

Frequently Asked Questions

S&P Cryptocurrency Index Series

- 1. What are the S&P Cryptocurrency Indices?** These indices are designed to measure the performance of a selection of digital assets (crypto assets) listed on recognized, open exchanges that meet minimum liquidity and market capitalization criteria.¹ The indices aim to bring transparency to the emerging cryptocurrency market.

As of May 3, 2021, the S&P Cryptocurrency Index Series includes the following indices:

- [S&P Bitcoin Index](#): This index is designed to track the performance of the digital asset Bitcoin.
- [S&P Ethereum Index](#): This index is designed to track the performance of the digital asset Ethereum.
- [S&P Cryptocurrency MegaCap Index](#): This index is designed to track the performance of the digital assets Bitcoin and Ethereum weighted by market cap .

- 2. Who is your provider for cryptocurrency data?** Our cryptocurrency pricing and reference data is provided by Lukka, Inc. via its Lukka Prime and Lukka Reference Data products. Lukka is the leading crypto asset data services provider for institutions, including fund administrators and fund auditors that serve over 160 active crypto funds today. For more information about Lukka, please refer to the website: <https://data.lukka.tech/prime/>.

S&P Global, Inc., the parent of S&P Dow Jones Indices LLC, is an investor in Lukka. For information on S&P Global's investment in Lukka, please see [here](#). In addition, representatives of Lukka may provide consultative services to the Index Committee from time to time.

- 3. What pricing is used as end-of-day for index calculation?** S&P Dow Jones Indices uses the Lukka Prime Fair Market Value end-of-day price taken at 4:00 p.m. EST for cryptocurrency index calculation. Other end-of-day index levels will be added for additional markets and regions as demand warrants. Lukka's methodology is the first of its kind for designed specifically for determining the fair value pricing of liquid cryptocurrency assets.
- 4. What is the Fair Market Value Pricing Methodology?** The Lukka Prime Fair Market Value Pricing uses a proprietary methodology to determine the primary exchange of each digital asset at any given time, which in turn determines that asset's fair market value.
- 5. Why use Fair Market Value Pricing?** The Fair Market Value Pricing Methodology was designed to align to both Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) guidelines. Additionally, the Lukka Prime infrastructure and data quality adhere to the standards set by the American Institute of Certified Public Accountants (AICPA) for Service Organizations. Lukka was the first AICPA SOC 1 Type 2 and

¹ See #13 below.

AICPA SOC 2 Type 2 middle and back office crypto service organization. Many funds holding cryptocurrencies use Lukka data to strike a daily NAV.

6. **When are the S&P Cryptocurrency Indices calculated?** The indices calculate five days a week (Monday through Friday) in U.S dollars. End-of-day pricing is reported by 6:00 p.m. EST. Index files will follow our standard file delivery format.
7. **Which cryptocurrencies are included in the indices?** The S&P DJI Digital Market Indices Methodology describes the Eligibility Criteria for inclusion of a cryptocurrency in the indices. See [S&P Digital Market Indices Methodology](#). Part of that Eligibility Criteria includes as a prerequisite inclusion within Lukka's Prime Pricing services. Assets that are priced by this service are traded on pre-screened exchanges only. Lukka's exchange screening process involves examining eligible exchanges based on criteria such as oversight, efficiency, data transparency, and data integrity.

The Index Committee reserves the right to remove a digital asset that becomes subject to a regulatory or legal concern (e.g., an SEC allegation the digital asset is an unregistered security, allegations of trading manipulation, a potential sanctions violation, inclusion of privacy features that may pose anti-money laundering concerns).

8. **Which cryptocurrencies are covered by your crypto currency data provider?** Lukka Prime covers over 550 assets, representing the most liquid crypto assets, including the top-traded cryptocurrencies such as Bitcoin, Ethereum, Tether, and Litecoin. Prices are compiled from over 10 exchanges which represent a large portion of market liquidity. Historical prices are available starting in 2014.
9. **Are the indices ever adjusted between rebalances?** Traditionally, equity indices are adjusted by corporate actions. Digital assets do not currently have corporate actions per se, but certain events, such as forks, do affect cryptocurrencies and, the underlying index is adjusted accordingly.
10. **How often do the indices rebalance?** The indices rebalance quarterly.
11. **How much history is available for these indices?** Back-tested index history for these indices is available from 2014, or from the launch of the particular cryptocurrency.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date applied retroactively. For more information on back-tested history, please see the Performance Disclosure at the end of this document.

12. **What types of reference data fields are provided to S&P Cryptocurrency Index subscribers?** Our crypto data provider normalizes tickers to uniquely identify each asset, which allows the mapping of validated crypto reference data. In addition to pricing data, S&P DJI provides subscribers to the S&P Digital Market Indices volume, coin supply, and market capitalization data with respect to index constituents sourced from Lukka. Coin supply refers to total number of coins mined since the inception of the coin. This number may vary in real time.

- 13. How are the indices weighted?** The indices are market-capitalization weighted. This corresponds to coin supply multiplied by coin price.
- 14. Where can I obtain more information about the S&P Cryptocurrency Indices?** For further information, please see the [S&P Digital Market Indices Methodology](#). For more information on index calculation, please refer to [S&P Dow Jones Indices' Digital Assets Index Mathematics Policies and Practices Methodology](#).

PERFORMANCE DISCLOSURE/BACK-TESTED DATA

All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Forks were not factored in. Complete index methodology details are available at www.spdji.com. Past performance of the Index is not an indication of future results. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain data points used to calculate S&P DJI's ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the [FAQ](#). The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

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