Bitcoin in Big Debt Crisis

Introduction

It's May 1st, 2020, the middle of a gripping moment in history. This year has already seen a widespread pandemic, the largest locust swarm in at least 70 years, and unprecedented levels of government intervention. What's relevant today was once used by Vladimir Lenin to describe the Bolshevik revolution over 100 years ago. Then, soon to be head of government in Soviet Russia, Lenin could hardly imagine the impact his political theories and government reform would have on the world. In conjunction with the revolution he advertised:

"There are decades where nothing happens, and there are weeks where decades happen."

Lenin's quote[1] couldn't be more true in 2020, and correspondingly, we underestimate the impact of current events. While it may be perceived as strange to assert a paradigm shift in the midst of one, if you retold the events that have unfolded in recent months, it's likely they'd seem exactly that: strange.

This paper serves to hypothesize how recent history will affect bitcoin with both a bullish and bearish perspective. It will consider how Covid-19 and government intervention will affect the future macroeconomic state and how this relates to Bitcoin.

Rather than focusing on the details of recent events as predictors for the future, this paper speculates two scenarios in a broader sense with a longer time horizon. Please recognize that what I know is a small portion of what I'd like to know, and my conclusions should be viewed as entertaining theories rather than facts.

Investing in Coronavirus

Before discussing the investment potential of bitcoin, let's consider the average individual's financial options in the current macroeconomy.

First, cash holdings. While calculating a yield on cash goes beyond the complexity of this paper, we can compare the effects of holding cash in different forms. Having claims to cash in a bank account typically doesn't yield meaningful income (even in 'savings' accounts) and, nevertheless, as governments attempt to stimulate spending it's likely banks even apply negative yields to account deposits. So, how about the ol' mattress trick? Discounting storage and the opportunity cost of investing that money, this could go one of two ways. Inflation decreases the value of your cash, or deflation increases the value of your cash.

[1] https://en.wikiquote.org/wiki/Vladimir_Lenin

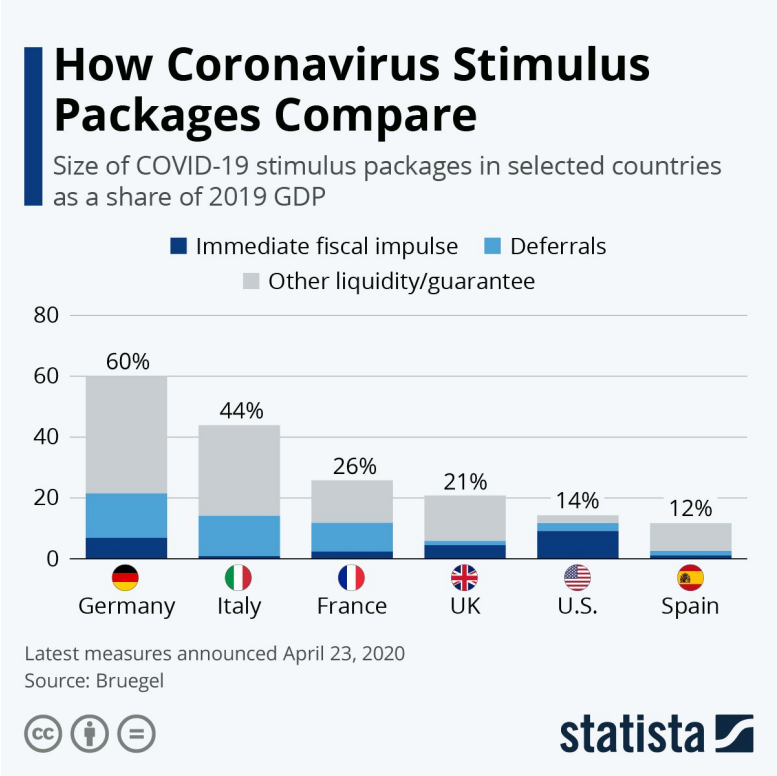
Let's entertain each scenario. Due to social distancing and supply line disruption, most industry earnings are diminishing and unemployment claims are the highest they've been since the 1930s (>20%).[2]

Without countries, banks, companies, and people able to accumulate the income needed to service their debt payments, there is a greater chance of default. Maintaining a high-level approach, one person or organization's debts are another person or organization's assets. So, as people or companies begin to default due to coronavirus contractionary pressure, it creates a chain of defaults through the economy. If A is unable to get their loan payment from B, how is A going to pay their loan payment to C.

Without debt restructuring or government intervention, those who haven't prepared proper reserves will default, potentially creating a chain that eliminates mass amounts of over-leverage in today's financial system -- deflating the economy. A policy of austerity (which allows this cycle to run its course) is one option for allowing the credit bubble to deflate.

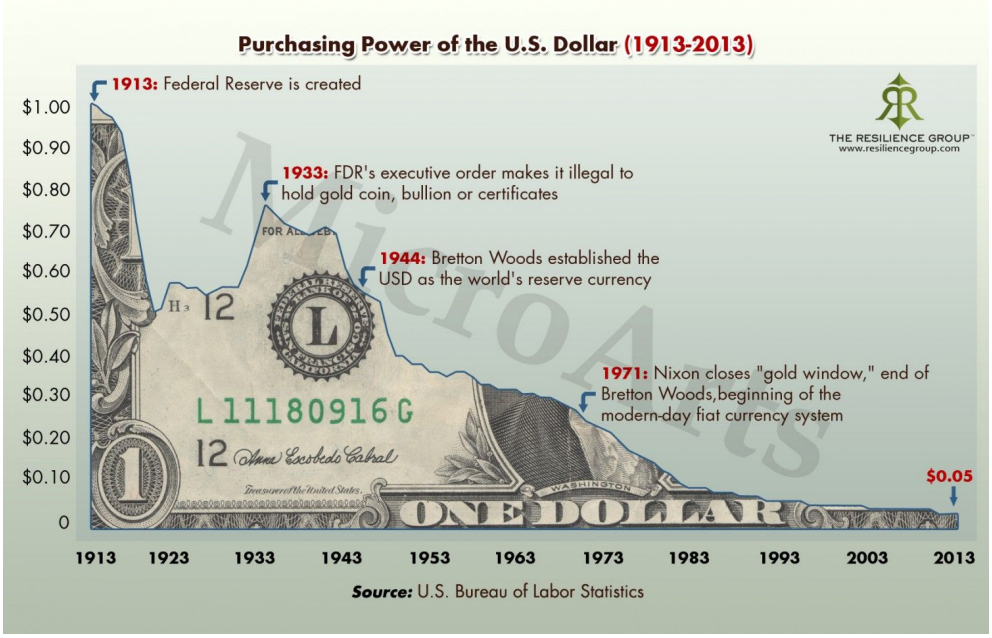
But, as government policy around the world aggressively pumps stimulus into the economy, they're attempting to avoid the unrelenting spiral of deflation and assist leveraged individuals and businesses.

[2] https://fortune.com/2020/04/23/us-unemployment-rate-numbers-claims-this-week-total-job-losses-april-23-2020-benefits-claims/



Stimulus is intended to encourage spending and fill debt in balance sheets.[3] It advances buying power to beneficiaries, inflating the economy. Also, central banks around the world are printing money to finance government spending via special purpose vehicles, quantitative easing (QE), and stimulus packages. Given these factors and the influx of spending upon economies re-opening across the world post-coronavirus, inflationary pressure will almost certainly devalue your mattress holdings.

[3] https://www.principles.com/the-changing-world-order/#chapter1EvolutionAndCycles



Beyond hoarding cash, let's consider government bonds. In many cases, these bonds are "least risky" as they represent making loans to the government. For the sake of this paper, let's assume that higher yielding corporate bonds are too risky given that many currently have an increased chance of default.

While useful as "good" collateral and highly liquid assets to banks, to the common man, these yields offer very little future income opportunity. With near zero yields, it's almost as if you're holding cash with a small risk of sovereign default.

Next, Equities. Often considered riskier assets, the S&P 500 has rallied over 25% since it's 2020 low on March 23rd.[4] To be frank, it is perplexing why these riskier assets have rebounded as they have. The

[4] https://finance.yahoo.com/quote/%5EGSPC/chart/

current status of unemployment, interest rates, and the past 10+ years of bull market[5] insinuate a bear market is looming, but perhaps investors are trading on the expectation of stimulus results. However, in terms of stock yields, they are likely to decrease as dividends plummet due to diminishing corporate incomes. Further, history is abound with so-called bear market rallies, and there is no indication this is any different.

Lastly, gold. While gold doesn't yield any particular income, it differs from the rest of these assets because it operates outside of the fiat economic system. Gold's value cannot be impacted by political decision making; this is one reason why it has had such a significant role in the history of value.

Bullish Case for Bitcoin

This section highlights bitcoin's pertinacious community, absolute scarcity, and resistance to sovereign control. These characteristics ensure bitcoin's future will exist within a spectrum from a respected investment vehicle to reserve currency status.

Community

Who is behind the creation of Bitcoin? What is its origin? The trained response is simply the author of Bitcoin's original whitepaper, "Satoshi Nakamoto." The pseudonym masks the man, woman, alien, group, or organization behind the digital currency. This is certainly not incorrect, however many are unaware of Bitcoin's deeper origin; one that formed its current narrative and flagship symbol.[6] This knowledge is essential in understanding the passion of Bitcoin's supporting community.

The Bitcoin whitepaper[7] was published in October 2008 on a mailing list composed of cypherpunks who, rooted in libertarianism, sought to preserve privacy in the digital age.

"Privacy is necessary for an open society in the electronic age. Privacy is not secrecy. A private matter is something one doesn't want the whole world to know, but a secret matter is something that one doesn't want anybody to know...We are defending our privacy with cryptography, with anonymous mail forwarding systems, with digital signatures, and with electronic money."
-- A Cypherpunk's Manifesto, Eric Hughes, 1993[8]

15 years later, Bitcoin was born from these values. But what happened in between? With Bitcoin as the final iteration of a cypherpunk digital payment system, Nakamoto applied the innovations of precursors developed by David Chaum, Adam Back, Wei Dai, and Hal Finney.

Launching Bitcoin at the start of the global financial crisis, Nakamoto promoted trustless, electronic cash with a narrative against government currencies.

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[5] https://www.investopedia.com/market-milestones-as-the-bull-market-turns-10-4588903
[6] https://nakamoto.com/bitcoin-becomes-the-flag-of-technology/
[7] https://bitcoin.org/bitcoin.pdf
[8] https://www.activism.net/cypherpunk/manifesto.html

"The root problem with conventional currency is all the trust that's required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust. Banks must be trusted to hold our money and transfer it electronically, but they lend it out in waves of credit bubbles with barely a fraction in reserve."
-- P2P Foundation, Satoshi Nakamoto, 2009[9]

Bitcoin has accrued a magical, mysterious rapport rooted in personal privacy and central bank distrust. Its origin story perhaps has never been more relevant if you observe the effects of coronavirus in a post-Bretton Woods system.

History attests to paradigm-shifting technologies undergoing price bubbles: the industrial revolution of the late 1700s; the steam engine and railroads in the 1830s; steel and electricity in the 1870s; automobiles and mass manufacturing in the early 20th century; and the internet and microprocessor in the early 1970s. [10] Bitcoin is no different. But, not all bubbles yield paradigm-shifting technologies.

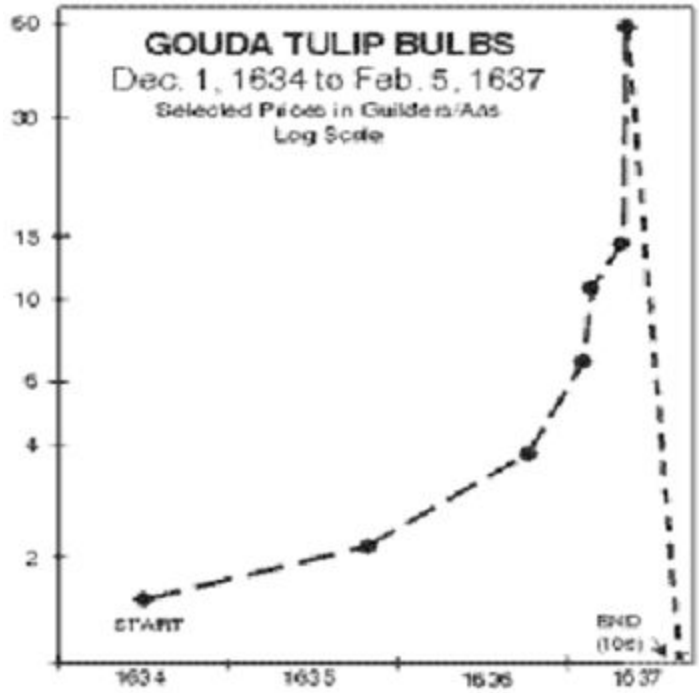
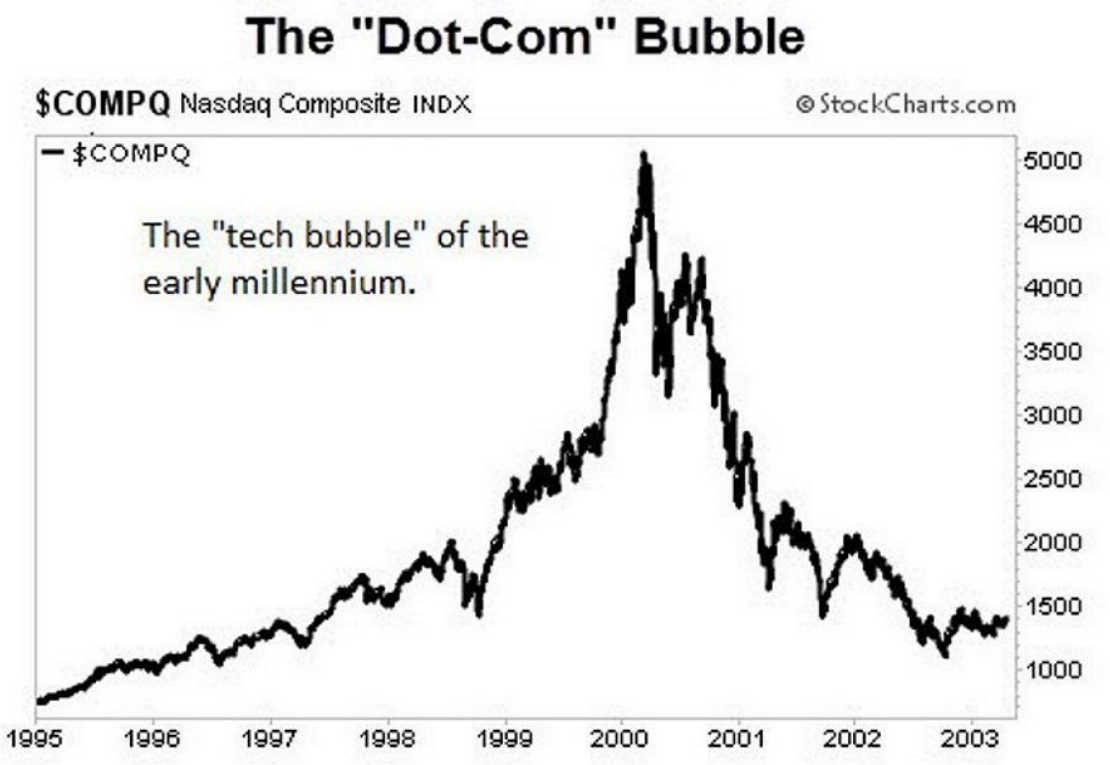


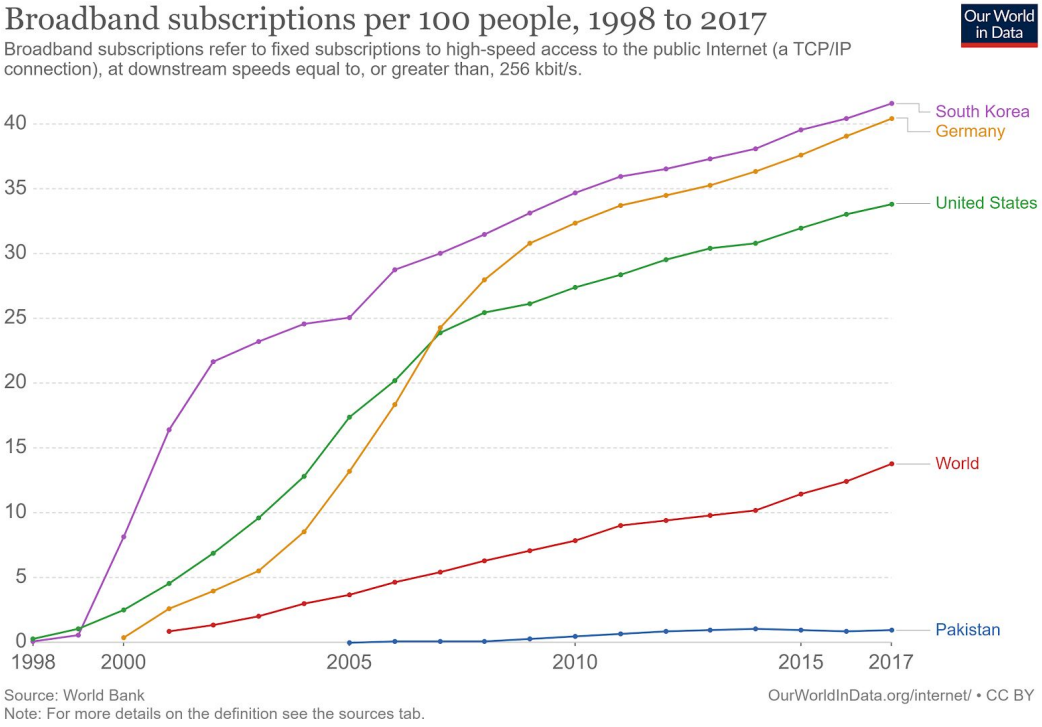
Image from Wall Street Club

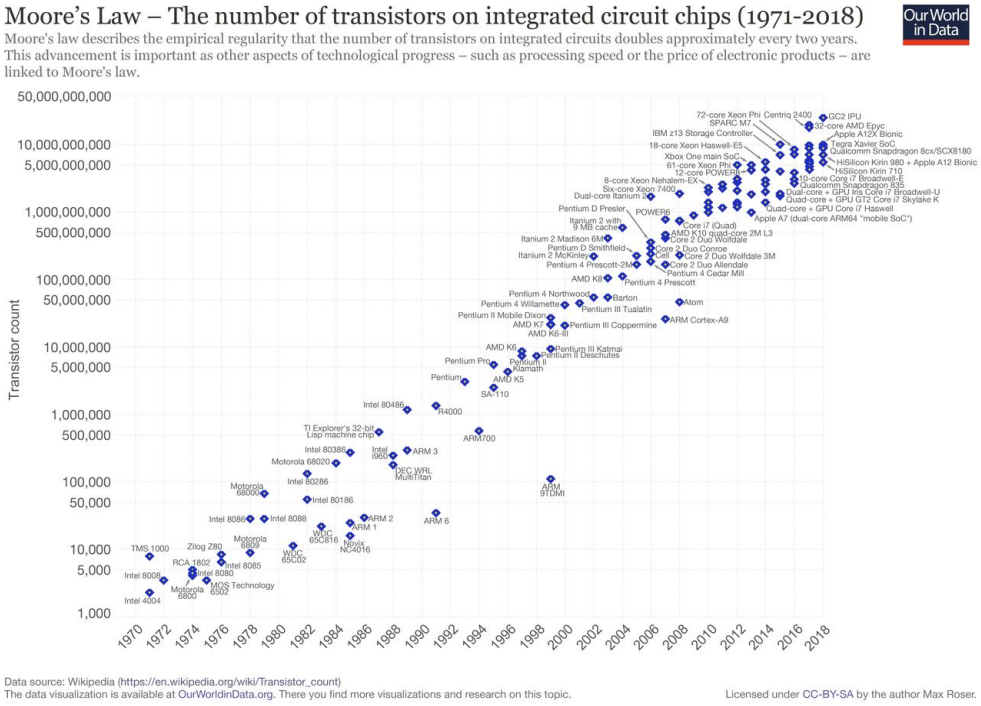
What's telling of these innovative technologies isn't the bubble itself, or the burst, but the communal development and solidarity in response to the burst.

[9] http://p2pfoundation.ning.com/forum/topics/bitcoin-open-source
[10] https://en.wikipedia.org/wiki/Technological_Revolutions_and_Financial_Capital

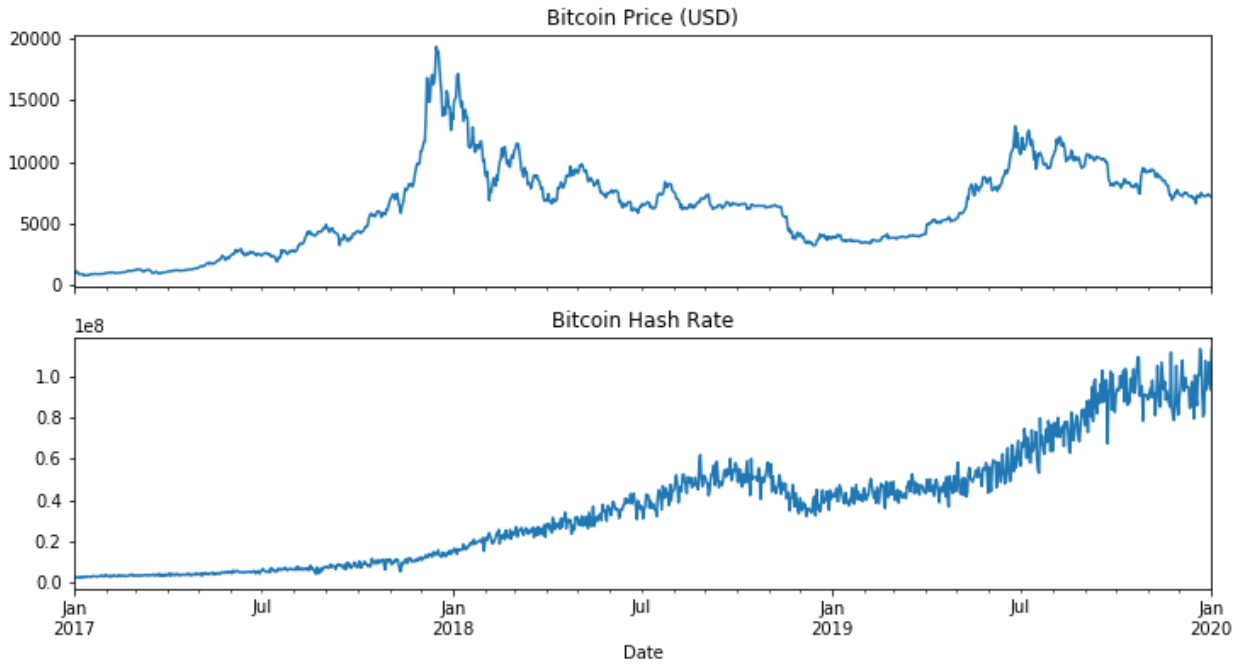


Despite the steep dropoff in value of internet companies' stock, the vision of the internet was never abandoned. Internet service providers, personal computer companies, and the semiconductor industry accelerated onward. The microprocessor continued to improve as the basic unit of computer systems which enabled a better internet.





Just as steam engines, railroads, steel, electricity, and the internet displayed resilience after their values decreased in the market, so did Bitcoin's network. Bitcoin's hash rate is a measurement of the computing power dedicated to the network. Despite network miners' (hash power providers) profitability decreasing with lower prices, Bitcoin's hash rate, and therefore network strength, continues to break all-time highs. Further, Bitcoin currently has the most active addresses among all cryptocurrency projects.



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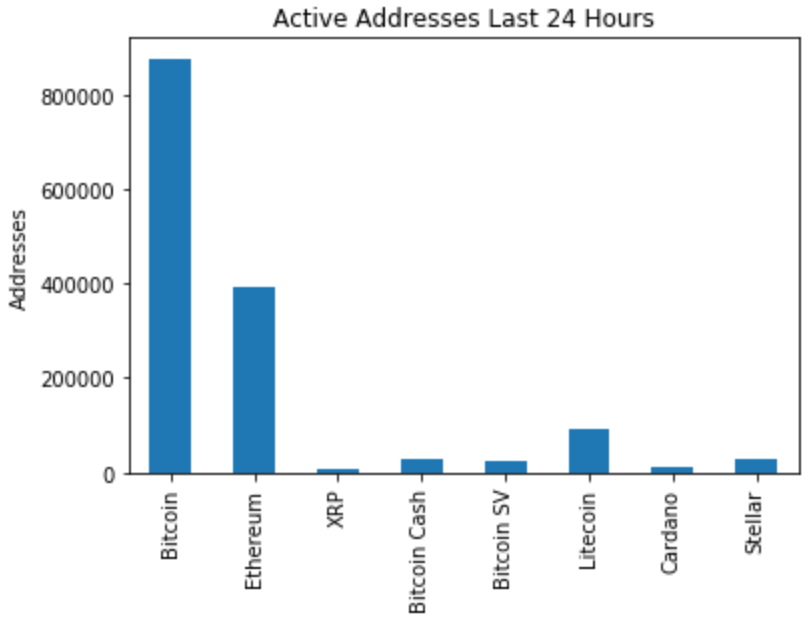

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Beyond network development and activity, Bitcoin's community has exhibited confidence in the future value of bitcoins. Cryptocurrency financial services company Unchained Capital released a study[11] in 2018 tracking when bitcoin [UTXOs] have moved relative to the total bitcoin in existence.

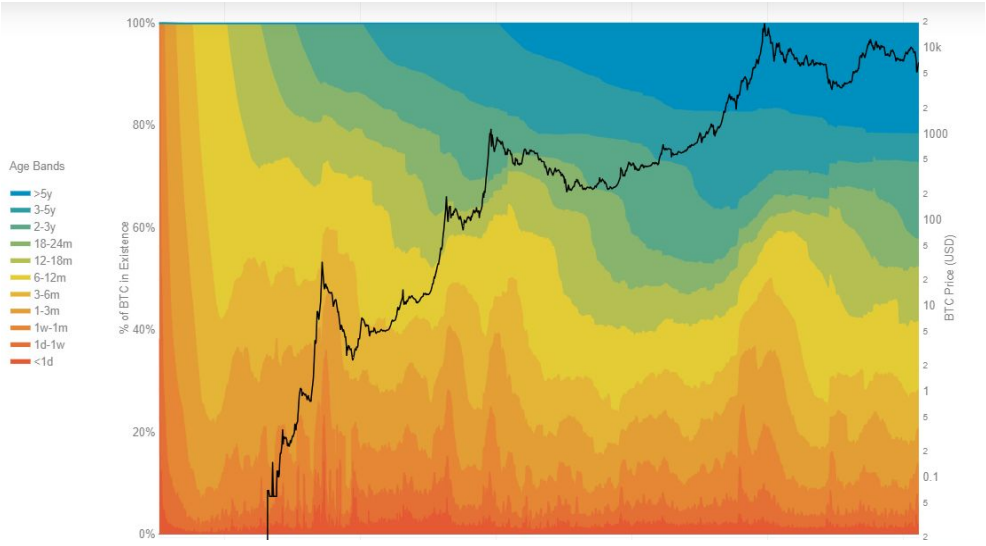

Image by Unchained Capital

The green and blue colors in the image above depict bitcoins that haven't been transacted in a relatively long period of time. The lack of money velocity means investors are possibly hoarding the asset as an investment vehicle, or more bitcoin has been lost in cyberspace due to private key-loss. This indicates a loss of supply (increase in value) or the presence of long-term investors (continuous demand).

As evidenced by network activity and development, Bitcoin's community has maintained pursuit of a vision once set by freedom-preserving cypherpunks. This perpetuating social belief will enable the technology to become more sophisticated, attract newcomers, and increase it's purchasing power.

Scarcity

The supply structure of Bitcoin is disinflationary, meaning its inflation rate decreases over time. New bitcoin is created with the addition of each block to the ledger approximately every 10 minutes until a total supply of 21 million is reached. In the beginning, 50 BTC was awarded per block, but this reward is cut in half every 4 years until it approaches 0 and the supply limit is reached. Currently, miners are rewarded 12.5 BTC per block, however this reward will be cut to 6.25 BTC per block on May 12th, 2020.

[11] https://unchained-capital.com/hodlwaves/

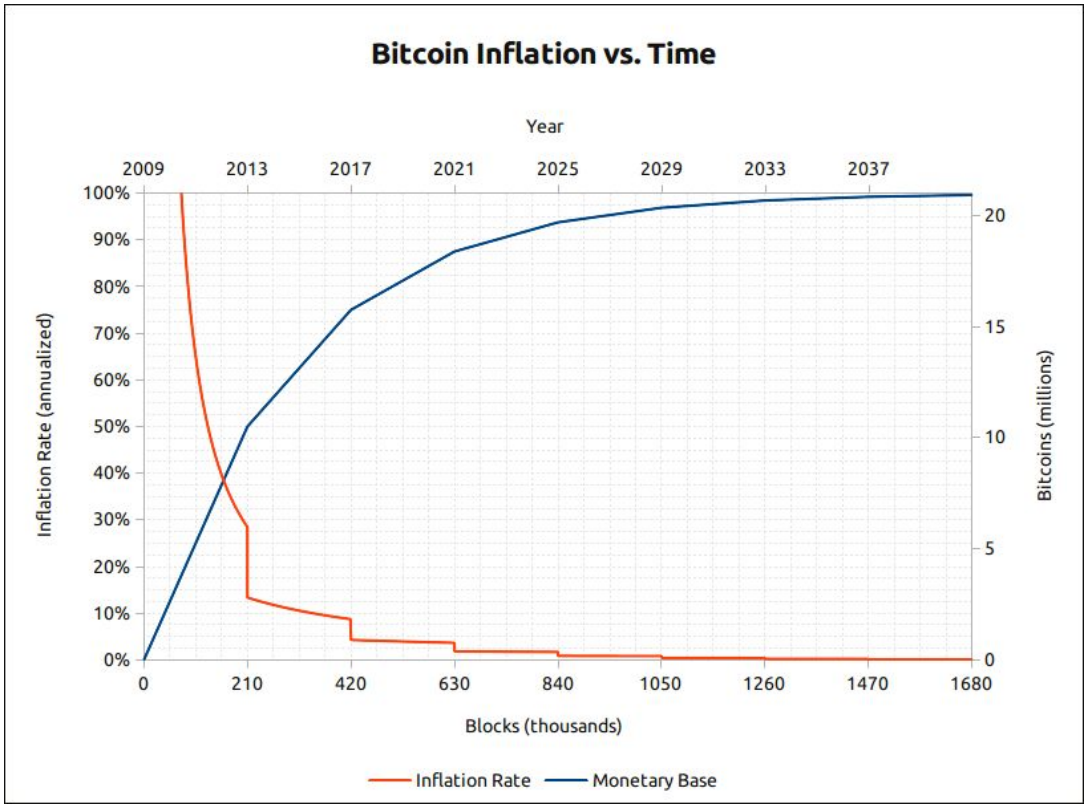

Image from [Bitcoin Block Reward Halving Countdown]

While central banks are printing their respective government currencies, flexing near zero interest rates, and offering unlimited QE, bitcoin's inflation rate will be decreasing below 1.8%[12]. This verifiable scarcity enables bitcoin to be the inflation-hedge in a worldwide race to monetary debasement.

Stability in Uncertain Times

Warning: this section is likely the most opinionated portion of this study. But, how does one predict politics besides analyzing historical trends of government regimes? And, considering that an event of a million observers can be recounted a million different ways, why trust the popular historian's view?

Perhaps the most bullish feature of bitcoin in the coming years is tamper-resistance. Similar to gold and unlike cash, equities, and bonds, Bitcoin isn't subject to the interest of third-parties. This allows bitcoin, just like gold, to be a hedge against uncertainty and political tension.

Since the outbreak of coronavirus, government intervention has been the norm. It is a fact that countries across the world have implemented monetary and fiscal policy[13], travel restrictions[14], stay-at home

[12] https://messari.io/screener
[13] https://fraser.stlouisfed.org/timeline/covid-19-pandemic#52
[14] https://www.cdc.gov/coronavirus/2019-ncov/travelers/travel-in-the-us.html

mandates[15], and even surveillance[16]. In times of crisis the next course of action is iminent and, at the moment, it seems nobody realizes the true effect of each policy.

Every region of the world is experiencing hardship because of coronavirus, and resulting social and political conviction bring great uncertainty to the future. Will governments blame China for the pandemic? How will the Middle East be affected by sunken oil prices? Will the US provide needed liquidity to emerging markets? Which countries will have second waves of the virus? Which countries will challenge others in war?

The power that comes with monetary and fiscal policy enables central banks to finance whatever spending is on their agenda. This inevitably alters the prices of financial assets, but it's uncertain which entities the government will support and which it will allow to go bankrupt. Additionally, it's uncertain the length of inflationary and deflationary periods various markets will experience.

The uncertainty of centralized, political interest likely will drive investment in asset classes that are minimally unaffected. Gold and bitcoin present this opportunity. That being said, bitcoin is more transportable, divisible, secure, and comes equipped with an automated public ledger system. Oh, and bitcoin's market cap is around $160 billion[17] compared to gold's $9 trillion[18].

Bearish Case for Bitcoin

This section examines government acceptance and usability. These developments pose a threat to bitcoin's value and purchasing power as an asset and currency.

Government Acceptance

Governments aren't likely to simply give up their monopoly on currency issuance or the ability to extract wealth from their people. When political superpowers decide to restrict bitcoin, they won't tread lightly.

It's infeasible for any entity in the world to successfully shut down Bitcoin's network, but bitcoin isn't immune to government influence. Governments could outlaw the use of bitcoin within their borders. While the bitcoin network will **always** have the ability to conduct a peer to peer transaction, and further, technologically advanced crypto-enthusiasts could harden their defenses with deeper encryption to hide their bitcoin transactions, that's not the point.

If outlawed, the value of bitcoin would likely significantly decrease to a price floor. Newcomers, law-abiding citizens, and institutions would cease action on the Bitcoin network. Businesses would no longer accept bitcoin, terminating one of moneys' fundamental use cases as a medium of exchange.[19]

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[15] https://www.texastribune.org/2020/03/31/greg-abbott-texas-executive-order-closures/
[16] https://www.nytimes.com/2020/03/23/technology/coronavirus-surveillance-tracking-privacy.html
[17] https://messari.io/screener
[18] https://www.coindesk.com/bitcoin-and-gold-evaluating-hard-cap-currencies-in-times-of-financial-crisis
[19] https://www.macrovoices.com/beyond-blockchain-chapter-1

Bitcoin could become a scarce collectible similar to Mickey Mantle baseball cards or a fallen government's minted coin.

This scenario is possible considering the power governments have in the fiat currency system. Additionally, governments[20] are becoming increasingly interested in digitizing fiat currency[21] to reap the technological advancements of simpler cross-border payment, distributed ledger accounting, and easily traceable transaction data. Bitcoin could have more competition on the horizon.

Usability

Bitcoin wasn't intended to simply be an investment vehicle, it was designed to entirely replace the existing fiat system. Consequently, Bitcoin is an intricate and developing technology. The user-experience of sending a bitcoin transaction without third party assistance is comparable to sending a TCP message over the internet without domain name servers -- it's not easy.

While companies have made it easier for newcomers by providing educational guides, a learning curve is unavoidable. Stored in digital wallets, bitcoin is assigned to a pair of key addresses required for users to accept and access their funds. This is much more inconvenient than using a bank account.

However futurists will argue, "you don't need to know the inner workings of an engine to operate a car." And to their point, we are spoiled with 'push to start' and automatic gear shifts

To simplify the complexity, custodian services are available to store these keys, but this contradicts the original purpose of bitcoin. Customers of custodial services must trust these third-parties[22] to have serviceable reserves precisely like we trust in the banking system. If these centralized third parties consistently default on the promises they made to industry newcomers, bitcoin may lose its appeal.

Just as valued gold and spices were lost in oceans centuries ago, many bitcoins have disappeared in cyberspace. Without a central authority, Bitcoin doesn't offer password or lost fund recovery. The usability issues of Bitcoin create barriers to entry for newcomers who must invest time in understanding the nuances of a new money system.

Conclusion

The effects the coronavirus will have on mankind are incalculable at this time. Adversity has spurred continuous policy change that will economically, politically, and socially alter our thoughts and motives.

Bitcoin was created to be an opportunity to escape centralized decision making. It stands at the intersection of economics and politics, and accrues value with more social belief and acceptance. It is an innovative, unbreakable technology, but it's future value is unclear.

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[20] http://en.people.cn/n3/2018/0320/c90000-9439737.html
[21] https://www.banking.senate.gov/imo/media/doc/SIL203681.pdf
[22] https://messari.io/organization/mtgox