

BITCOIN IN HEAVY ACCUMULATION

April 18, 2019

INTRODUCTION

We pride ourselves in having published our **2012** and **2015** Bitcoin reports during what we perceived as periods of significant undervaluation. Each report was issued when Bitcoin was down more than 80% from all-time highs. Now, at 75% below its 2017 all-time high, we believe the current bear market represents an exceptional opportunity for value investors.

During this accumulation phase, we expect for Bitcoin to trade in a range of \$3,000 to \$6,500, until the new bull market permanently cements the denarian cryptocurrency as a multi-trillion dollar asset class.

Some highlights of this report:

- Blockchain analysis suggests Bitcoin whales are now accumulating
- Significant parallels with the 2014-15 bear market have emerged
- HODLers almost break-even, with est. aggregate losses of \$3 billion
- Recent volatility lows suggest retail apathy, market bottoming
- Demand shocks still possible from exchange hacks, miner capitulation
- Bitcoin's secular bull market is supported by strong fundamentals

We are thankful for the feedback and support from other analysts in the industry—of course all errors remain our own.

Tuur Demeester

"Investors and fund managers likely do themselves a favor by keeping an eye on Bitcoin."

TUUR DEMEESTER, "THE GLOOM OF CENTRAL BANKING,"
NOV 2012

"We maintain that the risk-reward ratio for Bitcoin the currency is currently the most favorable of any investment in the world."

ADAMANT RESEARCH, "HOW TO POSITION FOR THE RALLY IN BITCOIN", NOV 2015

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ONE BLOCKCHAIN ANALYSIS INDICATES UNDervaluation, START OF ACCUMULATION

In the world of crypto assets, [fundamental analysis](#) is used to determine the potential of a particular protocol to capture market share in the long run. Once the fundamental value thesis has been defended, the work on value analysis can begin. The goal then is to estimate whether or not a token or coin is trading at fair value relative to its current usage and adoption. In our February [Primer on Bitcoin Valuation](#) we suggested that the most important valuation tools will be those that specifically reflect changes in *saving* behavior—in this section we focus on exactly these measures.

CURRENT SENTIMENT: HOPE

One new metric we suggested, based on the dollar value of each Bitcoin at the time it last moved, was Bitcoin Unrealized Profit/Loss. The measure currently shows an estimated aggregate unrealized profit of \$13 billion among Bitcoin holders. However if we take into account that 3.05 million of Bitcoin's mined supply is [likely lost](#), then our current estimate has to be adjusted to an estimated \$3 billion in unrealized losses.

On a relative basis, this measure suggests that global Bitcoin portfolios on average are displaying a 14% unrealized profit. Adjusting for lost coins, we arrive at an estimate of 3% unrealized losses.

"I think people are underestimating Bitcoin especially because it is like a reserve form of money [...] If Bitcoin ends up being the cyber equivalent of gold, it has great potential left."

PETER THIEL, [OCT 2017](#)



"If we value every coin at the time it last moved and aggregate these values, we arrive at the 'Realized Capitalization.' By subtracting the Realized Cap from the Market Cap, we calculate Unrealized P&L."

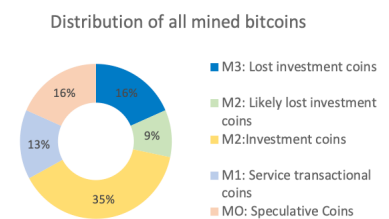
ADAMANT CAPITAL, [FEB 2018](#)

As is visible in the graph, blockchain analysis shows that very substantial price and coin movements happened in November 2018, when the relative unrealized losses doubled in mere weeks. We call this capitulation, when the final expectations of a swift price recovery are torpedoed by the market. Google Trends [confirms](#) the current retail sentiment of apathy and disinterest, with search interest in “buy Bitcoin” recently dropping to levels like in March 2017 when Bitcoin was trading below \$1,500. The recent price rally from \$4,000 to over \$5,000 markedly improved HODLER’s Unrealized P&L, improving our reported sentiment value from *capitulation* to *hope*.



“When a high percentage of Bitcoin’s market cap consists of unrealized profits, it can be interpreted that investors are greedy. The ratio drops as prices decline... . When the unrealized gains turn into unrealized losses, we enter the phase of capitulation and apathy.”

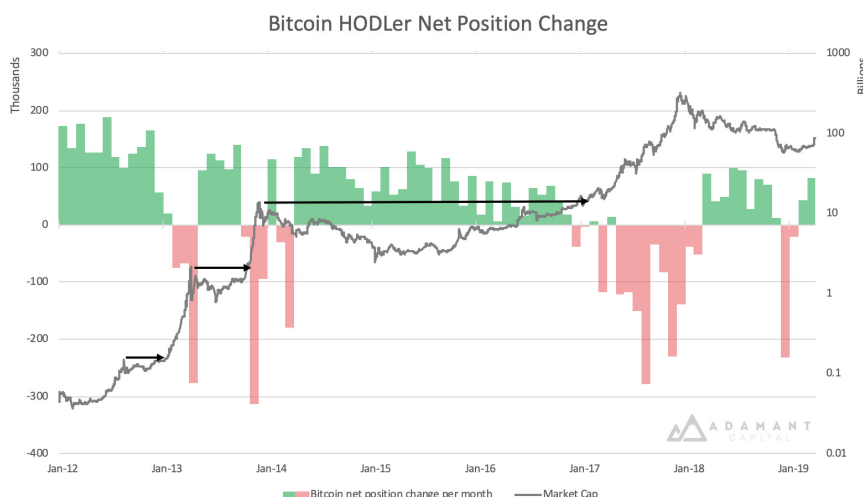
ADAMANT CAPITAL, [FEB 2018](#)



Src: [Chainalysis](#)

BLOCKCHAIN SUGGESTS BITCOIN INVESTORS ARE HODLING AGAIN

As explained in our [February Primer](#), by analyzing Bitcoin’s blockchain we can estimate the monthly position change among long-term Bitcoin holders.



“One of the most robust facts about the trading of individual investors is the so-called ‘disposition effect’: the finding that, when an individual investor sells a stock in her portfolio, she has a greater propensity to sell a stock that has gone up in value since purchase, than one that has gone down.”

BARBERIS & XIONG, [JUNE 2006](#)

Because of the [disposition effect](#) (the tendency of investors to hold on to assets that have lost value), Bitcoin investors held on to more accumulated gains than they could afford to lose in the first three quarters of 2018. They even grew their net exposure to Bitcoin, in the hopes of a rebound.

That all changed in November 2018. As the price dipped below \$6,000, holders panicked and sold off coins. From November 14 to 16, over 70,000 Bitcoin days were destroyed, which was the biggest move of old bitcoins since February 23 of that same year. Shortly after, in early December, Coinbase decided to reshuffle its own coins (5% of total supply, possibly amounting for a full 200,000 BTC in HODLer Net Position Change) for technical reasons, which caused red flags in HODL valuation indicators and **probably exacerbated a general market selloff**. Indeed, a lot of institutional investors got cold feet in late 2018, which we learned from talking to connected brokers and investment banks.

However the situation visibly improved by the start of 2019, and we see what followed as the official start of the accumulation phase in Bitcoin. Before we talk more about Bitcoin's price outlook, let's see if the sum of our 2018 observations leads us to the same conclusion of market capitulation and a subsequent accumulation phase.

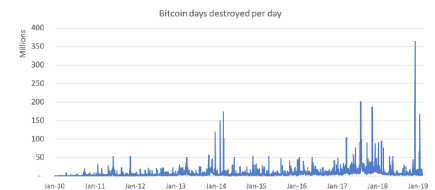
TWO DOES OUR BLOCKCHAIN ANALYSIS FIT REALITY?

In our **January 2018 piece**, we described how during 2016–17 the market climbed a wall of worry, where Bitcoin's market dominance declined significantly in favor of 'altcoins' and 'ICOs'. Eventually, retail investors globally indulged in a **crypto frenzy**, and a bubble ensued. A New York Times headline in mid-January iconically marked an all-time high in Bitcoin and many other crypto assets: **"Everyone Is Getting Hilariously Rich and You're Not."**

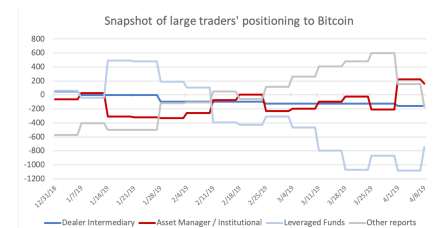
After that came a price crash, and what one could label the **'hopium'** or 'optimism/denial' phase, during which many analysts saw the \$6,000 level as **providing strong support** for a new bull market (although there were **some exceptions**).

Most investors didn't want to hear about the possibility of a strong decline or a year-long bear market, as illustrated by the **backlash** generated **by sober analyses**. At the time, we thought there was still too much hope and fear in the market **to call a bottom (though this is hard to spot)**. In the depth of a bear market, people don't feel hope and fear. Capitulation is about disgust, indifference, and a **loss of hope**.

Based on our analysis of the data and prevailing sentiment, we published a **think piece in August**, in which we said: "After last year's FOMO, retail interest in Bitcoin has now become very sluggish [...] Institutions who are known to be long-biased, such as mutual funds and pension funds are not ready



If a 100 BTC address is 10 days old and then the coins are moved, 1,000 Bitcoin Days are destroyed.



The CME Bitcoin Futures COT report showed for the first time a **significant** increase in long positions among institutions (red bar), beginning on April 1st.

"2018 could very well be a shakeout year ... recent valuations are totally out of bounds with reality."

TUUR DEMEESTER,
JAN 2018



"Bitcoin TA: this is why I'm not convinced we've seen a bottom"

TUUR DEMEESTER, JULY 2018

to invest because they're not yet comfortable with the available custody solutions. [...] We don't foresee new all-time highs in Bitcoin for 2018, and unless data starts suggesting differently, we are expecting mostly sideways or lower price action."

After a few months of **sideways trading**, on 'Bloody Wednesday' November 14, the \$6,000 support levels broke down and the market started sliding, with many traders appearing **dissociated** or **in denial**. When all was said and done, the market had crashed by 48% in a single month. Finally in December, people were so **upset and disgusted** that we started receiving the **Twitter equivalent of hate mail**. To us, this was the **sign** that fear and hope had been exchanged for disgust and apathy: **capitulation**.

THREE CLUES FROM OTHER HISTORICAL DATA

Bitcoin's history of price and volatility validates our thesis of undervaluation.

BITCOIN DRAWDOWN ANALYSIS

Now that Bitcoin is in a bear market again, we're seeing media headlines **aplenty** about how **"it may never recover"** and Bitcoin having **"no unique value,"** a refrain repeated during every Bitcoin downturn. In our **2013 presentation**, we discussed how Bitcoin is different from classic bubbles, in that its boom/bust cycle is simply part of the natural adoption process. When a very scarce fungible asset faces increasing demand over the years, its price will rise over repeated phases of accumulation and redistribution.

Even though prices are different in each cycle, there seems to be some regularity when it comes to the percentage of the drawdowns during bear markets. Let's have a look at the historic highs and lows in Bitcoin:

	DATE	DAYS	BTC PRICE	% GAIN	% PER DAY
First peak	09/06/2011	449	30	984567%	1.36%
First trough	11/20/2011	164	2	-92%	-1.64%
Second peak	11/30/2013	741	1,133	50921%	0.86%
Second trough	01/15/2015	410	175	-85%	-0.45%
Third peak	12/17/2017	1068	19,494	9480%	0.44%
Third trough	12/16/2018	345	3,141	-84%	-0.53%

We can see that the 2018 drawdown of 84% from the all-time high is on par with drawdowns from previous cycles (-92% in 2011 and -85% in 2014–15).

"This past rally was a stupendous, historic move. Even in secular bull markets, the collective of economic actors needs time to absorb the information embedded in its characteristic high volume rallies."

ADAMANT CAPITAL, **AUG 2018**



"I think the internet is going to be one of the major forces for reducing the role of government. The one thing that's missing but that will soon be developed, is a reliable e-cash."

MILTON FRIEDMAN, **1999**

"I'm sure that in 20 years there will either be very large transaction volume or no volume."

SATOSHI NAKAMOTO, **2010**

"[Bitcoin] is a remarkable cryptographic achievement," he said on a panel. "The ability to create something which is not duplicable in the digital world has enormous value."

ERIC SCHMIDT, **MARCH 2014**

"I regret making the comments [that Bitcoin is a fraud]."

JAMIE DIMON, **SEPT 2017**

In our opinion, the **parallel** with previous cycles is sufficient to validate our thesis that we are back in undervalued territory.

What about the price going forward?

As Bitcoin matures into a globally traded commodity, it seems reasonable to expect its cycles to continue lengthening until eventually they are on par with the multi decade cycles visible in commodities like copper or gold. As part of this lengthening process we should also see a decline in volatility, and a “shallowing out” of the cycle rallies and drawdowns.

Indeed, looking at Bitcoin’s price history we see a gradual transition from steep cycles and high volatility to shallower cycles and lower volatility. If that’s the case, then why is Bitcoin’s current 84% maximum drawdown almost identical to that of 2014-15? Shouldn’t it be less? We think that this can be explained by the 2017 crypto bull market having been a veritable mania with global participation, leading to an **unprecedented rally**-something of similar zeitgeist magnitude as the **Dot-com Bubble**, or the **Railway Mania**. Bitcoin served as the funding rails for many of the ICOs, thus further pushing up its price.

So while the markets could dip back down for a re-test of the November lows (or lower still) to further digest the hundredfold run-up of 2015–17, we feel strongly that Bitcoin is undervalued at these prices.

To quote Jesse Livermore, who was a proponent of buying the bottom range of a bear market instead of exactly calling it:

“One of the most helpful things that anybody can learn is to give up trying to catch the last eighth-or the first. These two are the most expensive eighths in the world.”



Src: Peter Brandt's Factor, Dec 8, 2018.



Bitcoin cycles lengthening and flattening.

Src: GravityWave

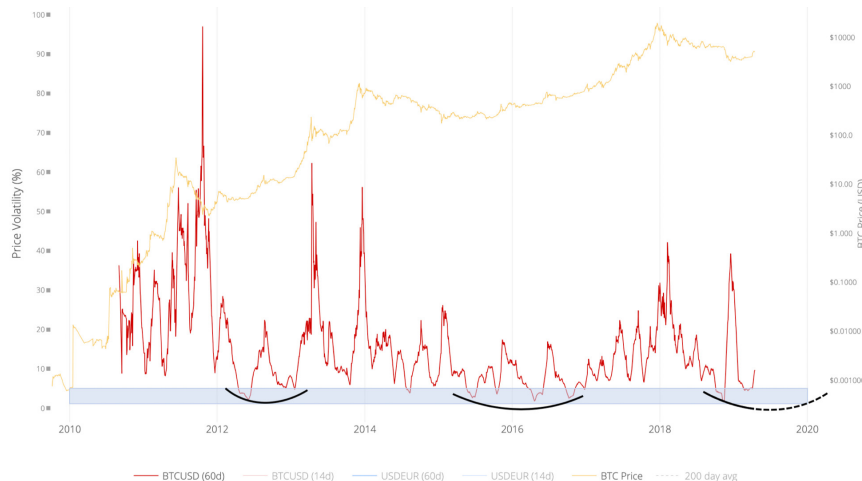
“It might make sense just to get some in case it catches on. If enough people think the same way that becomes a self-fulfilling prophecy.”

SATOSHI NAKAMOTO, **JAN 2009**

VOLATILITY LOWS SUGGESTS BOTTOM PROXIMITY

High Bitcoin volatility can be a proxy for the involvement of trigger-happy retail speculators, whereas low volatility tends to coincide with phases of consolidation, apathy, and accumulation.

Recently, the Bitcoin 60 Day Volatility dropped below 5%, a level not seen since late 2016. In November last year, the **volatility** even dropped below 2%, the lowest in over 6 years.



This fits our analysis that the current market has lost most of its retail involvement, and is more dominated by agnostic traders and long-term value investors. We agree with Bill Miller IV's **assessment**, that "the collapse in volatility on Bitcoin would be consistent with the fast-money speculators being shaken out and only hodlers remaining. Happened near bottoms after big drawdowns in the past."

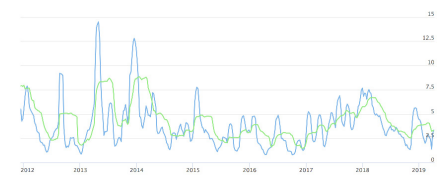
FOUR RISK ANALYSIS

WHAT ARE CREDIBLE CATALYSTS FOR LOWER PRICES?

As always during bear markets, it's important to consider potential factors that would cause further negative demand shocks. Let's consider a few:

1. BITCOIN EXCHANGE HACKS OR FAILURES

Bitcoin exchanges and custodians play an important role in the ecosystem. When MtGox failed in February 2014, causing 6% of all BTC in circulation to be deemed lost, the Bitcoin price **crashed** by 50% in short order. Given that no one exchange today has achieved the market dominance of MtGox at the time, a similar shock is unlikely. However, we still see exchange hacks or failures as the most important source of potential negative demand shocks for Bitcoin in the coming 6 months.



30 and 120 day BTC/USD Volatility

Source: bitvol.info

"The last time Bitcoin saw its 50-day moving average cross definitively above the 100-day moving average, a spot on the ledger cost about \$300. Since then, bitcoin is up 17x. It just happened again."

BILL MILLER IV, **APRIL 2019**

"In my 43 years as a trader there has never been a move like \$BTC. The only other market that achieved a superior parabolic advance was German interest rates in 1920s."

PETER BRANDT, **JULY 2018**

"Crypto Mystery: Quadriga's Wallets Are Empty, Putting Fate Of \$137 Million In Doubt"

NPR, **MARCH 2019**

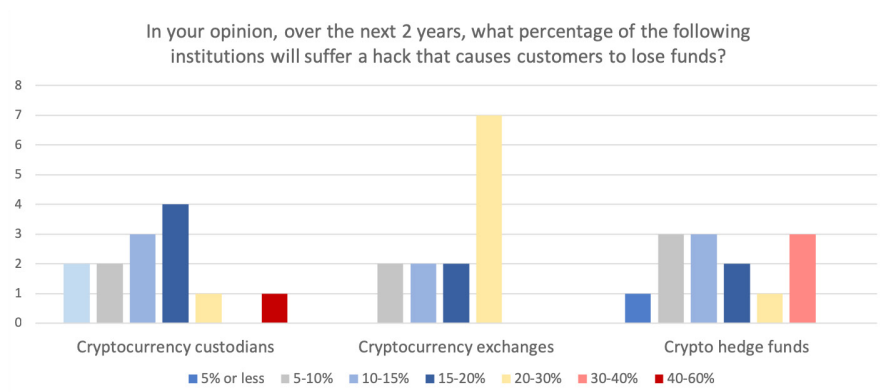
"This whole Quadriga debacle would have been much alleviated, or even anticipated, if exchanges were committed to proofs of solvency."

NIC CARTER, **FEB 2019**

In July 2018, we conducted a survey among what we consider to be Bitcoin's most renowned operational security experts. We hand-picked 21 non-exchange affiliated experts, all of whom are listed in the [hive.one top 100 Bitcoin influencers](#) ranking. 13 of them filled in our survey.

First we asked: "Looking at the currently operating third party Bitcoin custodians, what makes them most vulnerable to catastrophic loss of funds?" The top three responses were "general lack of security expertise" (84%), "insufficiently hardened procedures" (77%), and "insufficient audits" (46%).

Next, we asked our experts for their view on the custodians, exchanges, and hedge funds in the space:



Note that this survey was taken in the midst of the ICO boom, so it's understandable that *crypto hedge funds*, most of which at that time engaged in self-custody, were considered the riskiest.

Next, our experts were most worried about *Bitcoin exchanges*, where most responses indicated an expectation that over 20% of exchanges will get hacked before the summer of 2020. Larry Cermak, analyst for The Block, [estimates](#) the total [stolen from crypto exchanges](#) currently at \$1.3 billion with approximately 61% of the thefts in 2018 alone.

While *cryptocurrency custodians* were perceived to be the least risky, our experts still estimated that before the summer of 2020 an industry wide 10–15% of custodians would suffer from loss of funds due to a hack.

2. MACRO-ECONOMIC DOWNTURN

While Bitcoin was historically not correlated with overall markets, its relatively [high liquidity](#) makes it an asset that could be used as a proxy for cash in the case of an equity or bond market downturn. This could lead to a situation similar to [the 2008 paradox of the](#) gold price declining by over 30% (from sales to raise cash to meet margin calls) coinciding with a record high demand for coins and bars.

Without going into too much detail, let's look at the S&P 500 through the lens of Schiller's [Cyclically Adjusted P/E Ratio](#) (CAPE)—by many seen as a [potential indicator of 'irrational exuberance'](#). [As you can see, US stocks are currently trading at a 36 multiple of 10 year earnings, which is expensive by historical standards:](#)

"Bithumb Announces External Audit Results in Wake of \$13 Million Hack"

COINTELEGRAPH, [APRIL 2019](#)

"China's two biggest bitcoin exchanges, Huobi and OKCoin, collectively invested around 1 billion yuan (\$150 million) of idle client funds into "wealth-management products." As has been noted elsewhere, such products in China are often high-yielding and risky."

QZ, [AUG 2017](#)

"The only truly secure system is one that is powered off, cast in a block of concrete and sealed in a lead-lined room with armed guards - and even then I have my doubts."

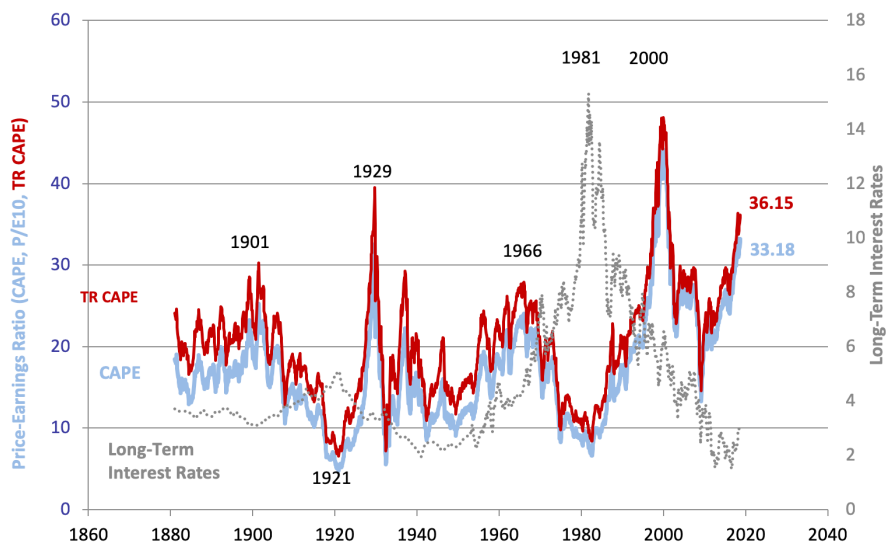
GENE SPAFFORD, [1989](#)

Order Size	Average Slippage
\$100,000	0.04%
\$500,000	0.09%
\$1,000,000	0.14%
\$2,000,000	0.26%
\$5,000,000	0.60%

Bitcoin liquidity analysis by Bitwise, [March 2019](#)

"[Bitcoin] is owned by the crowd, its users. And it now has a track record of several years, enough for it to be an animal in its own right."

NASSIM N. TALEB, [JAN 2018](#)



In blue the original CAPE Ratio, in red the Total Return CAPE, which corrects for the change in corporate payout policy from dividends to share buybacks. Src: [Robert J. Shiller](#)

This being said, we don't see a financial crisis as a long term headwind for Bitcoin, on the contrary. Just like what this recent [Bloomberg write-up](#) hints at, we believe that Bitcoin is of compelling value for investors looking to diversify their portfolios for protection against tail risks in both global bond and global stock markets.

3. SECONDARY BITCOIN MINING CAPITULATION

Because of their large turnover and capacity to hold or sell coins, Bitcoin miners have an outsized influence on the boom-bust cycles of the industry.

Bitcoin's supply currently increases by 3.7% annualized. This new supply is distributed among Bitcoin miners, who vie for the chance of receiving the 'block reward'. This causes miners to collectively throttle the Bitcoin price: By hoarding during a bull market in order to maximize profits, the supply constraint pushes prices higher. Conversely during a bear market, miners will sell more coins to pay bills, which leads to increased price pressure.

With a total hashrate of 44 EH/s, there are currently about 3.1 million mining machines in operation around the world. The most widely spread is Bitmain's 14 TH/s flagship miner the S9, of which [around 2 million](#) were sold in total. Assuming specs similar to the S9 and electricity costs of [5 cents kWh](#), most miners can make a profit as long as the Bitcoin price is above \$3,250 (The break-even point for 4 cent miners is \$2,600 BTC, and for 3 cent miners \$1,950). So there's an argument to be made that should the Bitcoin price drift down towards \$3,000, this could trigger another capitulation event in the mining space, where Bitcoin miners operating the fleet of outdated rigs go out of business and where their BTC holdings are liquidated to pay for the remaining liabilities.

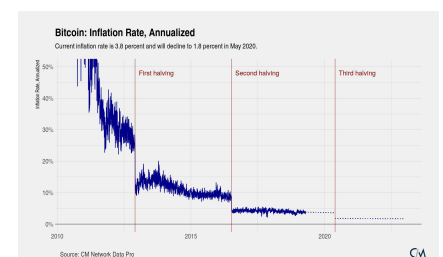
The scenario above is contradicted by last November's 30% decline in mining difficulty, which was the [largest drop in difficulty](#) since the 2011 bear market. This sustained drop in hashrate strongly suggests that a huge amount of mining rigs went offline in that period. In our experience the

"There's a liquidity crisis that is hitting all assets in the short term. Some investors with profits in gold are selling to pay for the losses in their other holdings."

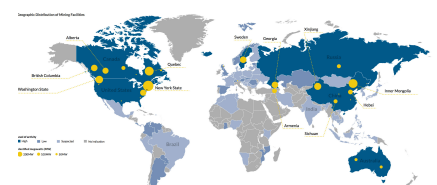
FRANK HOLMES, [JAN 2008](#)

"The onset of a global recession and falling stock markets have triggered a stampede for gold – the traditional safe haven during times of uncertainty. Bullion dealers around the world reported an unprecedented surge in demand for coins and small bars."

THE TELEGRAPH, [OCT 2008](#)



Bitcoin's inflation automatically drops by 50% every 4 years. (Source: [CoinMetrics](#))



Cryptocurrency miners prospect the globe for the world's cheapest electricity. Source: [Cambridge Global Cryptoasset Benchmarking Study](#)

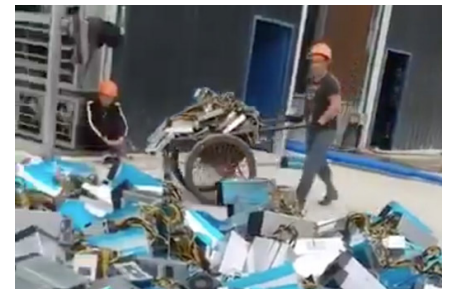
Bitcoin mining market is very dynamic, and information is often disseminated faster than can be registered by analysts. We are inclined to favor the blockchain-based analysis that suggests Bitcoin mining capitulation did in fact happen last November.

4. OTHER FACTORS

Given the pending **litigation** it is unlikely but still possible that the MtGox trustee begins distributing the **140,000 BTC** that it currently has under management. A significant percentage of this could then be sold by the claimants.

A contentious hard fork has historically been a **recurring fear factor** in the Bitcoin space. However, we don't think this is a significant factor today because a) these fears only ever seemed to have a short term effect on the price, and b) there are currently no fork related controversies in Bitcoin. It is conceivable however that later in the year regulated Bitcoin companies could push back against the proposed **BIP33**, which is expected to significantly **increase privacy** in Bitcoin on-chain transactions.

Finally, a regulatory crackdown should be considered a permanent risk factor, given the disruptive nature of Bitcoin. Nevertheless, no serious proposals have been made in that regard. In the **vast majority** of the world, Bitcoin is accepted as falling within the bounds of existing legal and judicial frameworks.



Video still: China operated mining rigs turned into bricks, **Nov 2018**

"Andy Pag, the founder and coordinator of Mt. Gox Legal, [...] now believes ongoing legal issues – in particular, a single massive claim by startup incubator and former Mt. Gox partner Coinlab – may hold up the crypto exchange's civil rehabilitation process for up to two more years."

COINDESK, APRIL 2019

FIVE ACCUMULATION, AND WHERE IT LEADS

As markets move from overvalued to undervalued, the assets are passed on from disillusioned "weak hands" to more dispassionate "strong hands". These value investors are not in a rush and are happy to accumulate by buying the dips over quite a long time period. On the other hand, the investors who got caught up in the hype of the preceding bull market and who didn't anticipate how long and brutal this bear market could become, they **capitulate** by selling into the price rallies.

During the accumulation phase, the market will trade in a range: the weak hands, who are trying to get out of the market, take profit during rallies and thus create the resistance, and the strong hands, looking to accumulate, buy at the bottom of the range which eventually creates a floor in the price. This process can take a while:

"Preparation for the principal movements in the market will very often occupy several months. This may often be preceded by a decline, in which large operators accumulate their stocks."—Richard D. Wyckoff, 1910

We saw a clearly illustrated accumulation pattern in the previous Bitcoin bear market when BTC traded in the \$200-\$400 range from February 2015 until **May 2016**.

"In the case of Bitcoin, I would posit that the decrease in prices has helped end a speculative bubble and perhaps allow this novel technology and asset class quieter time to continue to develop from a technological and adoption sense."

CFTC CHAIR C. GIANCARLO,
MARCH 2019

"If they become widely accepted, virtual currencies could have a substitution effect on central bank money."

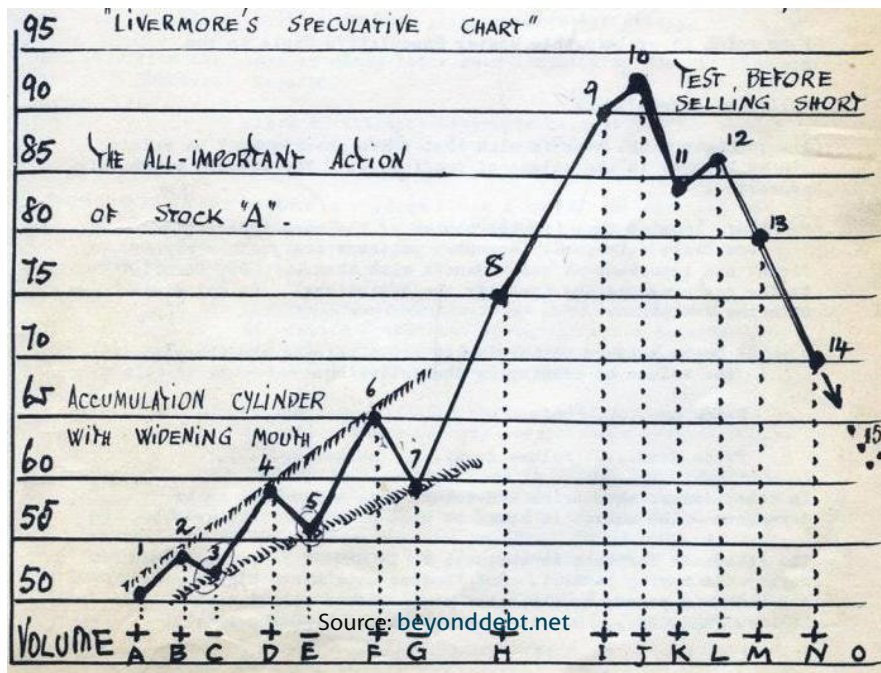
ECB, **OCT 2012**

As the coins available for selling run out, the market starts rising in a pattern of 'higher lows,' which in the end give even the retail public the confidence to start buying again.

This is what famous trader Jesse Livermore called the 'accumulation cylinder', and which others have dubbed the '[wall of worry](#).' We expect to see a similar pattern during the next bull market in Bitcoin.

"...all the fluctuations in the market and in all the various stocks should be studied as if they were the result of one man's operations. Let us call him the Composite Man."

RICHARD WYCKOFF



"Within a trading range the composite man is seen to accumulate a line of stock from the public who become especially frightened during the down thrusts. The composite man is willing to play the short side of the market as well during the trading range of accumulation so long as he can abstract a public following of sellers. But as the trading range proceeds, the new schematic reveals that fewer and fewer sellers remain to propel stocks downward in price. As a consequence, the down waves become shorter and shorter in length (the bottoms rise) and the Composite Man as a result accumulates an increasing line of stock."

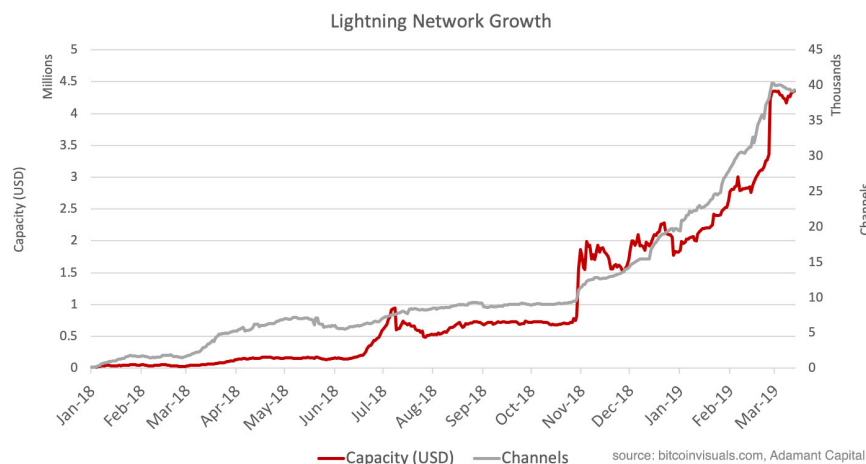
HANK PRUDEN, 2006

SIX FUNDAMENTAL DRIVERS OF THE BITCOIN PRICE

So why would the bitcoin market recover again this time? In our opinion its long term appeal is underpinned by several strong fundamental drivers.

BOTTOM-UP SCALING

Bitcoin stays close to its roots of being a lightweight, robust, and **universally accessible** protocol. It is now possible to connect to the network via **satellite** and to run a full node on an off-the-shelf **android** phone. At the same time we're now seeing **Satoshi's vision** of payment channels on top of Bitcoin implemented as the Bitcoin **Lightning Network**, which over time will allow for millions of Bitcoin payments per second. Over the past year, the Lightning Network has seen monthly **growth** rates of over 45%:



Sidechains are another second layer scaling improvement. Its most successful implementation, the **Liquid** Federated Sidechain, allows for fast inter-institutional settlement, asset/token issuance, and significant privacy enhancements. With core protocol improvements such as Taproot, Schnorr, P2SH, and MAST, we can expect further **enhancements in Bitcoin Core** for smart contract design and privacy improvements.

Additionally, scaling is happening on the Bitcoin mining side. Chips are becoming increasingly commoditized and winning companies are the ones with access to cheap electricity operating in politically stable environments. With Bitmain's near monopoly in the **rearview mirror**, a repeat of the 2016-17 **hard-fork debacle**, where miners tried pressuring the market into accepting protocol changes, **is increasingly less likely**.

"Bitcoin itself cannot scale to have every single financial transaction in the world be broadcast to everyone and included in the block chain. There needs to be a secondary level of payment systems which is lighter weight and more efficient."

HAL FINNEY, 2010

"When I designed **bit gold** I already knew consensus did not scale to large transaction throughputs securely, so I designed it with a two-tier architecture: (1) bit gold itself, the settlement layer, and (2) Chaumian digital cash, a peripheral payment network which would provide retail payments with high transactions-per-second performance and privacy."

NICK SZABO, 2017

"The market is now clearly rejecting hard forks of Bitcoin. Next we will see competing soft forks followed by their rejection. Only thereafter will Bitcoin ossify and become the ultimate store of value for the world."

TAMÁS BLUMMER, 2019

FINANCIALIZATION

Bitcoin's financialization has taken off at a rapid clip. In 2017, **LedgerX** delivered a physically settled **Bitcoin Futures** platform, and then **CME launched** their own Bitcoin Futures product. In 2018 we saw ICE, the company that owns the NYSE, announce both a **Cryptocurrency Data Feed** product as well as their Bitcoin Futures platform **BAKKT**, expected to launch later this year. It was also the year where Goldman Sachs **invested** in crypto custodian Bitgo, and where TD Ameritrade **backed** Bitcoin futures platform ErisX. Planned for later in 2019 are **Fidelity Digital Custody** (already soft launched), **Nasdaq Bitcoin futures**, and cryptocurrency custody provided by **Northern Trust**.

According to **estimates** from Bitwise, daily volumes in Bitcoin futures already represent over 30% of spot volumes. Another area that is taking off rapidly is the collateralization and lending market of Bitcoin. Genesis Capital reportedly processed more than **\$1.1 billion** in cash loans and borrowed crypto currencies in 2018, with Bitcoin accounting for most of the transaction value.

Bitcoin's qualities of political neutrality, **unparalleled** security, globally accessible liquidity, and predictable financial policy are provably improving. As it **matures**, we **expect** for Bitcoin to **disrupt** the \$100 trillion investment vertical of Liquid Store of Value, and become a globally used **digital gold** and **reserve asset**.

"[Virtual Currencies] may hold long-term promise, particularly if the innovations promote a faster, more secure and more efficient payment system."

FED CHAIRMAN BEN BERNANKE,
NOV 2013

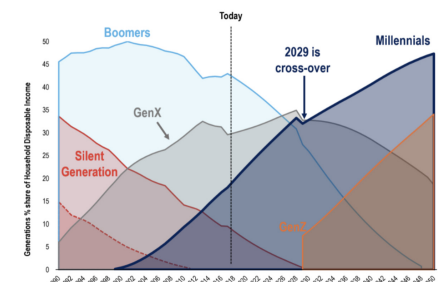
"There's something going on here, Millennials trust [Bitcoin] more than fiat currency."

NYSE CHAIRMAN JEFFREY
SPRECHER, JUNE 2015

MILLENNIALS

Millennials, the **generation** born between 1981 and 1996, are the largest and fastest growing demographic in the world. Their total disposable income is expected to supersede all the other generations in 2029. One of the defining **characteristics** of Millennials is that they "found their way through the 2008 recession as young adults." How this informed their world views was confirmed by a 2016 research project funded by Facebook, which suggested that **92 percent** of this generation doesn't trust banks.

Having grown up with peer-to-peer protocols like BitTorrent, and running open source code like Linux, Millennials are very open to cryptocurrencies. A **survey from 2013** suggests that Bitcoin's early adopters (and likely whales) were mostly male Millennials. Also in the current landscape surveys suggest that the majority of **Bitcoin buyers** are also Millennials, with mistrust of governments and growth outlook as the main motivations to buy. As the disposable income of Millennials **continues to grow**, we expect further tailwinds in terms of Bitcoin adoption and price appreciation.



In 2029 Millennials will control the largest percentage share of disposable income. Source: **Fundstrat**

SEVEN CONCLUSION

We believe Bitcoin is in the last stage of this bear market: the accumulation phase. The current sentiment has recovered from capitulation and the block-chain shows us that Bitcoin HODLers are committing for the long term again. This is confirmed by our drawdown and volatility analyses.

While lower prices are still possible, Bitcoin's fundamentals are gaining momentum. Embraced by Millennials, its ecosystem is developing at rapid clip, both as a decentralized bottom-up disruptive technology, and as an uncorrelated, highly liquid financial asset for institutional portfolios around the world.

We assert that the long term risk-reward ratio for Bitcoin is currently the most favorable of any liquid investment in the world. We expect for it to trade in a range of \$3,000 to \$6,500 after which we foresee the emergence of a new bull market.

Supported by over 10 years of infrastructure development, we believe the stage is set for mass market adoption in the coming 5 years. In our assessment, during this phase (its "**Windows moment**") Bitcoin will become widely recognized as a portfolio hedging instrument and reserve asset, and will begin making significant inroads as a payment network.

Cordially,

Tuur Demeester and Michiel Lescrauwaet

Feel free to [contact us](#) with questions,
or [sign up here](#) for future research updates.

DISCLOSURES

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