Understanding The Crypto Derivative Market: New Assets, Old Rails

In September 2015, bitcoin became the world's first digitally native commodity when it was officially designated as a tradeable commodity by the Commodity Futures Trading Commission (CFTC). In the U.S., there's still not an easy way to invest in bitcoin through an exchange-traded fund product, but we have futures-based products that reward the trader, not the investor. Let's look back at this radical shift in designation to see how the CFTC paved the way for the financialization of crypto derivatives like bitcoin futures.

What Are Crypto Derivatives?

In the same way that traditional derivative products derive value from an underlying asset, crypto derivatives derive their value from underlying crypto assets like bitcoin. However, unlike traditional commodities like gold and oil, bitcoin is digitally native. This means that it does not need to first exist as a physical commodity like bricks of gold or barrels of oil in order to be digitized and traded online.

Digital nativity makes pricing the exchange of crypto assets unique because price discovery is relatively new and inherently decentralized. Without a standardized consensus on crypto asset valuation, prices vary by demand, liquidity and jurisdiction. So, speculating on future valuations of bitcoin requires spot price consensus.

Finding Consensus

Even leading exchanges like Coinbase and Binance face sizable variations in crypto asset pricing. This is because each exchange offers different services, pairings, rates and fee structures. For example, Coinbase offers fiat-to-crypto services and pairings like USD (dollar) to BTC (bitcoin), and ETC (ethereum classic) to GBP (pound sterling) at proprietary rates. Depending on demand volume and liquidity, Coinbase can adjust rates and fees to stay profitable.

Binance, on the other hand, primarily offers crypto-to-crypto pairings. This means that Binance does not need to participate in traditional financial realities like FX rates or the interbank exchange rate to settle transactions in fiat. As a result, Binance can offer users digitally native passthrough rates and minimal fees.

Because prices vary so much from exchange to exchange, so do the prices at which specialized exchanges like BitMEX and OKEx trade crypto derivatives.

Picks, Shovels And 100-Pound Gorillas

BitMEX was the first exchange to offer crypto derivatives trading, doing it with a splash as it turned some users into BitMEX millionaires practically overnight. But not all that glitters is (digital) gold.

BitMEX is a Hong Kong-based crypto exchange that came on the scene in 2014 when crypto asset trading volume was low. The startup quickly ramped up operations to offer users 5x - 100x leveraged perpetual bitcoin/USD contracts. For BitMEX, bitcoin futures are denominated in U.S. dollars and settled in bitcoin using proprietary price indices.

From a scrappy beginning, BitMEX grew extraordinarily quickly. However, moving fast and breaking things isn't always good. Due to its lax AML/KYC (anti-money laundering/know your customer) policies, it is estimated that up to 1/7th of BitMEX's 2018 volume was illegally traded by Americans, where BitMEX is not legally registered with the SEC or CFTC. That's approximately $138 billion. This conflict has led to ongoing legal battles and investigations by the CFTC of illegal trading activities.

BitMEX sold picks and shovels to risk-taking retail investors who were willing to roll up their sleeves (and sometimes ethics) to get rich quick. While legal proceedings continue, so does the exploration of crypto derivatives with good legal standing. Enter legacy financial institutions, the 100-pound gorillas of crypto derivatives.

Paging Uncle Sam

As we know, a big part of what regulators—such as the SEC and CFTC—do is work with firms to make sure that "mom and pop" don't lose their shirts buying new, enticing financial products. One way that regulators do this is by collecting and analyzing actionable data to determine what works and what doesn't work within existing regulatory frameworks.

Shortly after the CTFC gave bitcoin its commodity status in 2015, legacy institutions like CBOE, CME Group and ICE recognized that there needed to be a standardized price index for crypto assets in order to enter the space with regulatory approval. The more data the better.

After about a year of prep, CME Group launched the CME CF Crypto Currencies price indices in November 2016. These indices consist of the Bitcoin

Reference Rate (BRR) and the Bitcoin Real Time Index (BRTI). According to CME Group, "The BRR is a daily reference rate of the dollar price of one bitcoin as of 4:00 p.m. London time. It is representative of the bitcoin trading activity on constituent exchanges. The BRTI is a real time index of the U.S. Dollar price of one bitcoin, published once per second (24 hours per day, 7 days per week, 365 days per year)."

With pricing data at hand, CME Group was able to convince Uncle Sam that the market was mature, liquid and priced consistently enough to launch regulated crypto derivatives products at institutional scale.

Rubbing Up Against the Powers That Be

In December 2017, the CFTC approved the introduction of cash-settled bitcoin futures, which are contracts that are denominated in BTC and settled in USD. The inverse of BitMEX's USD/BTC pairing.

At a time when retail investors were driving bitcoin and altcoin valuations to all-time highs, cash-settled bitcoin futures pushed the frenzy to its peak, leading to a popping of the bitcoin bubble from above $20,000. Former CFTC Chairman Christopher Giancarlo, indicated that the futures market led to this crash when he said, "One of the untold stories of the past few years is that the CFTC, the Treasury, the SEC and the [National Economic Council] director at the time, Gary Cohn, believed that the launch of bitcoin futures would have the impact of popping the bitcoin bubble. And it worked."

If true, did the U.S. government crash the bitcoin party on purpose? Will mom and pop who bought in at the top and lost their shirts ever return to the market? History may provide the answer but today, the bitcoin futures markets continue and have grown.

Bitcoin Futures Grow Up

CME Group's pricing and regulatory legwork is paying off. In December 2019, it announced that bitcoin futures traded a notional value of above $92 billion in two years.

In 2020, bitcoin futures activity shot up. The notional value of bitcoin futures traded in the first two weeks of January 2020 topped $25 billion, up more than 100% since December 2019.

When bitcoin dropped 60% in mid-March bitcoin futures interest dropped alongside the spot valuation, but institutions like ICE's Bakkt continued investing for the long term. So how does the average investor purchase bitcoin futures?

> "There's still not an easy way to invest in bitcoin through an ETF, but we have futures-based products that reward the trader

Old Rails Provide A Smooth Ride

Today, retail brokerage TD Ameritrade offers investors the ability to trade bitcoin futures using its thinkorswim platform and CME Group's contract specifications. The process is pretty straightforward.

Approved clients can trade bitcoin future contracts that speculate on bitcoin's price. Each contract represents 5 BTC priced using CME Group's Bitcoin Reference Rate (BRR). Contracts expire monthly and settle at the end of each month. Upon expiry, TD Ameritrade will credit or debit futures accounts with USDs based on the BRR margin.

For traditional investors, brokerages like TD Ameritrade provide a familiar onramp for trading bitcoin futures.

The Future Of Bitcoin Futures

ICE's Bakkt is another exciting platform for bitcoin futures. In September 2019, Bakkt launched its regulated exchange and custodial warehouse for physically settled bitcoin futures. Shortly after, Bakkt launched options on bitcoin futures and cash-settled bitcoin futures, competing with CME Group. While Bakkt currently serves institutional clients, it is using that data and associated partnerships to build powerful consumer applications.

Having recently completed a $300 million Series B and acquired Bridge2 Solutions, Bakkt is expanding its crypto asset operations. In the second half of 2020, Bakkt will launch an integrated retail app for consumers to trade crypto assets, make digital payments and use loyalty reward points across "more than 4,500 loyalty and incentive programs, including two of the largest U.S. airlines," according to CEO Mike Blandina. This enables a total addressable market (TAM) of nearly $1 trillion.

Crypto Spring Around The Corner?

Over the last two-plus years the interest in crypto asset investing has shifted from mom and pop retail investors to some of the largest financial institutions in the world. As we look forward to the halvening in May 2020 and beyond, we can see a clearer picture of who is investing and how they're doing it. What started as a revolution has transformed into something new, yet familiar at the same time.

Traditional derivatives markets can often represent 10x - 16x the value of their underlying spot markets. Today the market cap for bitcoin is hovering around $125 billion USD, less than half of its 2017 peak. Some predict that, according to the stock-to-flow model, a single bitcoin will be worth $100,000 by the end of 2021. That's more than 10x what it's worth today! Imagine what a spot market cap of approximately $1.13 trillion will mean for institutionally traded crypto derivatives.

Special thanks to Alex Broudy for his insights and contributions to this article. Broudy is a Blockchain Certified Business Analyst and Certified Scrum Master with a background in market research and analysis, omnichannel commerce and emerging technology.

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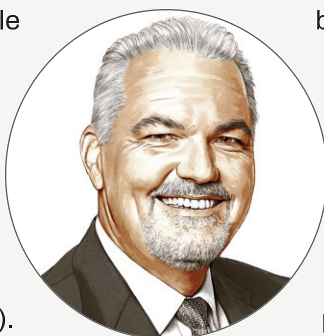

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