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Market Update
• A volatile week ended flat for the major cryptocurrencies
• Bitcoin volume shows signs of positive trend shift
• All indexes ended down in November
• Bakkt making headlines again with several new records – Open interest goes parabolic

Valuation
• Will history repeat itself? Stock-to-flow estimate around $100,000 in May 2020
• Will a bullish crossover change the downwards trend for the bitcoin price?
• Unusual observations in the bitcoin futures market, as premium rates increase with falling BTC price

Blockchain Activity
• Transactions on the Bitcoin blockchain keeps slowing down
• Bitfinex is now supporting Lightning Network deposits and withdrawals and is already approaching 100 open channels.
MARKET UPDATE
THE NEWSROOM

Japanese giant SoftBank Group launches crypto wallet card
Japanese holding company SoftBank has released a digital currency payment card, which can be used for both fiat and digital assets.

WisdomTree Launches Physically Backed Bitcoin ETP on SIX Swiss Exchange
A new bitcoin exchange traded product (ETP) has just listed on Switzerland’s SIX stock exchange. It is physically backed by the underlying crypto.

Bitfinex to support deposits and withdrawals on Lightning Network
The cryptocurrency exchange announced in an email on Monday that it will support Lightning Network deposits and withdrawals starting Dec. 3.
Flat week after promising start

Top ten by market capitalization

<table>
<thead>
<tr>
<th></th>
<th>Last</th>
<th>Last week</th>
<th>Last month</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitcoin</td>
<td>7284.76</td>
<td>1.62%</td>
<td>-20.69%</td>
<td>87%</td>
</tr>
<tr>
<td>Ethereum</td>
<td>147.13</td>
<td>0.64%</td>
<td>-18.88%</td>
<td>3%</td>
</tr>
<tr>
<td>XRP</td>
<td>0.22</td>
<td>0.19%</td>
<td>-24.82%</td>
<td>-41%</td>
</tr>
<tr>
<td>Bitcoin Cash</td>
<td>212.23</td>
<td>0.86%</td>
<td>-26.05%</td>
<td>29%</td>
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<tr>
<td>Litecoin</td>
<td>44.86</td>
<td>-3.51%</td>
<td>-22.56%</td>
<td>40%</td>
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<tr>
<td>EOS</td>
<td>2.68</td>
<td>3.91%</td>
<td>-18.08%</td>
<td>-5%</td>
</tr>
<tr>
<td>Binance Coin</td>
<td>15.17</td>
<td>-1.37%</td>
<td>-3.80%</td>
<td>146%</td>
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<tr>
<td>Bitcoin SV</td>
<td>97.34</td>
<td>-8.07%</td>
<td>-23.92%</td>
<td>5%</td>
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<tr>
<td>Stellar</td>
<td>0.06</td>
<td>-3.42%</td>
<td>-19.83%</td>
<td>-52%</td>
</tr>
<tr>
<td>Tron</td>
<td>0.02</td>
<td>7.44%</td>
<td>-21.58%</td>
<td>-23%</td>
</tr>
</tbody>
</table>

Best performing

<table>
<thead>
<tr>
<th></th>
<th>Last</th>
<th>Last week</th>
<th>Last month</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorand</td>
<td>0.27</td>
<td>24.72%</td>
<td>8.13%</td>
<td>-92%</td>
</tr>
<tr>
<td>Vechain</td>
<td>0.01</td>
<td>18.61%</td>
<td>36.20%</td>
<td>72%</td>
</tr>
<tr>
<td>MINDOL</td>
<td>1.79</td>
<td>14.73%</td>
<td>94.50%</td>
<td>123%</td>
</tr>
<tr>
<td>HedgeTrade</td>
<td>0.68</td>
<td>10.14%</td>
<td>-11.47%</td>
<td>374%</td>
</tr>
<tr>
<td>Nano</td>
<td>0.85</td>
<td>9.35%</td>
<td>-21.51%</td>
<td>-11%</td>
</tr>
</tbody>
</table>

Worst performing

<table>
<thead>
<tr>
<th></th>
<th>Last</th>
<th>Last week</th>
<th>Last month</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChainLink</td>
<td>2.08</td>
<td>-9.45%</td>
<td>-21.72%</td>
<td>599%</td>
</tr>
<tr>
<td>Bitcoin SV</td>
<td>97.34</td>
<td>-8.07%</td>
<td>-23.92%</td>
<td>5%</td>
</tr>
<tr>
<td>Centrality</td>
<td>0.14</td>
<td>-6.97%</td>
<td>17.48%</td>
<td>428%</td>
</tr>
<tr>
<td>Basic Attention Token</td>
<td>0.19</td>
<td>-6.67%</td>
<td>-17.19%</td>
<td>45%</td>
</tr>
<tr>
<td>Crypto.com Coln</td>
<td>0.03</td>
<td>-6.26%</td>
<td>-30.06%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Last week of top 50 by market capitalization

Source: cryptowat.ch

Bitcoin correlation:
All correlations increase this week, with S&P500 back positive.

<table>
<thead>
<tr>
<th></th>
<th>ETH</th>
<th>XRP</th>
<th>GOLD</th>
<th>S&amp;P500</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTC</td>
<td>0.829</td>
<td>0.01</td>
<td>0.596</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Source: coinmetrics.io

Top 3: Percentage change in price over the last week

-5%  -3%  -1%  1%  3%  5%  7%  9%  11%
Market sentiment fluctuates this week, but **recovers from the lows**

The Fear & Greed Index has now recovered from "Extreme Fear" and is back at "Fear" levels after a week with fluctuations in the bitcoin price. It is interesting to note that even though we are at the lowest price levels since May, the market was more fearful both in August and September. Are investors getting more used to these lower prices?

![Market Sentiment Chart](chart.png)

Source: alternative.me

Dec 3, 2019
Bitcoin volume shows signs of **positive trend shift**

The 7-day average real trading volume* continues to slowly trend upwards. Excluding the volume tops, we see that the “base” volume has been trending upwards since October.

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*as defined by Bitwise Asset Management. ItBit exchange excluded.
Volatility flat – is another spike approaching?

- The 30-day bitcoin volatility has been fairly flat over the last week.

- As mentioned last week, this sideways movement after a drop has led to a rapid increase again. It will be interesting to see if the volatility will follow the same trend over the last weeks of 2019.

Source: cryptowat.ch
Poor month for all indexes – Altcoins beat bitcoin

After an uplifting price gain in the end of October, the start of November looked promising in the crypto market. However, as the month emerged prices took a nosedive and left investors disappointed. Going into the last month of the year, we’re still in a downwards trend.

- Mid caps were the best performing cryptos in November, ending down 6%.
- By comparison, bitcoin ended November being down 16%.
- Bitcoin’s market dominance stays stable for another week, with mixed changes among other Large Caps.

Source: Coinpaprika.com

<table>
<thead>
<tr>
<th>Market Share</th>
<th>BTC</th>
<th>ETH</th>
<th>BCH</th>
<th>LTC</th>
<th>XRP</th>
<th>DASH</th>
<th>NEM</th>
<th>XMR</th>
<th>IOTA</th>
<th>NEO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>66.07%</td>
<td>8.03%</td>
<td>1.95%</td>
<td>1.43%</td>
<td>4.76%</td>
<td>0.24%</td>
<td>0.16%</td>
<td>0.48%</td>
<td>0.28%</td>
<td>0.31%</td>
</tr>
<tr>
<td>Weekly Change</td>
<td>0.6%</td>
<td>-0.3%</td>
<td>0.3%</td>
<td>-4.6%</td>
<td>-0.7%</td>
<td>0.3%</td>
<td>-2.8%</td>
<td>5.6%</td>
<td>-3.4%</td>
<td>-3.4%</td>
</tr>
</tbody>
</table>

Source: Bletchleyindexes.com
Institutional money flows into Bakkt – Open interest goes parabolic

Bakkt has been setting new records every week since mid October. 15,046 BTC monthly contracts changed hands last week.

- Last week’s volume was 92% higher than the previous week, and about 220% higher than two weeks ago.
- For the second week in a row, a new daily volume record was set again, with 4,973 BTC traded on Nov 27.
- The most interesting part is perhaps the open interest, which has skyrocketed over the last two weeks. Open interest ended at 889 BTC last week. That is an increase of 798% over the last week.

No trades have been done for the daily BTC futures contracts over the last two months.

Source: Intercontinental Exchange
VALUATION
Will history repeat itself? 6 months until May 2020 halving

- The bitcoin price is currently below both the historical trend level and the Stock-to-Flow estimate.
- This has historically been a good buying opportunity.
- The Stock-to-Flow model indicates a bitcoin price of ~$100,000 after the halving in May 2020.
- The long-term trend targets a way lower level of around $13,000.

Source: Blockchain.info, @100trillionUSD
The crossover between the 50-week moving average and the 100-week moving average is forming this week.

This is normally a bullish signal, and if the bitcoin price can close above these two moving averages, a trend shift may be on the line.

The bitcoin price will then, most likely approach the resistance levels of the already formed descending channel, that has been forming since July.

If we continue down, we could be approaching the 200-week moving average that acted as support last winter. This will most likely be in the $5,000 area. We could then be looking at a bottom in February or March next year.

Will a **bullish crossover** change the downwards trend for bitcoin?
Unusual observation this week:
Futures premium rates rise on falling bitcoin price

- Interesting observations have been seen in the bitcoin futures market this week.
- The premium rates on BTC March 2020 contracts have been increasing, although BTC price has decreased. This is not a common observation.
- From Nov 29 to Dec 2 the futures premium (in dollar) increased over 30%, while the BTC price went down from $7750 to $7,300 - a 6% decrease.*
- Are investors not agreeing with the current pricing of bitcoin?

Premium rates for BTC contracts

<table>
<thead>
<tr>
<th></th>
<th>December 2019</th>
<th>March 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>CME</td>
<td>0.37%</td>
<td>2.70%</td>
</tr>
<tr>
<td>Other platforms</td>
<td>0.27%</td>
<td>2.00%</td>
</tr>
</tbody>
</table>

*On BitMEX

BTC Futures Contracts Settlement Prices (Dec 2019 – Mar 2020)

Source: Kraken, CME, Bitmex, Deribit

*On BitMEX
Traders anticipate larger movements in BTC price next year

- Looking at the implied volatility of BTC option prices, one can get an indication of the market’s expectations of the bitcoin price over the coming months.
- While the implied volatility for mid December 2019 is around 55%, it over 70% for June 2020.
- This clearly show that traders anticipate changes in the bitcoin price.
- To put this in perspective, gold options for June 2020 trade with an implied volatility of 11.5%.
• The number of confirmed transactions on the Bitcoin blockchain has been in a downwards trend (down over 20%) since May this year.

• This is a concerning development, indicate less activity and not that much usage of bitcoin over the last months, although batching, lightning and other efficiency improvements might explain some of the development.

• We’re now approach new lows, not seen since April this year.

On-chain Bitcoin activity (7-day average)

<table>
<thead>
<tr>
<th></th>
<th>Last</th>
<th>Last week</th>
<th>Last month</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Value (bUSD)</td>
<td>$0.99</td>
<td>-6.16%</td>
<td>-27.84%</td>
<td>116.16%</td>
</tr>
<tr>
<td>Transaction Count</td>
<td>303,536</td>
<td>-0.52%</td>
<td>1.90%</td>
<td>10.74%</td>
</tr>
<tr>
<td>Miner Fees (kUSD)</td>
<td>$220,253</td>
<td>-2.33%</td>
<td>-32.15%</td>
<td>281.02%</td>
</tr>
<tr>
<td>Active Addresses</td>
<td>724,276</td>
<td>0.66%</td>
<td>2.64%</td>
<td>30.56%</td>
</tr>
</tbody>
</table>

Source: Blockchain.info, Coin Metrics
Bitfinex implements Lightning with flying start

- One of the oldest and largest crypto exchanges, Bitfinex, just announced support for Lightning Network deposits and withdrawals.
- Bitfinex is the first major exchanges to take this step.
- The Lightning Network is a second layer solution and enables instant payments at exceptionally low fees with millions to billions of transactions per second.
- Going live just a couple of days ago, almost 100 channels have been opened with Bitfinex’s lightning node already.
- To put this in perspective, the lightning node with most open channels lies around 1,200 and has been live for over a year.
- How long will it take for Bitfinex to become the largest lightning node?
Number of ether (ETH) locked in DeFi continues to surge as price falls

- The Decentralized Finance (DeFi) market is just growing bigger every week.
- The total number of ether (ETH) locked in DeFi is now at 2.691 million.
- **This equals 2.5% of all ETH, or 1 in 40 ETH locked in DeFi.**
- It is worth mentioning that some of the increase is likely related to the price fall in ETH, as ETH is used as collateral in Maker.

Source: Defi Pulse