



Abstract

Cindicator has over 111,000 users who are interested in crypto markets and use Cindicator apps to make forecasts. This unique data gives insight into the collective thinking of crypto investors. Cindicator's Machine Learning team explored users' forecasts to estimate their mood from September 2017 until May 2018. This report summarises the findings and offers a possible interpretation of the results.

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Key findings

The public needs two months to adjust to new trends in crypto markets:

- In January and February the collective mood was still bullish, forecasting growth despite a clear downward trend;

- The mood adjusted only in March, after the overall market cap declined from the January high of \$835 bn to below \$300 bn in February;

- This fits with other asset classes: it takes 60–100 days to adapt to a different long-term trend.

The public view on ETH is strongly polarized:

- Collective mood was very polarized in March, when ETH dropped by more than 50% in USD;

- It appears that higher volatility leads to greater mood swings.

The public mood after Consensus 2018 became slightly more pessimistic. It appears that expectations of a post-Consensus upswing were not met. The market was waiting for strong positive news, yet there was none. This already became apparent during the event, when opinions were more divided.

Cindicator's data

Cindicator has a unique set of data on the opinions of active followers of crypto markets:

- 111,000+ people are making forecasts through its collective forecasting app;

- 5,000 traders and investors use indicators created by combining collective forecasts enhanced by AI.

111,000 analysts

Over 111,000 people from 135+ countries have signed up to use Cindicator's mobile ([iOS](#) and [Android](#)) and [Web apps](#) that allow anybody to become an analyst, making daily forecasts on a wide range of crypto and traditional assets. These analysts receive points for correct answers and lose points for incorrect answers. At the end of every month, analysts receive rewards in ETH if they have earned at least 1 point.

The analysts are a very diverse group of people of all ages and backgrounds. They are also motivated by different things. Some are trying to get the maximum reward and others are learning about markets. Some are highly competitive and are driven by their desire to climb the rankings.

Analysts' answers are enhanced by machine learning algorithms and a neural network to create indicators that predict market events with >69% accuracy. These indicators are used by traders who are Cindicator token holders. In a recent experiment, a group of traders generated a return of 21.53% in eight weeks.



Binary questions

Every month, Cindicator asks nearly 200 binary questions about different assets.

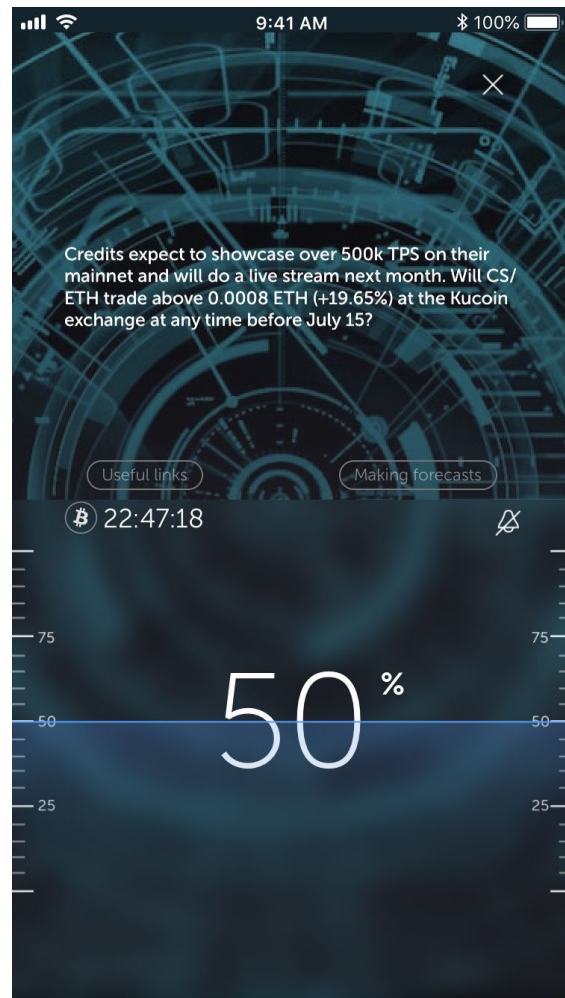
Binary questions ask about the likelihood of a certain event. There are two types of binary questions:

- Positive, asking about the likelihood of the event happening;
- Negative, asking about the likelihood of the event *not* happening.

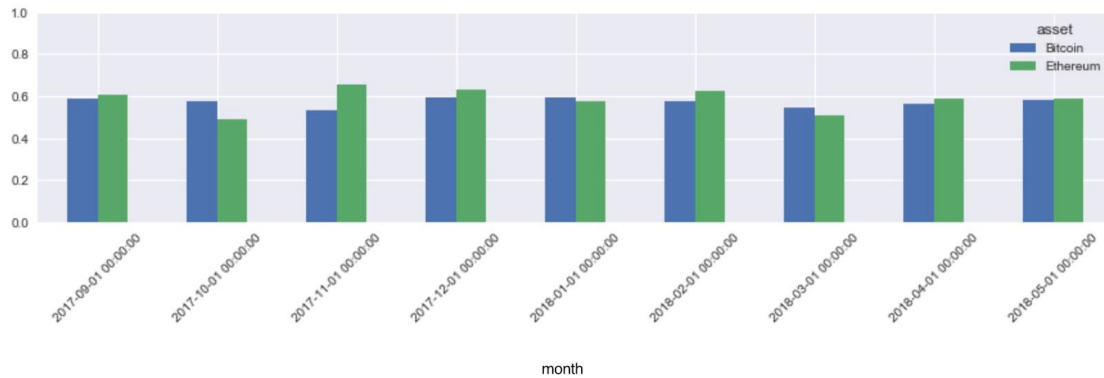
Opinions on Bitcoin and Ether: September 2017 — May 2018

Key observations

From September 2017 to May 2018, the median opinions remained positive for both Bitcoin and Ethereum, though there were slightly more fluctuations in opinions on Ethereum. The median mood for Bitcoin remained surprisingly consistent despite large ups and downs.



Comparison of mood on coins (median answer)



Histograms, which show the distribution of answers, paint a more nuanced picture. Each histogram represents the distribution of forecaster answers in each given month. The x-axis shows the answers that range from bearish (<0.5) to bullish (>0.5) with different degrees of conviction. We can observe significant diversions in opinions on Bitcoin and Ethereum during October and November last year and again since March.



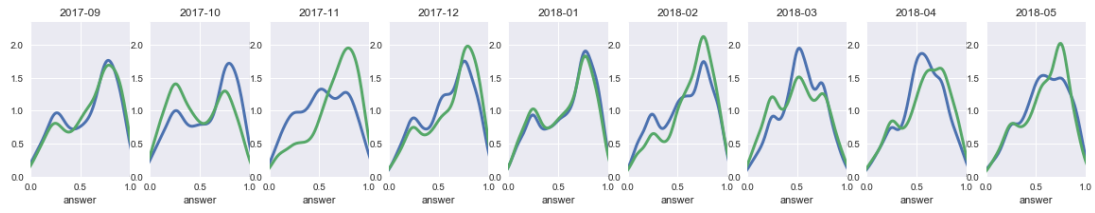
The public was still bullish for two months after the prices of assets reached their peaks.

— The USD price of Bitcoin peaked in December at \$20,000 and then declined for four months. Yet the public was still highly optimistic in January and February. The distribution of opinions became more balanced only in March, although there was still a pocket of bulls (the shorter peak on the right hand side).

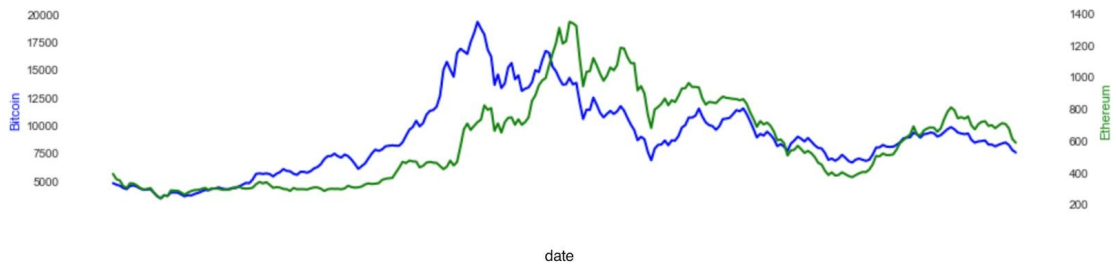
— The USD price of Ether peaked in January at \$1,400 and then declined for three months. The public was wildly optimistic in February and the optimism was seemingly toned down in March. Yet the optimists again returned in April.

Opinions on both Bitcoin and Ether were most positive during the months with the highest volatility: December, January and February. This could be interpreted as expectations of mean reversion after big drops.

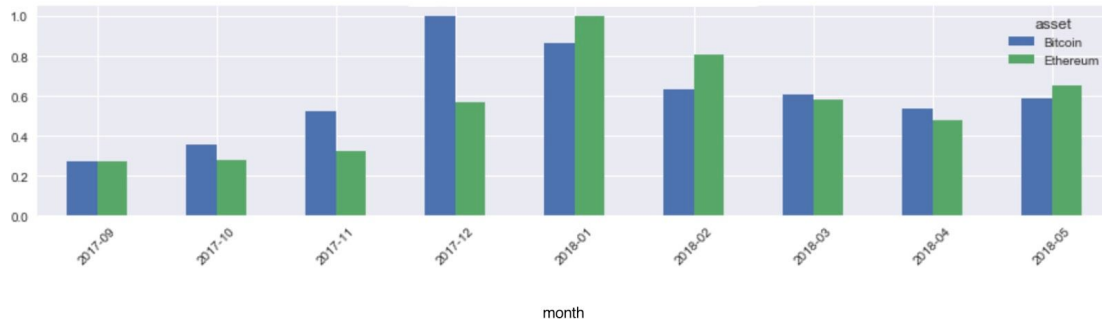
How opinions and prices changed



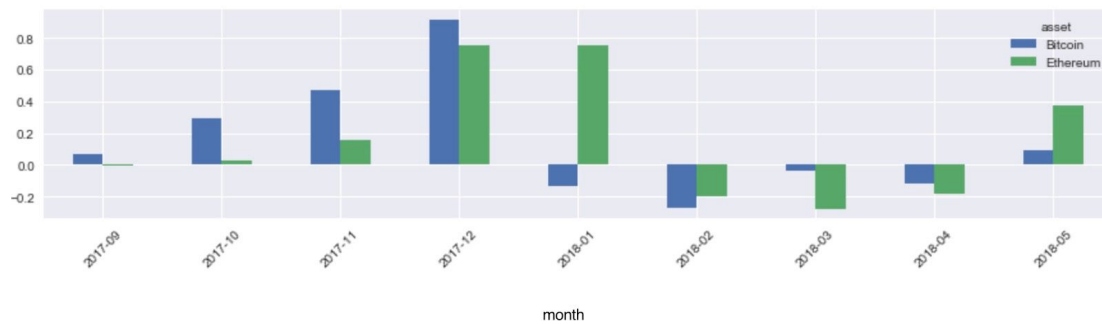
Price



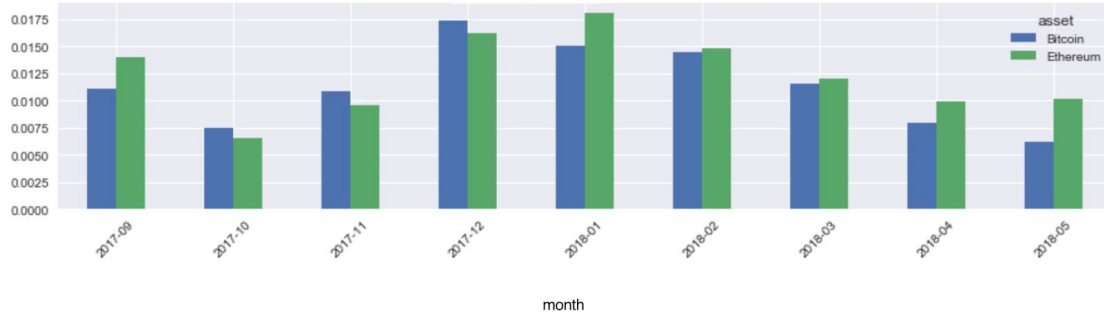
Price within a month



Return within a month



Volatility within a month



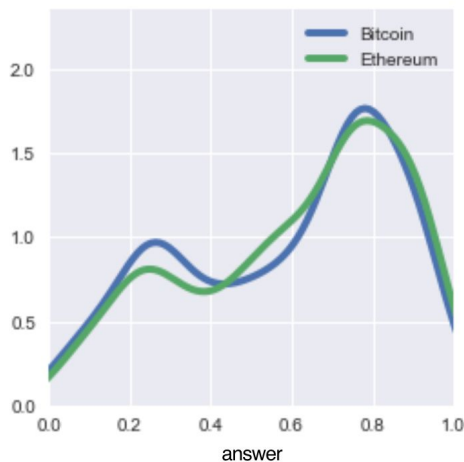
Month-by-month review: September 2017 — May 2018

For every month we have created histograms that approximate the distribution of user opinions. Here is how to interpret the histograms:

- The x-axis represents forecasts of the asset price declining (answers >0.5) or rising (<0.5);
- The y-axis shows the frequency of answers with given values;
- The lines plot the distribution of answers;
- This way, charts that lean to the right signify optimism, while charts leaning to the left show pessimism.

BTCÐ

2017-09



September

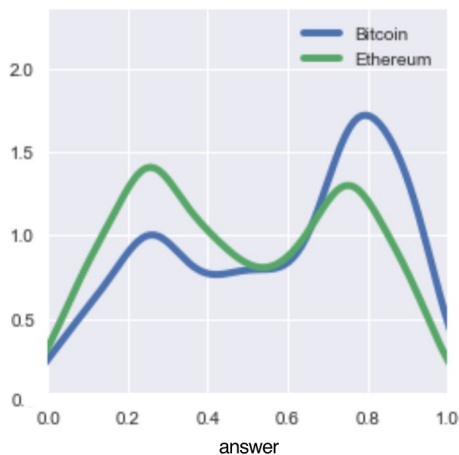
In September, the collective mood on both Bitcoin and Ether was strongly positive. Still, we can see a small group of pessimists (the lower peak on the left).

September was a month of fairly high volatility, especially for ETH.

BTC, after hitting a record high of \$4,936, dropped to below \$3,200, a level last seen in early August. By the end of month, BTC has already recovered to \$4,300.

BTCÐ

2017-10



October

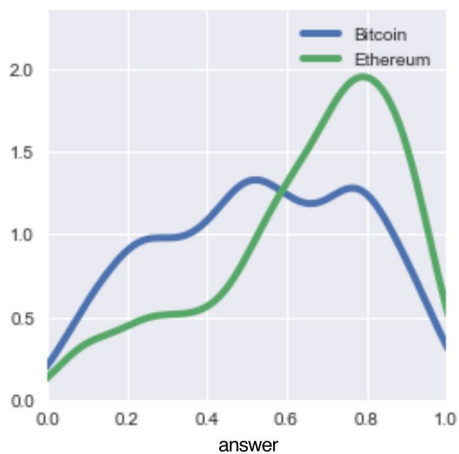
In October, the collective mood on BTC and ETH strongly diverged. While there was high optimism about Bitcoin, the view on Ether was split between the optimistic minority and the pessimistic majority (the higher green peak on the left).

ETH didn't have a clear trend and volatility actually lowered.

Bitcoin entered a consistent upward trend with lower volatility. In October its price went up from \$4,300 to \$6,400.

BTCÐ

2017-11



November

In November, the public became highly optimistic about ETH. For Ether, that was the only month where there was no smaller "bear" peak on the left hand side. Meanwhile, the view on Bitcoin became more balanced.

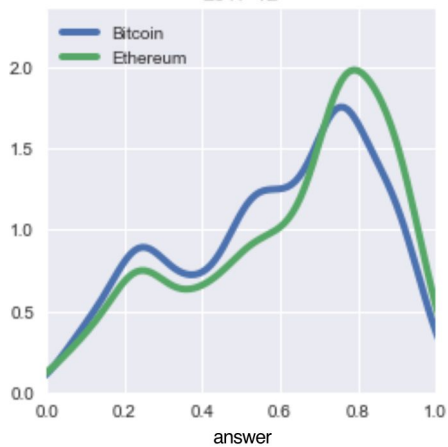
Bitcoin's bull run was briefly interrupted when the price went down from \$7,400. That sell-off was very short lived and the price reached \$11,000 towards the end of the month.

ETH had a very strong month, rising from \$300 to over \$500.

Meanwhile, volatility for both assets was rising.

BTCÐ

2017-12



December

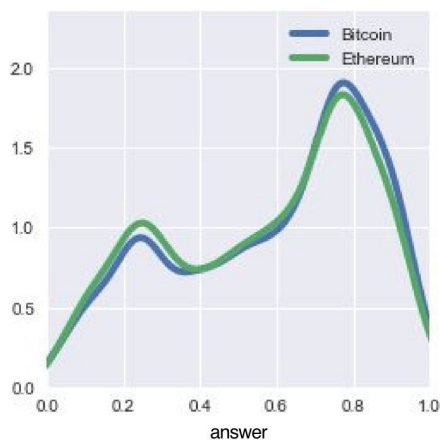
In December, the mood around BTC and ETH became feverishly optimistic. The views began to converge again. Smaller pockets of bears began to form – the two shorter peaks on the left.

BTC set a new record of \$20,000 by mid-December. ETH almost doubled from \$440 to over \$800.

Volatility for both assets increased further. The upward trend was accompanied by rapid and violent selloffs, seesawing to new highs.

BTCÐ

2018-01



January

In January optimism remained strong.

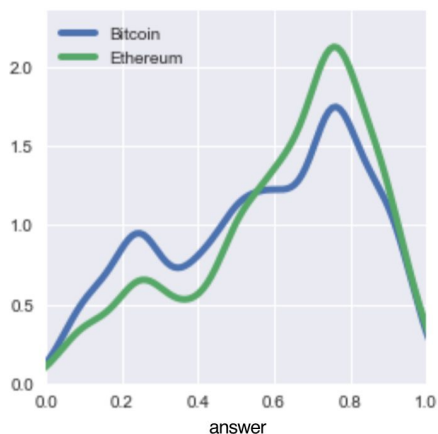
Meanwhile, the bearish peaks became more pronounced. The public view on BTC and ETH was almost identical. It can be considered a sign of a local bubble: different assets lose their individual characteristics and people become equally over-optimistic about all of them.

The prices behaved differently. The price of BTC began to gradually decline, dropping to \$10,000 by the end of month. ETH peaked in mid-January at \$1,400 only to crash to \$799 by the middle of the month.

Volatility declined slightly for Bitcoin but increased further for Ether.

BTCÐ

2018-02



February

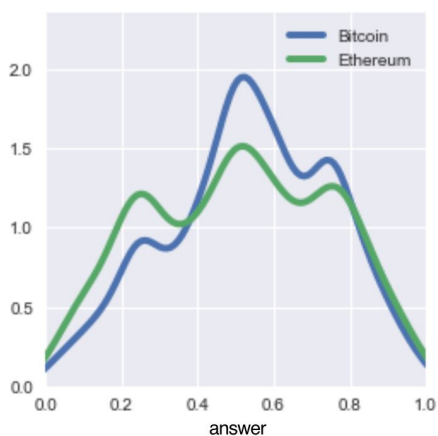
In February, the public remained strongly optimistic. The mood on ETH became even more positive, reaching an all-time high. The bearish views of ETH dwindled. Bitcoin bears held their ground.

The ETH price dipped below \$600 but then began to recover to over \$900. Bitcoin followed a similar pattern, dropping to \$6,000 but then trading in the range of \$10,000–\$12,000.

Volatility declined for both assets.

BTCÐ

2018-03



March

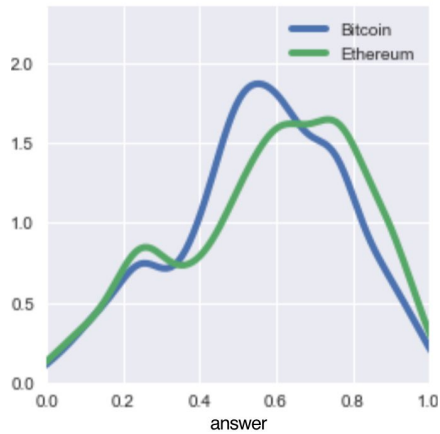
In March, the optimists ran out of steam. The public mood became mostly neutral for both assets. There were pockets of bears and bulls — the shorter peaks on the right and the left.

ETH was in a very clear and consistent downward trend, sliding from \$870 to below \$400 by the end of month. BTC followed a similar, but less consistent trend, zig-zagging from over \$11,000 to below \$7,000.

Volatility declined for both assets.

BTCÐ

2018-04



April

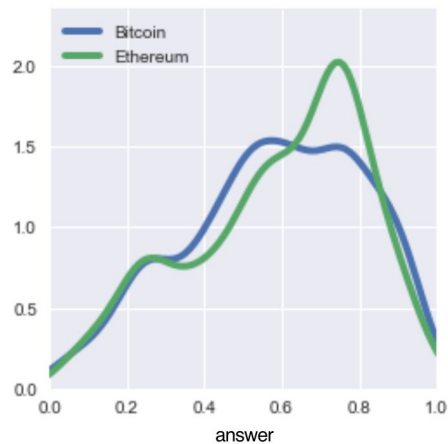
In April, the public view became bullish again, more so for Ethereum.

Bitcoin entered an upward trend, going up from the high \$6,000s to over \$9,000. ETH followed a similar pattern from the high \$300s to \$700.

Volatility declined further, dropping to November levels.

BTCÐ

2018-05



May

In May, optimism for Ether went into overdrive, returning to levels that were last observed in February. Optimism towards Bitcoin was subtler.

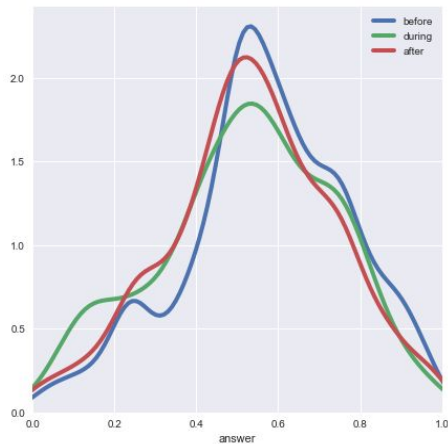
Bitcoin was in a downward trend, declining to the low \$7,000s. ETH also declined, but there were several attempts to break out.

Volatility for Ether remained at the same level. Meanwhile, the volatility of the Bitcoin price dropped to its lowest level since September.

Coupled with this low volatility, the more normalised (appearing like a bell curve) distribution of views on Bitcoin might suggest that the range of \$7,000–\$8,000 was perceived as the new norm, similar to the 50-day moving average in May.

Consensus 2018 mood

Crypto in May 2018



The overall public mood was cautiously optimistic in May before Consensus 2018.

During Consensus, optimism decreased and was balanced with a rising group of pessimistic views (the green hump on the left).

After Consensus, the overall view became more balanced as the distribution of forecasts appeared more normalized.