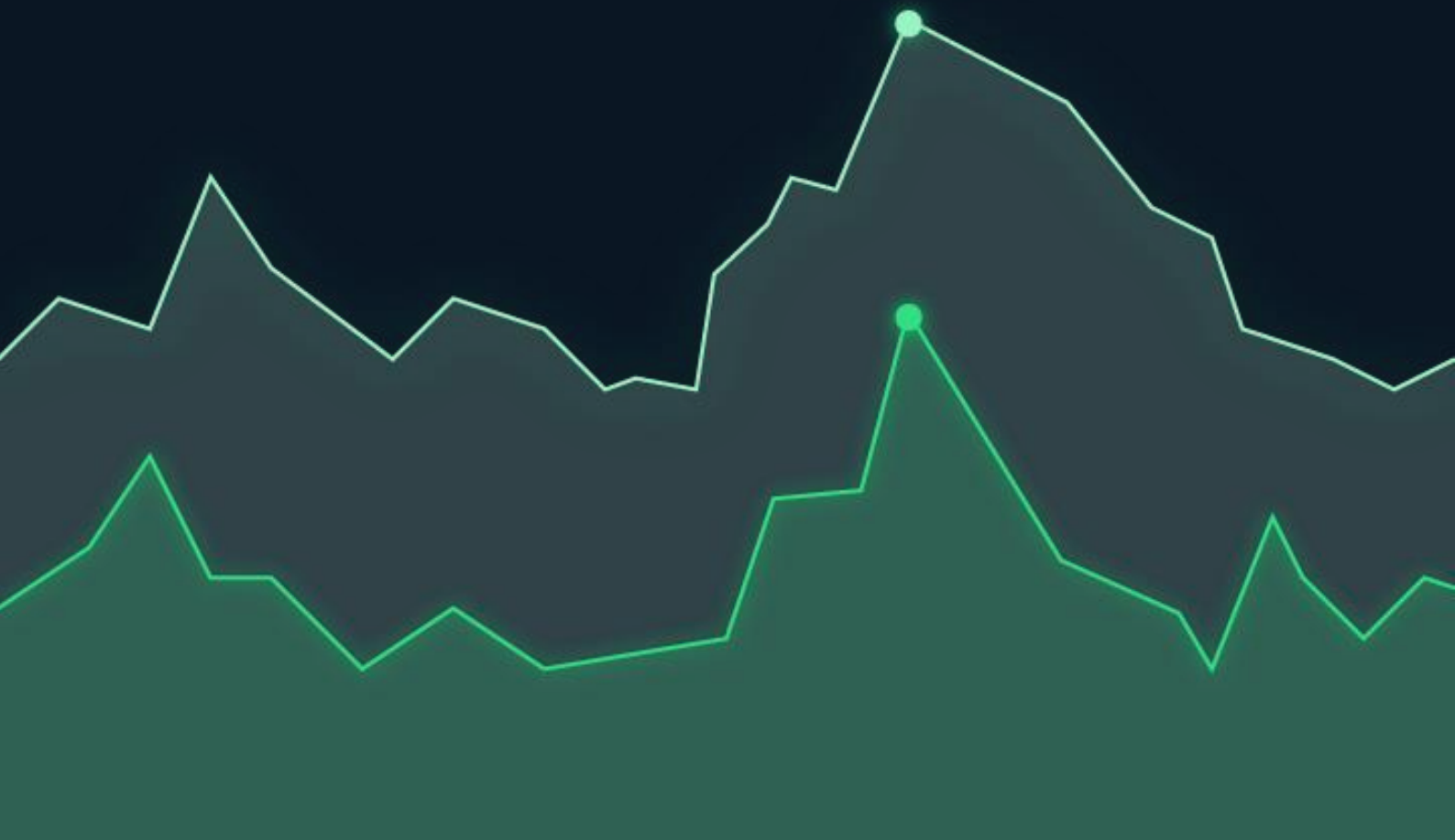




EXCHANGE REVIEW

SEPTEMBER 2019



Abstract

CryptoCompare's Exchange Review aims to capture the key developments within the cryptocurrency exchange market. Our review focuses on analyses that relate to exchange volumes, which include those related to crypto derivatives trading, market segmentation by exchange fee models, and crypto to crypto vs fiat to crypto volumes.

We also conduct an analysis of bitcoin trading into various fiats and stablecoins, an additional overview of top crypto exchange rankings by spot trading volume, as well as a focus on how volumes have developed historically for the top trans-fee mining and decentralized exchanges.

CryptoCompare's Exchange Review is conducted on a monthly basis and caters to both the crypto-enthusiast interested in a broad overview of the crypto exchange market, as well as investors, analysts and regulators interested in more specific analyses.

For questions related to our research or any potential requests, feel free to contact our research department at research@cryptocompare.com.

View the interactive Exchange Review Dashboard:

Exchange Review **Dashboard**

For those interested in accessing CryptoCompare's data for their own purposes, including cryptocurrency trade data, order book data, blockchain data, social data or historical data across thousands of cryptocurrencies and 200+ exchanges, please take a look at CryptoCompare's API here: <https://min-api.cryptocompare.com>

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Executive Summary

Macro Analysis and Market Segmentation

- 1 **Exchange Benchmarking Analysis** – Based on [CryptoCompare's Exchange Benchmark](#) grading methodology, AA-graded exchange volumes decreased 31.6% while Lower-tier exchanges graded D-E, still represented the market majority at 71% (347.2 billion USD). Exchanges with grades AA represented 3.0% (14.87 billion USD) of total aggregate volume in September, while those rated A and B represented 14.3% (71.98 billion USD) and 4.7% (23.86 billion USD) respectively.

On aggregate, volume from Top-tier exchanges (AA-B) decreased 15.0% while volume from Lower-tier exchanges (C-F) decreased 29.7%. Aggregate top-tier exchange volume still only represents 21.9% of the total market (\$111 Bn). Last month, top-tier exchanges represented 19.6% (\$130 Bn).

- 2 **Trade Data Analysis** - Lower-tier exchanges Coinsbit, LBank and P2PB2B had the largest trade sizes relative to other top exchanges at an average of 8.7, 2.1 and 1.2 BTC respectively. D-rated exchange Coinsbit saw an average trade size 21.7 times higher than AA-rated Bitstamp. In terms of trade count, Coinsbit traded an average of 2,526 trades per day, while Bitstamp traded an average of 14,638 trades per day.

Among the top crypto exchanges, Digifinex had the largest average daily trade count (400k trades) combined with a low average trade size (0.177 BTC). This was followed by Binance (300k trades and 0.114BTC) and OKEx (226k trades and 0.09BTC). Other trans-fee mining exchanges such as EXX, CoinBene and BitForex showed relatively high average trade sizes at 0.81 BTC, 0.48 BTC and 0.98BTC per trade respectively.

Among the top fiat exchanges, Liquid had the largest average daily trade count (575k trades) combined with a low average trade size (0.038 BTC). Exchanges itBit, Gemini and Coinone traded a significantly lower number of trades per day (1.68k, 5.2k and 13.9k respectively) combined with higher trade sizes (0.4, 0.27, 0.12 BTC respectively).

- 3 **Predominant Fee Type** - Exchanges that charge taker fees represented 66% of total exchange volume in September, while those that implement trans-fee mining (TFM) represented 32%. Fee-charging exchanges traded a total of 358.2 billion USD in September (up 1.4% since August), while those that implement TFM traded 174.92 billion USD (down 53.4% since August). The remaining volume represented trading by exchanges that charge predominantly no trading fees, at 4.26 billion USD.
- 4 **Institutional BTC Products** - Regulated bitcoin institutional product volumes are still dominated by CME, whose total trading volumes are down 18.3% from August at 4.82 billion USD. CME's bitcoin futures product volumes decreased from a total of 5.9 billion USD traded in August to a total of 4.82 billion USD traded in September. Meanwhile, Grayscale's bitcoin trust product (GBTC), decreased in terms of total trading volume with 713.6 million USD traded in September (down 37.5% from August).
- 5 **Crypto Derivatives Total Monthly Trading** – OKEx was the top derivatives exchange in September in terms of total monthly volume, trading a total of 90.34 billion USD (down 14.9% from August). This was followed by Huobi with total monthly trading at 84.52 billion USD (down 7.3% from August).

- 6 **Derivatives (September Daily Volume Overview)** - During the month of September, OKEx represented the majority of daily derivatives volumes trading at \$3.0Bn per day (33.7% market share) followed by Huobi (2.82Bn, 31.6%), BitMEX (\$1.88 Bn, 21.1%) and bitFlyer (\$797 Mn, 8.9%). Smaller exchanges Deribit and CryptoFacilities (FCA-regulated) represented (\$334Mn, 3.7%) and (\$74Mn, 0.83%) of the market respectively on average.

In September, the most traded derivatives product by trading volume was BitMEX's perpetual BTC futures - trading a total of \$41.7 Bn. Other top products included BTC futures products (Exp. 27th Sept) by Huobi (\$23.3 Bn traded) and OKEx (\$17.4 Bn traded).

In contrast to other derivatives exchanges, CryptoFacilities (owned by Kraken) is FCA-regulated. The majority of their volumes are generated from their BTC and ETH perpetual futures products. CryptoFacilities BTC perpetual products generated \$1.44 Bn in volume in September, while their ETH perpetual products generated \$298 Mn.

Deribit's volumes, like those of CryptoFacilities, originate predominately from their BTC perpetual futures product trading a total of \$7.4 Bn in September. This was followed by Deribit's BTC futures product (exp. 27th Dec) (\$763 Mn). In September, options represented approximately 11% of Deribit's total volume across the month (\$1 Bn). In August, this figure was closer to 9% (~\$0.95 Bn).

- 7 **Fiat Capabilities** - Trading volume from exchanges that offer only crypto pairs represented 84.4% (453.45 billion USD) of total trading volume in September, while fiat to crypto exchanges represented 16.0% (83.93 billion USD). Volume from crypto to crypto exchanges decreased 28.57% in September, while volume from exchanges that offer fiat pairs decreased 17.83%.
- 8 **Bitcoin to Fiat Volumes** - In September, 47.82% of all Bitcoin trading into fiat was made up of the US Dollar. BTC to USD volumes decreased, from 1.33 million BTC in August to 1.07 million BTC in September (down 19.0%). Meanwhile, BTC trading into JPY represented 621,000 BTC in September (down 40.0% from August), while BTC trading into EUR represented 255,000 BTC (down 9.0% from August).
- 9 **Bitcoin to Stablecoin Volumes** - In September, BTC trading into USDT represented 70.95% of total volume (traded into fiat or stablecoin). BTC trading into USDT totalled 6.22 million BTC (down 21.29% from August). USDT continues to be the most popular stablecoin for trading with Bitcoin, followed by USDC and PAX.

Exchange Volumes

1. **Top Crypto to Crypto Exchange Volumes** - BitMax (D-rated) was the top crypto to crypto exchange by total volume in September at 28 billion USD (down 87.8% since August). This was followed by ZB (E-rated) and Binance (A-rated) at 26.9 billion USD (down 4.26%) and 26.19 billion USD (down 7.9%) respectively.
2. **Top Fiat to Crypto Exchange Volumes** - Bithumb (A-rated) was the top fiat to crypto exchange by total volume in September at 17.17 billion USD (down 5.02% from August). This was followed by P2PB2B (Not Graded) and Coinsbit (D-rated) at 12.89 billion USD (down 2.92%) and 6.64 billion USD (up 101.38%) respectively.
3. **Trans-Fee Mining Exchanges** - BitMax was the top TFM exchange by total volume in September at 28.0 billion USD (down 87.88%), followed by CoinBene at 26.14 billion USD (down 6.66%) and Bitforex at 23.37 billion USD (down 3.14%).
4. **Decentralized Exchanges** - DDEX was the largest DEX in September trading a total of 30.98 million USD (down 9.31%), followed by IDEX and BitSquare trading 14.28 million USD (down 34.97%) and 10.78 million USD (down 56.24%) respectively. DEXs represent only a small fraction of global spot exchange volume (0.01%), trading a monthly total of 61.17 million USD in September.

September Exchange News

COMPANY	STORY	DATE
Binance	Binance Acquires Crypto Exchange JEX to Boost Derivatives Offerings	Sep 3 2019
LINE	Japan's LINE Granted License to Launch Cryptocurrency Exchange	Sep 6 2019
Gemini	Gemini Launches Gemini Custody	Sep 10 2019
Binance	Binance Futures Goes Live	Sep 12 2019
Bakkt	Bakkt's Bitcoin Futures Trading Goes Live	Sep 23 2019
Binance	Binance US Launches Trading Services	Sep 24 2019
Bitfinex	Bitfinex Retools Tokinex as Bitfinex Token Sales	Sep 24 2019
Coinbase, Kraken, Bittrex	Industry-led Governance Body Crypto Ratings Council Announced	Sep 30 2019

September Exchange News

After a summer that began with feverish activity in the crypto markets, September brought a splash of cold water. Not only did the volumes on major exchanges fail to pick up from the pallid activity in August, an end of month crescendo brought both the price of bitcoin and market cap of crypto as a whole back to pre-summer levels. What the exchanges lacked in activity over the month, they made up for in news with several announcements and events indicating significant activity ahead in quarter four of 2019.

Binance US goes live

One of the most impactful events of the month was the launch of Binance's new US-based platform. The geo-blocking of US investors from Binance's main site was understood to be the result of growing scrutiny into the exchange's laissez-faire attitude towards regulation. The massive decline in US trading on the platform volume is considered as one of the major factors in altcoins' languid price action over the summer months.

The launch of the FinCEN-registered Binance US platform appears to have been a positive development. Under the cool hands of Catherine Coley, the exchange has already opened markets for 13 assets and is offering zero trading fees until the end of the year.

Competition heating up in derivatives

Maturation in the crypto markets has brought interest in institutional-grade products, including derivatives. Futures trading in crypto has largely been the province of BitMEX, which regularly registers enormous volumes for its perpetual swap futures contracts.

Other exchanges are however seeing the appetite for futures and are bringing their own offerings to the market. The long-awaited Bakkt daily and monthly futures finally went live in September. Offering physical settlement and custody, the platform is seen as a missing piece in bringing more institutions to crypto. Low volumes in its initial days of trading failed to maintain the positive sentiment, however, contributing to Bitcoin's collapse from the \$10k range.

Not to be left behind, Binance also introduced two new products. Its JEX derivatives platform and its Binance Futures both serve a more mature audience than its spot exchange. Uptake has so far been encouraging, with Futures attracting upwards of \$330 million in daily volume and JEX more than \$190 million.

The death of IEOs? Not quite yet

In Q1 2019, the popularity of Initial Exchange Offerings (IEOs) was a major factor in driving the recovery of the markets. Binance led the trend with several major launches, including BitTorrent, Fetch.AI and Harmony. While Binance has cooled activity on IEOs, other exchanges are pursuing them as a way to attract attention and new user registrations. In September, Bitfinex announced it would be launching the K.IM token, a

project developed by renowned entrepreneur Kim Schmitz (aka. Kim Dotcom) seeking to reward content creation.

Institutional custody solutions

2019 has seen big strides in the area of crypto custody. Considered one of the remaining barriers for institutional adoption, secure solutions by Bakkt, Coinbase and others are helping to bridge the gap for major organisations. Gemini, the New York-based exchange run by the Winklevoss twins, announced it would be launching custody for 18 assets as part of its efforts to bring better security practices to the space.

Common standards on securities

The explosion in tokens in recent years has brought a greater challenge not only for regulators, but also for exchanges seeking to remain compliant with existing standards. In an effort to encourage greater self-policing, several exchanges including Coinbase, Bittrex and Kraken have joined forces to create the Crypto Rating Council. The group has issued initial analysis on whether existing projects would be deemed securities. The top ratings have currently been attributed to Bitcoin, Litecoin, Monero and DAI.

Unlocking adoption in Japan

Finally, crypto adoption in Japan has received a major boost with the news that LINE, a popular communications app, has received a license from the government to launch its own exchange. The news aligns with a global trend of social media and communications platforms investigating digital assets.

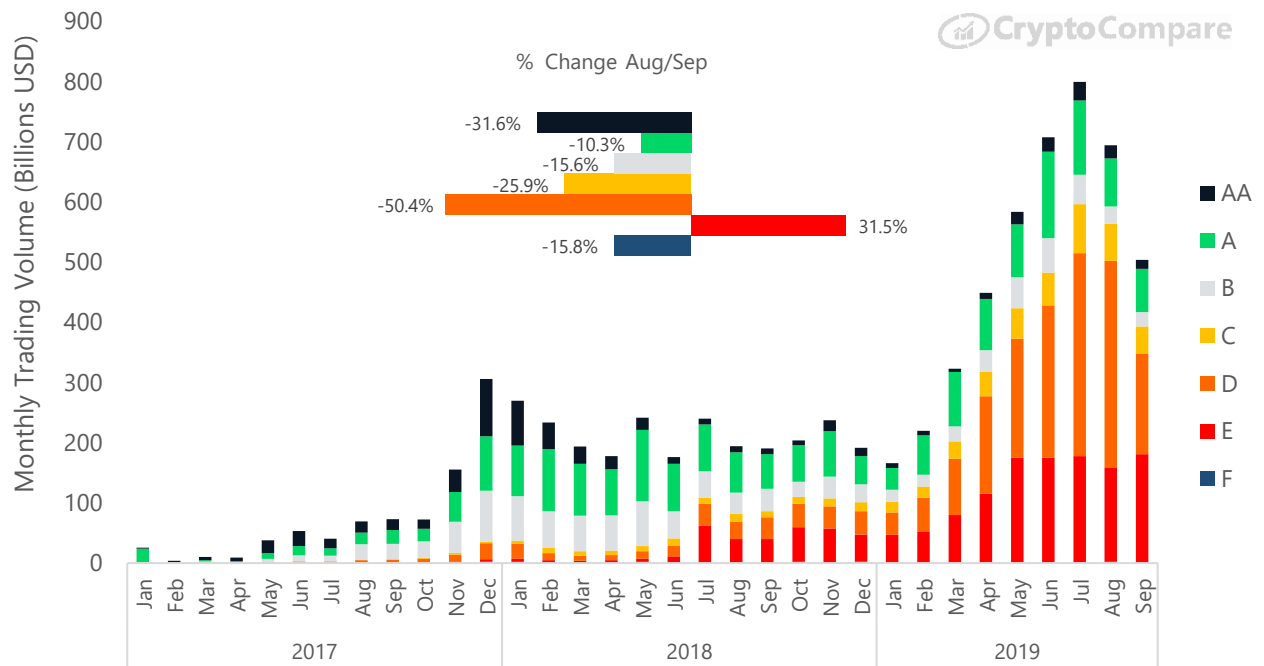
Exchange Benchmarking Analysis

CryptoCompare's Exchange Benchmark aims to serve investors, regulators and crypto enthusiasts by scoring exchanges in terms of transparency, operational quality, regulatory standing, data provision, management team, and their ability to monitor trades and illicit activity effectively. Rather than drawing attention specifically to bad actors, we instead highlight those that behave in a manner that is conducive to maintaining an efficient and fair market, ensuring greater safety of investors. We have hence introduced the notion of "Top-tier" vs "Lower-tier" volumes.

Explore the Exchange Benchmark [here](#)

1 Aggregate Monthly Exchange Volumes

Figure 1 - Aggregate Monthly Volume by Grade

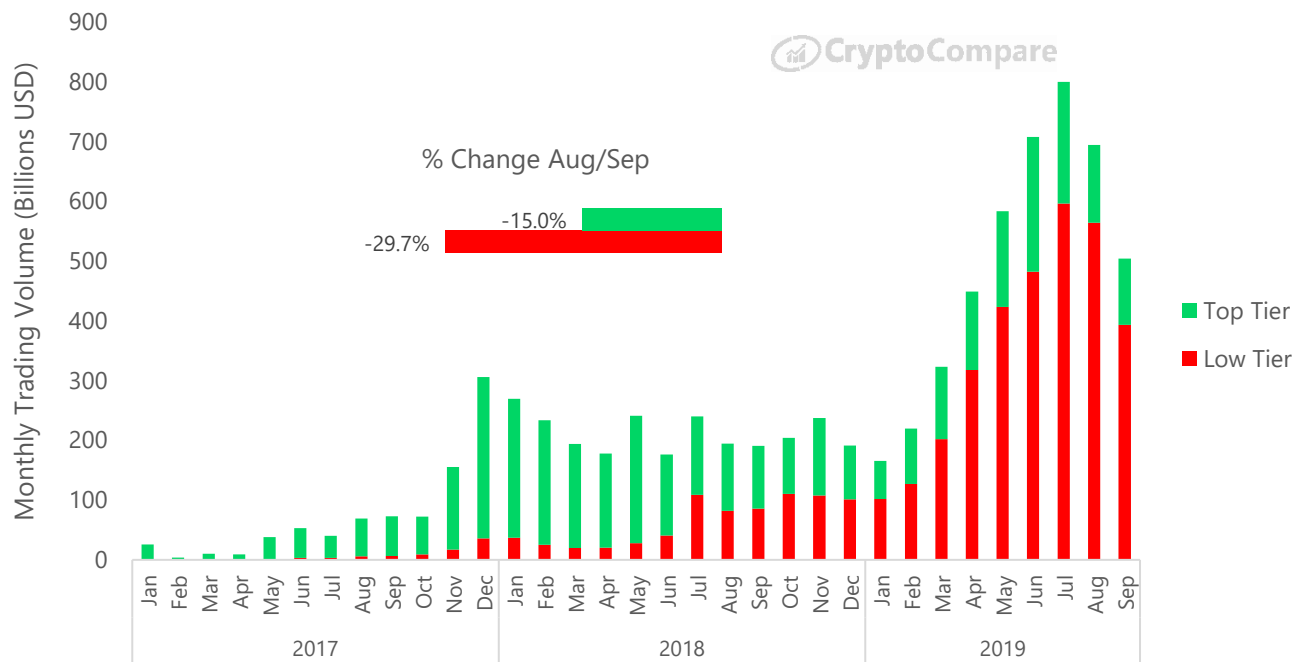


AA-graded exchange volume decreased 31.6% while Lower-tier exchanges graded D-E, still represented the market volume majority.

Exchanges with grades AA 3.0% (14.87 billion USD) of total aggregate volume in September, while those rated A and B represented 14.3% (71.98 billion USD) and 4.7% (23.86 billion USD) respectively.

Trading volume is still dominated by Lower-tier exchanges, with D-E rated exchanges representing 71.0% combined (347.2 billion USD). In September, volume from top-tier exchanges (AA and A) decreased 31.6% and 10.3% respectively. Meanwhile volume from E-rated exchanges (representing 179.06 billion USD) increased nearly 31.5% from the previous month.

Figure 2 Aggregate Monthly Volume by Tier

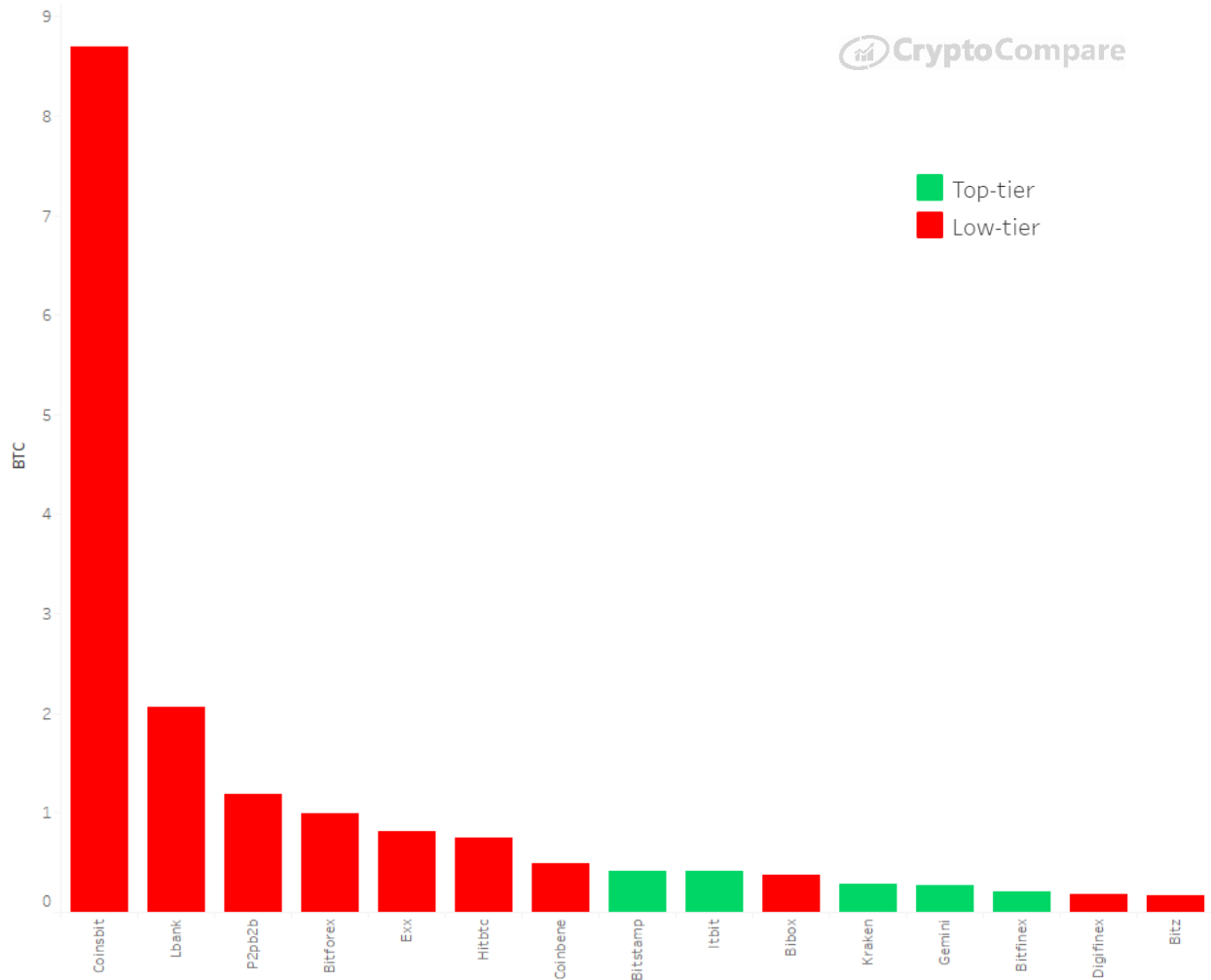


On aggregate, volume from Top-tier exchanges (AA-B) decreased 15.0% while volume from Lower-tier exchanges (C-F) decreased 29.7%

Aggregate top-tier exchange volume still only represents 21.9% of the total market (\$111 Bn). In August, top-tier exchanges represented 19.6% (\$130 Bn).

2 Trade Data Analysis by Tier Level

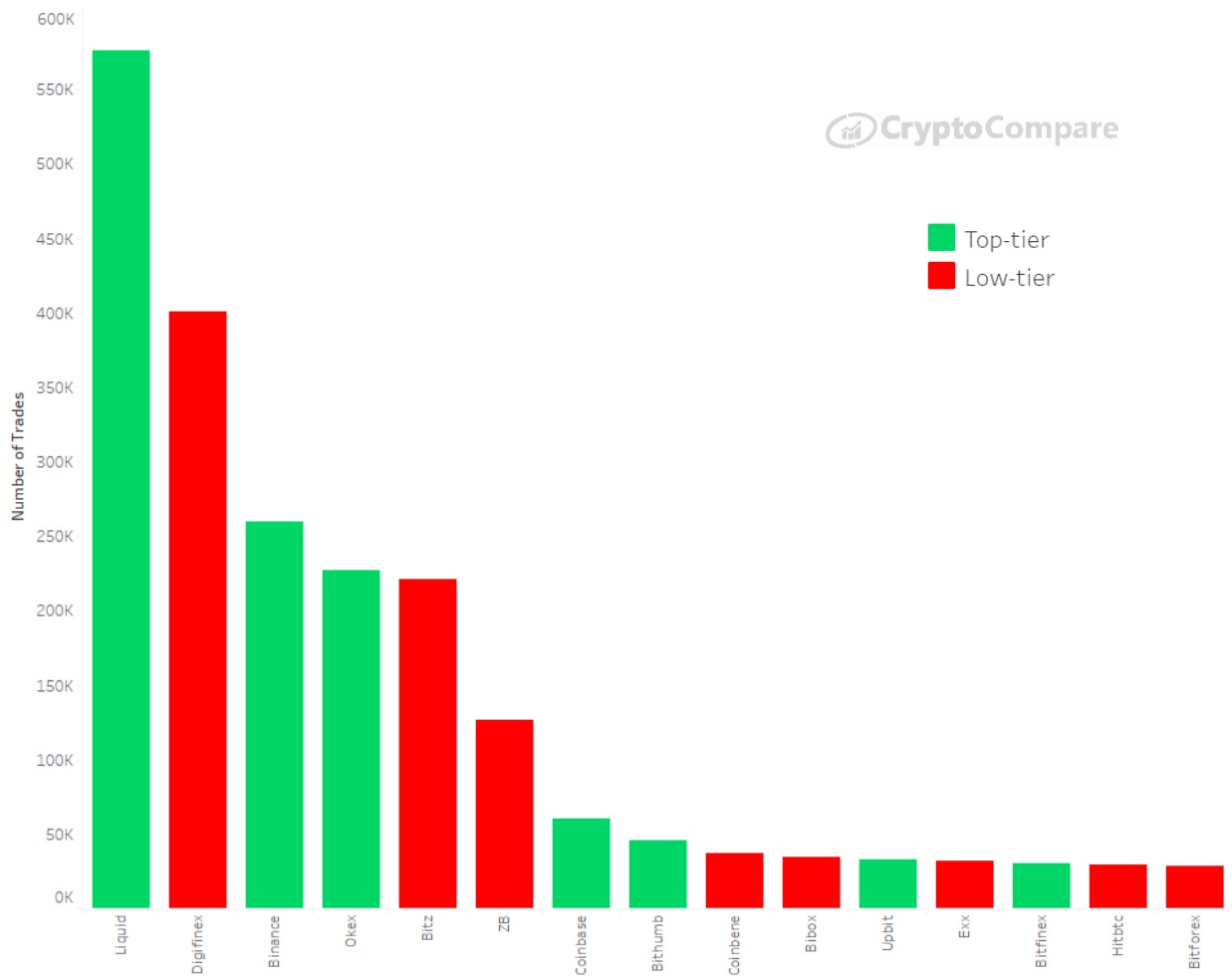
Figure 3 - Average Daily Trade Size (BTC) vs Trust Level – BTC Markets¹



Low-tier exchanges Coinsbit, LBank and P2PB2B had the largest trade sizes relative to other top exchanges at an average of 8.7, 2.1 and 1.2 BTC respectively. D-rated exchange Coinsbit saw an average trade size *21.7 times higher* than AA-rated Bitstamp. In terms of trade count, Coinsbit traded an average of 2,526 trades per day, while Bitstamp traded an average of 14,638 trades per day.

¹ Average daily trade size was calculated based on the daily average trade size for market, and then averaged over the course of a month of September. Markets vary for each exchange and include: BTC/USD, BTC/USDT, BTC/KRW, and BTC/JPY

Figure 4 - Average Daily Trade Count vs Trust Level - BTC Markets²



In a similar fashion to previous months, Liquid (Top-tier) saw the greatest number of trades at an average of more than 575,000 trades per day in September.

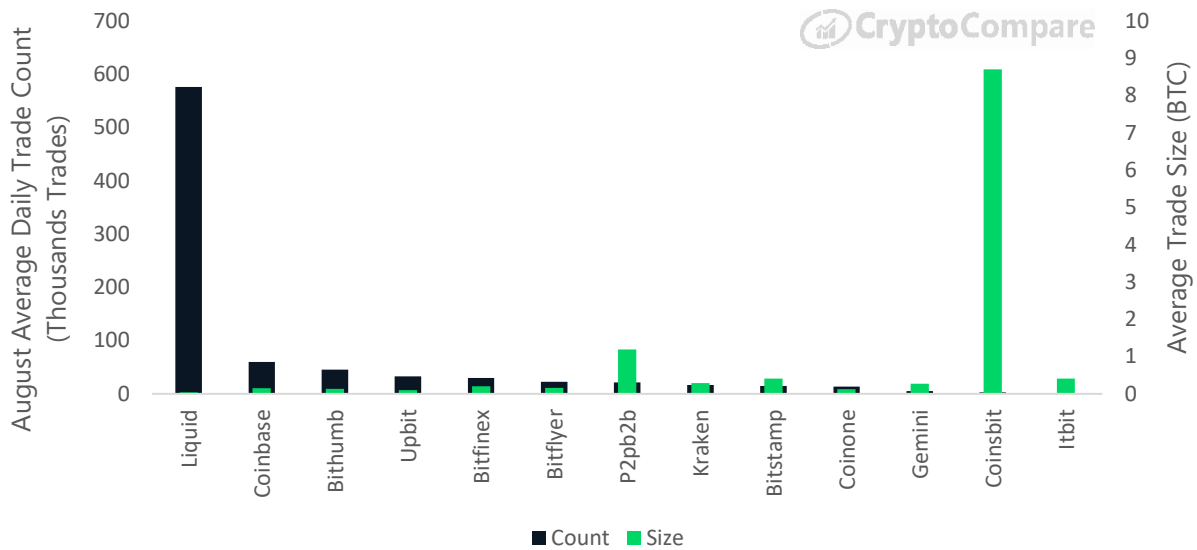
This was followed by Digifinex (more than 400,000 trades per day, Low-tier) and Binance (more than 260,000 trades per day, Top-tier)

² Average daily trade count was calculated based on the trade count per day, averaged over the month. Same markets as above.

Trade Data Analysis – Top Exchanges

1 Trade Count and Size

Figure 5 - Trade Count and Size - Top Crypto to Fiat Exchanges by Volume in September

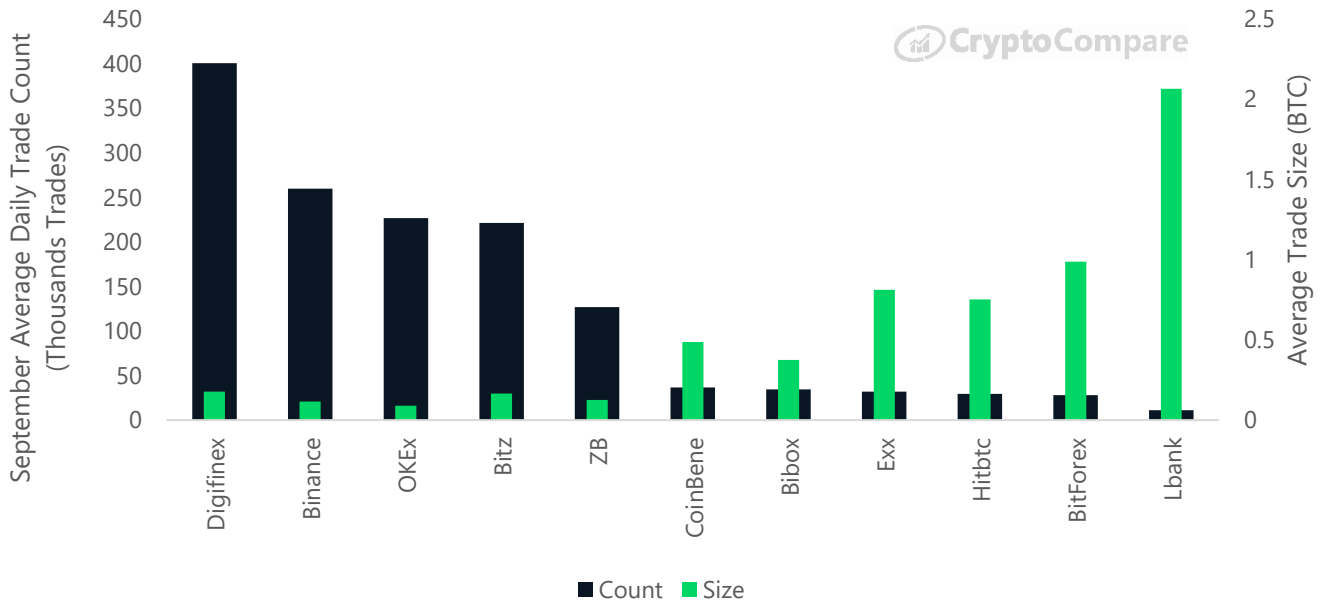


*Note, the above chart analyses data from bitcoin trading into the most relevant fiat currency for each exchange. For example, Liquid's numbers refer to its BTC-JPY market while those of Coinbase refer to its BTC-USD market etc.

Among the top fiat exchanges, Liquid had the largest average daily trade count (575k trades) combined with a low average trade size (0.038 BTC).

Exchanges itBit, Gemini and Coinone traded a significantly lower number of trades per day (1.68k, 5.2k and 13.9k respectively) combined with higher trade sizes (0.4, 0.27, 0.12 BTC respectively).

Figure 6 - Trade Count and Size - Top Crypto to Crypto Exchanges by Volume in September



*Note, the above chart analyses data from bitcoin trading into USDT for each exchange.

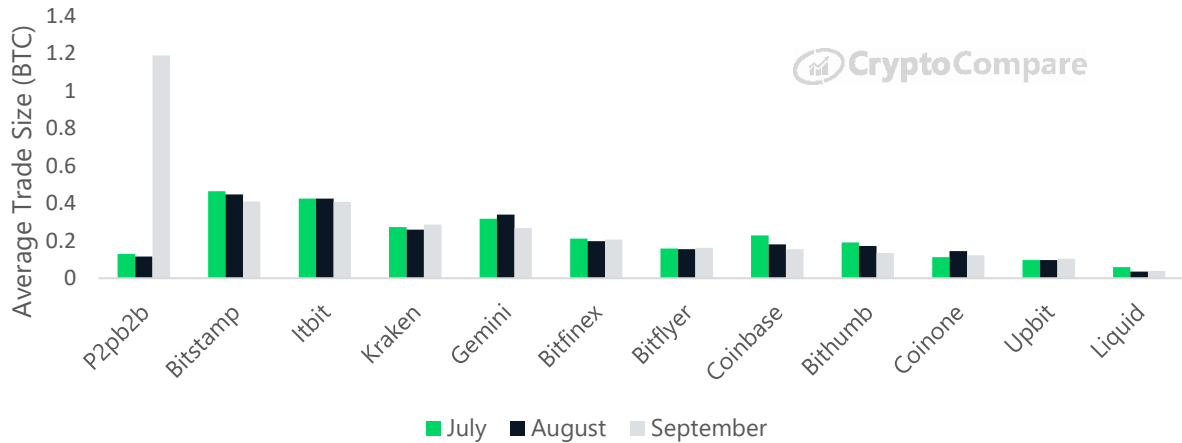
Among the top crypto exchanges, Digifinex had the largest average daily trade count (400k trades) combined with a low average trade size (0.177 BTC).

This was followed by Binance (300k trades and 0.114BTC) and OKEx (226k trades and 0.09BTC).

LBank continued to show significantly larger trade sizes relative to the same group at 2.06 BTC, and only 11,000 trades per day on average. Other trans-fee mining exchanges such as EXX, CoinBene and BitForex also showed relatively high average trade sizes at 0.81 BTC, 0.48 BTC and 0.98BTC per trade respectively.

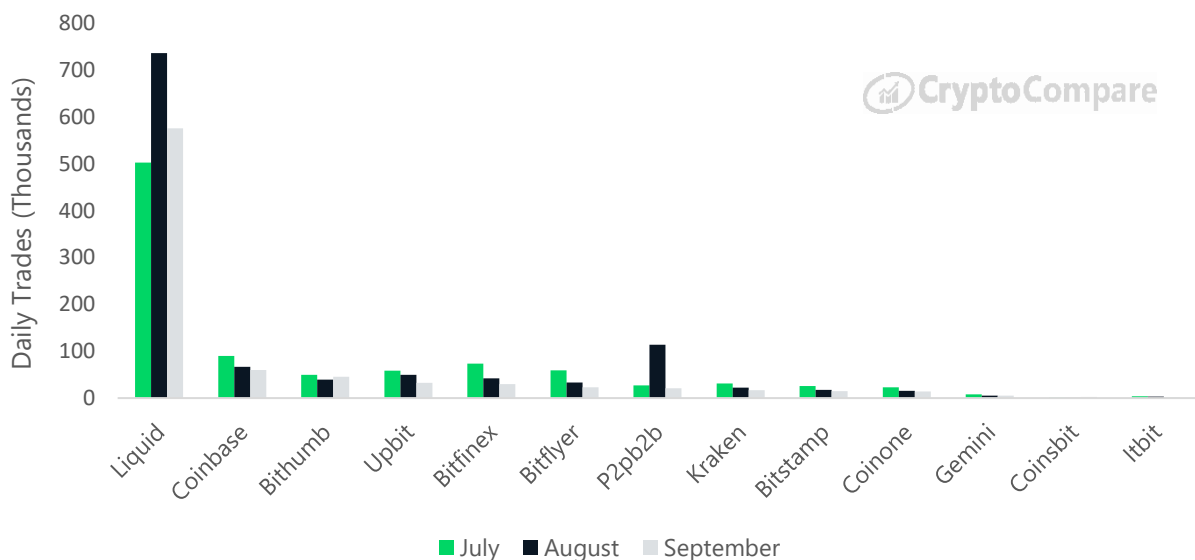
2 Historical Trade Count and Size

Figure 7 – Historical Average Trade Size (BTC) – Crypto to Fiat Exchanges



Exchanges P2PB2B, Bitstamp and ItBit had the highest average trade sizes in September among the top fiat exchanges by volume. Meanwhile, exchanges Upbit and Liquid have consistently maintained the lowest trade sizes.

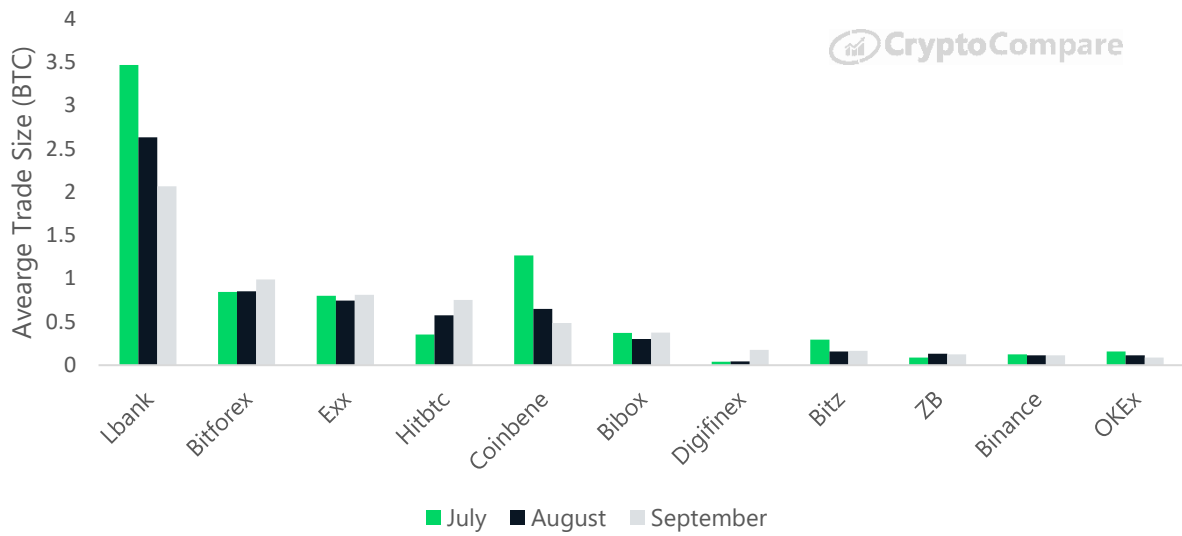
Figure 8 – Historical Daily Average Trade Count – Crypto to Fiat Exchanges



Liquid has consistently maintained the top spot in terms of trade count over the last three months for its BTC-JPY market, with the number of trades since August decreasing 21%.

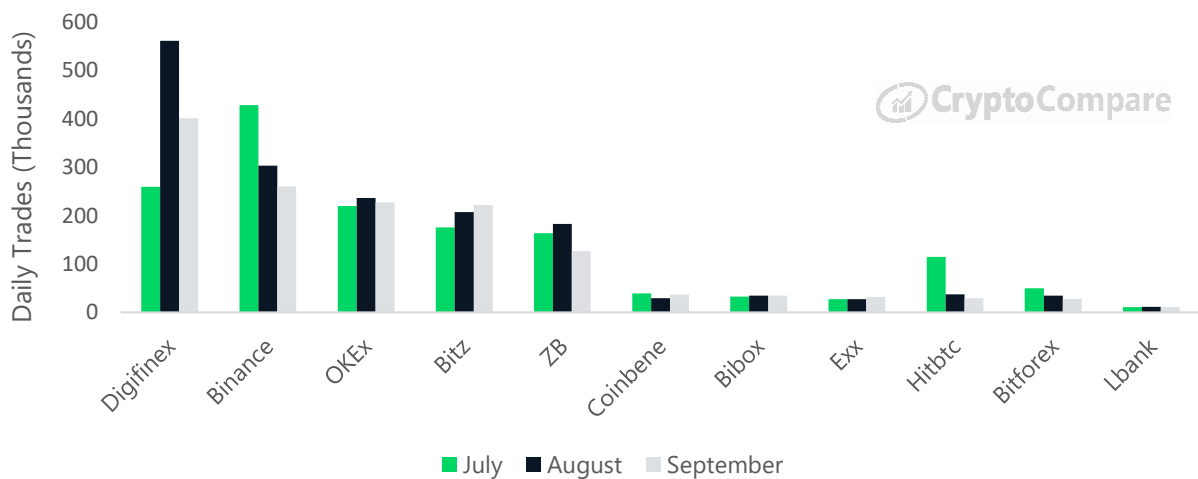
Liquid has seen an average of 9.6 times more trades than next largest exchange in terms of trade count (Coinbase) over the last month.

Figure 9 - Historical Average Trade Size (BTC) – Crypto to Crypto Exchanges



Exchanges LBank, BitForex and EXX have maintained the highest average trade sizes over the last three months among the largest crypto exchanges by volume. Meanwhile, exchanges Binance, OKEx and ZB have consistently maintained low trade sizes.

Figure 10 - Historical Daily Average Trade Count – Crypto to Crypto Exchanges



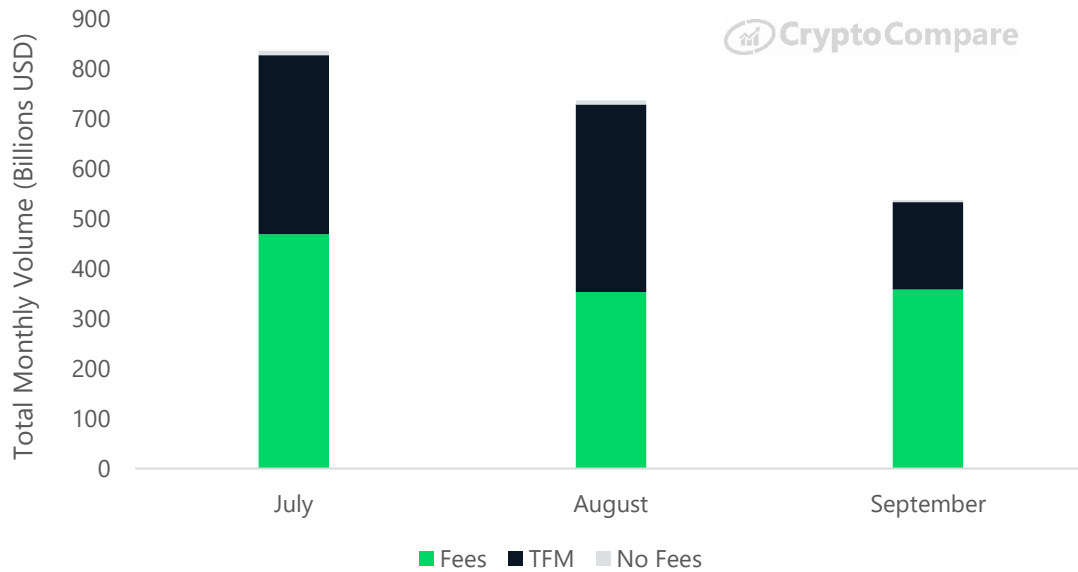
*Data in above chart represents BTC-USDT markets

Digifinex, Binance and OKEx saw the highest trade count consistently over the last three months.

Macro Analysis and Market Segmentation

1 Segmentation by Fee-Type

Figure 11 - Total Monthly Trading Volume by Predominant Fee Type

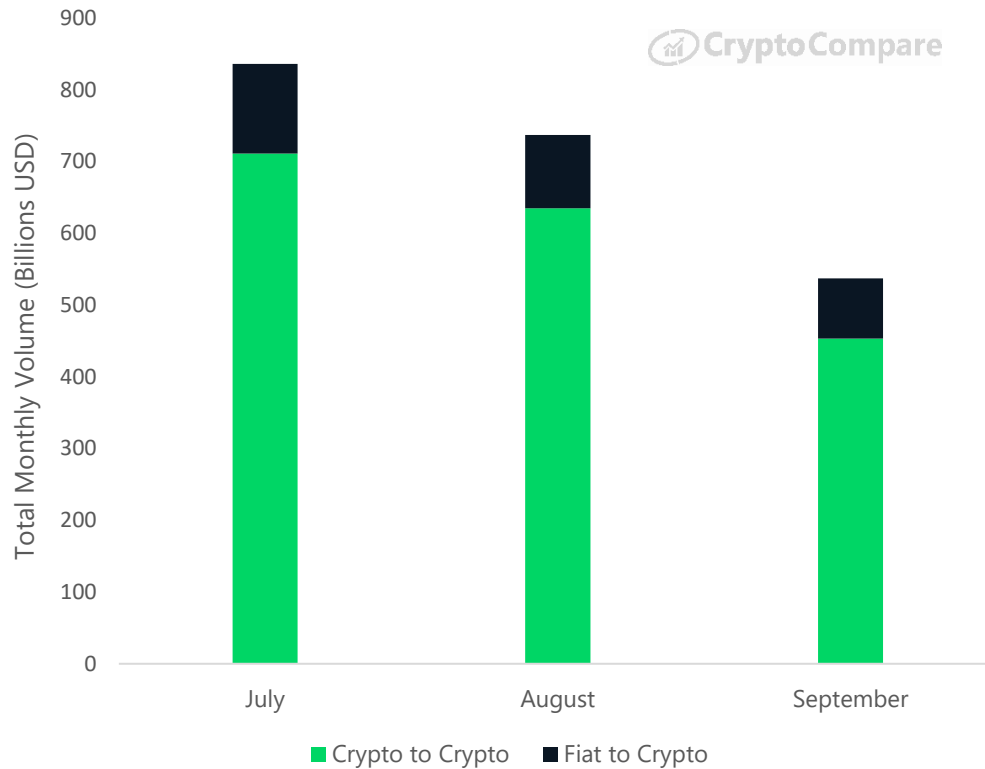


Exchanges that charge taker fees represented 66% of total exchange volume in September, while those that implement trans-fee mining (TFM) represented 32%.

Fee-charging exchanges traded a total of 358.2 billion USD in September (up 1.4% since August), while those that implement TFM traded 174.92 billion USD (down 53.4% since August). The remaining volume represented trading by exchanges that charge predominantly no trading fees, at 4.26 billion USD.

2 Segmentation by Fiat Pair Trading Capability

Figure 14 - Monthly Total Volume: Crypto to Crypto vs Fiat to Crypto Exchanges

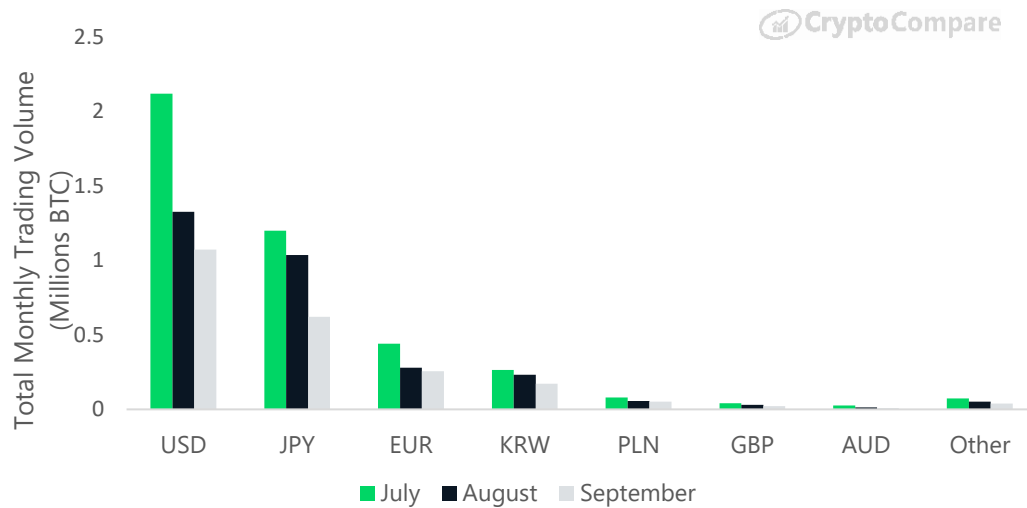


Trading volume from exchanges that offer only crypto pairs represented 84.4% (453.45 billion USD) of total trading volume in September, while fiat to crypto exchanges represented 16.0% (83.93 billion USD).

Volume from crypto to crypto exchanges decreased 28.57% in September, while volume from exchanges that offer fiat pairs decreased 17.83%.

3 Bitcoin to Fiat Volumes

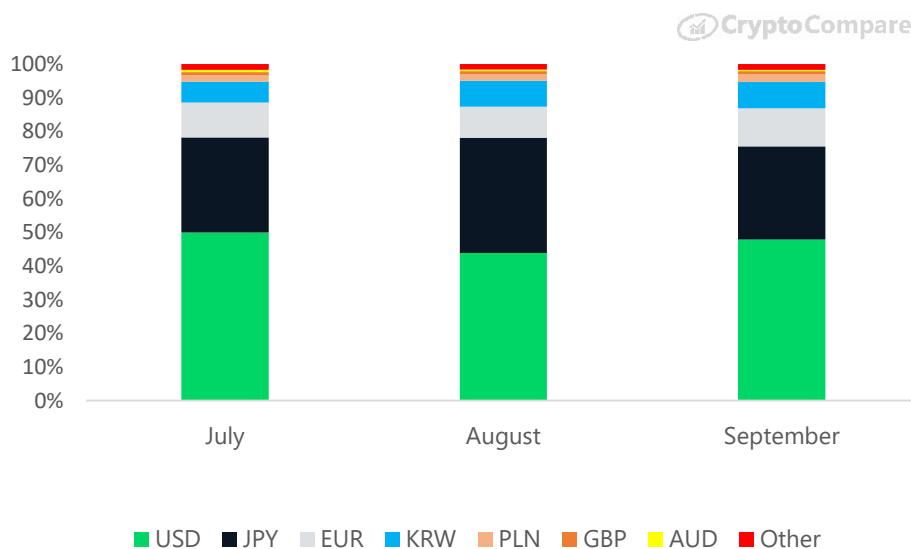
Figure 15 - Historical Monthly Bitcoin Trading Volume into Fiat



In September, 47.82% of all Bitcoin trading into fiat was made up of the US Dollar. BTC to USD volumes decreased, from 1.33 million BTC in August to 1.07 million BTC in September (down 19.0%).

Meanwhile, BTC trading into JPY represented 621,000 BTC in September (down 40.0% from August), while BTC trading into EUR represented 255,000 BTC (down 9.0% from August).

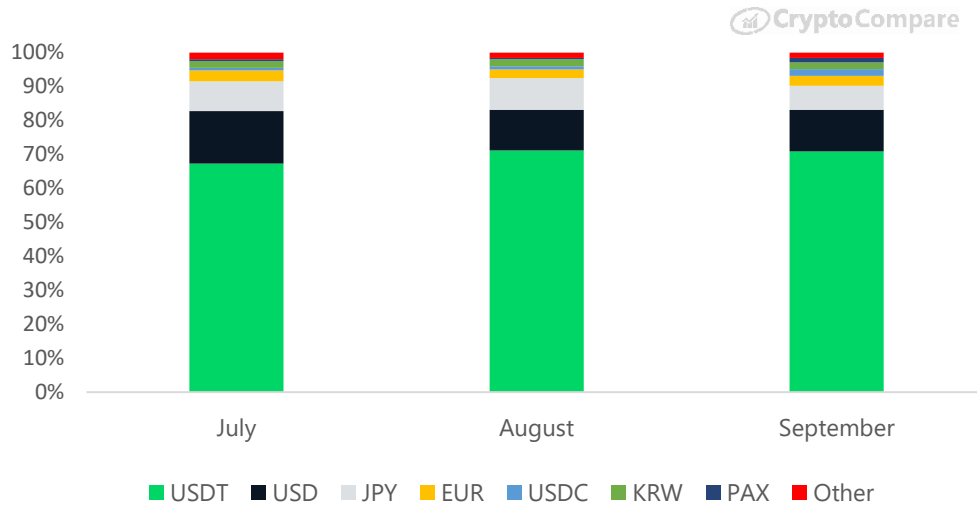
Figure 16 - Monthly Proportion of Total Monthly Bitcoin Trading into Fiat



In September, JPY, EUR, KRW and PLN made up 94.04% of total trading from Bitcoin into fiat.

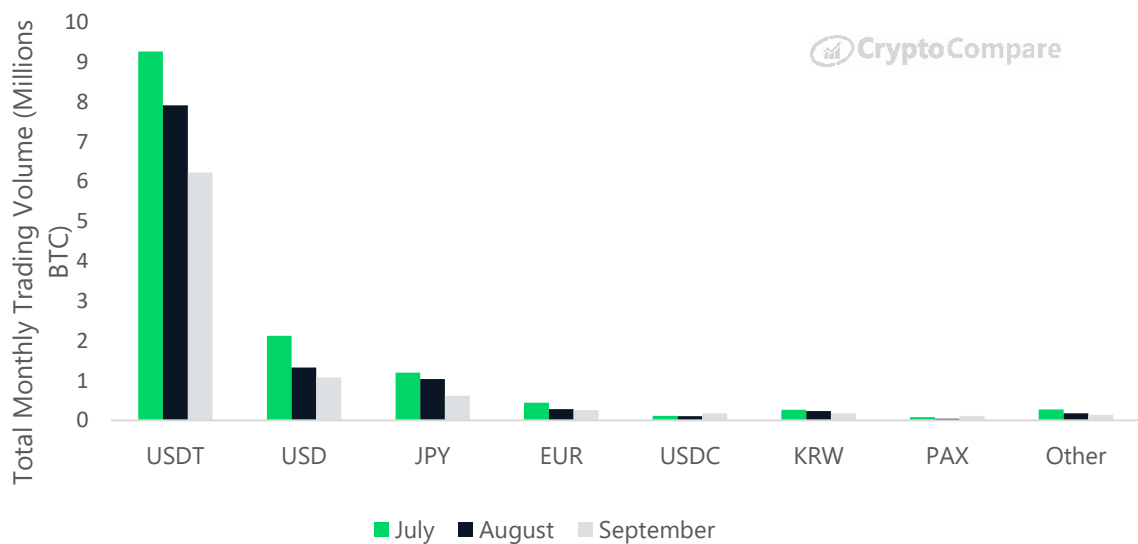
4 Bitcoin to Stablecoin Volumes

Figure 17 - Proportion of Total Monthly Bitcoin trading into Fiat or Stablecoins



In September, BTC trading into USDT represented 70.95% of total volume (traded into fiat or stablecoin).

Figure 18 - Historical Monthly Bitcoin Trading into Fiat or Stablecoins



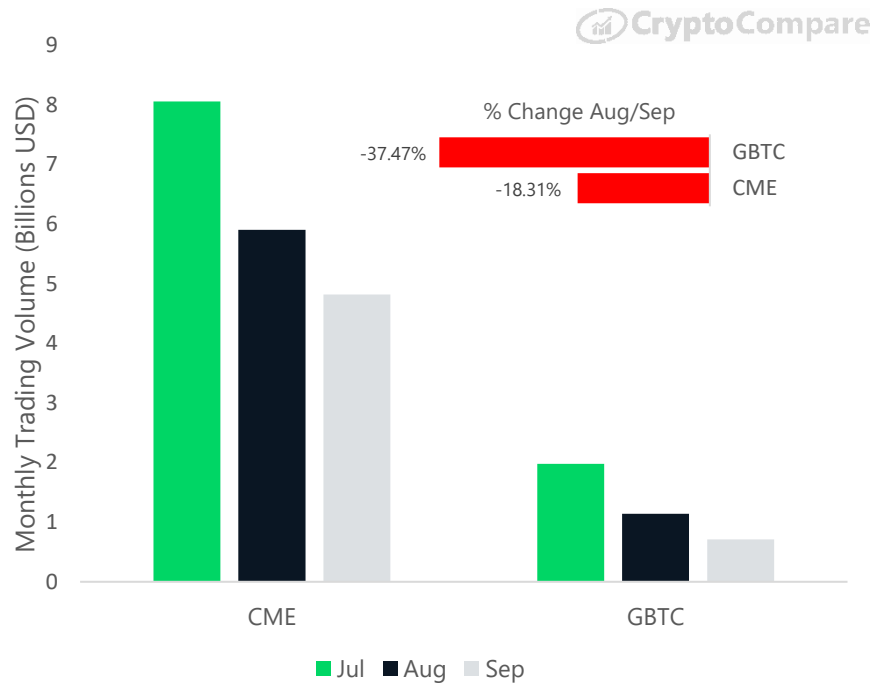
BTC trading into USDT totalled 6.22 million BTC (down 21.29% from August).

USDT continues to be the most popular stablecoin for trading with Bitcoin, followed by USDC and PAX.

September Overview – Derivatives Products

1 Bitcoin Derivatives Monthly Volume: Institutional Products

Figure 19 – Total Monthly Bitcoin Institutional Product Volumes

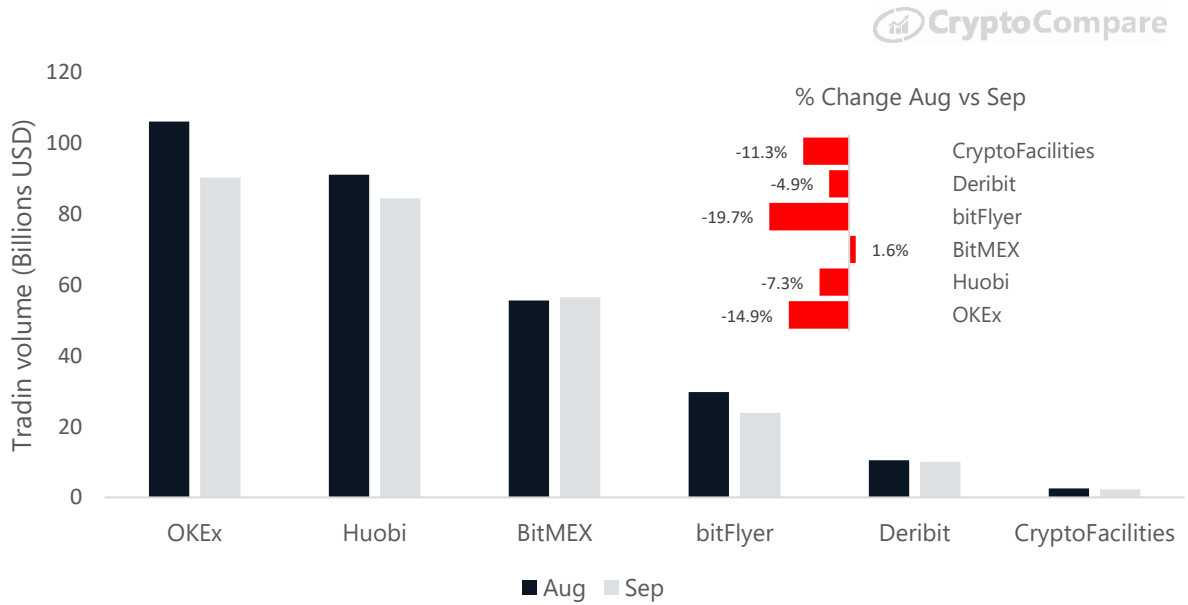


Regulated bitcoin derivatives product volumes are still dominated by CME, whose total trading volumes are down 18.3% from August at 4.82 billion USD.

CME’s bitcoin futures product volumes decreased from a total of 5.9 billion USD traded in August to a total of 4.82 billion USD traded in September. Meanwhile, Grayscale’s bitcoin trust product (GBTC), decreased in terms of total trading volume with 713.6 million USD traded in September (down 37.5% from August).

2 Crypto Derivatives Total Monthly Volume: Crypto Exchanges

Figure 20 – Total monthly derivatives exchange volumes³

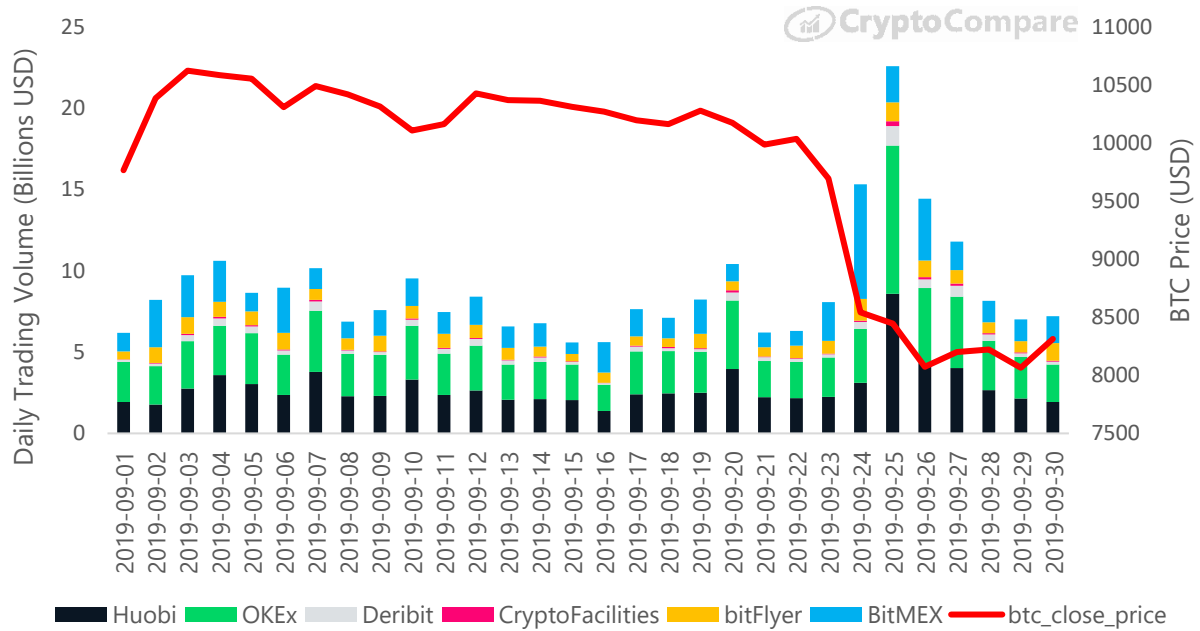


OKEx was the top derivatives exchange in September, trading a total of 90.34 billion USD (down 14.9% from August). This was followed by Huobi with trading at 84.52 billion USD (down 7.3% from August).

³ All volumes in USD, based on an aggregation of all products. Note: BitMEX volumes represent their BTC/USD perpetual futures product. bitFlyer Lightning volumes represent their BTC/JPY perpetual futures product (in USD).

3 Derivatives Exchange Volumes in September - Overview

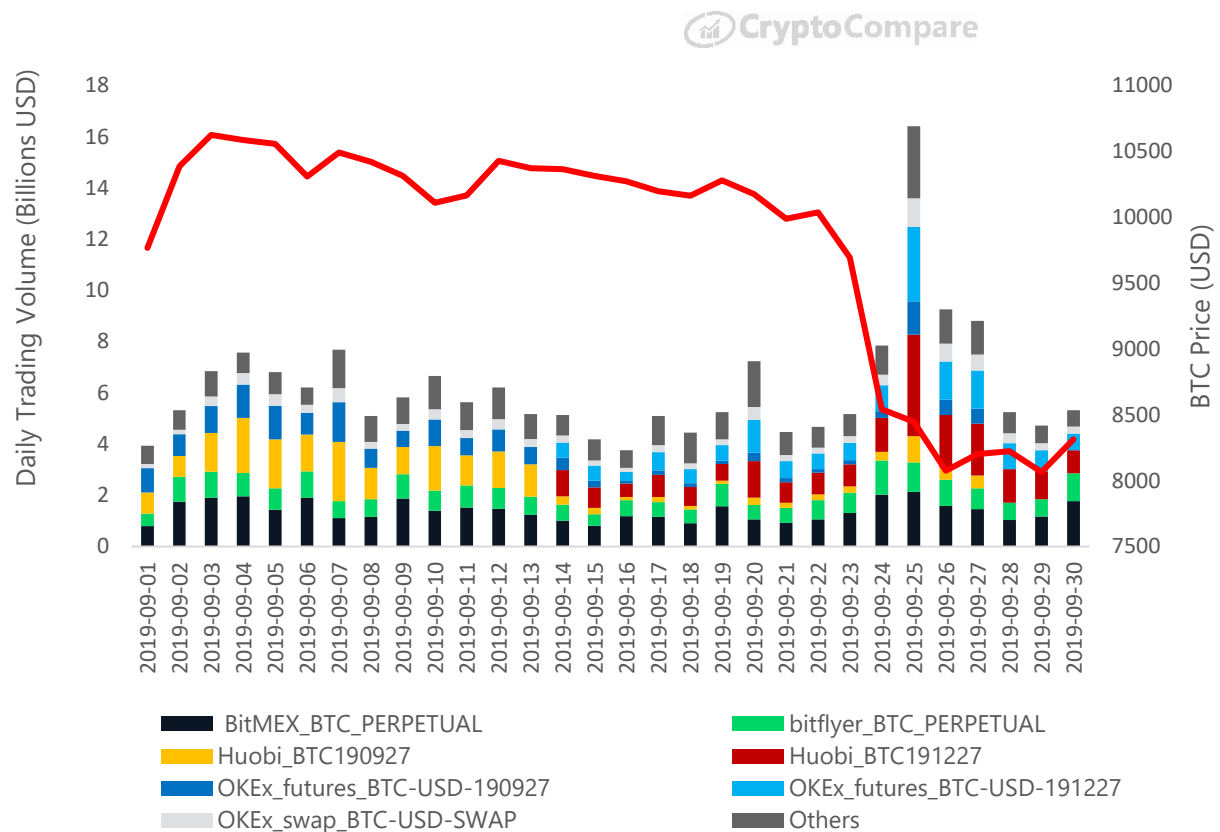
Figure 21 - Total Derivatives Exchange Volume



During the month of September, OKEx represented the majority of daily derivatives volumes trading at \$3.0Bn per day (33.7% market share) followed by Huobi (2.82Bn, 31.6%), BitMEX (\$1.88 Bn, 21.1%) and bitFlyer (\$797 Mn, 8.9%).

Smaller exchanges Deribit, and CryptoFacilities (FCA-regulated) represented (\$334Mn, 3.7%) and (\$74Mn, 0.83%) of the market respectively on average.

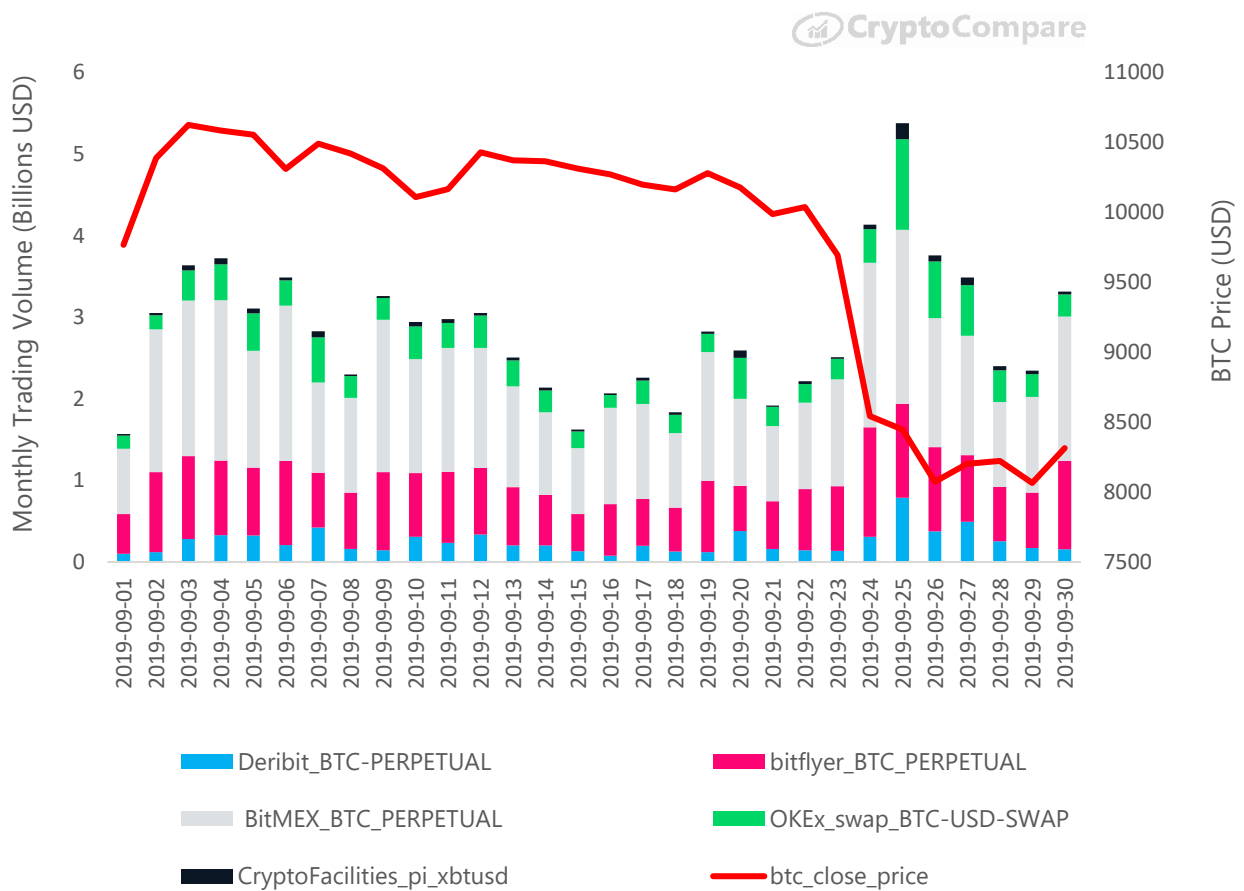
Figure 22 - Top Products in September



In September, the most traded derivatives product by trading volume was BitMEX’s perpetual BTC futures trading a total of \$41.7 Bn.

Other top products included BTC futures products (Exp. 27th Sept) by Huobi (\$23.3 Bn traded) and OKEx (\$17.4 Bn traded).

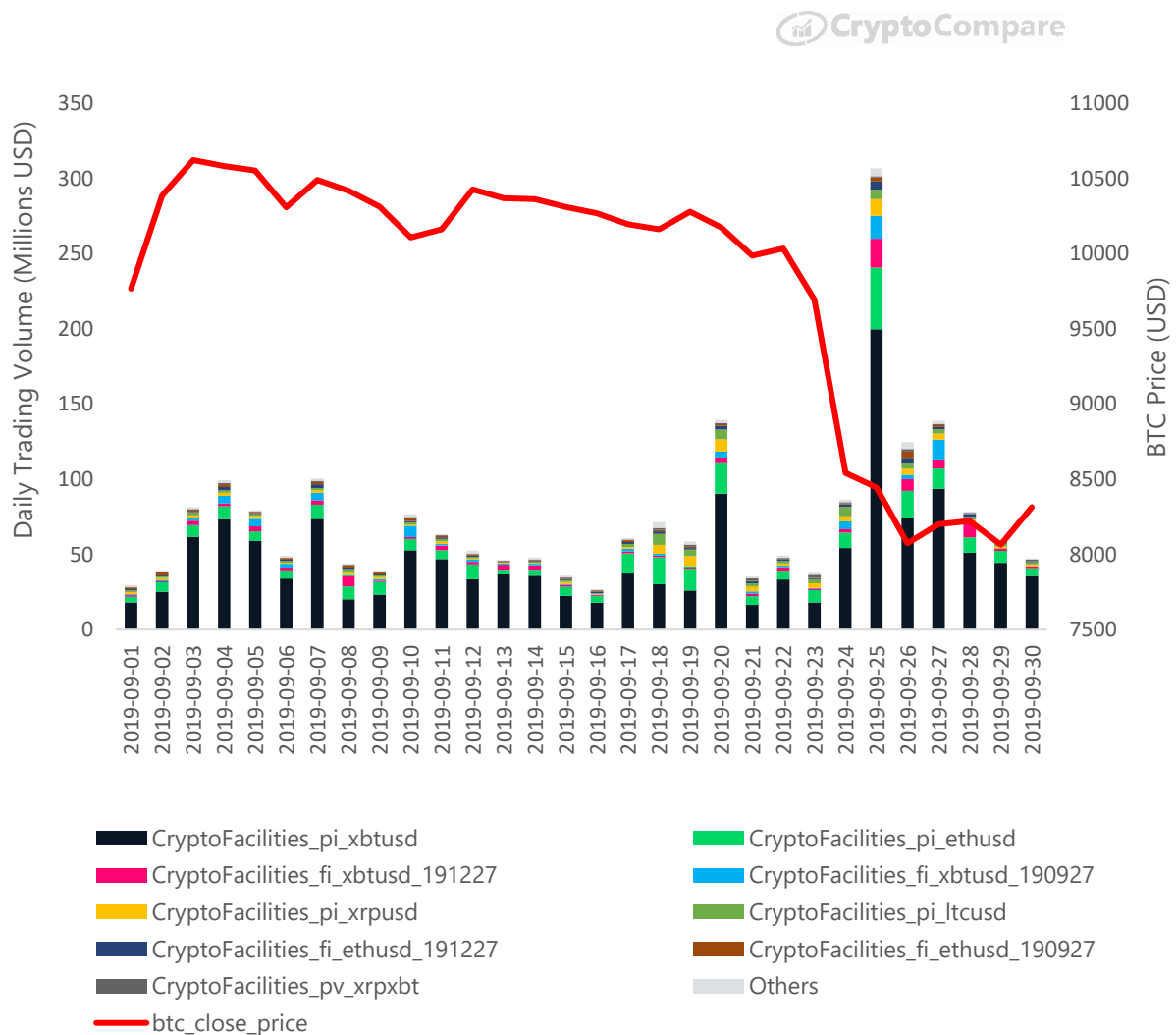
Figure 23 - Top Perpetual Futures Products in September



In terms of perpetual BTC futures products, BitMEX and bitFlyer represent most of the market volume, trading totals of \$41.7 Bn and \$23.9 Bn respectively.

This was followed by OKEx and Deribit perpetual swaps with totals of \$10.8 Bn and \$7.4 Bn traded in September respectively.

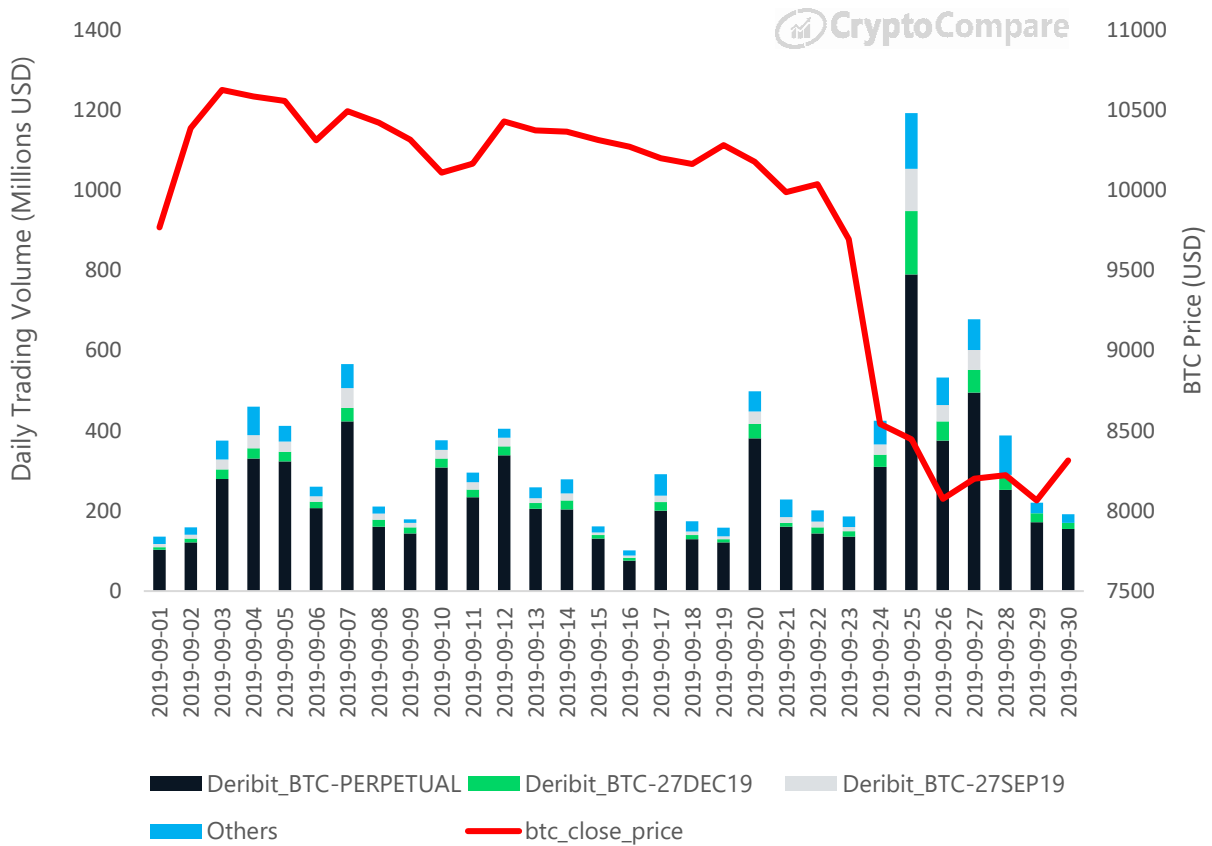
Figure 24 - CryptoFacilities Products - Regulated by the FCA



In contrast to other derivatives exchanges, CryptoFacilities (owned by Kraken) is FCA-regulated. The majority of their volumes are generated from their BTC and ETH perpetual futures products.

CryptoFacilities BTC perpetual products generated \$1.44 Bn in volume in September, while their ETH perpetual products generated \$298 Mn.

Figure 25 - Deribit Derivatives

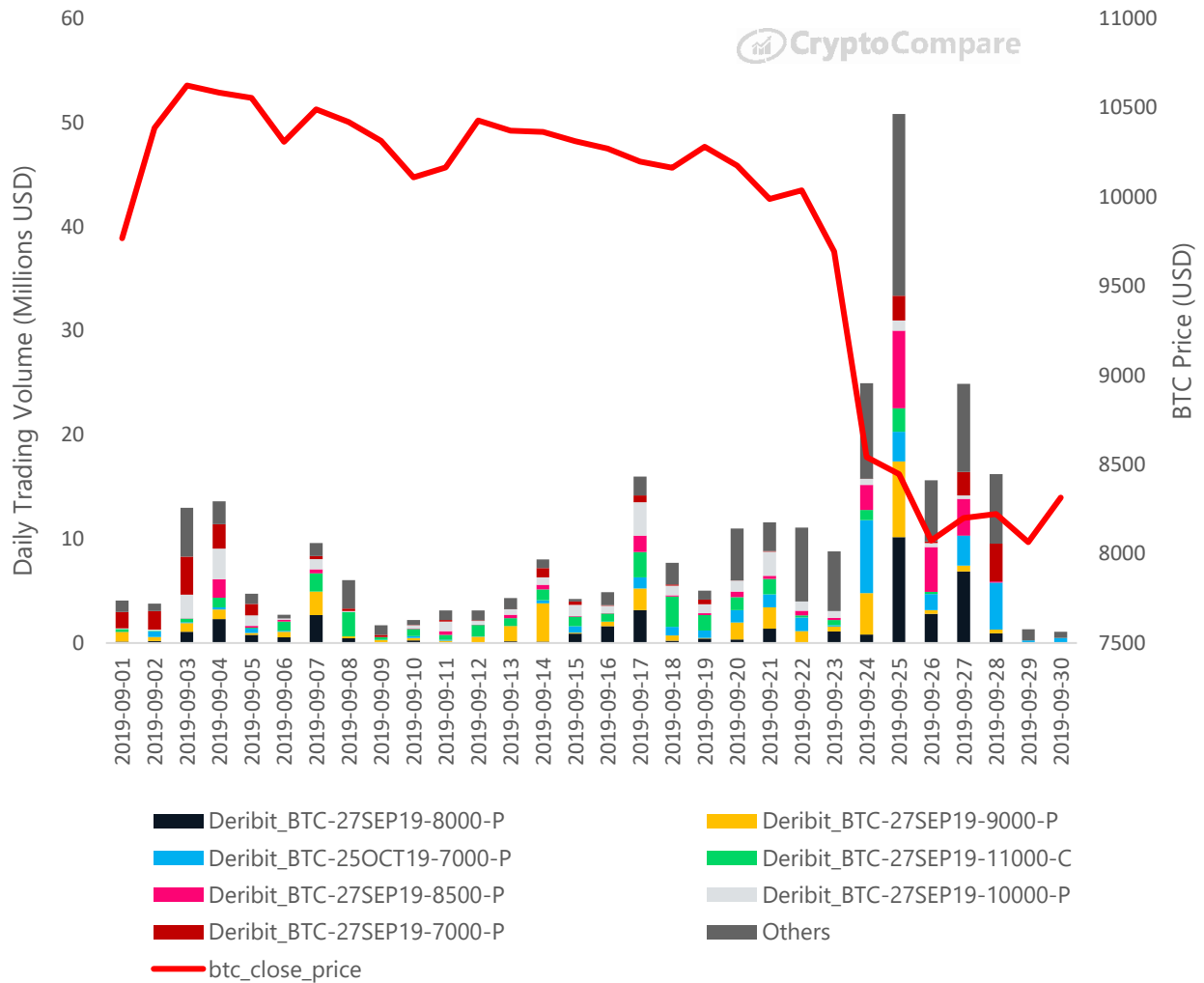


Deribit’s volumes, like those of CryptoFacilities, originate predominately from their BTC perpetual futures product trading a total of \$7.4 Bn in September. This was followed by Deribit’s BTC futures product (exp. 27th Dec) (\$763 Mn).

In September, options represented approximately 11% of Deribit’s total volume across the month (\$1 Bn). In August, this figure was closer to 9% (~\$0.95 Bn).

4 Derivatives Exchange Volumes in September – Options

Figure 26 - Crypto Options Products from Deribit



Deribit’s options trading spiked on the 25th of September, with its BTC 8000 put option (Exp. 27th sept) representing 20% of volume on this day at \$10.18 Mn, following a sharp decline in the BTC price in the days prior.

Options trading became more active towards the end of September, as was the case in previous months.

Exchange Volume Rankings

Table 1 - Top 10 Crypto to Crypto Exchanges by Average Daily Volume in September

	AVG DAILY VOLUME (USD)	TOTAL MONTHLY VOLUME (USD)	PAIRS	COINS	GRADE*
BitMax	933,368,054	28,001,041,628	177	75	D
ZB	899,905,717	26,997,171,515	187	65	E
Binance	873,278,675	26,198,360,276	620	189	A
CoinBene	871,347,788	26,140,433,645	234	186	E
OKEx	796,096,379	23,882,891,393	653	215	A
Lbank	796,059,521	23,881,785,642	150	103	D
Bitforex	778,836,514	23,365,095,438	227	127	E
Bibox	756,146,553	22,684,396,609	274	117	C
CoinEx	747,081,871	22,412,456,129	221	80	E
DigiFinex	670,228,513	20,106,855,402	225	116	D

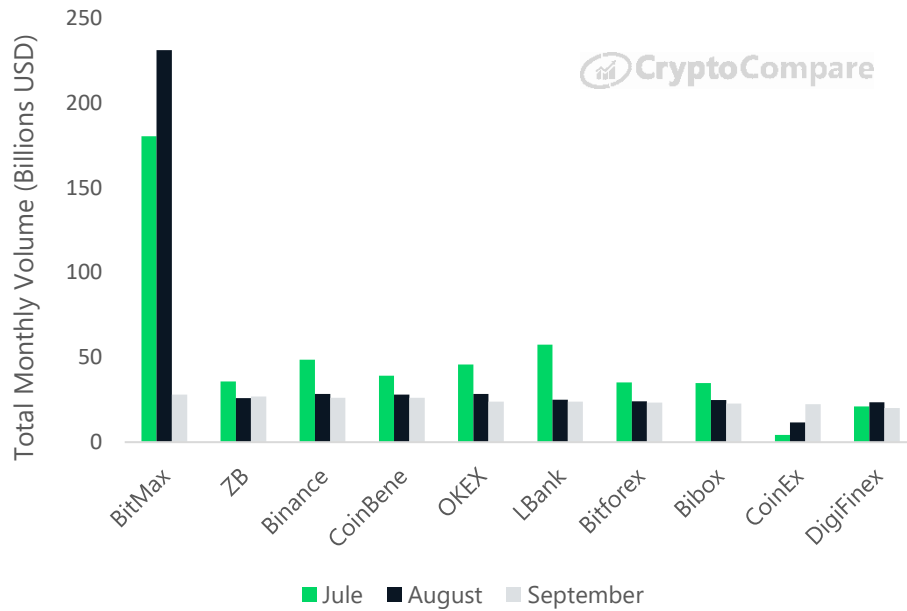
Table 2 - Top 10 Crypto to Fiat Exchanges by Average Daily Volume in September

	AVG DAILY VOLUME (USD)	TOTAL MONTHLY VOLUME (USD)	PAIRS	COINS	DOMINANT FIAT CURRENCY	GRADE*
Bithumb	572,417,444	17,172,523,348	90	90	KRW	A
P2PB2B	429,703,601	12,891,108,034	270	90	USD	Not Graded
Coinsbit	221,231,488	6636944667	68	20	USD	D
Coinbase	191,109,507	5,733,285,222	56	23	USD	AA
Huobi Korea	182,762,364	5,482,870,938	397	172	KRW	Not Graded
Liquid	134,491,309	4,034,739,278	324	104	JPY	AA
Bitfinex	133,905,569	4,017,167,079	400	146	USD	B
Kraken	131,378,274	3,941,348,233	99	26	USD	A
Upbit	108,275,734	3,248,272,019	410	233	KRW	B
Bitstamp	106,157,239	3,184,717,177	15	6	USD	AA

*Please see the [Exchange Benchmarking Report](#) for more information on grading

1 Top Exchanges by Total Monthly Volume

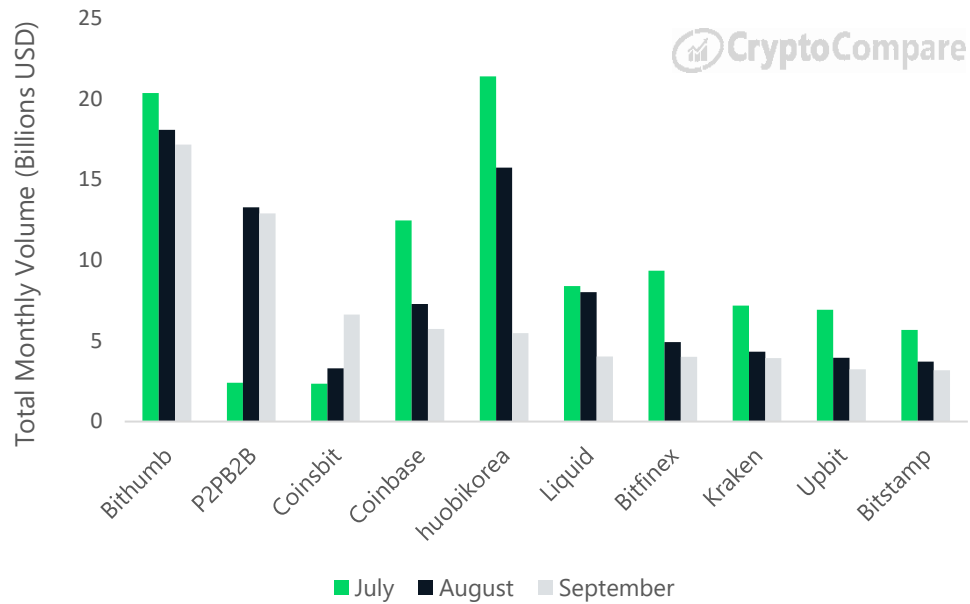
Figure 27 - Historical Monthly Volume - Top Crypto to Crypto Exchanges



BitMax was the top crypto to crypto exchange by total volume in September at 28 billion USD (down 87.8% since August). This was followed by ZB and Binance at 26.9 billion USD (down 4.26%) and 26.19 billion USD (down 7.9%) respectively.

2 Top Fiat to Crypto Exchanges by Total Monthly Volume

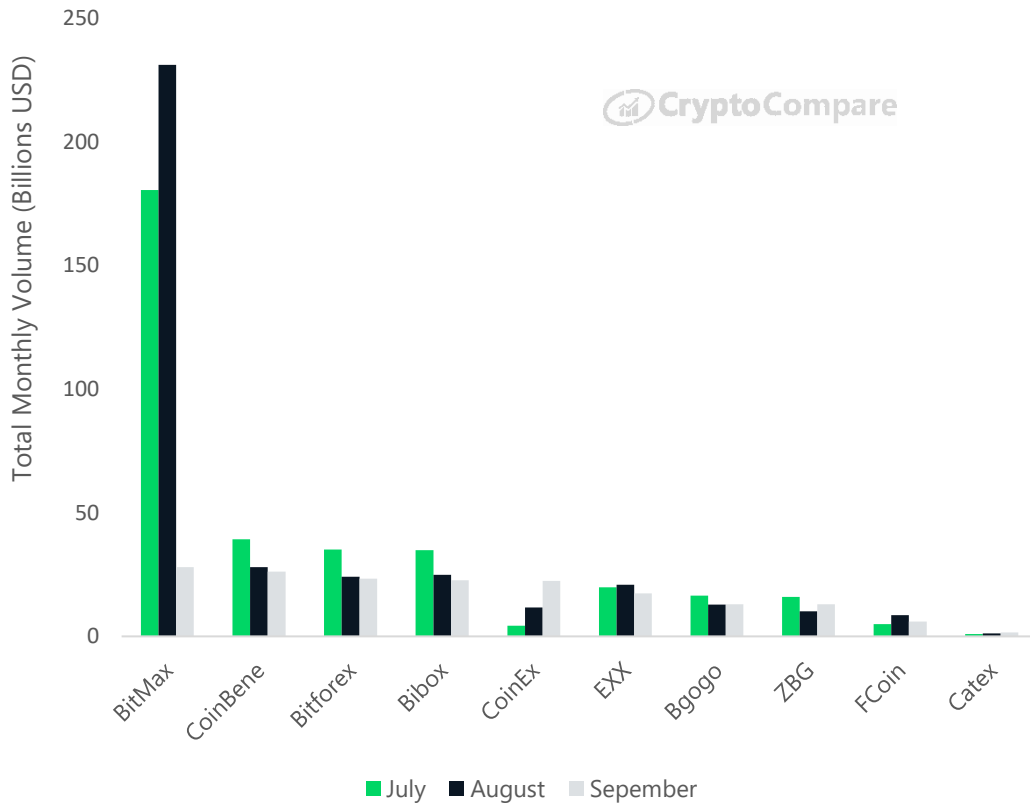
Figure 28 - Historical Monthly Volume - Top Fiat to Crypto Exchanges



Bithumb was the top fiat to crypto exchange by total volume in September at 17.17 billion USD (down 5.02% from August). This was followed by P2PB2B and Coinsbit at 12.89 billion USD (down 2.92%) and 6.64 billion USD (up 101.38%) respectively.

3 Transaction Fee Mining Exchange Volume

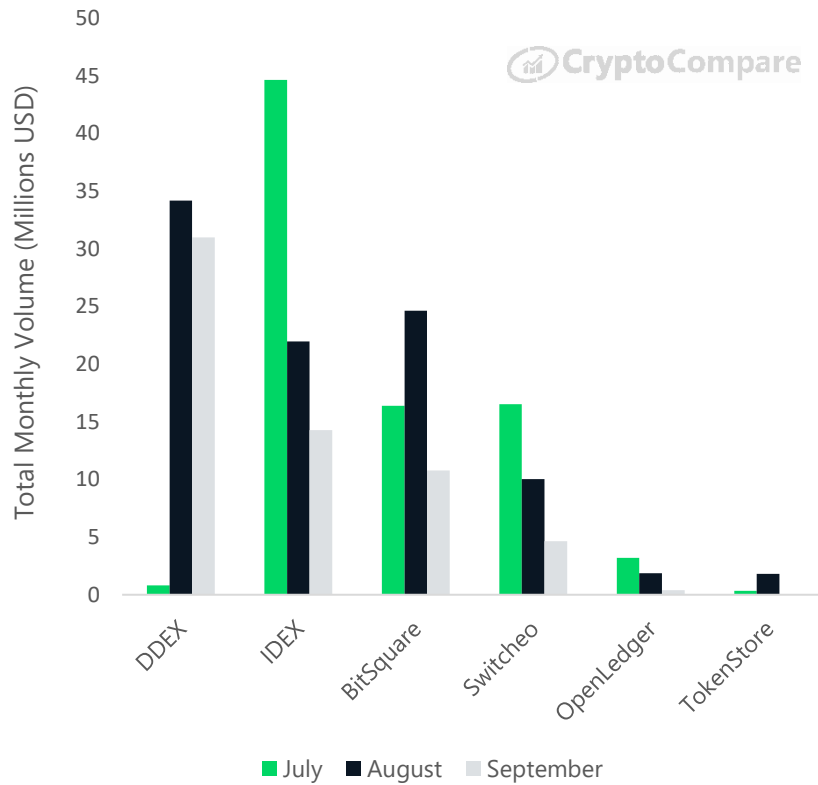
Figure 29 - Historical Monthly Volume - Top Transaction-Fee Mining Exchanges



BitMax was the top TFM exchange by total volume in September at 28.0 billion USD (down 87.88%), followed by CoinBene at 26.14 billion USD (down 6.66%) and Bitforex at 23.37 billion USD (down 3.14%).

4 Decentralized Exchange Volume

Figure 30 - Historical Monthly Volume - Top Decentralized Exchanges



DDEX was the largest DEX in September trading a total of 30.98 million USD (down 9.31%), followed by IDEX and BitSquare trading 14.28 million USD (down 34.97%) and 10.78 million USD (down 56.24%) respectively.

DEXs represent only a small fraction of global spot exchange volume (0.01%), trading a monthly total of 61.17 million USD in September.