DIGITAL ASSET INDEX PRODUCTS - OFFERING EXPOSURE TO INSTITUTIONAL CLIENTS

Industry Overview and

Opportunities For Fund Managers

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MVIS®

CryptoCompare

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Index-linked, passive investment is set to dominate the 2020s. As an investment vehicle, passive investment strategies overtook active ones in terms of assets under management by the end of the last decade, reaching an all-time high of $4.2 trillion according to a recent Bloomberg report. There are two key drivers to this phenomenon. The first is that these financial products provide low-cost access to specific asset classes (e.g. S&P 500, gold and bitcoin trackers). The second is that it is an open question as to whether active strategies justify the higher management and performance fees on a risk-adjusted basis.

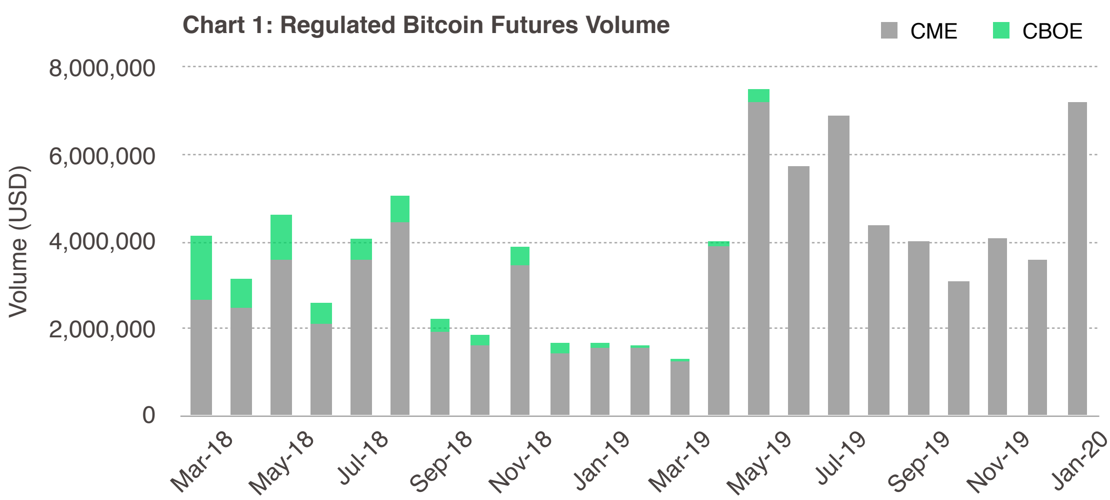
Digital assets as an investment vehicle are beginning to take on a broader scope. While in the past, native cryptoassets like bitcoin and ether were the only game in town, the future will see an increasing number of traditional assets represented in this segment. Fiat currencies will be represented in digital form, while bonds, equities and real estate assets are beginning to be tokenised as well.

These dynamics mean that digital asset index products are set to grow in popularity as passive investing too.

Bitcoin Futures & ETFs

Both futures contracts and Exchange Traded Products (ETPs) that track the price of digital assets are attractive investment products because investors can gain exposure to the underlying assets without the barriers to entry associated with digital assets, such as compliance, the complexity of custodying private keys and trading the assets themselves.

CME and CBOE issued their Bitcoin futures contracts in late 2017 just before the bitcoin price reached an all-time high at $19,000. Since then, a monthly total



Source: CME, CBOE

nominal of $5m on average has been trading since 2019, with open interest currently sitting at $250m. While the notionals seem small, growth is beginning to pick up in a significant way, as shown in Chart 1.

Digital asset CME and CBOE futures contracts are cash-settled, meaning that trading them amounts to a leveraged bet between two trading entities, marked against an underlying reference price. In contrast, ETPs have an investment vehicle associated with them that is managed by a portfolio manager responsible for tracking the underlying asset's performance, usually by holding the underlying asset directly. Such products may be cheaper and operationally easier to use than futures products, as investors don't need to deal with daily margin accounts or having to roll their positions into the next contract upon expiry.

Over the last three years, several fully fledged Bitcoin Exchange Traded Fund proposals have been submitted to the Securities Exchange Commission (SEC) without achieving regulated status (see Table 1). The regulators' primary objection is that a native digital assets do not yet have a sufficiently transparent and regulated infrastructure particularly in the prevention of market manipulation and other illicit activities that occur on some exchanges. Proving otherwise is challenging, as digital assets are decentralised with much of the trading volume flowing through unregulated secondary markets. That being said, exchanges with institutional-grade governance and transparency have evolved in recent years.

Some of the proposed ETFs plan to hold regulated futures contracts and so adhere to market surveillance requirements but such futures contracts rely on their underlying reference rate methodology. However, this methodology is a calculation that uses price data from a host of different venues - the components of which are still deemed insufficiently robust in the eyes of the regulators.

Table 1: Bitcoin ETF proposals submitted to the SEC. Source: SEC

Company	Filing Date	Status	Underlying	Exchange Listing
Winklevoss	2013 Jul	Rejected	Physical BTC	CME
VanEck	2017 Dec	Withdrawn	Futures BTC	NASDAQ
ProShares	2017 Dec	Withdrawn	BTC Futures	NYSE Arca
First Trust	2017 Dec	Withdrawn	BTC Futures	CBOE
Direxion	2017 Dec	Withdrawn	BTC Futures	NYSE Arca
REX	2017 Dec	Withdrawn	BTC Futures	CBOE
GraniteShares	2017 Dec	Withdrawn	BTC Futures	CBOE
VanEck SolidX	2018 Jun	Withdrawn	BTC OTC market	CBOE
Bitwise	2018 Mar	Rejected	Physical BTC	NYSE Arca
Kryptoin	2019 Oct	Rejected	Physical BTC	NYSE Arca
Wilshire Phoenix	2019 Jan	Rejected	Physical BTC, US Treasuries	NYSE Arca

Opportunity

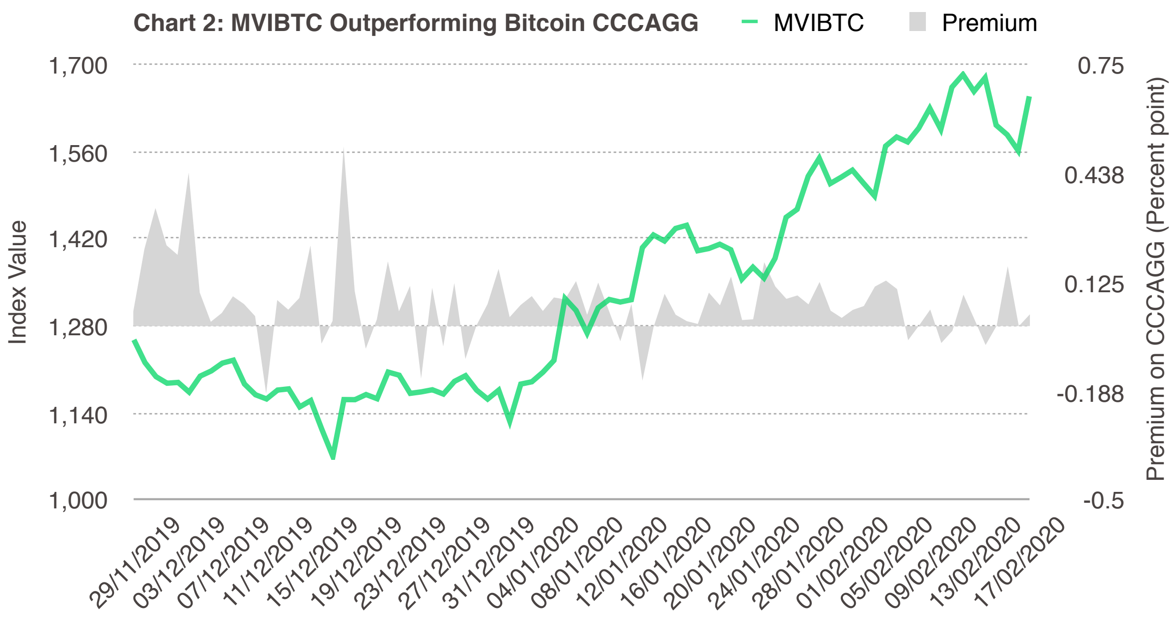
One should look into how regulated and unregulated bitcoin markets could co-exist, and benchmark[1] trading venues to create a robust selection methodology for reference price calculation.

Case Study

MVIS & CryptoCompare have been working with 3iQ, a Canadian fund manager that is planning to launch a regulated bitcoin fund on the Toronto Stock Exchange in the Spring of 2020.

For creating a robust index calculation, MVIS & CryptoCompare worked with 3iQ to carefully select exchange constituents, develop an index calculation methodology[2], back test and stress test the index. Chart 2 shows the resulting index that outperforms the CryptoCompare Aggregated Bitcoin Index[3].

"The teams at MVIS and CryptoCompare are great partners for creating a digital asset index. They have the knowledge, data and responsiveness to build an index reflecting the market we deal in for our bitcoin fund. We are proud to be a part of the creation of the MVIS CryptoCompare Institutional Bitcoin Index." Shaun Cumby, Chief Investment Officer, 3iQ Corp. [February 25, 2020]



Source: CryptoCompare

[1] See https://www.cryptocompare.com/media/36569367/cryptocompare_exchange_benchmark_2019_11pdf.pdf?data

[2] The MVIS CryptoCompare Institutional Bitcoin Index measures the performance of a digital assets portfolio which invests in Bitcoin, prices from selected exchanges. See https://www.mvis-indices.com/indices/digital-assets/mvis-cryptocompare-institutional-bitcoin

[3] CCCAGG refers to the real-time index calculation methodology, the purpose of which is to show the best price estimation for crypto traders and investors to value their portfolio at any time. It aggregates transaction data of over 100+ exchanges, using 24 hour volume weighted average. See https://www.cryptocompare.com/media/12318004/cccagg.pdf

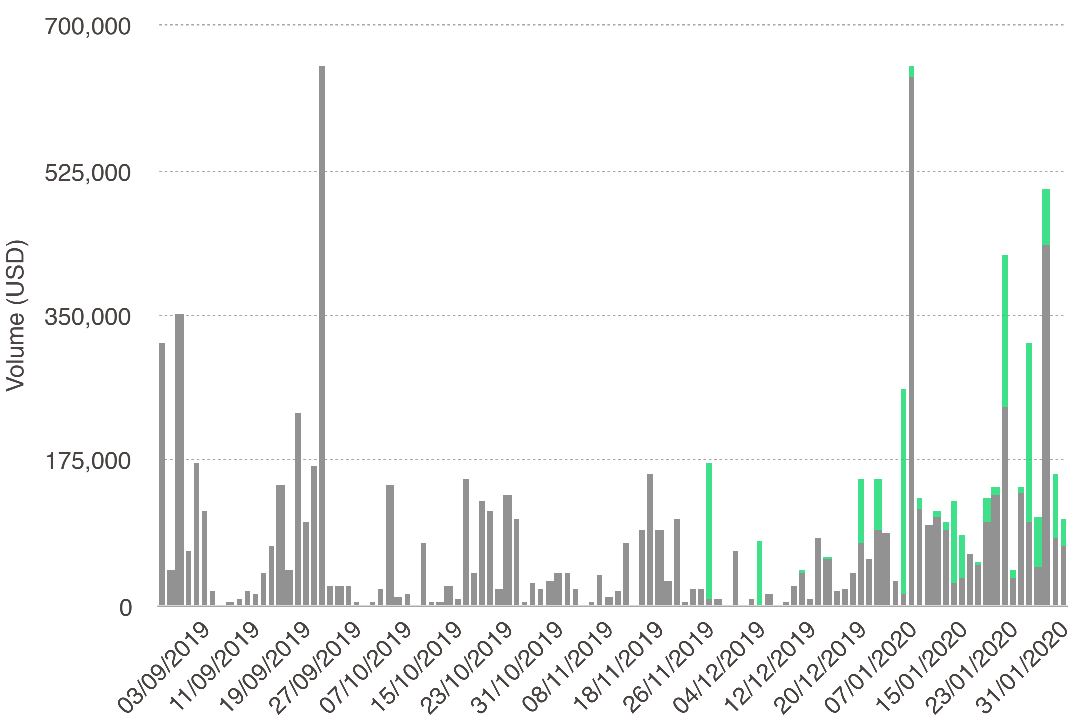
SIX Swiss Exchange - The Hotspot for Digital Asset ETPs

While the SEC has been rejecting ETF filings, the SIX Swiss Exchange, supported by clear regulation in this regard, has meanwhile become a leader in the domain.

According to the SIX Exchange's definition, "ETPs are secured, bearer debt securities that do not earn interest (bonds). These products are not subject to the Collective Investment Schemes Act (CISA) and as such, are not supervised by FINMA". This means that ETPs are not equivalent to ETFs in the sense that they are not funds and enable investors to invest in tracker products offered by institutional asset managers.

Amun AG, one such institution, has launched multiple products in 2019 including single asset and basket trackers (example: HODL). New York based asset manager and ETF sponsor, Wisdom Tree, also launched their Bitcoin ETP on SIX (WBTC). The two products are beginning to show good traction as shown on Chart 3.

Chart 3: SIX Exchange Digital Asset ETP Volumes Growing



Source: SIX

Opportunity

The SIX Swiss Exchange has been open to innovative products like digital assets, and it also has plans to open its own blockchain based exchange, the SIX Digital Exchange.

Case Study

MVIS & CryptoCompare helps funds materialise the index strategies the client comes up with, such as taxonomy[4] based portfolios or rule based portfolios. The client is also advised on NAV, iNAV and POC calculations.

Digital Asset Products Have Unique Challenges

Some of the distinct characteristics of digital assets make it harder to launch financial products. De facto corporate events such as cryptocurrency hard forks, the need for robust custody and key management services, and a volatile global, 24/7 market are all problems that are increasingly being solved.

Corporate Events Like Hard Forks Require a Robust Methodology

A fork is defined as an event that splits the existing blockchain protocol into two or more versions using a different set of rules and features. Each version shares the same history. For investors, this might result in a split of their shares, and can be treated as a corporate action. However, claiming a forked asset can be risky and result in loss of funds.

CryptoCompare's Hard Fork Policy[5] report serves as a useful tool for better understanding what hard forks are, why they occur, and what the potential risks are for the investor. It also provides a general outline of how forked coins are claimed, as well as an overview of fork policies, requirements and support among various cryptocurrency wallets and exchanges.

Custody and Key Management Services

For funds holding digital assets, the security and handling of their funds is of paramount importance. Transactions on the blockchain require signing with a private key, which effectively acts as a title on the asset. Keeping keys safe therefore is a critical security risk. Furthermore, each digital asset might be based on a unique blockchain that requires additional expertise.

Custodial services such as BitGo and Coinbase Custody handle the full management of funds, with more and more regulated providers appearing on the market targeting institutional clients.

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4 See https://www.cryptocompare.com/media/34478555/cryptocompare-cryptoasset-taxonomy-report-2018.pdf

5 See https://www.cryptocompare.com/media/35651237/cryptocompare_fork_policy_2019_07.pdf

Global exchange liquidity

Digital assets that are based on public blockchains are described as decentralized because and it is not possible to limit their exchange and transaction to specific venues. Bitcoin, for example, is traded on 100+ exchanges across the globe, as well as on peer-to-peer venues. Measuring liquidity is therefore another challenge.

CryptoCompare’s Exchange Benchmark is used by investors and portfolio managers to assess different trading venues to select the exchange that most suits their risk profile.

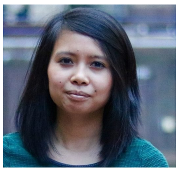
The Benchmark seeks to bring clarity to the cryptoasset exchange sector by providing a framework for assessing risk, bringing transparency and accountability to a complex and rapidly evolving market. This is approached in several dimensions using a comprehensive data set, covering 160 exchanges across 8 categories of evaluation:

- Legal/Regulation
- Data Provision
- Security
- Team/Exchange
- Investment
- Trade Monitoring
- Market Quality
- Negative Events Penalty

Conclusion

As the demand for digital asset index tracking funds heightens, fund managers should explore the opportunities this new asset class brings. Although ETF proposals haven't been successful yet, ETPs on SIX Swiss Exchange have been thriving and many more products will be launched this year. Such products can only be built on robust methodologies and services, an arena in which CryptoCompare and MVIS will continue to lead the way.

Contact



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