Custom Crypto Asset Indices

In collaboration with Lukka, a renowned, blockchain-native technology company, S&P DJI enables financial institutions to create bespoke crypto asset indices, including those tracking cryptocurrencies. Combining our highest standards of independent index calculation with Lukka’s deep industry expertise, our custom crypto asset index capabilities cater to a wide range of investor needs.
The Growing Crypto Asset Market

Blockchain is a major technological breakthrough that can make assets more accessible and liquid through the use of cryptography. Assets that are exchanged in this way are called crypto assets and the process of creating a crypto asset is often referred to as tokenization. Virtually any asset can be tokenized, and thousands of assets have been tokenized since Bitcoin was created over 11 years ago. In parallel, innovators across the globe have formed businesses to facilitate the trade of crypto assets using blockchain technology. This technology has the capacity to give users greater access and autonomy when investing in assets that fall outside the scope of traditional capital markets.

Since Bitcoin’s creation, the global crypto asset industry has grown, reaching a market capitalization of more than USD 600 billion in December 2020.1 As this asset class becomes more recognized and accepted, investors are increasingly looking to incorporate crypto asset holdings into their portfolios. While this industry has come a long way, it’s still an experimental area with unique risks for investors to consider.

Risks for Crypto Asset Investors

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<thead>
<tr>
<th>Asset Risk</th>
<th>Market Risk</th>
<th>Environment Risk</th>
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<tbody>
<tr>
<td>Choosing an asset</td>
<td>Speculation-driven market</td>
<td>Inconsistent levels of security across exchanges</td>
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<tr>
<td>There are more than 7,000 crypto assets with wide dispersion in returns; when investors pick one asset over another, they are exposed to active risk.</td>
<td>Because the majority of transactions are speculative, the crypto asset market can be highly volatile.</td>
<td>There are over 500 crypto asset exchanges offering varying levels of cyber security and investor protection, such as insurance. In 2019, twelve exchanges were hacked, with over USD 292 million stolen.2</td>
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<tr>
<th>Reliance on digital wallets</th>
<th>No recognized benchmarking standard</th>
<th>Limited regulation</th>
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<td>Most crypto asset users store their assets using a personal digital wallet, which is associated with a private key known only to the owner. If the owner loses their private key, in many cases there is no way to recover the assets in the wallet.</td>
<td>Unlike traditional markets, the crypto asset market lacks well-established institutional-grade benchmarks.</td>
<td>Unlike conventional assets, the regulations and laws surrounding crypto assets are still minimal and constantly evolving.</td>
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<th>Cyberattack and fraud</th>
<th>No reliable data convention</th>
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<td>In 2019, losses from crypto asset fraud and theft totaled USD 4.52 billion.3 Investors have minimal legal recourse for recovering stolen crypto assets.</td>
<td>These assets have no universal, unique identifiers, and are referred to by multiple names/tickers on various exchanges. Information is scattered across multiple sources and frequently changes.</td>
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Why Crypto Indexing?
Rules-based crypto asset indices governed by a well-established independent calculation agent may help to solidify crypto’s status as an institutionally recognized asset class. The establishment of representative benchmarks may also lead to reduced speculation in the broader market. For institutional and retail investors alike, strategies based on crypto asset indices may provide exposure to this evolving technology-driven market while mitigating some of the associated risks. The indices may also offer diversification across different crypto assets.

Not All Crypto Indices Are Created Equal: Why S&P DJI?
S&P DJI custom clients leverage our extensive experience creating and calculating over 10,000 custom headline indices. When creating a custom index, our clients rely on our:
- reliable calculation system and pricing sources for precise index maintenance
- due diligence in choosing our data providers
- flexibility in meeting clients’ needs
If they choose, clients can also gain access to our world-class index governance infrastructure, which prioritizes independence and transparency.

Tackling Crypto Indexing Challenges

Index Construction Flexibility

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<th>Crypto Indexing Challenge</th>
<th>S&amp;P DJI Solution</th>
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<td>Not all providers are able to offer representative coverage of this vast market, which encompasses over 7,000 assets and more than 500 exchanges.</td>
<td>Lukka offers data on more than 550 of the top-traded crypto assets, making it possible to establish broad index universes.</td>
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<td>Currently, very few benchmarks provide an alternative to the typical process of selecting and weighting top crypto assets by market cap and rebalancing monthly.</td>
<td>S&amp;P DJI’s custom capabilities allow clients to adopt targeted strategies that deviate from traditional screening and weighting schemes. Having the option to apply more frequent or ad hoc rebalances, for instance, may be valuable in a risky asset class.</td>
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<td>The crypto asset indexing market lacks established approaches for idea-testing.</td>
<td>In this novel market, opportunities abound for innovative designs and strategies. Our Custom R&amp;D team supplies backtests and analytics based on client specifications to help clients make decisions about index rules.</td>
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Daily Index Calculation

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<td>Many crypto price providers are unequipped for end-of-day business practices.</td>
<td>Due to crypto assets being borderless in nature and trading around the clock, it can be difficult to provide end-of-day pricing. Lukka Prime (Lukka’s Fair Market Value pricing methodology) end-of-day prices ensure maximum accuracy and data capture of minute-by-minute asset pricing by capturing a full day’s trading activity before reporting. S&amp;P DJI uses end-of-day prices in index calculation.</td>
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## Crypto Indexing Challenge

The few data providers that specialize in crypto assets suffer inconsistencies in quality of data.

It is challenging and resource-intensive to produce the reliable data fields necessary for index construction. Lukka provides institutional-quality data by tracking historical changes in the ecosystem such as changes in ticker symbols, verifying transactional data, and reconciling inconsistent and scattered information across exchanges.

Different trading platforms refer to the same asset by different identifiers.

Lukka reconciles assets to a single unique identifier across platforms using Lukka Reference Data.

Most available crypto pricing sources are plagued by poorly defined or minimally transparent pricing methodologies.

Lukka Prime uses a transparent and well-documented pricing methodology based on fair-value approaches, as outlined by the SEC's new fair-value rules.

It can be difficult to determine crypto asset prices due to ambiguous trading status, disreputable sales, and inconsistent exchange references.

Lukka Prime prices are based on executed trade data and verifiable at any given time. Prices are monitored and maintained by comprehensive data quality checks.

## Index Governance

Many pricing providers in the market currently fall short when it comes to regulatory compliance.

Lukka Prime has notable regulatory and compliance standards. One of its core competitive advantages is its alignment with new SEC rules on fair-value determinations. Additionally, Lukka's pricing methodology aligns U.S. GAAP and IASB guidelines by using a primary market, fair-value framework based on executed trade data. All prices used to generate a Lukka Prime price are stored for audit and transparency purposes.

Unlike traditional indexing, the crypto asset indexing space doesn't have a well-established framework of compliance principles.

S&P DJI builds on the IOSCO principles to maintain crypto asset indices until crypto benchmark regulation is established. As regulations emerge, S&P DJI has the capabilities and legal expertise to respond quickly to the changing landscape.

Inconsistent data and frequent extraordinary events in the market can make it difficult to maintain a rules-based crypto asset index.

Custom clients can leverage S&P DJI's expertise when it comes to governance and oversight by subscribing to our benchmark administration services. This service not only helps clients to design sound methodologies, but also gives them the benefit of our index committee's experience and expertise as they provide continuous oversight to ensure the index remains aligned with its objective over time.

About S&P Dow Jones Indices

S&P Dow Jones Indices is the largest global resource for essential index-based concepts, data and research, and home to iconic financial market indicators, such as the S&P 500® and the Dow Jones Industrial Average®. More assets are invested in products based on our indices than products based on indices from any other provider in the world. Since Charles Dow invented the first index in 1884, S&P DJI has been innovating and developing indices across the spectrum of asset classes helping to define the way investors measure and trade the markets.

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CONTACT US

U.S. +1-877-325-5415
EMEA +44-20-7176-8888
UAE +971(0)4-371-7131
Asia-Pacific +86-10-6569-2905
Japan +81 3-4550-8564
Australia +61 2-9255-9802
Latin America +52 55-5081-4515
South Africa +27-11214-1994

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