2019 2ND ISSUE

CRYPTOCURRENCY FUTURES EXCHANGE INDUSTRY RESEARCH REPORT

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ANALYSTS

Song Bingyao, Wang Jinhua
amber@tokeninsight.com

TokenInsight also provides in-depth analysis on projects, industry research report and consultancy service, further information is available by following contacts:

TokenInsight.com
bd@tokeninsight.com

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01. EXECUTIVE SUMMARY

① The trading volume of token futures increased significantly from February to July 2019. The trading volume of crypto futures stood at US$ 1,605.7 billion in July, accounting for 26.15% of the total market trading volume (the spot trading volume totaled US$ 4,533.6 billion; the futures market trading volume totaled US$ 6,139.3 billion), and the daily average futures trading volume was US$ 8.87 billion.

② Futures trading surged since May, and the market-wide futures trading volume increased from US$ 104.5 billion in February to US$ 412.7 billion in July, with a monthly average growth rate of 39% in half a year. The total trading volume of crypto futures in the three months of May to July was 3 times higher than the three months between February to April.

③ In regards to the trading volume of derivative exchanges, BitMEX, OKEx and Huobi DM have all managed to maintain their respective positions as the top three platforms within the crypto derivatives market for the current period of this report. Their futures trading volume of this period is US$ 649.7 billion, US$ 532.1 billion and US$ 280.1 billion respectively, with an average daily volume of US$ 3.6 billion and US$ 2.9 billion and US$ 1.5 billion.

④ The significant rise in the trading volume of crypto futures was attributed to lifting market sentiment caused by the rapid surge in the price of Bitcoin since April, 2019. As a result, existing derivative exchanges have successively offered a wide range of trading services, ranging from underlying trading pairs to more innovative types of futures products. Investors are increasingly recognising the value of crypto derivative products and has led to an emerging new category within the non-mainstream contract underlying.

⑤ Before September 2018, the cryptocurrency futures market was monopolised by BitMEX and OKEx. After Huobi Global launched the Huobi DM contract trading platform in early December 2018, it pursued all the way. From February to July, the trading volume continued to rise, and its market share gradually expanded. The trading volume of Huobi DM accounted for 43% of BitMEX and 17% of the total market. Although the growth rate is relatively fast, Huobi DM still has a long way to reach BitMEX and OKEx in terms of trading volume.

⑥ The Chicago Mercantile Exchange (CME) became the sole offline marketplace for the trading Bitcoin futures contracts in the US after the Chicago Board Options Exchange (CBOE) announced the closure of its offline trading platform in March, 2019. Data shows that approximately 97% of cryptocurrency futures are being traded on token exchange platforms in the current period while 3% of cryptocurrency futures are being traded on traditional exchange platforms.

⑦ Since 2019, cryptocurrency derivatives have been consistently upgraded with newly added features such as option contracts, index futures and leverage token. The option contract has become a new bellwether, and mainstream platforms are beginning to research and develop option contract products in succession. At present, the market is dominated by inverse contracts, perpetual contracts are currently more popular than deliverable contracts, and 100x leverage design has become the norm.

⑧ Derivatives underlying have been continuously enriched, not only a larger number of non-mainstream underlying appeared, but also included more stablecoins. The Initial Exchange Offerings (IEO) craze that swept the overall cryptocurrency industry earlier this year has led to an increase in popularity and demand for platform tokens among users.

⑨ Most of the design and innovation of futures products are based on the anti-over-loss design mechanism, which aims to optimize user trading experience and reduce the operational risks for a platform. Having a reasonable price marking system has been an integral part of the anti-over-loss design mechanism, which is tied to the pricing index. If the number of price index components is small, it is more easily affected by dramatic price fluctuations or safety accidents caused by problems with exchange API's in which the index components are dependent upon.

02. EXCHANGE PROFILE

2.1 Milestones

Figure 2-1 Milestones

Source: Public information, TokenInsight

February 1, 2019	BTCC initiated perpetual contracts for physical delivery.
March 21, 2019	CBOE has stopped handling Bitcoin futures contracts in US dollars.
April 4, 2019	Deribit's first Ethereum European cash options platform went live.
April 15, 2019	Token derivatives exchange, FTX went live, becoming the first exchange to launch a leveraged tokens trading service.
May 13, 2019	OKEx deliverable contracts launched gradient margins while Bitcoin contracts supported up to 100x in leverage.
June 19, 2019	CBOE halted its bitcoin futures trading service.
July 9, 2019	FTX launched the world's first token index contract.
August 14, 2019	OKEx proposed the Initiative on Forced Liquidation Industry Standards.
August 26, 2019	CoinBene launched contracts mining.
September 3, 2019	Binance bought token derivatives exchanges platform, JEX, and established cryptocurrency derivatives market.
September 23, 2019	Bakkt made an announcement to launch Bitcoin futures with physical delivery

2.2 Industry Landscape

The following figure shows representatives of some existing market participants of the futures exchange industry.

Figure 2-2 Industry Landscape of Futures Exchanges

Source: TokenInsight; Data cut-off time: 07.31.2019

Cryptocurrency options are slightly different from the definitions of options in the traditional financial sector. Here, for ease of understanding, they are collectively referred to as options. On this topic, interested readers are welcomed to get in touch with TokenInsight (via mailbox or scan QR code on the home page).

03. TRADING DYNAMICS

" *The trading volume of digital cryptocurrency futures significantly increased from February to July 2019, with a monthly average growth rate of roughly 39%, accounting for 26.15% of the total market trading volume, with an average daily futures trading volume of US$ 8.87 billion. The Matthew effect of the futures exchange is quite obvious. The trading volume of the head three futures exchanges BitMEX, OKEx and Huobi DM accounted for 91% of the total market, and the average daily trading volume reached US$ 3.6 billion, US$ 2.9 billion and US$ 1.5 billion.*

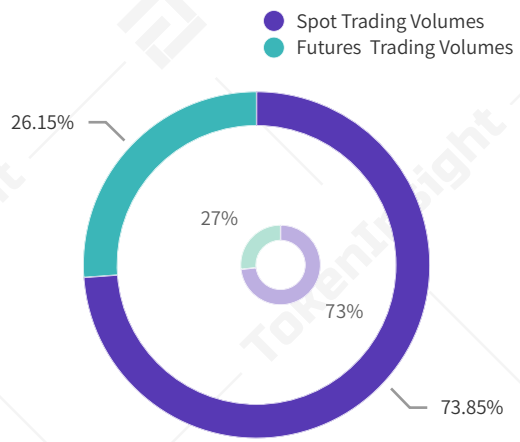
3.1 Futures and Spot Trading Volumes

In this report, TokenInsight will expand on statistics about the futures trading volumes of nine futures exchanges on the current market, namely, BFX.NU, BitMEX, Bybit, CryptoFacilities, FTX, Gate.io, Huobi DM, MXC and OKEx. The data interception time for the current period is from February 1 to July 31, 2019, while the previous period covers August 1, 2018 to January 31, 2019. Unless otherwise specified, the following data interception time is the same as mentioned above.

TokenInsight's statistics of spot trading volumes taken from the top 40 spot exchanges and the futures trading volumes of nine futures exchanges show that the spot trading volume for the current period totals to US$ 45,336 billion, while the trading volume of futures totals to US$ 16,057 billion. The trading volume of futures accounts for 26.15% of the overall market trading volume. The average daily spot trading volume for the current period is US$ 249.86 billion, while the average daily futures trading volume is US$ 88.71 billion. Although the volume of futures trading has increased rapidly in the past half year, the spot growth rate is more rapid (refer to the 2019 Q2 Cryptocurrency Exchange Industry Research Report, the proportion of futures trading volume is basically the same as the previous period.)

Figure 3-1 Proportions of Futures and Spot Trading Volumes (Big circle is new trading volume, Small circle is last trading volume)

Source: TokenInsight



A significant increase in the trading volume for futures was attributed to the lifting market sentiment arising from the rapid surge in Bitcoin price since April. As a result, existing futures exchanges have successively offered a wide range of derivative services, ranging from underlying trading pairs to more innovative types of futures contracts. The demand for Altcoin contract derivatives are growing as investors are beginning to acknowledge the value of futures contracts, thereby bringing in fresh funding to the existing market. Notably, the overall market trading volume of futures contracts increased from US$ 1,045 billion to US$ 4,127 billion between February and July, with a monthly average growth rate of up to 39% within half a year. In hindsight, the total futures trading volume of the three months through July was 3 times higher than the three months through April.

Figure 3-2 Changes in Full Market Futures Trading Volumes in 2019 (Unit: US$ 100 million)

Source: TokenInsight

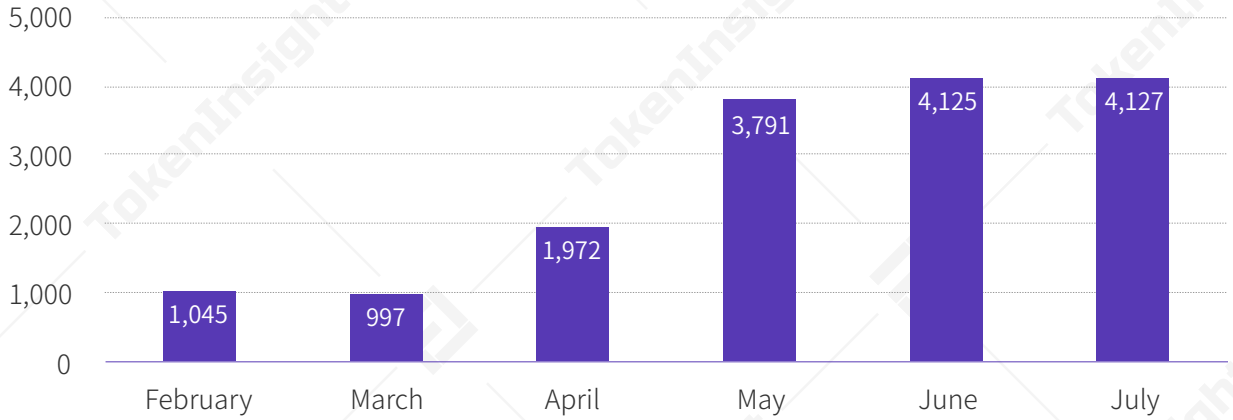
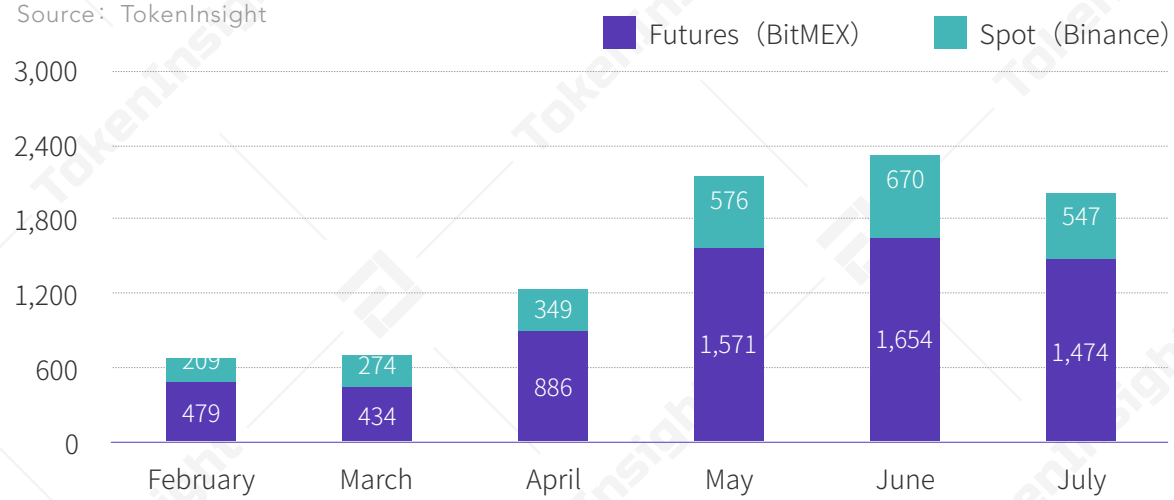


Figure 3-3 Binance (Spot) VS BitMEX (Futures) Trading Volumes (Unit: US$ 100 million)

Source: TokenInsight



Changes in Binance's spot trading and BitMEX's futures trading are shown in Figure 3-3. During this period, there has been a sharp increase in the trading volumes of both spot and future positions. The trading volume of BitMEX futures grew almost double than compared with Binance's spot trading volume. BitMEX futures trading volume grew by 2.72 times (peak) in May and by roughly 2.69 times in July. Overall, BitMEX trading volume saw an explosive growth in May, with 77% higher growth than its previous month in April, whereas Binance's growth rate increased by roughly 65% from April to May.

3.2 Analysis on Trading Volumes

There is a close relationship between the changes in future trading volumes and the overall market condition of digital currencies. When there are significant fluctuations in the market, the trading volume of futures contracts often doubles. The graph below from early February to early April shows that the fluctuations in contract trading volumes have been flat, free from any drastic fluctuation in the market, and the contract trading volume when in a bear market remained relatively low. The trading volume of contracts witnessed growth for the first time in the current period on April 2 right after Bitcoin price rose by 25%. The second surge came on May 13 when the digital currency futures market trading volume broke its own former growth record. Additionally, CME Bitcoin futures contracts also grew to a record of 337,000 contracts, around 50% higher than the record set on April 4; the third surge was on June 27. When Bitcoin reached its peak price earlier this year, the cryptocurrency market trading volume of futures contracts also reached its climax (BTC trading volume of perpetual contracts accounts for 37% of the full market trading volume).

In terms of trading volume, BitMEX, OKEx and Huobi DM remain as the top three exchanges in the token derivatives trading market. From the start, established exchanges like BitMEX and OKEx, have always lead the market in this category. Although Bitcoin price reached its climax from February to late June, Huobi DM has continuously expanded its market share over this time. OKEx's market share during this time continues to shrink, which posed a great challenge for the contract services provided by the OKEx platform. So far, they have both conducted research on such derivatives such as options. For stock users, providing high-quality trading experiences and keeping up with new trading features are key areas that all exchanges should monitor and improve on.

Figure 3-4 Daily Trading Volumes of Futures Exchanges (Unit: US$ 100 million)

Source: TokenInsight

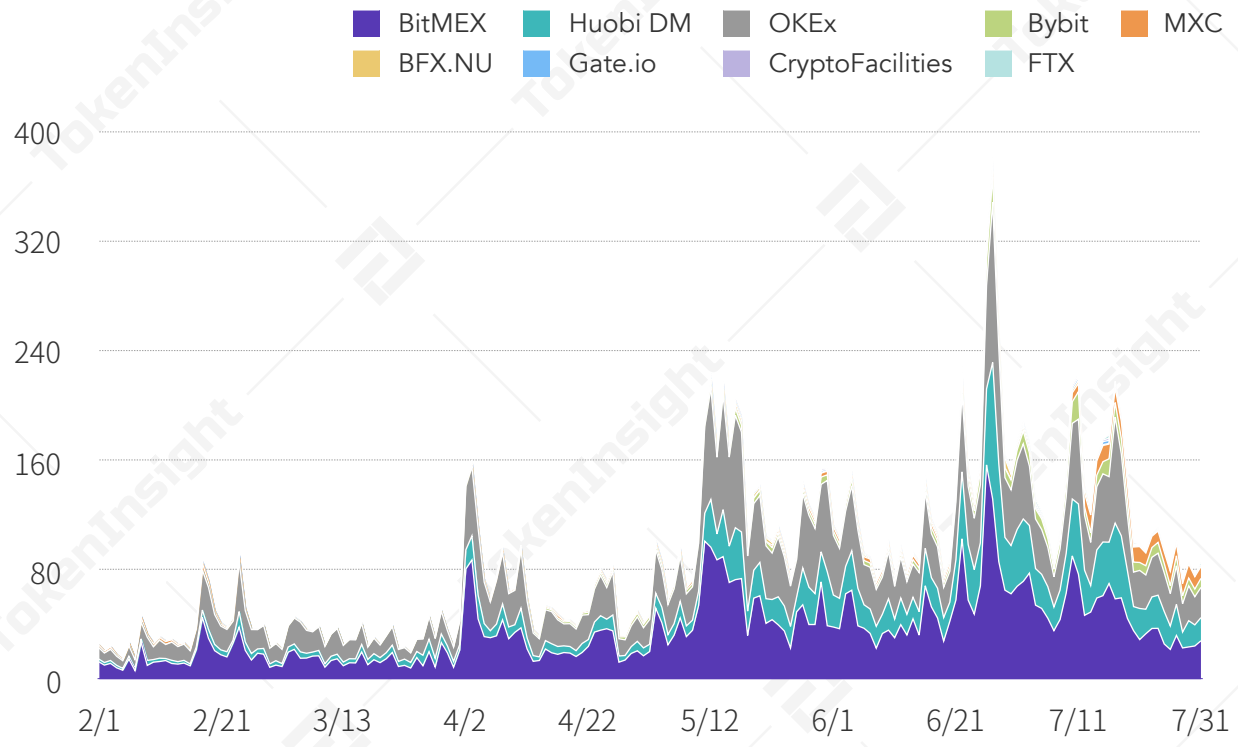


Figure 3-5 Total Futures Trading Volumes of Futures Exchanges for the Current Period (6 Months) in 2019 (Unit: US$ 100 million)

Source: TokenInsight

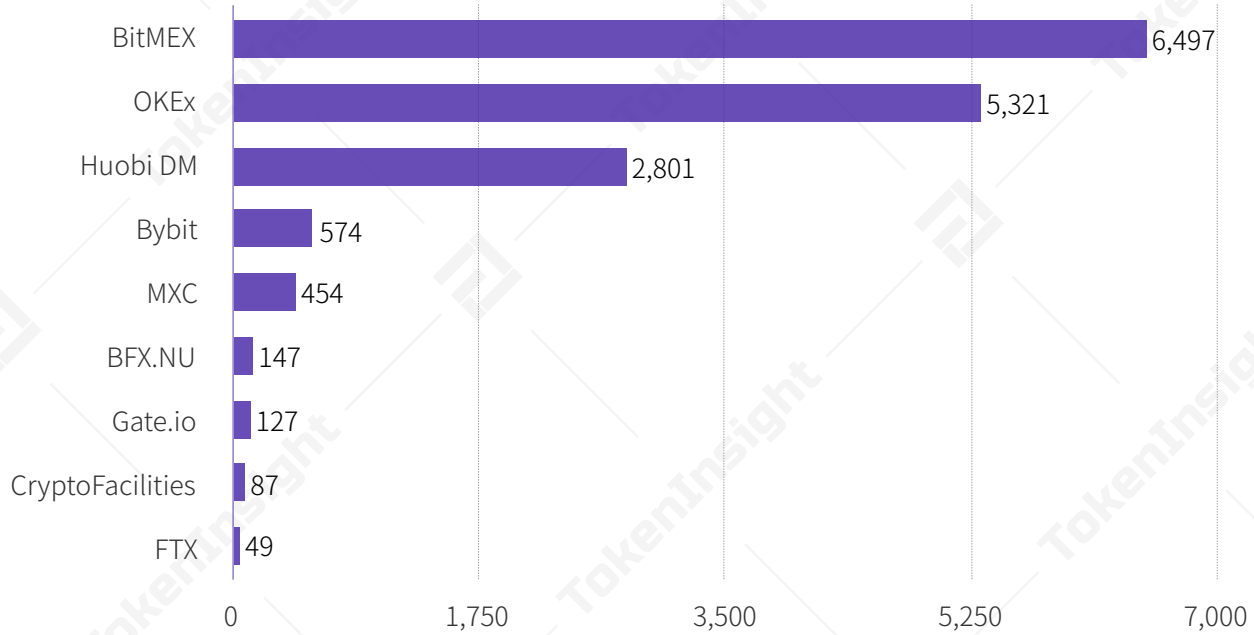
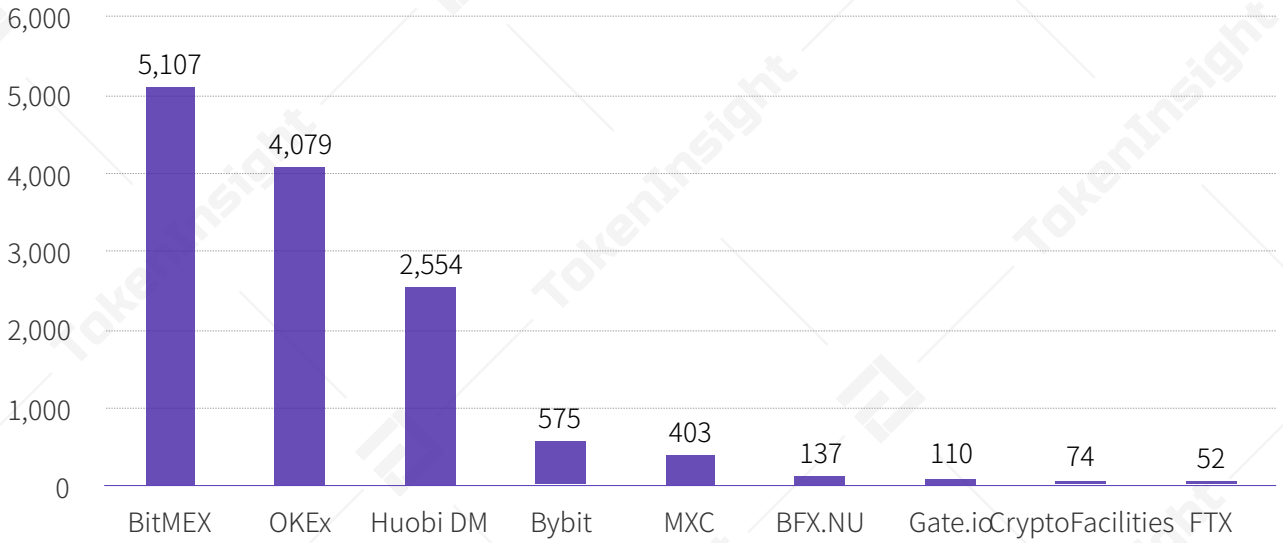


Figure 3-6 Average Daily Futures Trading Volumes of Futures Exchanges in May, June and July 2019 (Unit: US$ million)

Source: TokenInsight



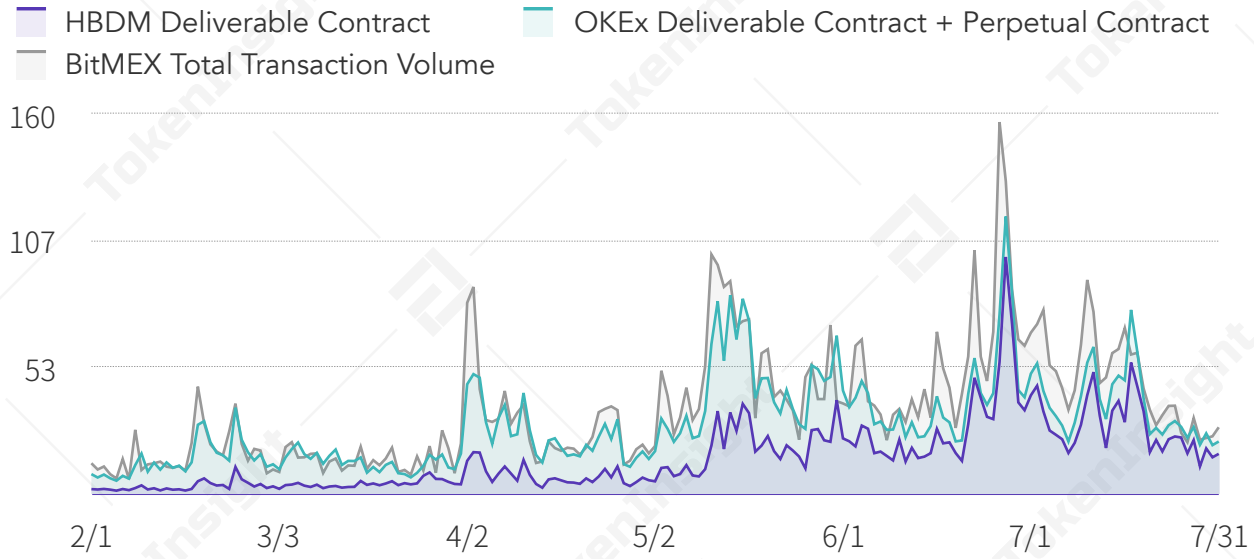
Before September 2018, the digital cryptocurrency futures trading market was monopolized by OKEx and BitMEX, where OKEx contract volume has generally been slightly advantageous, accounted for over 50% of the total market. But OKEx's trading volume showed a downward trend in the current period. In late November 2018, Huobi DM launched its deliverable contract to capture some of the market share, and in the latter half (May, June and July) of the current period, Huobi DM's trading volume of deliverable contracts surpassed that of OKEx. The head three futures exchanges BitMEX, OKEx and Huobi DM accounted for 91% of the total market, along with other futures exchanges have occupied only 9% of overall market share. Futures exchanges are characterized by the Matthew Effect, but it is yet to be seen whether any competitor will break through the encirclement.

3.3 Situation Of Tripartite Confrontation

Since the launching of contract trading in 2014, OKEx and BitMEX have been the two biggest traders in the market. BitMEX's current trading volume accounted for 40% of the total market volume. OKEx and BitMEX combined trading volume accounted for 74% of the total market. Huobi Global pursued the Huobi DM contract trading platform in early December 2018, and the transaction volume continued to climb from February to July. Huobi DM's total transaction volume accounted for 43% of BitMEX. Although the growth rate is relatively fast, Huobi DM still has a long way to reach BitMEX and OKEx in terms of trading volume. Whether the future industry pattern is a culmination of the three companies, or whether there are other sudden changes still needs to be observed.

Figure 3-7 Contrast of Huobi DM Deliverable contract and OKEx Contract Volumes (Unit: US$ 100 million)

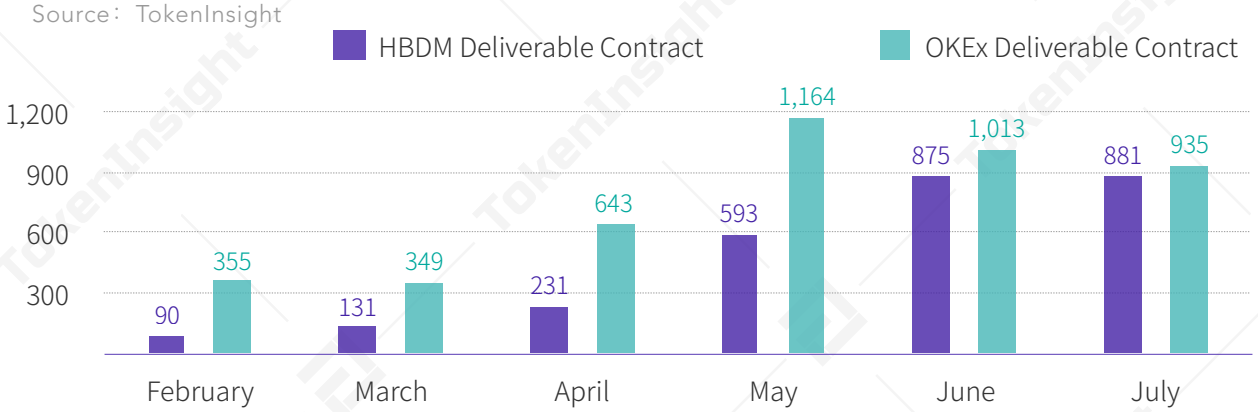
Source: TokenInsight



TokenInsight has gathered statistics of all Huobi DM's contract trading, including BTC, LTC, ETH, EOS, BCH, XRP and TRX deliverable contracts for the current quarter; all of OKEx's contract trading : BTC, LTC, ETH, ETC, XRP, EOS, BCH, BSV, TRX perpetual contracts and deliverable contracts for the current quarter; and BitMEX's BTC and ETH perpetual contracts and all deliverable contracts.

Figure 3-8 Huobi DM and OKEx Deliverable contract Volumes (Unit: US$ 100 million)

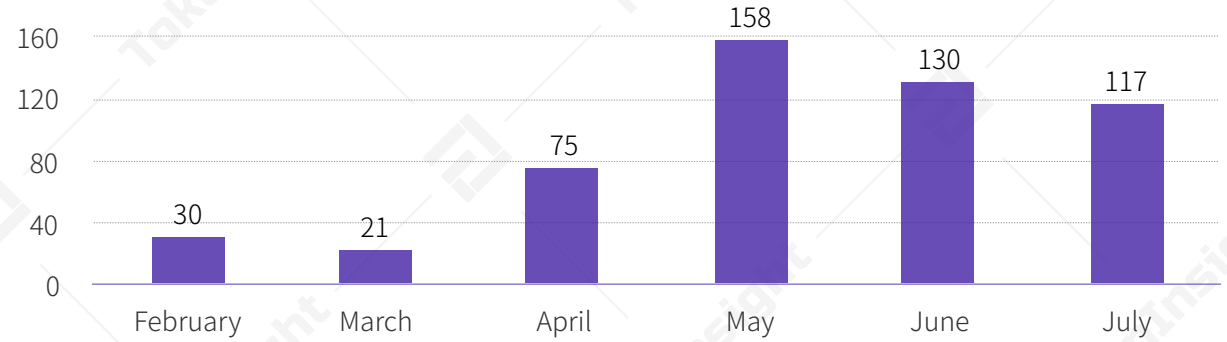
Source: TokenInsight



3.4 Digital Asset Futures Exchanges and Traditional Futures Exchanges

Figure 3-9 Token Futures Contract Volumes in CME (Unit: US$ 100 million)

Source: TokenInsight

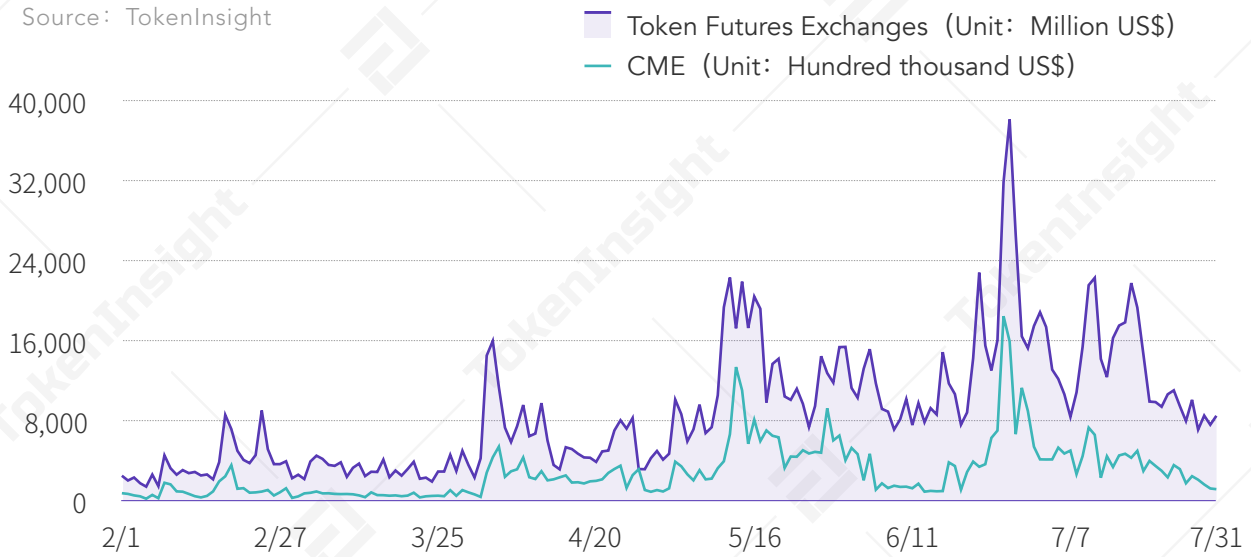


After the Chicago Board Options Exchange (CBOE) announced the removal of its Bitcoin futures offerings in March 2019, the Chicago Mercantile Exchange (CME) became the only traditional futures exchange to trade bitcoin futures contracts. Approximately 97% of token futures trading in the current period occurred on token exchanges, while trading which occurred on traditional exchanges accounted for less than 3% of the overall market. Due to the fierce competition from token exchanges, traditional futures exchanges are suffering from high margin ratios, low leverage ratios and high single contract prices.

Similar to token futures exchanges, trading volumes vary alongside current traditional market conditions and fluctuations. On May 13, CME Bitcoin futures contracts also hit a record high of 337,000 contracts, which was 50% higher than the previous record set on April 4. By June 27, Bitcoin prices reached its climax, and the CME Bitcoin trading volume of futures contracts broke its former high again. On a month to month basis, May boasted the highest cumulative trading volume, which further is a reflection that the price has attracted funds from traditional institutional investors.

Figure 3-10 Comparison of Token Futures Trading Volumes in Token Exchanges and Traditional Futures Exchanges

Source: TokenInsight



04. DETAILED ANALYSIS ON DERIVATIVE PRODUCTS

4.1 Derivatives Innovation

> *Cryptocurrency derivatives are constantly being innovated, and mainstream platforms have begun to research and develop option contract products.*

With the expansion of the derivatives market size and increase of exchange practitioners, a batch of new exchanges specialised in the derivatives business have sprung out into the market as some of the existing futures trading platforms have failed to meet the demands of traders' in the market. To attract more spot trading users, option contracts, contract for difference (CFD), index contracts, leveraging tokens and other innovative derivatives have come into existence; allowing for a constant increase in competitive pressure within the derivatives market. Top-tier exchanges such as BitMEX's UPs and DOWNSs have also improved and innovated their derivatives business. According to credible sources, OKEx, Huobi DM and other established exchanges have already begun researching, developing and deploying their own options contract businesses. From this point of view, the emergence and development of options businesses in 2019 have a far-reaching influence on the cryptocurrency market and its condition.

BitMEX's UPs and DOWNs are similar to that of an options contract, thus investors may choose to buy long UPs or DOWNs, instead of short selling their positions. The counterpart is from BitMEX's designated market maker, who may be a short seller. By getting involved in UPs or DOWNs, the trader may participate effectively in the BTC ups or downs. However, when the market trend goes against the buying long of UPs or DOWNs, the possible loss is limited to the initial outlay, which is often only a small portion of the currency price. Unlike perpetuals and deliverable contracts, there is neither forced liquidation pricing or margin calls. This means that a bidder can keep their long positions when the market is declining, and get more involved in the upward trends before their maturity date. However, due to the lack of depth in such underlying trading volume is quite low, with only a trading volume 2.6BTC in the nearest 24H.

Deribit's Bitcoin options are in European cash-settled options, which means that the contract maker may pay earnings in cash to the holders on their maturity date. The options on the dates of delivery have numerous underlying of different sizes, with sufficient depths, and the counterpart being provided by either exchanges or other traders. Same as in traditional financial market, a greater underlying trading volume is distributed near the date of delivery; and a relatively smaller underlying trading volumes is distributed far from the date of delivery. In respect to BitMEX's UPs and DOWNs, Deribit's underlying trading volume of option contracts for the current week is much larger, which indicates that the option contract market has great interest and potential.

As a recent rising star in the derivatives exchange industry, FTX has launched two innovative products, i.e. index contracts and token leverage services. In essence, it belongs to the category of ETF products. Taking the perpetual contract of an Altcoins index as an example, the prices of 9, 24 and 58 are combined to form the weighted averages as the underlying index, catering to market demand. However, the counterpart is still provided by the exchange, and thus will help traders prevent risks.

Derivatives on the cryptocurrency market are constantly becoming improved to the extent that option contracts and index contracts are a new weathervane. It is worth noting that counterparts of such products are provided by the exchanges or designated market makers from the exchanges. Hence, a set of risk control systems or processes may be established internally to hedge a certain amount of user profits. On the whole, these new derivative products have catered to the market demand, and also now provide a richer trading experience. Regardless of this, traders should not ignore the risks brought by new products.

4.2 Types of Futures Contracts

> *Although there are contract products of diversified designs, inverse contracts continue to dominates the market.*

Futures contracts are associated with, the base currency, currency of price and settlement currency of trading pairs, inverse contracts, (normal) future contracts, two-way contracts and linear contracts. Each trading platform may launch different types of these products, while the most widely used contract design is still the inverse contract. Compared with other types of contracts, inverse contracts are relatively uniform in the par value, usually 1 USD, 10 USD or 100 USD, with the price marked in the most familiar legal tender (the US dollar). Usually, the settlement currency is unified with the base currency, making it more convenient for traders to position trades.

Figure 4-1 Distribution of Futures Contract Types in Exchanges

Source: TokenInsight

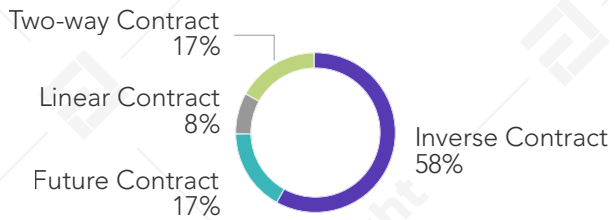
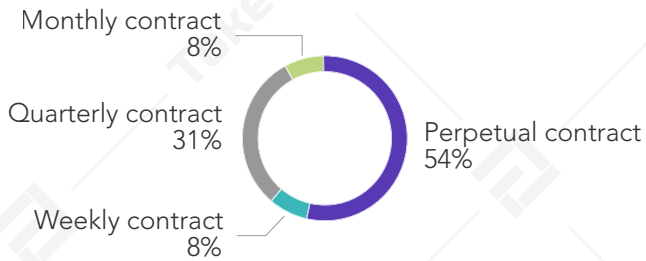


Figure 4-2 Distribution of Contract Types in Exchanges

Source: TokenInsight



Futures contracts are categorized into perpetual contracts and deliverable contracts based on the availability of delivery dates. Deliverable contracts have agreed delivery dates, while perpetual contracts have no maturity dates. Around the time of delivery, the contract price will fluctuate wildly under deliverable contracts. As the long buyers and short sellers conduct a large number of transactions around the delivery time, they may either push the contract prices up or down in order to generate additional revenue. Besides, the earnings of deliverable contracts cannot be transferred elsewhere until the settlement of contracts are completed. By contrast, perpetual contracts are more user-friendly. Like spot trading, perpetual contracts are able to avoid the drastic changes in price volatility for futures upon delivery.

At present, over 80% of exchanges are offering futures contract services for perpetual contracts, while less than 20% of exchanges currently issue deliverable contracts. Among the exchanges providing perpetual contracts, 57% of them offer both deliverable contract and perpetual contract services. One of the major reasons for the popularity of perpetual contracts is that they have no delivery cut-off time and ensure a high leverage opportunity for traders.

The year 2019 has witnessed an explosive growth stage for derivatives exchanges. The recovering market provided the impetus to the growth of derivatives exchanges. Many new users as well as stock traders flooded into the futures contract market. Likewise, another major factor for the growth of derivatives exchanges was the entrance of more exchange practitioners into the futures contract and other derivatives trading markets, such as FTX, which is the most recently popular token derivatives exchange.

Figure 4-3 Comparison of Basic Data on Futures Contracts

Source：TokenInsight

Exchange	Contract type	Contract size	Contract time	Scope of leverage
BitMEX	Inverse/linear/ two-way	Inverse: 1 USD Linear: BTC price of 1 underlying currency Two-way: Each $1 is worth 0.001 mXBT	Perpetual/ quarterly	0X-100X
OKEx	Inverse	BTC: 100 USD LTC and other currencies: 10 USD	Perpetual/current week/next week/ quarterly	1X-100X
Huobi DM	Inverse	BTC: 100 USD XRP and other currencies: 10 USD	Current week/ next week/ quarterly	1X、5X、10X、20X
Bybit	Inverse	1 USD	Perpetual	1X-100X
Crypto Facilities	Inverse/linear	Inverse：1 USD Linear：1 XRP	Perpetual/ monthly/quarterly	Max 50X
Gate.io	Inverse/two-way	BTC：1 USD ETH：0.000001 BTC / 1 USD EOS：0.0001 BTC / 1 USD	Perpetual	1X-100X

Figure 4-3 Comparison of Basic Information on Futures Contracts

Source: TokenInsight

Exchange	Contract type	Contract size	Contract time	Scope of leverage
BBX	(normal) future/inverse	(normal) future: each underlying contract of unequal par values Inverse: 1 USD	Perpetual	Leverage depends type of underlying, max leverage from 20X to 100X
FTX	Inverse	1 USD	Perpetual/ quarterly	50X、100X and 101X
Deribit	Inverse	10 USD	Perpetual/ quarterly/next quarter	Max 100X
CoinEx	Inverse	1 USD	Perpetual/ deliverable contract time TBD	3X、5X、10X、20X
MXC	(normal) future	Each underlying contract of unequal par values	Perpetual	10X、20X、50X、100X
TDEx	Inverse/two-way	Perpetual: BTC:1 USD ETH:Each $1 is worth 0.001 mXBT Quarterly: BTC:100 USD LTC and other currencies: 10 USD	Perpetual/ quarterly	CFD: 1X-30X Perpetual contract: 0.01X-20X
Bit-Z	(normal) future	BTC: 0.001 BTC ETH: 0.01 ETH EOS: 0.1 EOS	Perpetual	2X、5X、10X、15X、20X、50X、100X
FOTA	Inverse/two-way	Unequal	Monthly	1X-10X
GAEA	(normal) future/inverse	(normal) future: each underlying contract of unequal par values Inverse, term: 1 USD	Perpetual/ quarterly	20X
BFX.NU/ BCEX	Inverse	Unequal	Perpetual	20X

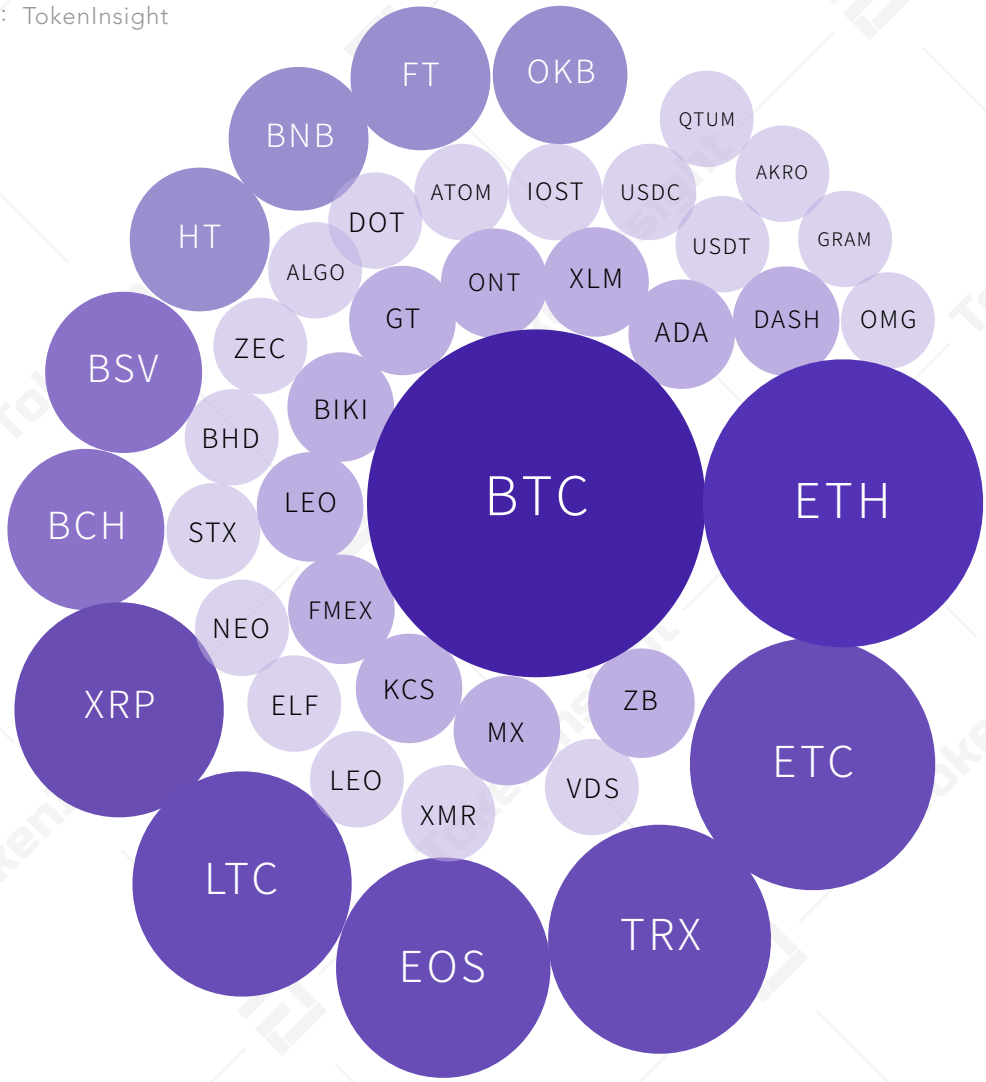
Note: XBT means BTC Futures Contracts

4.3 Contract Underlying

Underlyings of futures contracts are usually selected by taking into account their quality and market's acceptance. The objects with higher acceptance and better quality are more actively trading market, receives more attention and brings higher liquidity. Liquidity can reduce the risks of transactions for users, enabling them to more comfortably buy or sell their contracts at anytime.

Figure 4-4 Contract Underlying

Source: TokenInsight



Contract underlying is constantly being innovated

The most popular tokens used for contract underlying are BTC, ETH, ETC and EOS. The tokens that can be traded on traditional futures exchanges as an underlying of futures are currently only BTC, ETH and ETC. These tokens are at the head of market prices, with a relatively scattered distribution of tokens and stable teams, thus they currently meet the standards for being selected as the underlying. It appeared more than 20 non-mainstream altcoins as contract underlying, but most of the underlying are mainly concentrated around BFX.NU, BBX, FTX and CoinEx exchange platforms. The trading volume of non-mainstream altcoins' underlying contract are much lower than the trading volume of mainstream underlying contract, accounting for no more than 10% of total market.

"IOU" Trading Mode

With more non-mainstream Altcoins contract underlying, there are some scenarios where futures might have already been listed even before the spot was available on the market. ALGO and DOT are the projects that illustrate the scenario. These projects are higher in demand and are more famous for technical innovation. Their tokens have longer sales timeline and are sold via different channels. It is difficult for ordinary retail investors to enter the primary market for the investment of such projects, which leaves ordinary investors with no choice than to ask the investors who have made investments for assistance. The exchange first rolls out futures objects of the project, and trading tokens are not real project tokens. Such trades are often based on the exchange's commitment to investors. After the real tokens are distributed, the exchange will then use spot tokens to complete the delivery of futures, i.e., the endorsement of trading before the spot goes live is from such exchange only. Therefore, to some extent, trading such products contain high risks, investors are recommended to be more cautious.

Expanding the demands for objects on platform tokens and stablecoins

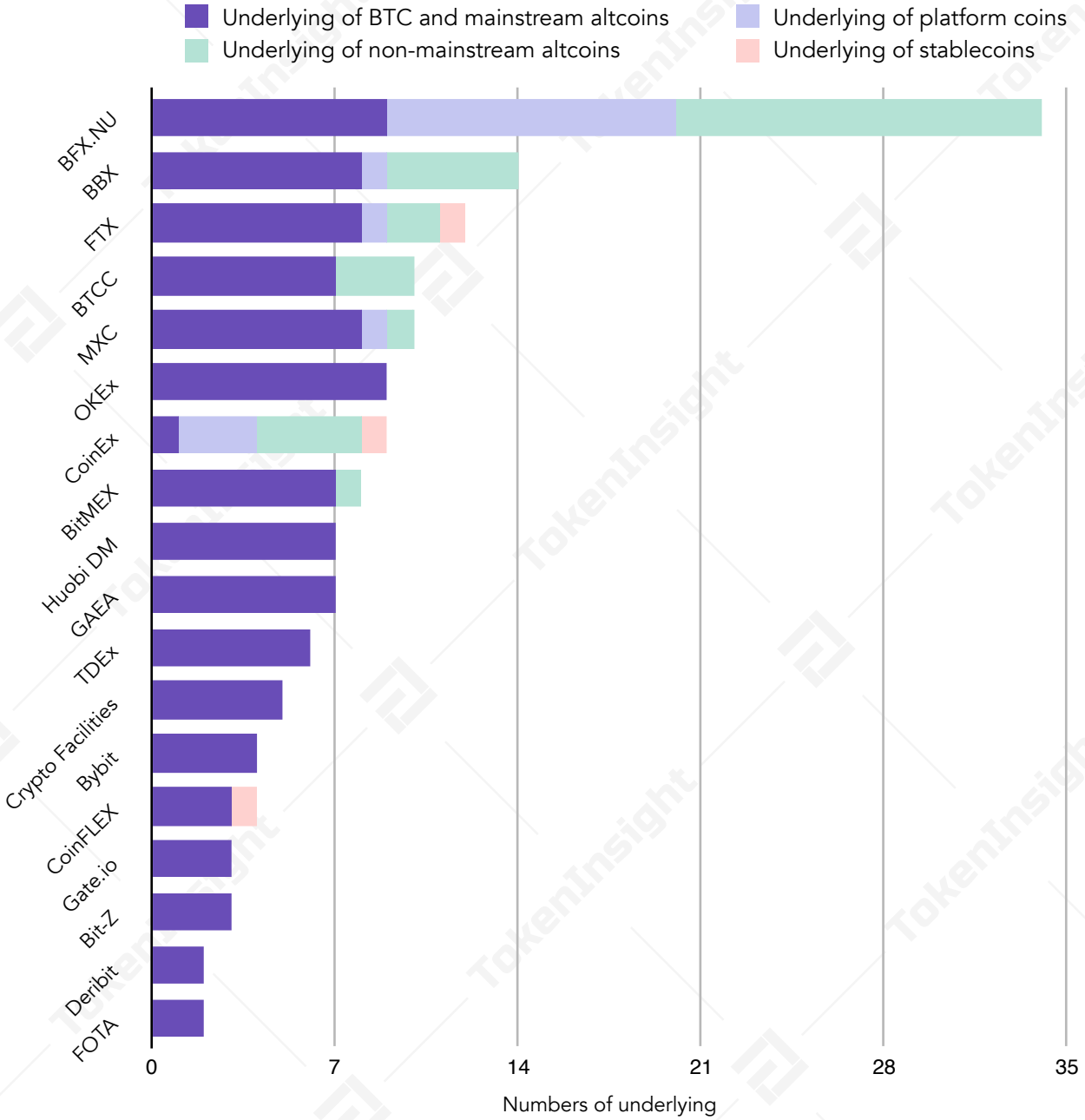
IEOs' were the hot spot that lead the primary market in the first half of this year. As the objects of futures contracts, the platform coins of top-tier exchanges became very popular. For instance, BNB, HT and OKB all went live on a number of cryptocurrency futures trading platforms. At present, stablecoins have only two objects, Tether (USDT) issued by Bitfinex and USDC issued by Circle and Coinbase. Although the two stablecoins are pegged to USD and backed by equivalent US dollar reserves, there is a price spread now which is caused by additional issuance and regulatory risks. Some exchanges such as FTX, CoinEx and CoinFLEX have all sought to list their stablecoins futures on the market in order to avoid the huge price spread difference arising from risks.

BTC and ETH contract volumes account for approximately 80% of total trading volume

Out of all the exchange-backed contract underlying, BFX.NU, FTX and BBX are the only three exchanges that support more than 10 tokens. However, the trading volumes are still very centralized in leading index products with FTX being the case and point. The trading volumes of BTC and ETH contracts account for approximately 80% of total trading volume. Furthermore, in order to create the liquidity and depth for the derivatives market, most exchanges may brush flow and administer orders by robots.

Figure 4-5 Richness of Contract Underlying

Source：TokenInsight



Underlying of BTC and mainstream altcoins： BTC、LTC、ETC、ETH、EOS、TRX、XRP、BSV and BCH

Underlying of platform coins： BNB、HT、OKB、FT、ZB、GT、LEO、MX、BIKI、KCS and FMEX

Underlying of non-mainstream altcoins： ZEC、ONT、ALGO、ATOM、XLM、XMR、DASH、ADA、NEO、ELF、IOST、QTUM、OMG、 BHD、VDS、LEO、STX、AKRO、DOT and GRAM

Underlying of Stablecoins： USDT、USDC

Note: Mainstream and non-mainstream altcoins are classified according to the number of exchanges in which the altcoin exists: the altcoin that has been traded on more than 10 exchanges is mainstream altcoin.

4.4 Price Index and Reasonable Price Marks

To ensure that spot index prices reasonably reflect the fair spot market prices of each currency, derivative exchanges generally select the currency pairs from two to four mainstream exchanges for each contract underlying as the index weight component. The design of index-based weighted averages help keep the index volatility within the normal range even if any of the mainstream exchanges undergoes significant deviation of pricing.

As an important component of anti-over-loss design mechanism of futures exchanges, having a reasonable price marking system may assist in preventing any unnecessary deviation from a price index, arising from market illiquidity or manipulation in order to avoid unnecessary forced liquidation against the higher leverage products. Generally, the fair marked prices are designed by using a fixed formula based on the index-linked prices of such an exchange, while the forced liquidation price of futures contracts are tied with the marked prices. Whereas, if the price index of an exchange was reflected by only one or two exchanges, the exchange would be likely to enjoy substantial recovery to the original despite dramatic rise and fall or safety accidents due to large business fluctuations.

Figure 4-6 Price Index and Tag Price

Source：TokenInsight

Exchange	Reference price	Index components	Weight	Tag price
BitMEX	BitMEX .BXBT index	Bitstamp、Coinbase Pro and Kraken	Equal weighted (1/3)	Index-linked price * (1 + Base rate of capital expense)
OKEx	OKCoin's internally developed index	GEMINI、Coinbase、Bitstamp and Kraken and OKCoin	Equal weighted (1/5)	Spot index price + moving average (Central parity of contract - Spot index price)
Huobi DM	Huobi DM's internally developed index	Bitstamp、Gdax、Kraken and Gemini	Equal weighted (1/4)	Such system not disclosed on the official website
Bybit	Bybit .BTCUSD index	Bitstamp, Coinbase Pro and Kraken	Equal weighted (1/3)	Index-linked price * (1 + Base rate of capital expense)
Crypto Facilities	CF XBTUSD index	Coinbase、Kraken、Bitstamp and itBit	Equal weighted (1/4)	Tag price=Index-linked price
Gate.io	Gate BTC/USD market index	Bitstamp, Coinbase Pro, Crypto Facilities and Gemini	Equal weighted (1/4)	Index-linked price + Basis of capital expense decreasing with time

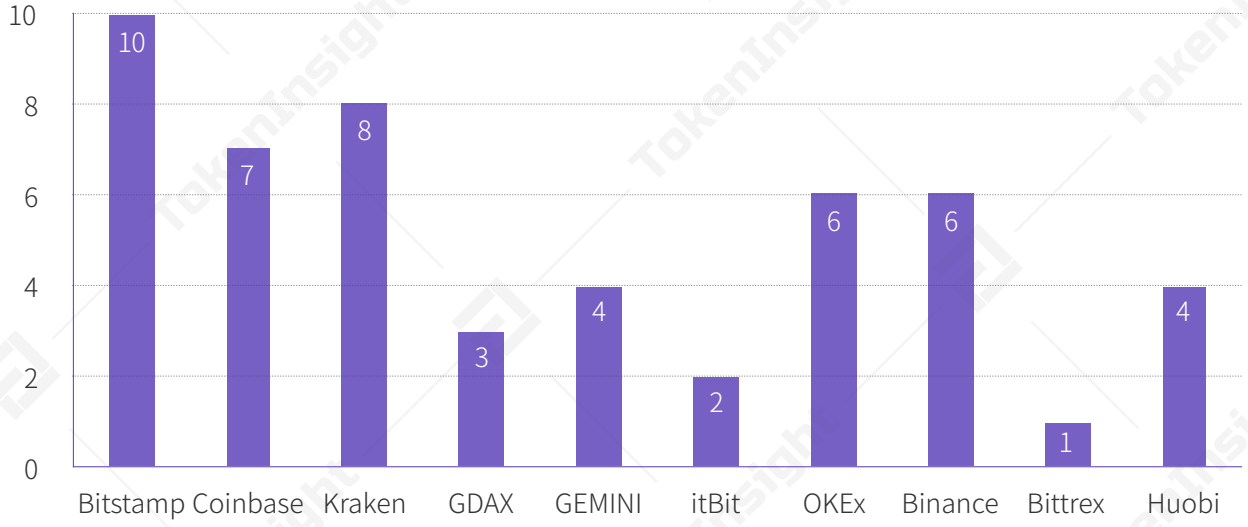
Figure 4-6 Price Index and Tag Price

Source：TokenInsight

Exchange	Reference price	Index components	Weight	Tag price
FTX	FTX's internally developed index	Reference to the prices of TUSD, USDC and USD trading pairs, selecting OKEx, Binance and Bittrex respectively, OKEx, Binance and Coinbase as well as Coinbase, Crypto Facilities, Bitstamp and Bittrex	Equal weighted (1/10)	Tag price calculation method not disclosed
BBX	BBX BTCUSDT index	Coinbase Pro and Bitstamp	Equal weighted (1/2)	Index-linked price * (1 + Base rate of capital expense)
BFX.NU	BFX's internally developed index	Binance、Huobi Global和OKEx	Equal weighted (1/3)	Tag price=Index-linked price
Deribit	Deribit BTC index	Reference to the prices of Bitstamp, Bittrex, GDAX, Gemini, Itbit and Crypto Facilities exchanges, removing two currency pairs of the highest and lowest prices	Equal weighted (1/4)	Index-linked price + (Last transaction price - Deribit index) 30s EMA (Exponential Moving Average)
CoinEx	CoinEx CoinEx's internally developed index	CoinEx、Binance、Huobi Global and OKEx	Equal weighted (1/4)	Index-linked price * (1 + Base rate of capital expense)
MXC	MXC .BTCUSDT inde	Coinbase Pro and Bitstamp	Equal weighted (1/2)	Index-linked price * (1 + Base rate of capital expense)
TDEx	BitMEX .BXBT index and OKCoin internally developed index	Reference to BitMEX and OKEx index components	Reference to BitMEX and OKEx index weights	Index-linked price * (1 + Base rate of capital expense)
Bit-Z	Bit-Z's internally developed BTC_USDT index	Binance、Huobi Global and OKEx	Equal weighted (1/3)	Reasonable price calculation method not disclosed
GMEX (GAEA)	GMEX's internally developed index	Binance、Huobi Global and OKEx	Equal weighted (1/3)	Reasonable price calculation method not disclosed
FOTA	FOTA's internally developed index	Binance、Huobi Global and OKEx	Equal weighted (1/3)	Index-linked price *(real-time exchange rate of USDT and USD)

Figure 4-7 Summary of Index Components-referred Exchanges

Source: TokenInsight



The currency pairs of exchanges such Bitstamp, Crypto Facilities (Kraken) and Coinbase are mostly used as index components. Currency pairs are also the weighted composition of BitMEX BXBT index. BitMEX has become the Bitcoin futures exchange with the maximum trading volume and best depth worldwide, and the selection of its exponential weight components has a large reference function compared to other competitors within the industry. Moreover, the currency pairs of Binance, Huobi DM and OKEx, China's three top-tier exchanges, have also occupied a considerable proportion of those to be referred, and the exchanges selected are mainly new derivatives exchanges.

4.5 Anti-Over-Loss Design Mechanism

> *The innovation of anti-over-loss design mechanism helps to reduce platform operation risks while improving the user experience of traders.*

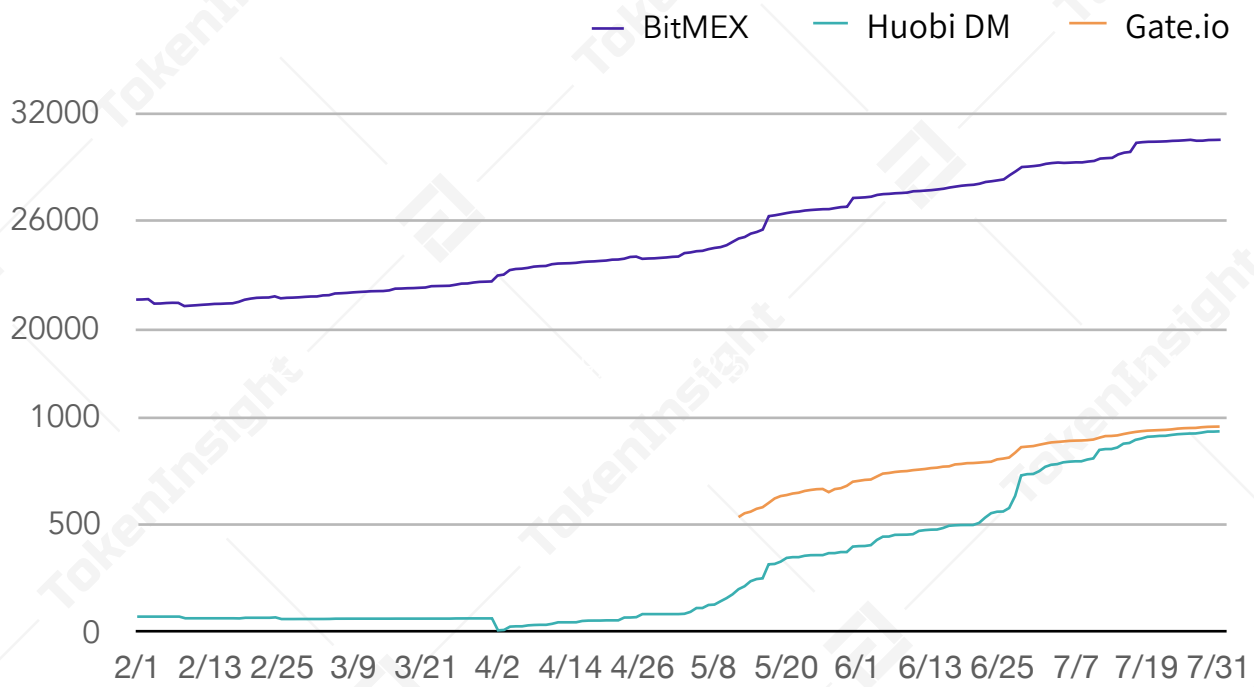
The design and innovation of futures exchange products mostly end with the anti-over-loss design mechanism. No matter the design from the technical mechanism (such as the automatic underweight mechanism and gradient lever mechanism) or the artificially designed product dimension (e.g. the reasonable price marking system and insurance fund system), it is aimed to minimize the forced liquidation arising from drastic price fluctuations as well as to improve the users' futures trading experience. From the statistical information of 18 futures exchanges, 60% of such futures exchanges have automatic underweighted mechanisms available, and other exchanges will also make more or less innovations in this respect, such as prevention sharing mechanism and tier III clearing mechanism etc.

" As volatility sees more fluctuation, the insurance fund balance increases faster.

An insurance fund is also called the loan loss prevention mechanism. Exchanges often employs their insurance funds to keep the investors' positions from being automatically liquidated, or to fill up the over-loss when the position loss is greater than the margin. The insurance funds come from the surplus funds generated in the forced liquidation of contracts. It can be seen from the Figure below that since February 2019, the insurance fund balances of three exchanges continue to soar, especially from early May to late June when the price of Bitcoin rose unilaterally, the amount of insurance fund increased even more than in tanked periods. This means that in the unilateral market, there are more forced liquidation contracts, and greater future risks. Meantime, it can be also seen that Huobi DM futures business has developed rapidly since early May, while Gate.io has been relatively slow.

Figure 4-8 BitMEX, Huobi DM and Gate.io Insurance Fund Balances (Unit: BTC)

Source: TokenInsight



Note: The balance of OKEx's insurance fund has been announced since August 15th. As of August 22, it has a risk deposit of 1081.9BTC, which is injected into the daily average of 5.7BTC through forced liquidation.

4.6 Margin Mechanism

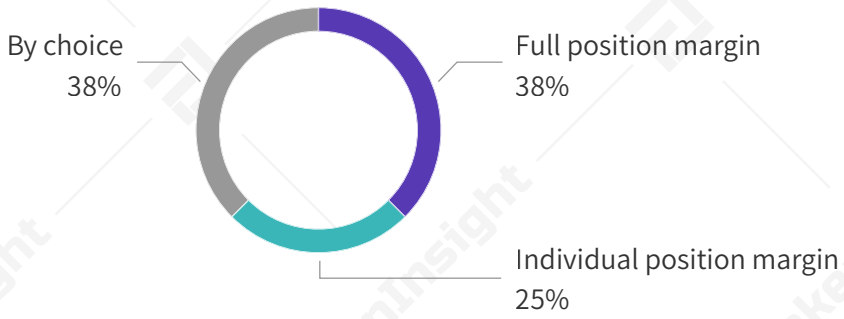
4.6.1 Distribution of Margin Mechanism

" *The margin mechanism is diversified, characterized by a more flexible full position which is parallel with individual position*

To meet the needs of different traders, all exchanges implement different margin systems including full position margin and individual position margin based on their own risk control systems. According to the data of exchanges in our research sample, 25% of futures exchanges implement an individual position margin system, 38% of a full position margin system, and another 38% the parallel margin system of full positions and individual positions. Furthermore, 33% of those exchanges practicing the full position margin system will implement the portfolio margin systems such as Crypto Facilities, FOTA, FTX and Deribit. In the sphere of margin systems, there are mainly two development directions in the future; one is the parallel margin system of full positions and individual positions, and the other is a portfolio margin system.

Figure 4-9 Distribution of Margin Mechanism in Exchanges

Source: TokenInsight



4.6.2 About Forced Liquidation Industry Standards

" *The forced liquidation industry standards are formulated to collide with all platform risk control systems and hedging risk abilities.*

Allowing for their different risk control systems and abilities to hedge the over-loss, every exchange may set different proportions of forced liquidation margins. In terms of user friendliness, reducing the proportion of forced liquidation margins, within a certain probability, may exempt partial losses incurred by recovery to the original value after dramatic rise and fall. Seen from the development of futures exchanges, it may, in the short run, ensure the rapid development of contract platforms. The filling of risk margins by exchanges caused by the high margins may be beneficial to the maintenance of platform running; in case of large over loss, be able to effectively make up for the users' loss, which is to the users' benefit. In the long run, it is part of trends that the top-tier futures exchanges will gradually stand out and forced liquidation margins will be reduced. It will eliminate those exchanges with high margin proportion of forced liquidation and unreasonable margin mechanism. Being user-friendly, together with ensuring sustainable operation, is a long-term solution.

4.7 Contract Costs

4.7.1 Handling Fees of Futures Contracts

" *The handling fees of deliverable contracts are lower than those of perpetual contracts*

Statistics of handling fees to some futures exchanges can be shown in Figure 2-8. On the whole, the contract transaction fees are much lower than the spot trading, and handling fees of deliverable contracts are lower than those of perpetual contracts. Exchanges generally charge 0.1%-0.2% for coin-coin transactions, and much lower handling fees charged for contract transactions, even lower than 0.1%. The handling fees of perpetual contracts are higher than those of deliverable contracts, and the minimum and maximum handling fees of perpetual contracts are BBX and TDEx, respectively.

To improve the liquidity, some futures exchanges, like BitMEX, Bybit, Crypto Facilities, Gate, BBX and other two exchanges, have never charged any transaction fees from Maker even if they subsidized their costs. Moreover, other exchanges have also offered discounts on transaction fees to users of large trading volumes or major platform coin holders. For example, OKEx, Huobi DM, Gate.io and other five exchanges have adopted step rates for users of large trading volumes who may enjoy lower transaction fees, and sometimes even for free. All of these factors can help exchanges attract more professional transaction to users.

Figure 4-10 Futures Transaction Fees in Exchanges

Source: TokenInsight

Exchange	Futures Transaction Fees (Maker)		Futures Transaction Fees (Taker)		Whether on step-rate basis
	Perpetual Contract	Deliverable contract	Perpetual Contract	Deliverable contract	
BitMEX	-0.025%	-0.05%	0.075%	0.25%	No
OKEx	0.020%		0.075%	0.050%	Yes
Huobi DM	N/A	0.020%	N/A	0.030%	Yes
Bybit	-0.025%	N/A	0.075%	N/A	No
Crypto Facilities(Kraken)	-0.025%		0.075%	0.05%	No
Gate.io	-0.025%	N/A	0.075%	N/A	Yes
BBX	-0.05%	N/A	0.15%	N/A	Yes
FTX	0.020%		0.070%		Yes
Deribit	0.025%	0.02%	0.075%	0.05%	No
CoinEx	N/A	0.1%	N/A	0.1%	Yes
MXC	-0.025%	N/A	0.075%	N/A	No
TDEx	0.200%	0.050%	0.200%	0.050%	Yes
Bit-Z	-0.030%	N/A	0.070%	N/A	No
GAEA	0.05%/ 0.1%	0.05%	0.05%/0.1%	0.05%	No
BFX.NU(BCEX)	0.048%	N/A	0.099%	N/A	Yes
FOTA	N/A	0.05%	N/A	0.05%	No

4.7.2 Capital Spending of Perpetual Contracts

> *The costs of perpetual contracts will vary depending on the market, and their calculation methods are basically unified.*

Usually, perpetual contracts are put on hold to pay a certain amount of capital costs, commonly known as an "overnight charge". The market fund rate determines when capital costs can be paid from the long position to the short position, or from the short position to the long position. Such capital costs are paid more than once a day. For instance, on BitMEX's trading platform, it is required to make payments for capital costs at UTC 4:00 (Beijing time 12:00), UTC 12:00 (Beijing time 20:00) and UTC 20:00 (Beijing time 04:00) daily.

Traders of perpetual contracts on BitMEX are expected to pay or receive capital spending, which is equal to the position value multiplied by the funds rate. If the funds rate is positive, capital costs are paid from the long position to the short position. However, if the funds rate is negative, capital costs are paid from the short position to the long position. Generally, the fund rate is made up of the interest rate and the premium/discount, which is designed to ensure the transaction prices of perpetual contracts are kept in step with the underlying reference to prices.

4.7.3 Handling Fees of Option Contracts

> *The product design of option contracts varies greatly, and the contract costs are far different.*

Among the 18 derivatives exchanges mentioned in this research report, only two are transactions of option contracts. Nonetheless, their business requirements are quite different. FOTA's transaction cycle of option contracts is one minute, characterized by high settlement frequency. Meantime, to attract liquidity, its contract transaction fees are 0%. Deribit's closing dates of option contracts are the current week, next week, quarterly and next quarter respectively, and the contract transaction fees is 0.04%. However, there is a discrepancy between the transaction fees of option contracts charged by Deribit and the fees published on its website. One says that the option transaction fees will not be higher than 12.5% of option premium, and the other says that the transaction fees will never be more than 20% of the option price. We'll stay tuned for updates.

05. USER DISTRIBUTION AND USER SCALE

Futures and other derivatives possess higher trading risks compared to spot trading has put higher requirements on users' risk tolerance and cognitive level. It can be seen from Google's source statistics of search for "Bitcoin futures" that users who paid high attention to Bitcoin futures in the current period were mainly from Saint Helena, Singapore, USA and China. Compared with the previous period, there was a slight decrease in Google searches from Canada.

Figure 5-1 Distribution of Bitcoin Futures Interest

Source: Google Trend, TokenInsight

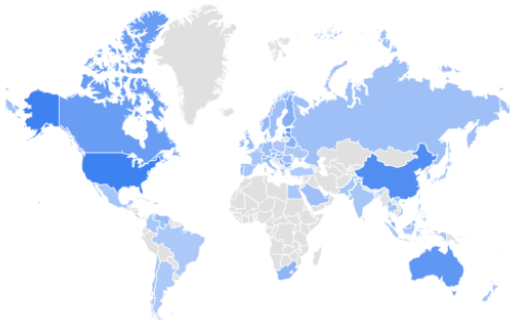
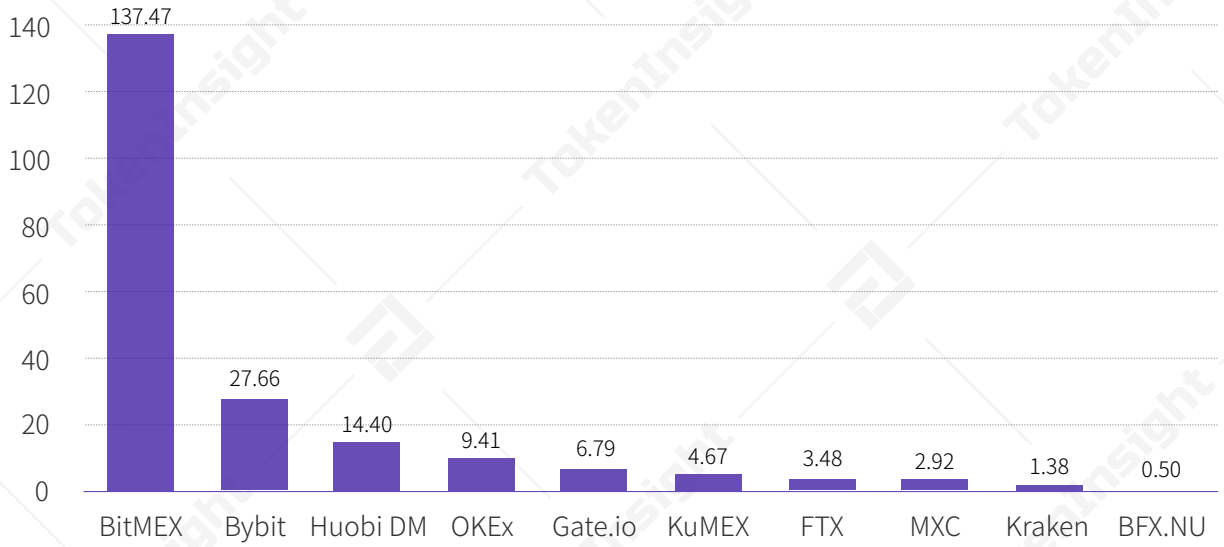


Figure 5-2 Average Monthly UV of Futures Exchanges in May, June and July 2019 (Unit: 10,000)

Source: SimilarWeb, TokenInsight



Seen from the current monthly UV, the top-tier BitMEX, Huobi DM and OKEx as well as Bybit, a new contender in the contracts market, account for over 90.53% of UV in all contract futures exchanges, and the total UV of futures exchanges has increased by 44% compared to the previous period. Bybit's monthly UV has soared 20 times higher since the beginning of 2019. Likewise, and Huobi DM's UV has increased by 4 times over the previous period.

06. REGULATORY COMPLIANCE

> *Recently, American regulators overseeing cryptocurrency industry have routinely clamped down on all cryptocurrency exchanges. The crackdown has come right ahead of the leadership transition at CFTC, causing fear among the industry stakeholders. So far, the SEC has not rejected the Bitcoin ETF but has delayed it more than once. It is still not clear what are the motives of regulators behind cracking down on exchanges.*

With regards to digital futures, American regulators, have repeatedly clamped down on all cryptocurrency exchanges. Such regulators mainly include U.S. Commodity Futures Trading Commission (CFTC) and U.S. Securities and Exchange Commission (SEC):

6.1 CFTC

① **Former Secretary of U.S. Department of Treasury, Heath Tarbet is now the new President of CFTC, taking his official post on July 15. Moreover, he hardly expressed any opinions on cryptocurrency, thus his attitude towards cryptocurrency is uncertain.** However, during the United States Congress in March, he said "We shall admit that the derivatives market has been transformed by the digital technology, which means both opportunities and risks, and CFTC must ensure that the issuing of those regulation policies can promote innovation, prosperity and development, and further protect the market and consumers from any harm." Under the leadership of former President J. Christopher Giancarlo, the CFTC has adopted a relaxed attitude towards the cryptocurrency industry. Because of this, Giancarlo has been dubbed as the "Cryptocurrency Dad".

② **LedgerX, the Bitcoin derivatives trading market, was hindered in launching its physical delivery futures, and CFTC asserted it's not approved:**

- On April 16, 2019, LedgerX announced that it submitted an application to regulators for the Bitcoin futures trading permits with physical settlement;
- On June 26, 2019, CFTC was said to have approved LedgerX's Bitcoin futures contract trading for physical settlement.
- On August 2, 2019, it was revealed that LedgerX has not been approved by the CFTC, and there is no official rule documents regarding the approval of futures contracts on the LedgerX's official website or CFTC website.
- On August 7, 2019, LedgerX clarified the error in the reporting events last week, saying the LedgerX's previous announcement about launching the futures trading function to individual investors was a communication error among the internal investment director and two members in charge of public relations.

③ **This July, CFTC initiated investigation against BitMEX to identify whether the cryptocurrency exchange was operating illegally by allowing US citizens to trade on its platforms.** In 2018, Canadian regulators ordered BitMEX to close its North American platforms for unlicensed operation of entities.

④ CTTC has delayed approval of Bakkt's Bitcoin futures contracts more than once. According to insiders, **CFTC officials have shown serious concern about the storage mode of customer tokens and its capacity to prevent cybertheft or any other sort of manipulation.**

6.2 SEC

So far, SEC has not approved any Bitcoin ETF application, allowing for the fraud and market manipulation to investors in the digital token market.

- **Bitwise**

In July 2018, Bitwise lodged its Bitcoin ETF application to SEC only to be rejected; In January 2019, Bitwise once again lodged an Bitcoin ETF application to SEC but SEC deferred hearing on the application in May, 2019 to August 2019 first, and then to October 13, 2019.

- **VanEck/ SolidX and CBOE:**

In July 2018, Bitcoin ETF futures registered it application to SEC; but SEC deferred the proposal in August 2018. However, the SEC deferred the proposal in September of that same year. In December 2018, the SEC deferred the proposal; and withdrew the application in January 2019. In February 2019, an application was submitted again; but in May 2019, the SEC deferred the proposal. In August 2019, the SEC deferred the proposal to October 18, 2019.

- **Wilshire Phoenix Funds:**

In January 2019, Bitcoin ETF future filed its application to SEC again; but SEC deferred the proposal until September 29, 2019.

- **Crescent**

In January 2019, Bitcoin ETF future filed its application to SEC

- **Reality Share**

In February 2019, Bitcoin ETF filed an application to SEC; but it later withdrew the application at SEC's request.

CME's Bitcoin futures trading volume and opening interest peaked in May, with an average daily turnover of over 13,600 contracts worth US$ 515 million , an increase of 250% on a year-on-year basis. The open interest adds up to 4,602 contracts, an increase of 80% on a year-on-year basis. Besides, on July, CME announced plans to adjust its ETH-USD reference quote and real-time index source, signaling the launch of its new Ethereum-related futures contract products.

XBTM19, the last listed Bitcoin futures contract, expired in June as a consequence of CBOE's move to suspend the Bitcoin futures contract market in March, 2019. On December 11, 2017, CBOE launched the world's first Bitcoin futures contract. XBT and CME followed suit a week later by launching its own Bitcoin futures contract, BTC. Since 2018, CBOE's Bitcoin futures trading volumes have declined so much that its trading volumes gap with CME has narrowed. Major market views believe that:

- CME's futures contract contains more Bitcoins, making the platform more attractive to investors;
- To attract more customers, CME has adopted an incentive plan which aims at minimizing customer prepaid costs.

07. EXCLUSIVE INTERVIEW

TokenInsight's Interview with the Vice President of Operations of BHEX---- Yang Bai

BHEX
Blue Helix Exchange

Yang Bai completed his master's degree at Columbia University, USA and his bachelor's degree at Beijing University of Information Science and Technology. He used to invest in industrial investment banks of France and New York. He is familiar with the secondary market, field and the digital money exchange market.

"For exchanges, the stock market is limited, and the transaction volume is bounded on the ceiling. More transactions need to be carried out from derivatives markets. For markets, derivatives can improve market mechanisms and make markets more efficient. Only when deciding when to rise can the derivatives make money, and the derivatives make the right judgments."

—Yang Bai

TokenInsight's Interview with the founder of Bybit ----Ben Zhou

Ben Zhou spent ten years working in financial management and served as Executive Director of Greater China for the world's largest retail foreign exchange dealer (XM.com). Mainly focused on traditional finance and derivatives, he has a comprehensive understanding of trading experience and knows how to meet retail user trading needs. He has devoted himself in Blockchain industry since 2017. After founding Bybit in March, 2018, he has been analyzing and researching market needs.

"The problem of the copycat coin has greatly damaged the confidence of investors. With the powerful comeback of Bitcoin, investors' attention has returned to the mainstream currency. However, traditional spot trading and futures trading does not satisfy all investors. Instead, investors are eager for innovative derivatives trading. Derivatives trading provides investors with a wealth of financial instruments. With strong liquidity and market depth, long-term holding characteristics, and unique dual-price mechanism, derivatives trading provides a fair and reasonable trading environment. Moreover, the continuation of professional institution's participation in the field has fully boosted the confidence of investors.

The cryptocurrency futures exchange industry needs to become more compliant and any malicious and false behaviour must be eliminated. Regulation and compliance will be the only way. It is believed that the digital currency industry will have an increasingly sophisticated development and regulatory system, just like the traditional financial industry. We look forward to the arrival of this day and we strongly support the relevant policies of the country. "

—Ben ZHOU

TokenInsight's Interview with the CEO of CoinBene ---- Daniel Zhang

CoinBene

Daniel Zhang holds a Bachelor's degree at the University of Science and Technology of China. He has rich product, operation and leadership experience. Zhang, former director of Badiu, began to contact Bitcoin in 2013 and has built up a sales team to sell the products from one daily to ten thousand dollars per day.

"Token derivatives markets are still in the initial stage of innovation, and the competition and development are just beginning.

The contract has a high level of technical ability and technical capability, the stability of the platform, the rational design of the rule of law, directly relates to the interests of the investors. The exchanges of contracts is more consistent with the user's needs, and more stable, more reasonable rules. Users have contributed a lot of handling fees for some contractual platforms, but it is difficult to enjoy the benefits of platform growth, and the lack of adequate facilities is often due to unstable platforms or unreasonable settings.This situation is in urgent need of change."

—Daniel Zhang

08.
FINDING MORE VALUES

Bybit is an exchange dedicated to cryptocurrency's perpetual contracts trading. The founding team consists of professional investors and experienced professionals in the traditional financial sector. The core members of the R&D team are from Morgan Stanley, Tencent, Ping An Bank and Noah Wealth. At present, users cover many countries and regions such as North America, Europe, Russia, Japan, Korea, and Southeast Asia.

At present, the exchange has reached the order of one million US dollars, which provides traders with good liquidity protection and stable trading. **On June 26, 2019, Bybit's 24-hour trading volume exceeded $1.8 billion, and the total number of Bybits in July accounted for 18% of BitMEX.** From February to July 2019, the average monthly UV of the web page was 276,600, only one step behind BitMEX.

To provide even more faired trading conditions for users, Bybit takes two set of pricing mechanism: the marked price can reduce noising quotes; it also ensures to degrade percentage weight when an anchored exchange get into technical problem. Both of Stop profiting order and Stop losing order apply to either opening position and holding position. Furthermore, a variety of conditional orders are available. Bybit uses a layered cold wallet system. Byibit provides 3 withdraw chances per day; by doing so, the efficiency of cash-out process is improved while ensuring security.

BybIt's core value is Listen, Care, Improve, aims to explore the needs of customers' needs, continuously optimize the services and products of exchange, and strive to create a fair, safe, efficient and humane trading environment.

BHEX, the Chinese name "Token Core", currently provides good performance for spot token trading, legal currency trading, OTC, futures, options, wealth management, etc., using multi-node and distributed hosting and clearing the underlying chain model to provide encrypted asset services with transparency.

BHEX was founded by Mr. Ju Jianhua in 2018. **The core team comes from the Internet and financial background, including Google, Tencent, Baidu, Alibaba, Barclays Bank and Societe Generale. It has rich global financial, blockchain and internet work backgrounds.** It has successively obtained the joint investment of the crypto-equity trading platform Huobi Global and OKcoin, as well as 56 institutions including Yintai Capital, Urban Real Estate Capital, Plum Blossom Venture Capital, Node Capital, Creation Capital, Imagination Fund, Kushen Wallet and Danhua Capital.

BHEX has launched nearly 30 token such as Bitcoin (BTC), Ethereum (ETH) and Litecoin (LTC). In order to better screen potential projects, **BHEX has launched a number of Labs projects to provide users with more quality options and increase project market influence.**

09. APPENDIX

9.1 Rating Results of Token Futures Exchanges

TokenInsight has prepared the latest rating of token futures exchanges based on the exchange data from February 2019 to July 2019. This rating has deleted BCEX FX、FOTA、GAEA, and added FTX、BFX.NU, with the list of futures exchanges as shown below. Among them, Huobi DM、OKEx、Crypto Facilites(Karken)、Bybit、Gate.io is upgraded.

Figure 9-1 Rating Results of Token Futures Exchanges

Source：TokenInsight

Exchange	New Rating	Last Rating
BitMEX	BBB	BBB
Huobi DM	BBB	BB
OKEx	BBB	BB
Crypto Facilites(Karken)	BB	B
Bybit	B	CCC
FTX	B	-
Gate.io	B	CCC
BFX.NU	CCC	-
MXC	CCC	CCC

Note: Blue indicates that the rating is new, Red indicates that the rating is downgraded, Green indicates that the rating is upgraded.

9.2 Rating Method of Token Futures Exchanges

9.2.1 Rating Background

According to TokenInsight statistics, there are now up to 300 exchanges which offer spot trading. However, barely a dozen exchanges offer contract trading service. Since 2018, a few emerging exchanges have rolled out contract trading, and in the future, more exchanges are likely to follow suit. Unlike spot trading, contract trading offers a wide range of product designs and has a built-in risk control mechanism. For all these reasons, it is necessary to evaluate futures exchanges and their characteristics from different angles and dimensions .

Presently, exchanges following regulatory compliance only account for a small percentage. Over 70% of exchanges still have not obtained the operation permits from concerned authorities. In lack of effective regulatory compliance and enforcement, the exchange industry routinely suffers from market manipulation, rogue trading and other irregularities, putting investors in jeopardy. The anomalies in the industry have led stakeholders to call for higher standards for research and evaluation of token exchanges. From the perspective of a transparent rating agency, it is important to develop professional and normative rating criteria for the proper evaluation of exchanges.

Accordingly, TokenInsight has built a set of exchange rating models against the contract trading, to rate existing futures exchanges.

9.2.2 Scope of Rating Application

The rating method is applicable to digital token exchanges offering contract trading services but excludes traditional futures exchanges providing digital token contract trading services.

9.2.3 Description of Rating Dimension

Figure 9-2 Rating Results of Token Futures Exchanges

Source: TokenInsight

Primary index	Secondary Index	Description
Team assessment	Core teams	Specific indicators include technical team, operation team and management team. The work experience, educational background and authenticity verification of the core team have a profound influence on the scoring of such index.
	Investment Institutions	Considering their investment strength, such investment institutions are graded from their professional competences, reputation and performance.

Figure 9-2 Rating Results of Token Futures Exchanges

Source: TokenInsight

Primary index	Secondary Index	Description
Technical Risks	Network security	Specific indicators include network protocol security, site phishing scan, account verification mechanism and system security. Among them, the network security is calculated by the site vulnerability scan scoring, SSL/HTTP protocol, and site phishing scan scoring. The account verification mechanism measures the safety of the login password setting and dual authentication for exchanges. The system security weighs the protective measures against DDoS and other conventional attacks by applying available security services.
	Risk Response Mechanism	Specific indicators include prevention mechanism against emergencies causing rise to the abnormal trading and loss compensation system thereof. It further includes risk response such as the availability of emergency measures against shutdown, services unavailable and other emergencies caused by invasion, system failure and insufficient system performance, among other things and if there is any data recovery mechanism and user compensation/effects elimination mechanism, then following the emergency is also another important indicator under risk response mechanism.
	Safety Audit	Whether there are safety partners or safety audits.
Operational Risks	Compliance	Specific indicators include KYC/AML policy, compliance license, compliance department and other system designs. The platform's regulatory setting and regulatory recognition obtained will affect the existence of exchanges' business.
	Transparency	Specific indicators include the transparency of exchanges' operation reports, financial reports and rules and regulations. Exchanges are key participants in the trading market, and the transparency of their systems are vitally important for users to conduct investment operation.
	Platform Credit	Specific indicators include each exchange platform's ' going-concern time and user complaints arising from negative events on the platform.
User Risk Control	Monetary storage	Monetary storage specifically means the way by which each platform is storing its users' funds, whether escrowed by the compliant third parties or the self-storage mode of isolated hot and cold wallets with multiple signatures. In recent years, tokens have been stolens from exchanges, giving rise to the loss of user funds.
	Position Mechanism	Specific indicators include the position limit to a single user, margin model and liquidation mechanism in the product design. Given the high contract trading risks, the innovative products can reduce unnecessary risks emerging from the design level
	Anti-market Manipulation Mechanism	Specific indicators include the contract price limit, position marker and quantitative trading policy in the product design. The contract leverage will magnify price fluctuations, and the market manipulation risk control is a factor to be considered in the product design.

Figure 9-2 Rating Results of Token Futures Exchanges

Source: TokenInsight

Primary index	Secondary Index	Description
User Activity	Trading volume	Specific indicators include the average daily trading volume and market depth. Liquidity is the decisive factor for the selection of contract underlying, and also one of the primary considerations for investors to choose the platforms
	User Volume	Specific indicators include the website UV volume and the number of user source countries/regions. The platform's user volume and sources determines to what degree the trading is active.
	Community Attention	Specific indicators include Twitter attentions and Telegram group. Users' attention to community reflects the level of a platform's ecological operation and their recognition
User Experience	Customer Service	Specific indicators include customer service hours, customer service contacts, and events that respond to user needs.
	Convenience	Specific indicators include the platform-supported clients, language support, order type diversity and diversity of technical index.
	Service charges	Specific indicators include fees for transaction, withdrawal or top-up.

9.2.4 Update Frequency

Presently, the token industry is growing rapidly with continuous expansion in the number and scale of exchanges. TokenInsight will update and adjust its ratings on a regular or irregular basis.

(a) PeriodicUpdate

TokenInsight will periodically update its rating results of exchanges every six months.

(b) Emergency Update

If exchanges suffer from any major risk accidents (such as fraud, bug etc.) during its operation, it can significantly impact the platform performance and its users, if not properly resolved. TokenInsight will update the rating results to exchanges imminently.

9.2.5 Rating Principle

(a) Working Principle

1. Independence: TokenInsight Inc., internal raters and review committee will stand independent in the rating process, not influenced by the rates and external factors.

2. Objectivity: Raters shall rate the rates based on their objective information, examining and approving the rating results in strict accordance with procedures

3. Impartiality: Raters shall be impartial during the rating process without any prejudice and should give ratings based on available information and data making best use of their special knowledge, experience and skills.

(b) Data Principle

1. Authenticity: Reasonable measures shall be taken to ensure that the source of rating information is adequate and reliable.

2. Fairness: This data follow the principles of fairness and equity, and is taken from the most credible data source.

TokenInsight

Symbols and Definition of Risk Ratings

AAA	Very stable exchange system, ver y low possibility of influenced by external risk, ver y low operation risk
AA	Relatively stable exchange system, relatively low possibility of influenced by external risk, relatively low operation risk
A	Stable exchange system, low possibility of influenced by external risk, low operation risk
BBB	Very strong risk control ability, few abnormal risk possibility, ver y good users ecological operation
BB	Strong risk control ability, less abnormal risk possibility, good users ecological operation
B	Good risk control ability, a few abnormal risk possibility, regular users ecological operation
CCC	Good risk control ability, a few abnormal risk possibility, regular users activeness and experience
CC	Regular risk control ability, some abnormal risk possibility, poor users activeness and experience
C	Poor risk control ability, high abnormal risk possibility, ver y poor users activeness and experience
D	No security protection

TokenInsight

To Obtain the Latest Data and Rating Reports in Blockchain Industry

Website www.tokeninsight.com

Cooperation bd@tokeninsight.com

Other Contacts

WeChat Official Account Tokenin

Official Twitter TokenInsight

Official Weibo TokenInsight

Official Telegram https://t.me/TokenInsightOfficial

WeChat
Mini APP

Official
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TokenInsight Inc.
Global Token Data & Rating Agency