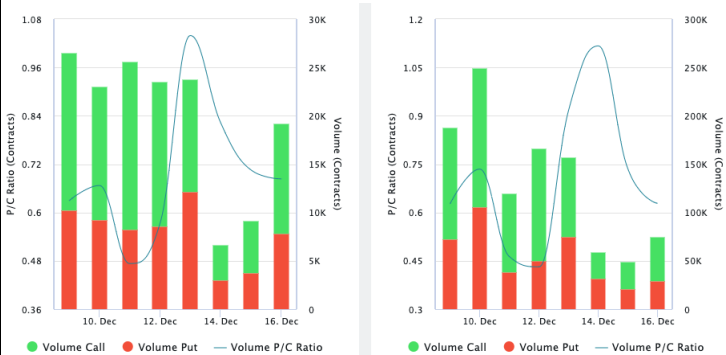


Liquidations (BTC LHS ; ETH RHS), 1d

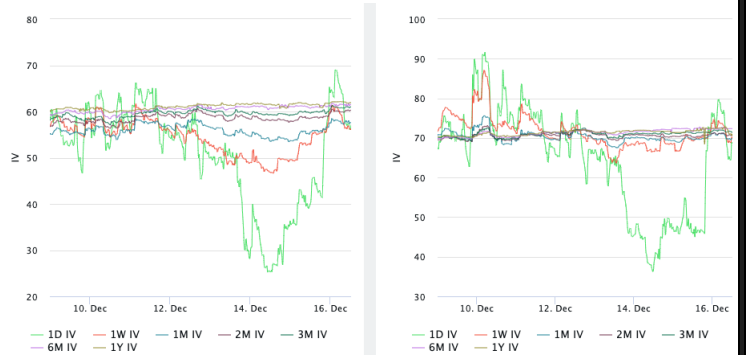


Crypto Options

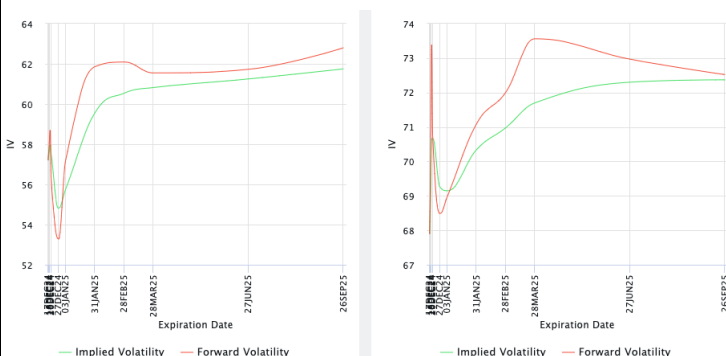
Options Volume & Put/Call Ratio (BTC LHS ; ETH RHS), 1d



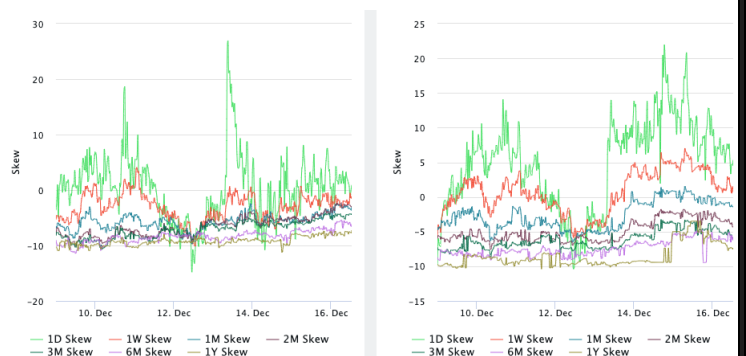
ATM Implied Volatility (BTC LHS ; ETH RHS)



ATM Implied Vol Term Structure (BTC LHS ; ETH RHS)



25 Delta Skew (BTC LHS ; ETH RHS)





December 16, 2024

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GSR has over a decade of extensive experience in the crypto market, serving as a trusted liquidity provider and active, multi-stage investor. Our suite of services includes OTC Trading, Derivatives, and Market Making. GSR is actively involved in every major sector of the digital asset ecosystem, working with token issuers, institutional investors, miners, and leading trading venues.

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All options data is based on Deribit and derivatives graphics are from Laevidas. Market returns are based on price returns for the following ETFs: VOO, QQQ, EWU, EWG, EWJ, and EWH. Onchain volumes are not considered and thus certain token volumes may be understated (e.g., stETH).

| | | | | |
|------------|----------------|-----------------|---------------|----------------|
| CoinGecko | Santiment | DefiLlama | CoinMarketCap | Laevidas |
| L2Beat | Google Finance | TradingView | Deribit | WorldCoinIndex |
| Cryptorank | Investing.com | NFT Price Floor | CryptoSlate | |