



HARTMANN
C A P I T A L

QUARTERLY #1
INSIGHTS #1

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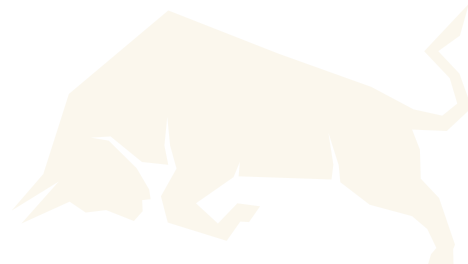
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NOTE FROM MANAGEMENT

With 2019 nearly in the books, I wanted to present you with an in-depth macro overview of the crypto and digital asset markets. Bitcoin continues to grow fundamentally while the prices have experienced quite the rollercoaster ride the year.

In this report, I aim to provide more clarity on whether current price levels should be a reason for concern and what the health metrics of both Bitcoin and global markets look like. While extensive in pages, I had the aim of letting the graphics speak for themselves, so I hope you enjoy this report.

Please be mindful when sharing this research. This report is neither publicly distributed nor intended as an investment recommendation. Instead, it's my way of succinctly sharing my thoughts and outlooks with my investors, business partners, fellow thought leaders, and other minds I respect.

If you have any thoughts, feedback is highly appreciated and welcome. Consider this a dialogue, and this report is my opening statement.

If you are reading this, we have also previously personally met and discussed Hartmann Digital Assets to some extent. Going into 2020, we always welcome additional investments, whether from you or someone you know, as we firmly believe any investment pre-All Time Highs has the potential to provide extraordinarily asymmetric returns. But to that end, I will let the research of this report speak for itself as it may give you some guidance on whether the timing is right for you.

If you'd like to discuss this further, simply reply to this email or give us a call.

All the best,

Felix Hartmann

Managing Partner

MARKET NEWS Q4

TECH

- [Bitcoin Whitepaper turns 11 years old](#)
- [18 millionth Bitcoin out of 21 is mined](#)
- [Bitcoin completes over \\$1bn in transaction fees since launch](#)
- [Libra adopts initial charter](#)
- [Casa launched V2 lightning network node](#)
- [Bitgo launches staking service](#)
- [Apple says they're watching crypto](#)
- [Staked launch DeFi robo advisor](#)
- [Square Crypto continues hiring](#)
- ['Unknown Fund' to Donate \\$75M in Bitcoin to Anonymity-Focused solutions using crypto and blockchain](#)

FINANCE 1/2

- [A digital dollar is being discussed as a result of Libra](#)
- [ECB considering a digital euro](#)
- [Digital Yuan nears launch](#)
- [Bakkt hits volume all-time highs](#)
- [Banks in Germany can now sell and custody Bitcoin starting 2020](#)
- [Fidelity rolls out custody and trading](#)
- [Coinlist raises \\$10 million](#)
- [Bitcoin Miner Maker Canaan files for IPO](#)
- [Circle spins out Poloniex](#)
- [Bavaria's State Bank published a report concluding that Bitcoin is harder money than gold](#)
- [Bakkt launched futures product](#)
- [Binance America launched](#)
- [SoFi launching crypto trading](#)
- [Abra adds cash-to-crypto at 7/11s](#)
- [Binance launches crypto lending](#)
- [Binance issue USD stablecoin](#)
- [Caliber issues digital mortgages](#)

MARKET NEWS Q4

FINANCE 2/2

- [VanEck offers limited Bitcoin ETF](#)
- [Franklin Templeton proposes tokenized mutual fund](#)
- [Blockstack raises \\$23M in Reg A+](#)
- [Wells Fargo builds digital currency](#)
- [Tencent approved for virtual bank](#)
- [Silvergate Bank went public](#)
- [Square sold \\$148M in BTC in Q3](#)
- [Schwab buying TD Ameritrade](#)
- [EU launch €400 blockchain fund](#)
- [Coinbase patents automated KYC](#)
- [HSBC digitizing \\$20B of assets](#)

POLICY

- [China is going all-in on crypto and blockchain](#)
- [CFTC says Ether is a commodity](#)
- [China lifts Bitcoin mining ban](#)
- [Fed cuts interest rates by another quarter-point, the third cut this year after a decade of no cuts. The US rate is now between 1.5-1.75, down from 2.5 at the beginning of the year.](#)
- [Launch of the Crypto Rating Council](#)
- [ECB introduces more stimulus: 20bn Euros per month of QE & a cut to -.5% interest rates](#)
- [Morningstar to offer Crypto Asset Ratings](#)
- [SEC rejects Bitwise Bitcoin ETF](#)
- [IRS issues crypto tax guidance](#)
- [Bermuda accepts USDC for taxes](#)
- [Zuckerberg testifies in Congress](#)
- [Block.one & Sia settle with the SEC](#)

MARKET NEWS Q4

THE BOTTOM LINE 1/2

The past three months were engulfed in volatility and uncertainty in the market at large, while our macro narrative has continued to be validated play by play.

In January and February, we first introduced the stock to flow model, championing the conclusion that Bitcoin will soon be harder money than Gold. Now we have the first banks not just whispering this, but publishing reports on this.

In prior months, we pointed out the geopolitical forces at play and how if one world power is putting up their guards, another will embrace it. In late Q3 the US has taken a very defensive approach towards crypto, from putting Libra in a stalemate to rejecting the ETF once again to the SEC fining several major ICOs. Ironically, Mark Zuckerberg warned Congress that should they further delay or block progress in the industry, China will beat the US to it.

The following day, President Xi Jinping announced that cryptocurrency and block-chain will be a national priority, going as far as making anti-crypto sentiment illegal and reversing prior bitcoin mining bans. After a deep bleeding month, the entire market recovered double-digit percentages within 24 hours upon this news.

Since the start of the year we've warned of impending interest rate cuts, and we did not get one or two, but we got our third this quarter. The administration is rapidly exhausting this monetary policy tool as interest rates approach 0. What will be left will be a choice between the first negative interest rates in the US or excessive quantitative easing.

Either is a deeply bullish case for Bitcoin. After talking with both policymakers from 3 of the G7 nations, and chatting with 6 of Europe's 20 biggest banks, I can't stress it enough:

The world is in trouble.

And I am not alone in this conclusion.

MARKET NEWS Q4

THE BOTTOM LINE

2/2

The ultra-rich are choosing to lend their money at negative interest rates, because they know the markets ranging from equities to real estate are absurdly inflated. At the same time, the debt bubble is getting out of hand with \$2.3 in global debt for every \$1 in real money. It feels like everyone is “winning” and the equities market just keeps pushing higher. But, what we forget is that we are playing a big game of musical chairs and that in reality there’s less than half as many chairs as participants. When the music stops, many

will be caught by surprise that the chair they thought they had was never really there.

It saddens me to say this but the world economy will bleed, and it must bleed to find a level of sound growth again. Since the 70’s when we left the gold standard, the debt bubble has gone through the roof and allowed unheard of growth, but that growth came at the cost of future generations. We’ve been here before in the 30’s and, ironically, it feels history may repeat itself 100 years later.

This time though, we have an exit ramp.
We have an alternative. A new system.

And that system is bitcoin.

Unlike another piece of regulation that gets put in place to prevent this from happening again, only to be repealed, we must choose a new system. Lucky for us, we get to choose that system today and avoid the bleed with at least part of our portfolio.

The market will throw us curveballs, prices will give mixed signals at times, but when you understand the macro narrative at play here, you will understand that this is much bigger than a digital coin.

STATE OF THE MARKET

Bitcoin is in a peculiar situation. A quick glance at the charts gives reasons to worry as major moving averages have turned bearish. However, taking a deeper look at our over a dozen macro signal indicators that have correctly called historical tops and bottoms tells a different story. We may be approaching a second bottom and structurally are still within a macro bull move. While many are getting uneasy, this may just be one of the best high reward/low risk entries we will experience this cycle.

What appears most likely is that we may turn around any moment now with years of upside ahead of us. The alternate risk is a short term (3-4 months) extended correction (5-6k range). While a lower correction is possible, it is highly unlikely until these levels are broken. Therefore, we remain bullish until the \$6k levels are breached. Since Bitcoin's health determines the direction of the entire crypto market, we use it as our analysis subject of choice due to its extensive data set.

BULLISH SCORE: 11

BEARISH SCORE: .5

NEUTRAL: 3.5

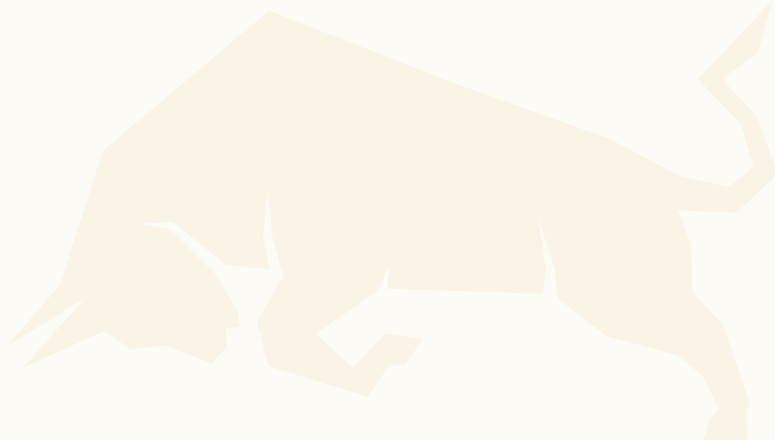
MACRO BITCOIN INDICATORS

1. Market Phases: Bullish
2. Moving Averages: Bearish to Neutral
3. Relative Strength Index: Neutral
4. Delta Cap & Cumulative Value-Days Destroyed: Bullish to Neutral
5. Unrealized Profit Loss: Bullish
6. 60-Day Volatility: Bullish
7. Stock to Flow: Ultra-Bullish
8. Mining Difficulty: Bullish
9. UTXO Analysis: Bullish
10. Mayer Multiple: Neutral-Bullish
11. Active Wallet Correlation: Macro Bullish
12. Halving Cycles: Bullish
13. Reserve Risk: Bullish
14. China Correlation: Neutral
15. Gold Correlation: Bullish

1. MARKET PHASES: BULLISH



From a Market Phase perspective, Bitcoin is still following its macro structure. So long as Bitcoin stays over approximately \$6,000 it is not only where it should be, but also a fantastic buying opportunity. This signal will turn bearish as soon as Bitcoin breaks the \$6,000 neck line, and thereby breaks its multi-year super structure. In such an event, we are likely to flip our strategy into a bearish to neutral strategy. Till then, we remain adamantly bullish.

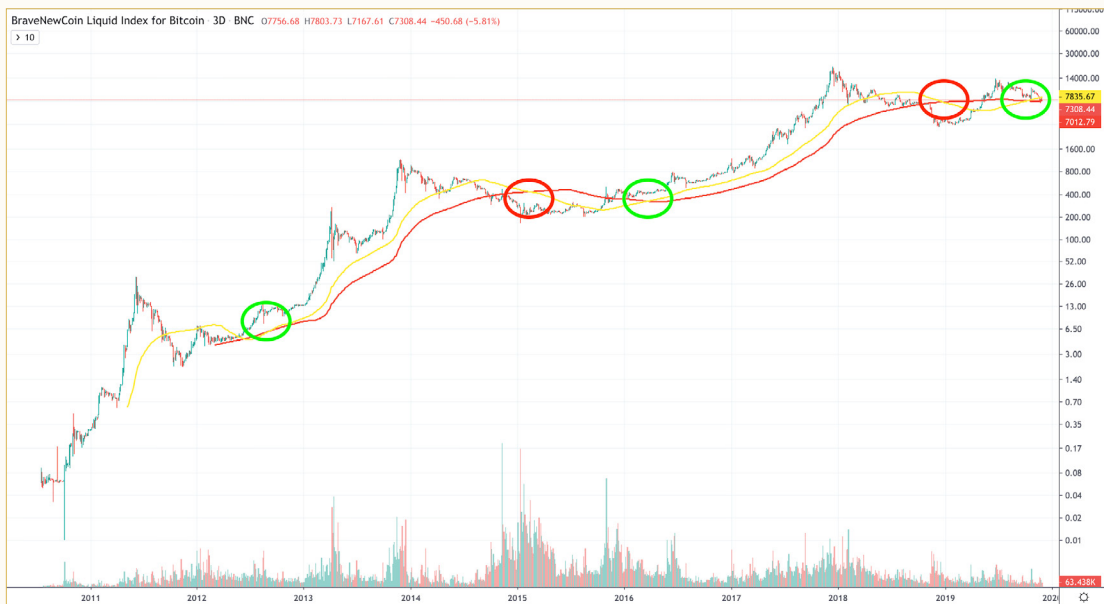


2. MOVING AVERAGES: BEARISH TO NEUTRAL



The Moving Averages tell likely the most bearish story of all indicators. With a death cross between the 100 and 200 MA on the daily, it appears we have reasons to be concerned.

Ironically the 1-day death cross coincides with the 3-day and 1-week golden cross, which throws a more neutral shade on this indicator.



2. MOVING AVERAGES: BEARISH TO NEUTRAL



Finally, the weekly MAs give us a final bit of insight. Historically we have bottomed between the 100MA and 200MA on the weekly, where the 200MA on the weekly has served as final support in the last two bear markets. At the time of writing, the 200MA trades at approximately \$5,000.



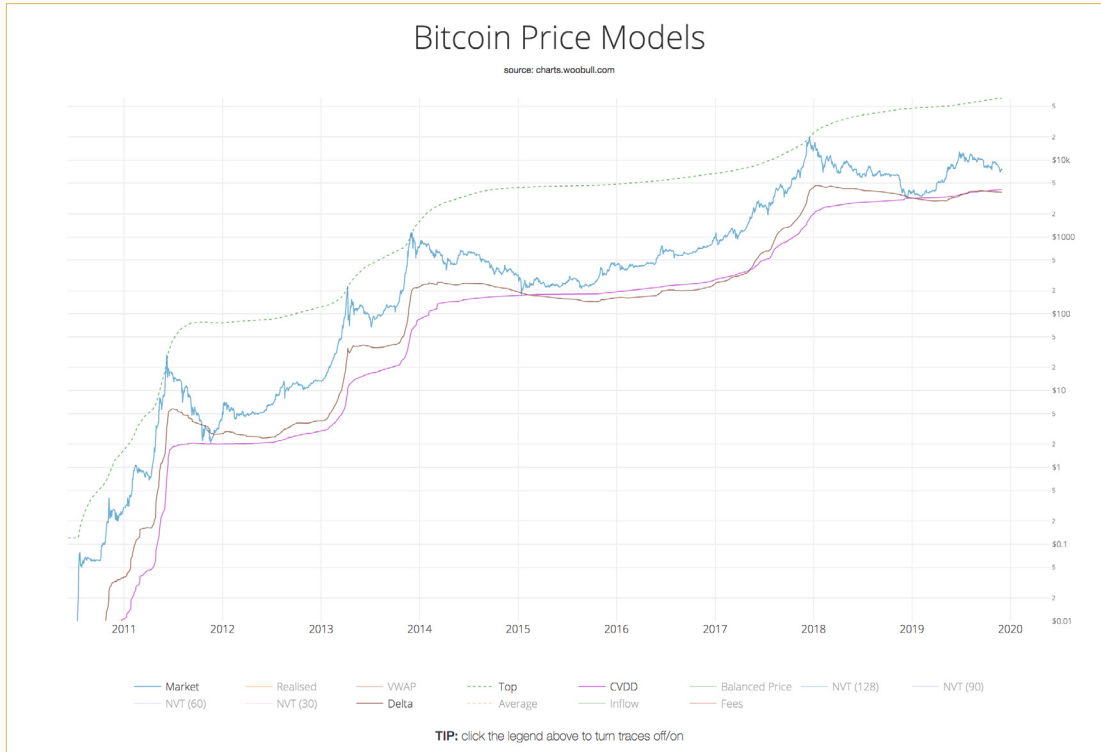
3. RELATIVE STRENGTH INDEX WEEKLY: NEUTRAL (SHORT TERM BEARISH, MID TERM BULLISH)



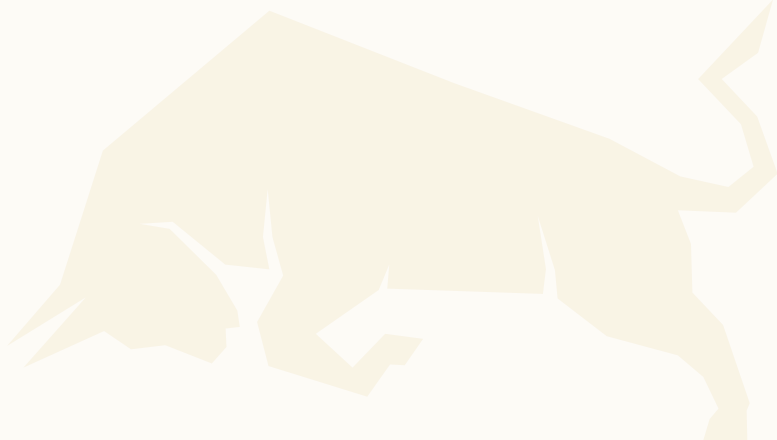
While it would not be correct to call an RSI under 50 bullish, it's important to note that the RSI has only dipped this low during the past 3 market bottoms. This means that while there is potentially more downside (say a dip to \$6,000 or perhaps the 200 weekly MA at \$5,000), it's likely that the bottom is in, or close to being in on, this recent correction. As one can see in the graphic above, anyone was served well accumulating when the Relative Strength was this low.



4. DELTA CAP & CUMULATIVE VALUE-DAYS DESTROYED: BULLISH TO NEUTRAL



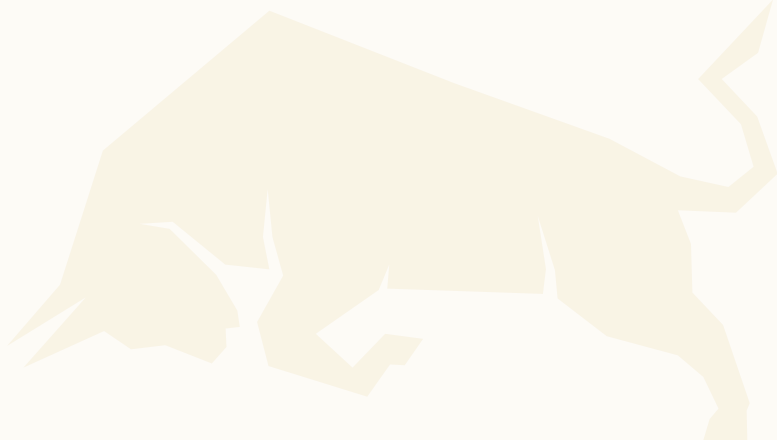
CVDD and Delta Cap utilize blockchain data to calculate longer-term market cap varieties that respect factors such as how long a coin has been held. Both of these have served as reliable bottom indicators. For one, we have already tested the bottom, which signals that we are in a macro bull market. Should we retest it, the new bottom is at approximately \$4,000.



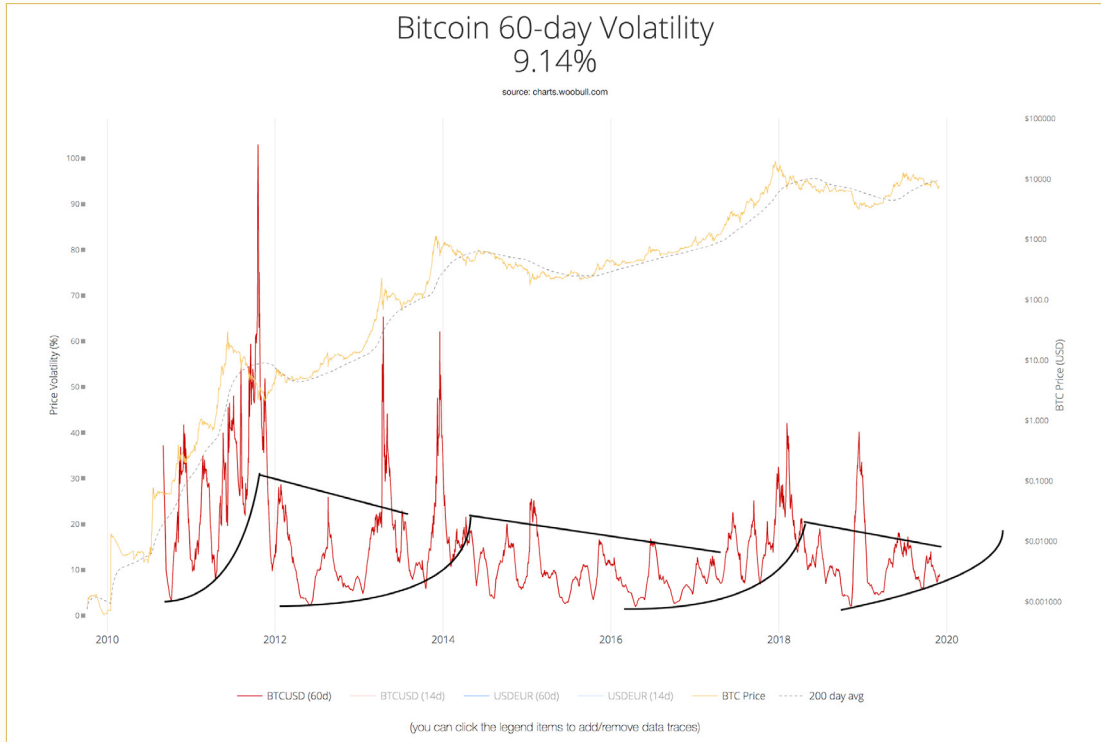
5. UNREALIZED PROFIT LOSS: **BULLISH**



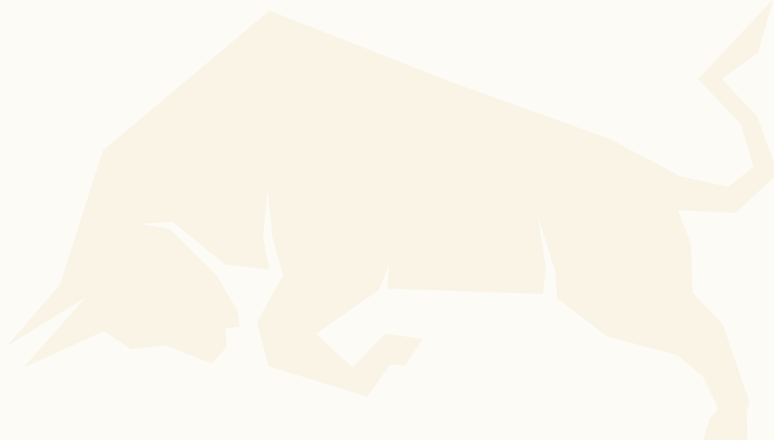
The Unrealized Profit Loss Graph utilizes blockchain data to calculate how much the average holder is in profit or loss. This particular chart then draws the ratio between the two. As we can see, the market generally bottoms when the average holder is deeply at a loss (generally -40%) and peaks when the average holder is deeply in the positive (generally +80%). In all of the last three bull runs, we've seen a significant pullback after the ratio for the first time rises over .5/green. This again gives us reason to believe we are at a pullback opportunity and the macro 2019-2021 Bull Market is still intact.



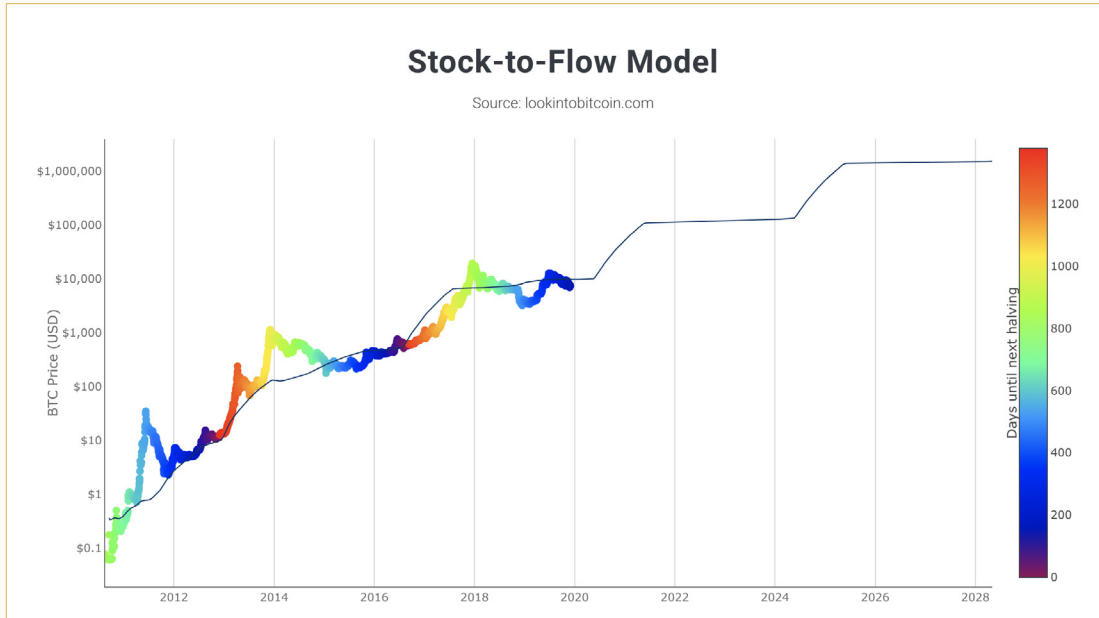
6. 60-DAY VOLATILITY: **BULLISH**



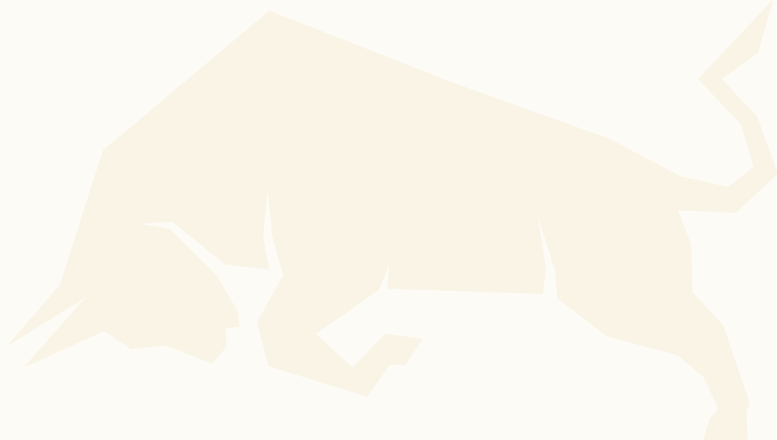
Historically, when Bitcoin's volatility makes higher lows on volatility, we are in a bull market phase. We also generally make lower highs starting at the peak of the bull market all the way to the end of the re-accumulation phase (see 1. Market Phases for context).



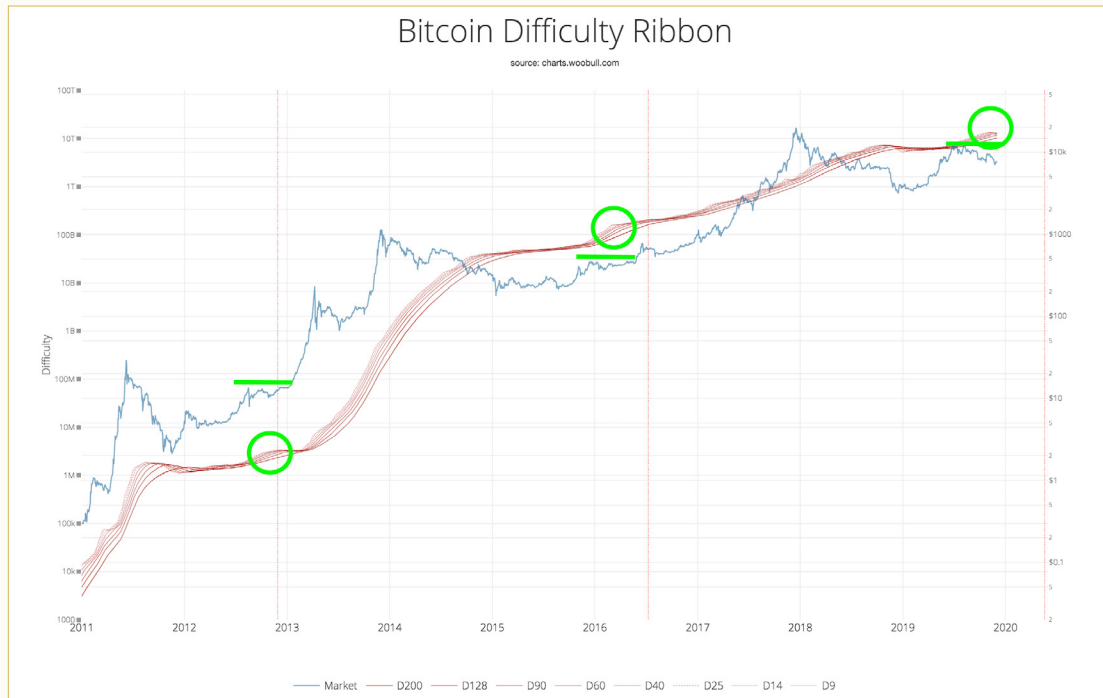
7. STOCK TO FLOW: ULTRA-BULLISH



Our team has been following the Stock to Flow model for over a year, as it calculates real value based on its monetary policy. Due to Bitcoin's pre-determined supply schedule, which halves every 4 years, Bitcoin has experienced significant growth spurts in 4-year cycles. As Bitcoin approaches its next halving on May 15th 2020, the Stock to Flow Model calculates a true fundamental value of \$100,000 per Bitcoin, which Bitcoin tends to overshoot.



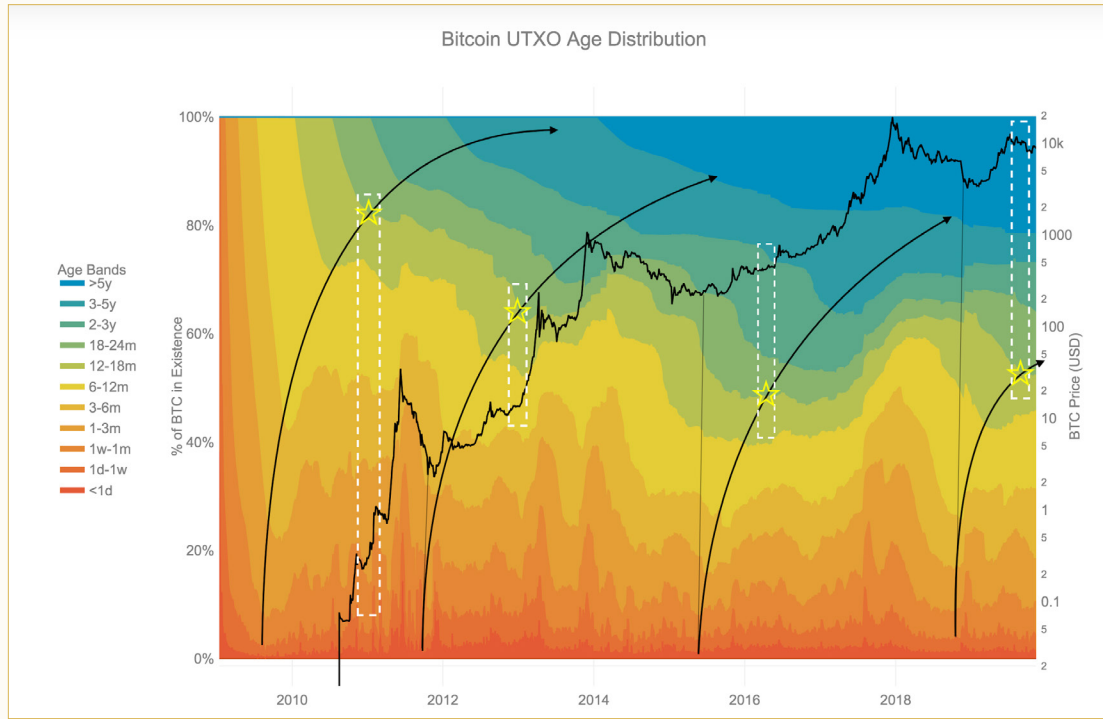
8. MINING DIFFICULTY: **BULLISH**



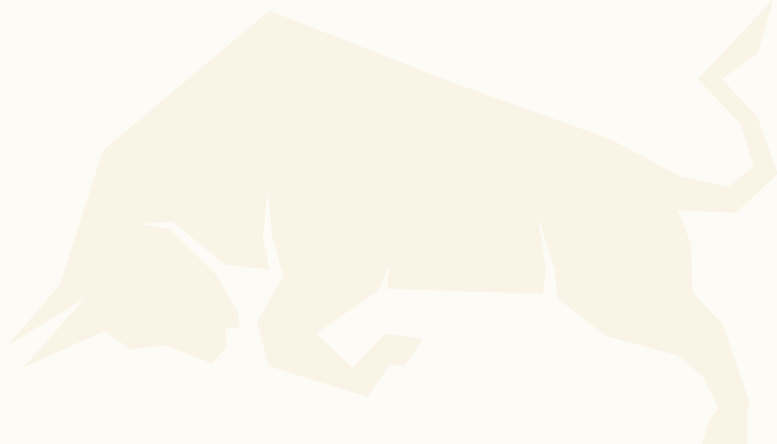
A bear market bottom is usually marked by a miner capitulation. This can be seen when the red bands begin to cross/converge. As we go into expansion (see 1. Market Phases), new miners enter the market and old ones turn their machines back on as mining becomes profitable again. This usually leads to hashrate hitting new highs in the expansion phase. However, once we shift into the re-accumulation phase, we generally experience a price ceiling pre-all time high, which coincides with the bands converging a second time post capitulation, as miners again quit on the first pullback of the bull market. Based on this difficulty analysis, we are also following structure and are exactly where we should be. Below you can see a price to difficulty correlation channel using multiples of miner difficulty.



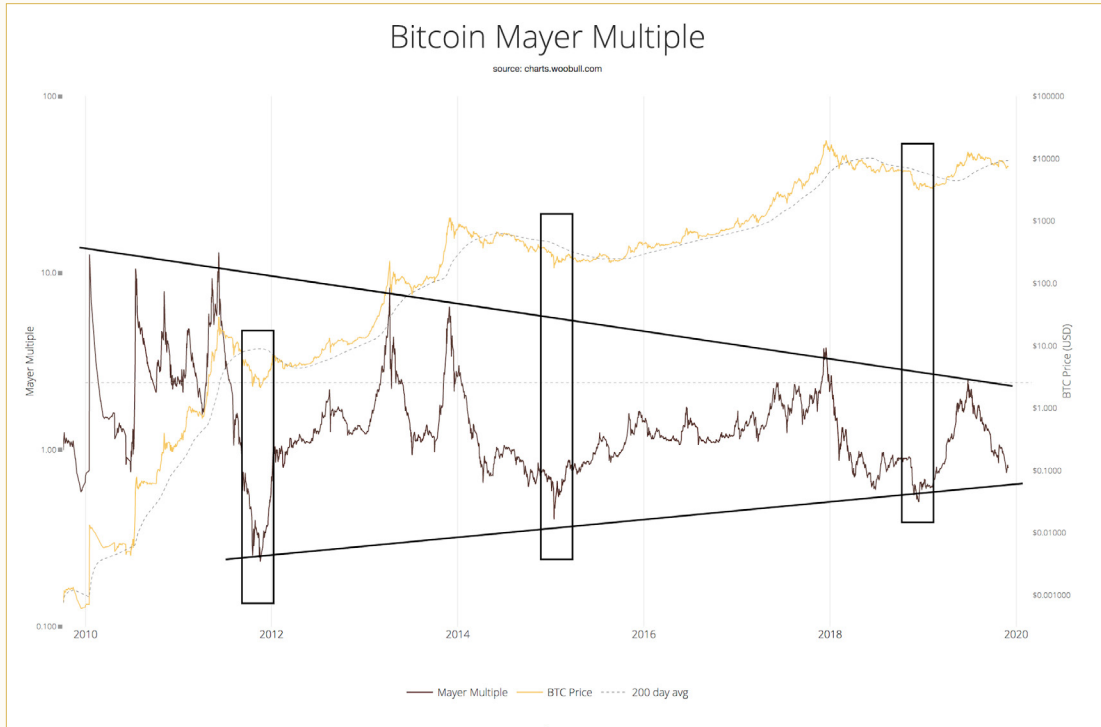
9. UTXO ANALYSIS: **BULLISH**



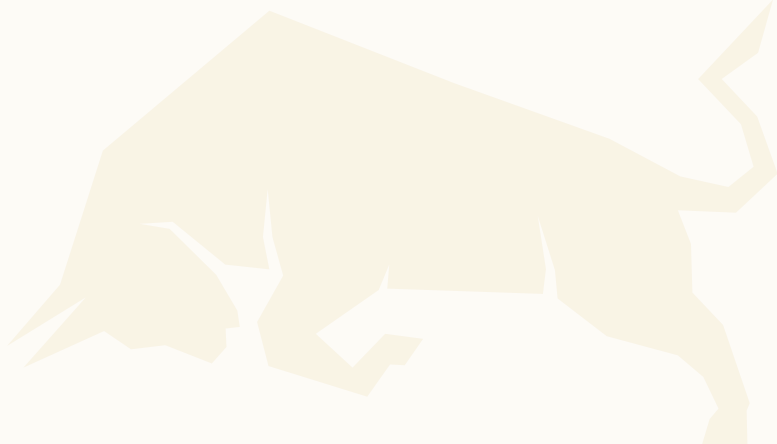
UTXO analysis uses blockchain data to determine how many Bitcoin have been held without moving for how long. What we see above is an age distribution. Throughout the past 10 years we have experienced 4 waves (as indicated by the curved arrows). These connect the widest points of each band. What this essentially visualizes is that at the bottom of a bear market long-term holders are in control. At the peak of a bull market, more than 60% of all coins are in the hands of new holders. Based on the UTXO analysis, we are, again, right where we should be structurally. The last 3 times the wave crossed into the 18-24 month band was pre-ATH, with the bull market still ahead.



10. MAYER MULTIPLE: NEUTRAL-BULLISH



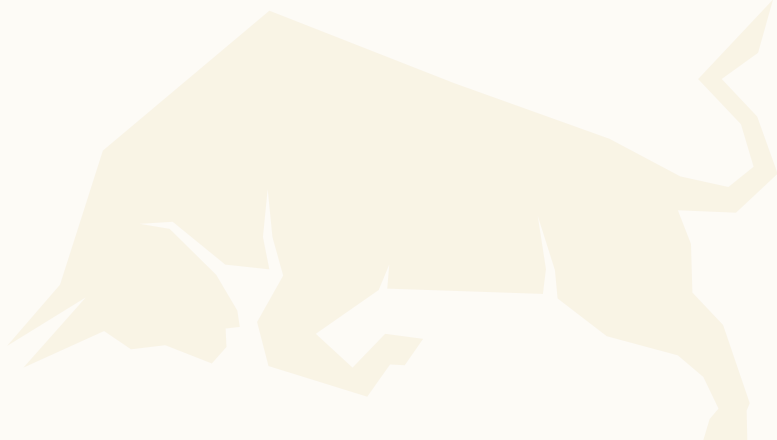
Similar to the RSI, it would not be correct to call a Mayer Multiple under 1 bullish, however, it does signal that we are at or close to a bottom, and the bear trend is running out of steam. Historically, the lowest we've gone was a Mayer Multiple of .4 (currently at around \$4,000), but as the graph shows, the lows have been ascending. The chance is high that this is the bottom. The current MM is lower than 80% of all historical bitcoin days, making it a great buy.



11. ACTIVE WALLET CORRELATION: **MACRO BULLISH**



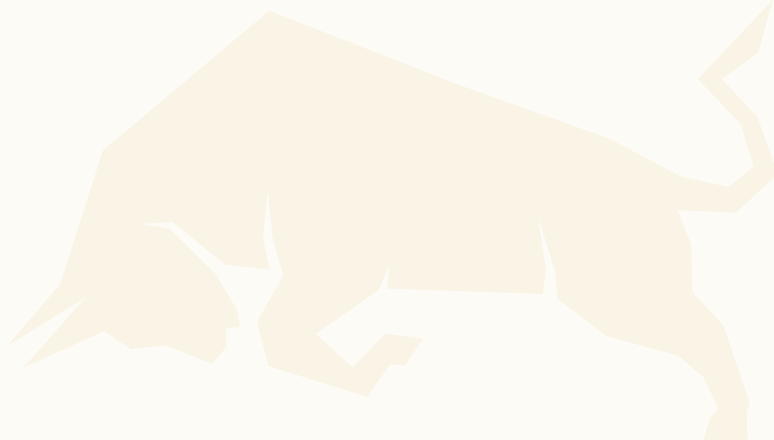
This chart shows a macro correlation between the amount of active users on the Bitcoin blockchain and price growth. We tend to grow underneath it, and then peak over it during bubble tops. Currently we are still underneath it, and thereby, according to this model, are in the undervalued phase.



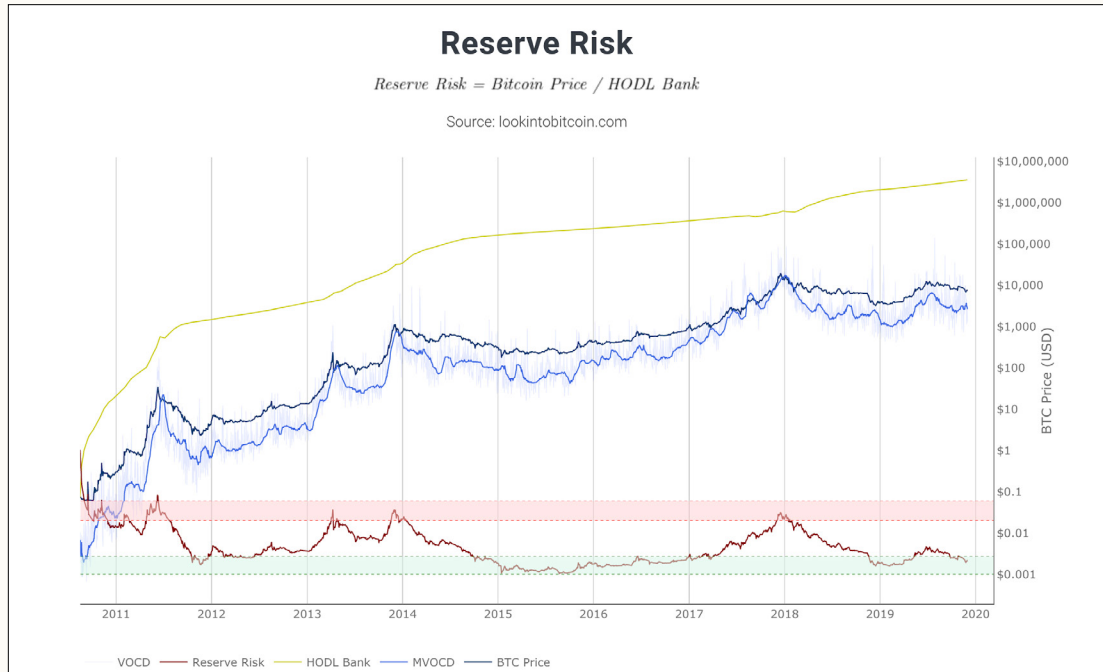
12. HALVING CYCLES: **BULLISH**



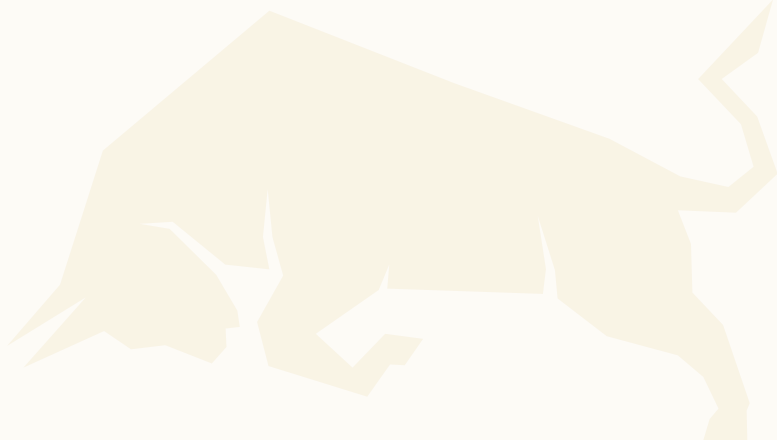
We are approximately 160 days from the next Bitcoin Halving. The last two times Bitcoin had this many days left till halving, Bitcoin was trading between 65-75% below the all-time high, and then never revisited those lows. Structurally we are in the same spot in the mid -60% from the all-time high.



13. RESERVE RISK: **BULLISH**



Reserve Risk is yet another price modeling tool to check Bitcoin's health from a sentiment perspective based on blockchain data (i.e., Are long-term holders moving their coins to exchanges? Or are more people committed to long-term holding than before?). As we can see, we are still deep in the accumulation stage of this cycle and not remotely close to a sell signal (red bar). This again signifies we are merely within a pullback within the accumulation.



14. CHINA CORRELATION: NEUTRAL



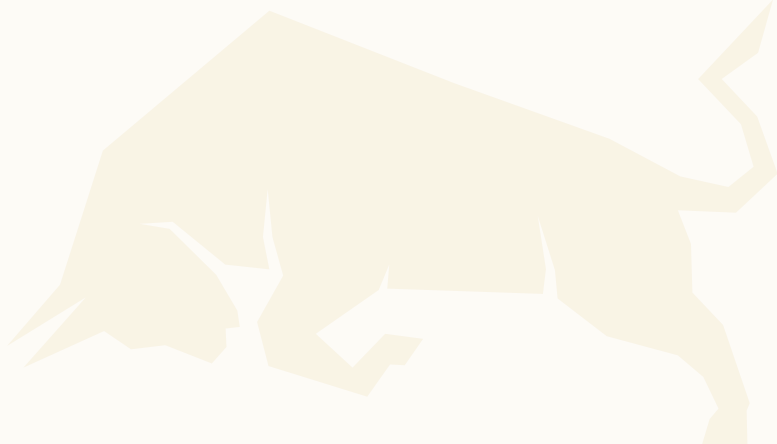
In past bull markets, there's been a correlation to the Chinese Yuan. A strengthening Yuan tended to correlate with a strengthening Bitcoin. Others have opined on this correlation as a wealth effect, where a stronger Yuan leads to more wealth in China, which in turn leads to more alternative investments. While structurally we are still in the red in this correlation, it is possible based on the price action that the Yuan is forming a bottom and may reverse in the coming months similar to '16. Eerily enough, the Yuan's troughs also nearly overlap with the Bitcoin Halving dates.



15. GOLD CORRELATION: **BULLISH**

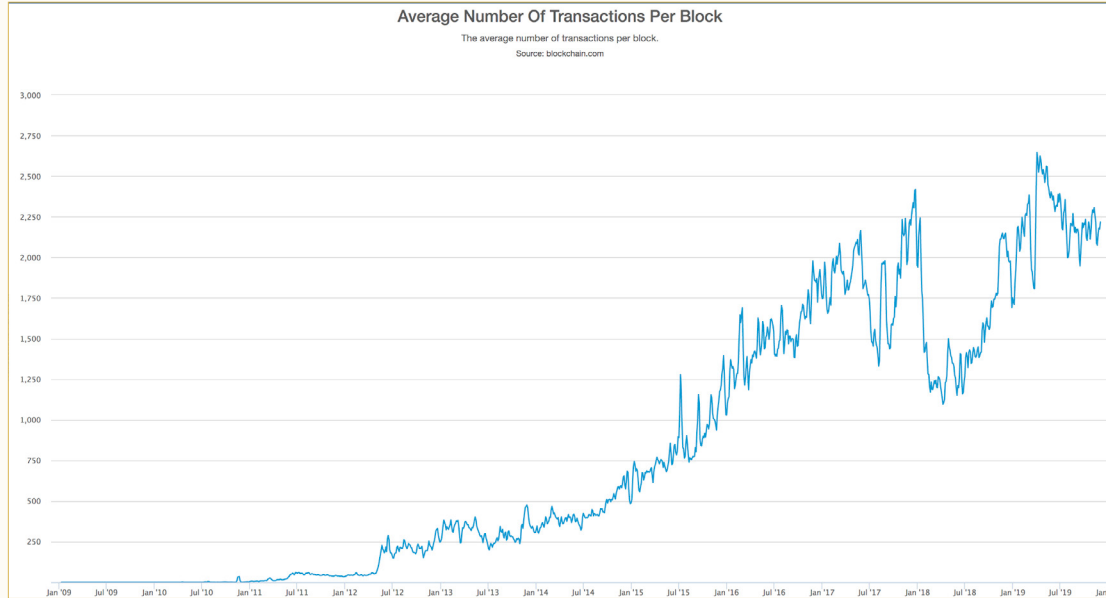


Since 2013, Bitcoin has had a macro correlation to Gold, as they both share safe haven asset characteristics. This became particularly visible in 2018-2019 where they both dropped significantly together and then rallied together during the US/China trade wars. Gold is currently on a strong uptrend which speaks for continued interest in safe haven assets.



BITCOIN NETWORK HEALTH CHECK

SCALABILITY: BULLISH

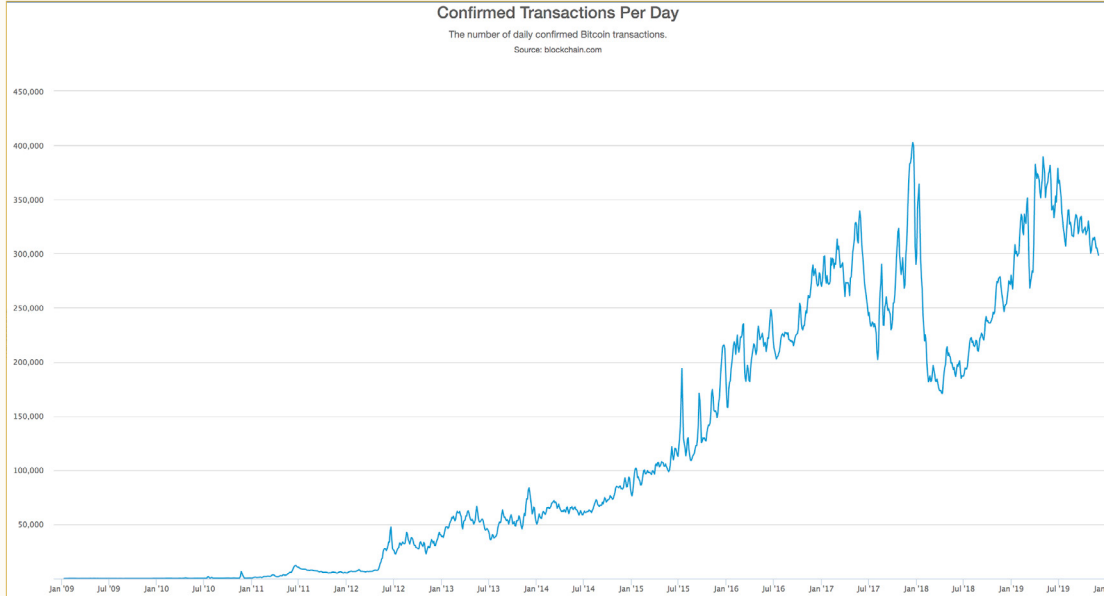


SECURITY: BULLISH

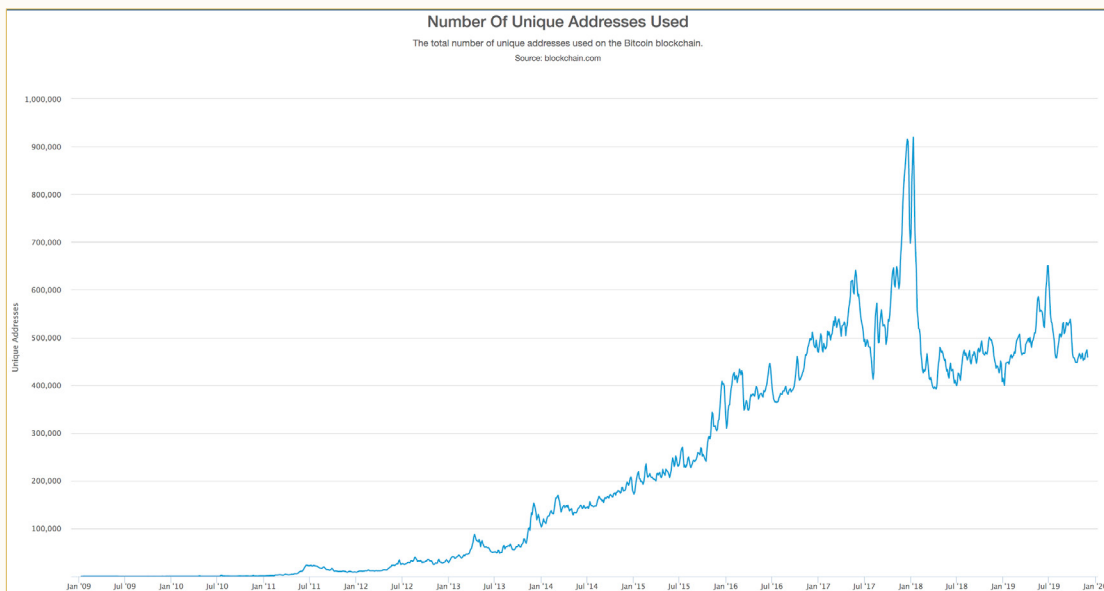


BITCOIN NETWORK HEALTH CHECK

USAGE: **BULLISH**



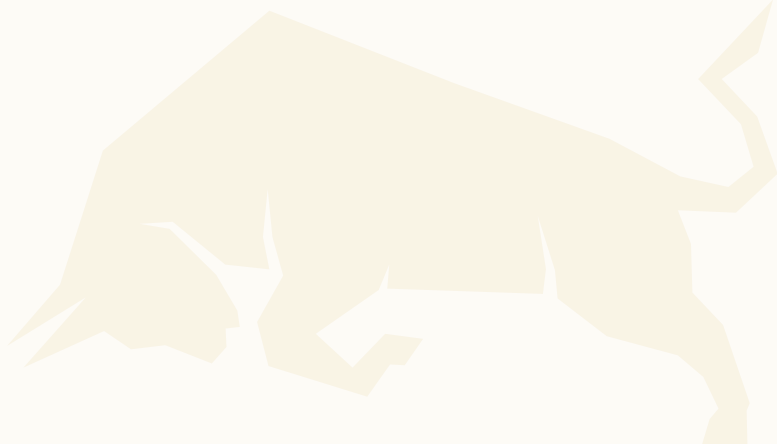
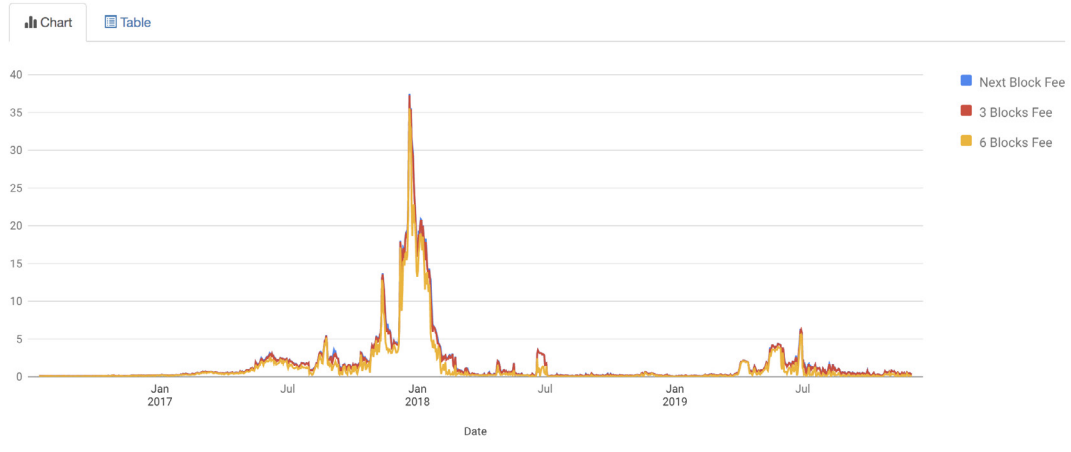
USERS: **NEUTRAL**



BITCOIN NETWORK HEALTH CHECK

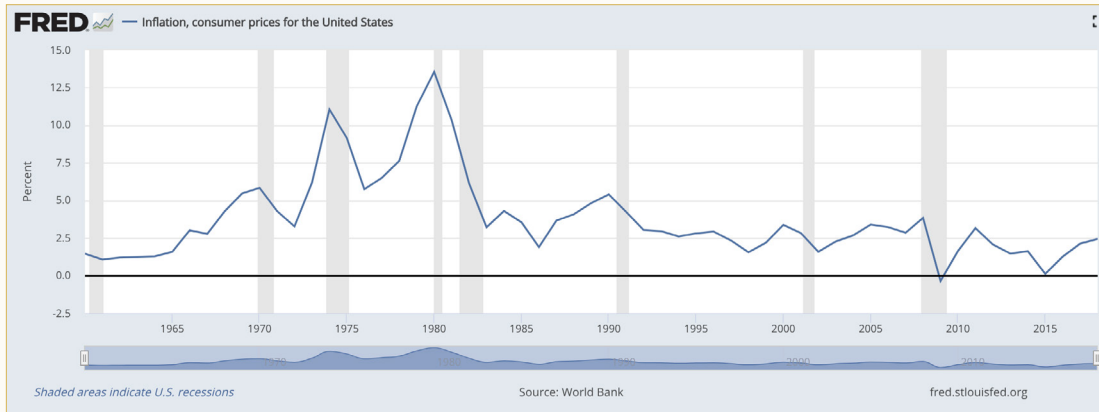
COST / TRANSACTION: **BULLISH**

Historic daily average Bitcoin transaction fees (in dollars per transaction)



US DOLLAR & ECONOMY HEALTH CHECK

INFLATION / DEFLATION: **NORMAL**



US Federal Reserve considers letting inflation run above target

Bid to avoid weak price growth would be biggest policy revamp since 2012



Federal Reserve Bank of Boston president Eric Rosengren, left, with Fed chairman Jay Powell © AP

Brendan Greeley in Washington DECEMBER 1 2019

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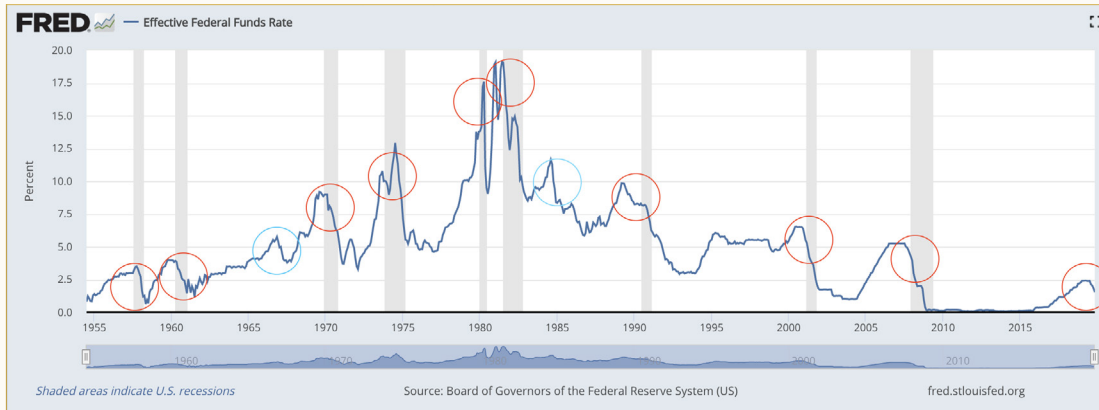
The Federal Reserve is considering introducing a rule that would let [inflation](#) run above its 2 per cent target, a potentially significant shift in its interest rate policy.

The inflation rate has stayed within its historical 0-2% boundary.

This signal will switch from Normal to 'At-Risk' should recent news be substantiated and the FED break its 2% inflation target.

US DOLLAR & ECONOMY HEALTH CHECK

INTEREST RATE: HIGH-RISK



Nine out of eleven times in the last 65 years when the FED significantly cut interest rates after a rate increase we entered a Recessionary period. In 2019, we entered the twelfth time.

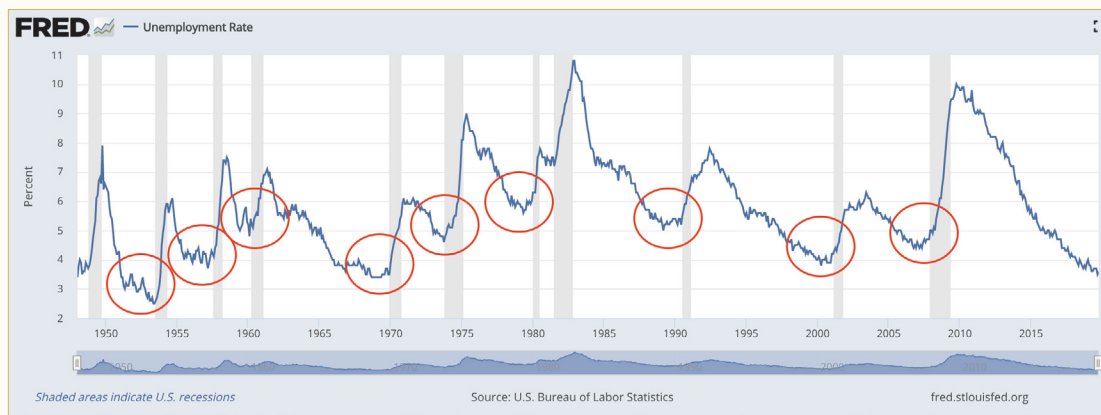
YIELD CURVE: HIGH-RISK



Three out of the last three recessions were preceded by an inversion of the yield curve. Generally we experience the official beginning of a recession around a year from the lowest point of the inversion which would place it in early Q3 2020.

US DOLLAR & ECONOMY HEALTH CHECK

UNEMPLOYMENT: AT RISK

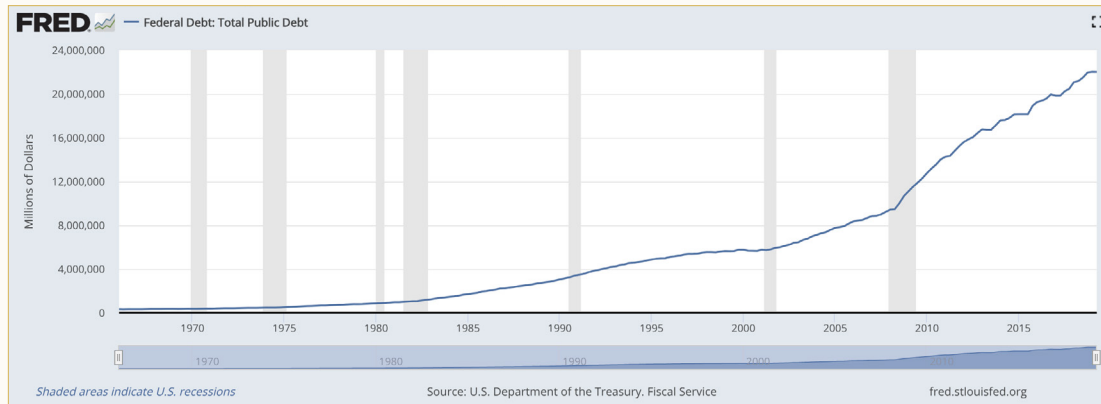


Unemployment numbers can give the impression that all is great when the economy is minutes to midnight. As the graphic above shows, we generally hit unemployment multi-year lows months before a recession. In unemployment terms the graph takes the stairs down but the elevator up. If we see this graph flattening or starting to round to the upside, this signal will go from 'At Risk' to 'High Risk'.

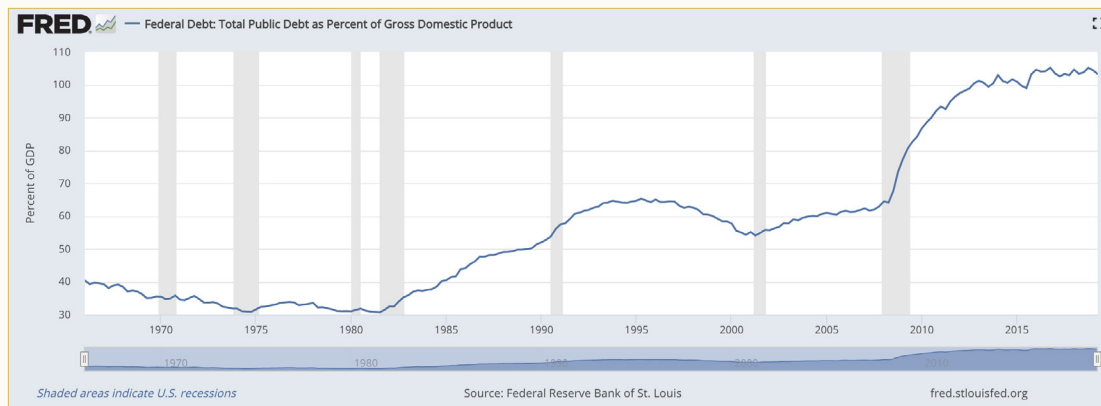


US DOLLAR & ECONOMY HEALTH CHECK

DEBT: HIGH-RISK



In all the data the FED provides, the US has never had either as much debt in \$ nor has it had as much debt in terms of % of GDP. The US, for the first time based on the data, owes more than the entire nation produces over the course of the year. The problem is that recessions generally lead to debt spikes. The question is how high can the debt ceiling go?



CONCLUSION

Bitcoin is fundamentally in top shape. Other than active wallets (which only counts on-chain wallets and not third-party exchange or wallet accounts), nearly every fundamental on-chain data set is performing better than when Bitcoin was trading at \$20k. It's more scalable, more secure, cheaper and overall more used than two years ago.

From a price action perspective, other than the Moving Averages which give a sobering outlook, nearly every other technical indicator suggests that we are at or near the bottom of this pre-halving correction and are exactly where we should be structurally. It also suggests that now is one of the most asymmetric risk reward ratios we've been offered by the market in the past 2 years other than the 3k bottom in January.

From a Macro-Economic perspective, the US Dollar and Economy appear to be hanging by a thread which can lead to several scenarios that favor bitcoin. For one, safe haven assets like Gold, to which Bitcoin has a macro correlation, tend to fare well in recessions, particularly in their later stages. On the other hand, should an economic crisis lead to a power shift between the US and China, that too has the potential to push Bitcoin further based on its correlation with the Yuan. Overall, we find Bitcoin to offer some of the most recession-proof features, from mathematical scarcity, to non-confiscatability, to custodial sovereignty, making it a candidate for growth amidst a global contraction.

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DISCLOSURES

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