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Should You Invest In Bitcoin? 10 Arguments In Favor As Of December 2015

This is the first article in a three-part series on whether or not Bitcoin makes a good investment.

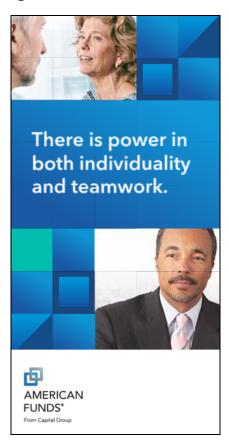
Disclosure: I own a small number of Bitcoin.

In the past three months alone, the price of Bitcoin has: risen steadily from below \$250 to the low- to mid-\$300 range, spiked past \$400, plunged back down toward \$300, stabilized around \$325, surged again past \$350 around Black Friday, then jumped even higher — after a potential uncovering of Bitcoin's creator — to about \$430 as of this morning.

Taking a wider angle to look at the year, the high, \$437 according to Blockchain.info, was about two and half times its low, \$177 — and these gyrations don't even begin to match those seen from 2013 to the beginning of this year, when the price went from the teens to \$1,200 and back down toward the \$200s.

Though 2015 has proven to be the year that venture capital and Wall Street bet on the blockchain (shorthand for the distributed ledger technology behind Bitcoin), with companies ranging from Goldman Sachs to American Express, from Nasdaq to Kleiner Perkins, investing in such ventures, and VC investment in the sector totaling \$314 million according to Pitchbook, it's not clear where that leaves the currency.

There has been some movement on Wall Street around it: earlier this year, the New York Stock Exchange launched a Bitcoin index, NYXBT; the Bitcoin Investment Trust (GBTC), a



trust whose shares can be held in IRA, Roth IRA and other brokerage and investment accounts as well as passed on to beneficiaries, began trading; and the Winklevoss twins launched Gemini, a fully licensed and regulated Bitcoin exchange, in early October. They also have in the works an ETF, which, like GBTC, could appeal to institutions, pension plans and 401(k)s that might want exposure to Bitcoin but would not be able to own the currency directly.

These movements indicate big players are gearing up for Bitcoin to become an established part of people's portfolios, but does that mean you should invest in it?

Though Bitcoin's value will, at any given time, reflect both belief in its fundamental value as well as temporary influences on the price — for instance, fluctuations in the past few months have been attributed to everything from Bitcoin-related Ponzi schemes to a drop in the Chinese stock market — I've looked at factors that could influence the price over the long term to help prospective Bitcoin investors make informed decisions.

The considerations laid out in this article are current as of the beginning of December 2015. I will revisit the subject again when developments in the Bitcoin space shift the calculus. To be clear, the pros and cons laid out in this series are not based on the current price; they are for investors looking to hold Bitcoin long-term, for whom the price on any given day in 2015 matters less than the price five, 10 or 20 years from now. In this first article in the series, I will explore reasons in favor of investing in Bitcoin.

1. The supply is fixed.

Since January 3, 2009, the value of one Bitcoin has climbed from nothing to north of \$400 today. A lot of the worth people attribute to Bitcoin stems from its technological capabilities as a form of digital cash — a way to transfer money from one person anywhere in the world to another person anywhere in the world securely, cheaply and nearly instantaneously, with almost no worry that the sender is counterfeiting or defrauding the recipient and without need of a (fee-charging) middleman.

But over the long term, a distinct characteristic of the currency could ensure its long-term value over all others: the cap on its supply. Once 21 million Bitcoin are released (a number that will be reached around 2140), the system will stop creating new coins. In the white paper "Bitcoin: A Disruptive Currency," Chris Burniske of ARK Investment Management, the first public fund manager to invest in Bitcoin, putting shares of GBTC into its Web x.o ETF, contrasts that with the dollar: "While individuals, institutions and governments can expect the dollar to remain fairly stable over short-term periods of months or even years, history exposes a chilling fiscal truth. Over periods



of many years the dollar has lost and probably will continue to lose much of its value In fact, the dollar is worth only 4% of what it was a hundred years ago."

Additionally, the rate at which the supply of Bitcoin increases over the next hundred or so years will also decrease — every four years, the number of new Bitcoin being released will be halved, further preserving its buying power. "Given its predictable growth and ultimate fixed supply, bitcoin could become a store of value superior to fiat currencies in the long term," Burniske concludes.

2. Assuming Bitcoin is adopted for number of practical applications, the value will rise significantly.

"As the platform and protocol become more ingrained in society, get built into products and services, and basically become more of the mesh of society, just like the Internet, companies and people will need to own Bitcoin to play on its rails," says Barry Silbert, founder and CEO of <u>Digital Currency Group</u>, which has invested in 55 virtual currency companies across 17 countries. "So if you're a business that's paying employees or paying suppliers in Bitcoin, you may not own a lot of Bitcoin, but you're going to own some of it. As people want to move money around the world, they're going to be moving in and out of bitcoin quickly but they're still going to own it for some period of time ... and the size of that working capital requirement will grow as the global economy grows."

In covering GBTC, <u>Wedbush Securities</u> analyst Gil Luria has made projections for the value of Bitcoin as far as 10 years out. His projections are based on a hypothesis similar to Silbert's — that as Bitcoin becomes used more for transactions, a certain monetary base would be needed to power them, driving up the price. In July, he projected a 12-month target of \$400 for one Bitcoin. In early November, once Bitcoin hit that number, the company <u>updated its analysis</u>, arriving at a 12-month price target of \$600 per Bitcoin (or \$60 per GBTC).

He boosted the projection because, "many more financial institutions of all varieties are now trying to employ the technology that underlies Bitcoin," he says. "The underlying usage metrics are growing very nicely, especially the ones for an economic purpose." Plus, he adds, some industry folks had given feedback that the previous valuation methodology had too many coins available, so he revisited some assumptions. In his analysis, he also noted that there has been an increase in payment fees, which go to the Bitcoin miners who push transactions through. (Their current revenue comes mostly from being awarded new Bitcoin.)

Luria's projection starts with fact that the number of Bitcoins will be capped and then accounts for the likelihood that a certain percentage of Bitcoin will be held for investment or dormant due to loss of keys to coins or for other reasons. For

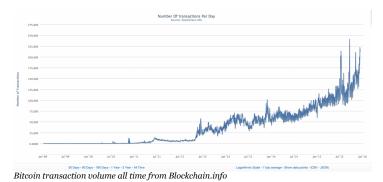
instance, it assumes that 50% are now being held for investment or are dormant and the other half used for working capital. However, by the year 2025, it projects that 67% of all coins will be available for transactions.

The analysis posits that a certain amount of Bitcoin will be used for online payments, remittances, micro-transactions (such as paying a tiny amount to read an article in lieu of seeing ads), applications for the unbanked and other, unknown applications and projects growth rates for each application. It then calculates the Bitcoin monetary base required to support that amount of transactions and works backward using a 40% discount rate (to determine what the present value of Bitcoin needs to be in order to support that amount of economic activity in 2025). After adding up all the Bitcoin needed for online payments, remittances, micro-transactions, the unbanked and other applications in the year 2025, he concludes that one Bitcoin will, by then, be worth \$17,473, and that the present value of a Bitcoin would need to be \$604 today to support that amount of economic activity in 2025. If Luria's projection becomes true, anyone investing today would see a 40+x return within 10 years.

3. More and more people and businesses seem to be using Bitcoin.

If transaction volume will drive up the price, then trends in both transactions and merchant adoption bode well for the value of Bitcoin.

Overall daily transaction volume has increased over time, as shown in this chart from <u>Blockchain</u>.



And data from Bitcoin merchant processor <u>BitPay</u>, launched in 2011, when the Bitcoin ecosystem was new, shows a general trend toward increased merchant transactions.

Monthly Transactions at Record High



BitPay monthly transactions against the price of Bitcoin

Though in the short term, transaction volume will not have a significant impact on price — in fact, as you can see, over 2015, transaction volume has increased as the price has remained roughly the same — over the long term it will, says BitPay CEO Stephen Pair. "And that's the reason for the nearer term speculative activity in bitcoin," Pair wrote in an email. "If people didn't think the adoption would be there in the long term, they wouldn't be investing in bitcoin."

While only 2% of merchants currently accept Bitcoin, another 25% expects to offer it within the next two years, according to a recent survey by Goldman Sachs and the Electronic Transactions Association. ARK estimates that 160,000 merchants already accept Bitcoin, and that by 2017, that number could rise to 1.8 million.

BitPay is also seeing a shift in the types of businesses interested in using its service that could be good news for the value of Bitcoin. Previously, sole proprietorships owned by people who were Bitcoin enthusiasts but didn't necessarily have a business need for the cryptocurrency were signing up. Now, "we are finding businesses that find real utility and real value in the platform," Pair said in an interview. "Those, to me, are the early signs of a tipping point. It's businesses that don't really care much about Bitcoin itself or the idea of Bitcoin. They just know it solves a problem or saves them money."

One example: If hackers hit a bank with a distributed denial of service (DDOS) attack, taking its website offline, the bank may hire a DDOS mitigation service in another country and would need to pay this anti-hacking team fast. Many of them are now using BitPay to conduct this international transaction within a few minutes, rather than using time-consuming wire transfers. In general, Pair says a lot of IT services companies such as web hosting companies and VPN providers are turning to BitPay for payments.

Already, everyday people in countries that have volatile currencies like Argentina, or countries like Indonesia, Russia, the Philippines and India where banking infrastructure and credit cards are not well developed but people have smart phones and would like to buy online, are using Bitcoin for practical purposes. Wences Casares, CEO of Xapo, a Bitcoin bank and digital wallet, says, "Our customers in the U.S. and the rest of the developed world are holding Bitcoin as an investment. They don't do any transactions. They're not using Bitcoin for payments. The customers we have in emerging markets use Bitcoin almost exclusively for payments, and they are high, high volume transactors. They are using the debit card six times a week."

4. A higher price could increase transaction volume, which would then further boost the price.

One theory holds that as the price of Bitcoin rises, people are tempted to hold onto the currency rather than use it. But the evidence so far seems to indicate otherwise, lending credence to speculators' belief that, as more people transact in Bitcoin, the price will increase.

"What we see during price spikes is a corresponding spike in transaction volume (followed by a mean reversion when the price falls back)," Pair of BitPay wrote in an email.

Adam White, vice president of business development at Coinbase, one of the earliest Bitcoin wallets and exchanges, says the company sees similar activity: "When the price goes up, there's a lot more interest — and that almost always means more users, higher transaction volume, people are buying more Bitcoin, they're creating accounts, they're using it. Some of those users start to say, 'Hey, Bitcoin was \$250 a day ago, now it's \$275. I'm going to sell.' So there are users that, when the price goes up, they want to lock in some of those gains." However, he emphasizes, movements in the price don't prompt everyone to act in the same way, and many other factors beyond price fluctuations are even more influential on the demand for the currency.

Silbert believes that a price jump creates a wealth effect — like a gambler who decides to spend some of her winnings at a luxury store at a casino, people feel wealthier when their Bitcoin increases in value, prompting them to spend it, which in turn makes more merchants interested in accepting it. "As more merchants accept it, they convert it to U.S. dollars, and that creates more transactional volume on the exchanges, and as you have more transactional volume on the exchanges, it tends to to attract more traders, which produces more volatility and ways to make money," he says. "As you have more traders, you have more liquidity and velocity and it becomes possible for Bitcoin the rail, the technology, to be used as an alternative means to spend money around the world."

5. Bitcoin has a first-mover advantage among the other digital currencies.

Though Bitcoin faces competition from other digital currencies, at the moment, it seems unlikely to be dethroned. Not only does Bitcoin have the largest market capitalization of any of the digital currencies — \$6.5 billion, as of press time, compared to \$268 million and \$164 million for its next competitors, Ripple and Litecoin, respectively — but also many more apps are being built on top of it than any other virtual currency, also including Ethereum, Stellar, etc. All the major digital currency wallets, exchanges, payment processors, etc., use Bitcoin, and even several apps that don't market themselves as Bitcoin companies, such as Circle, Abra, Align Commerce and Uphold, use Bitcoin in the background, mostly to transfer money. Few, especially among cryptocurrency companies marketing themselves to audiences outside the core group of enthusiasts, support any other virtual currency.

While cautionary tales like AOL and MySpace show that a first-mover advantage isn't everything, Bobby Lee, CEO of <u>BTCC</u>, one of the most active Bitcoin exchanges, rejects the comparison. "Friendster, MySpace and Facebook are not true network effects," he says, using the term used to describe when a good or service becomes more valuable the more people use it. "In the end, they are controlled entities. They live or die based on what those executives do — whereas Bitcoin is open."

Even more, the Bitcoin network is "several orders of magnitude more secure than its competitors probably combined," says BitPay's Pair, mostly because its mining network — the global network of computers worldwide that update the Bitcoin transaction ledger in order to be awarded new bitcoins as they are issued — is orders of magnitude more powerful than networks of any of its competitors. Pair says other digital currencies will have to overcome this network effect as well as the fact that Bitcoin has the most liquidity of any of the digital currencies.

"For company like BitPay, if are going to accept a form of payment, and it's a cryptocurrency, we need to make sure that we have buyers for that cryptocurrency so that we can convert it into some other asset that the merchant wants to be settled in," he says. Also, he says, if a virtual currency's markets are thin and the spreads are high, it could be too volatile for the company to manage its risk in accepting that as a form of payment.

"A competitor would have to produce something that was both more secure and more liquid than Bitcoin," he says. "And from our perspective, if we're offering an Internet payment processing service, and it's pretty easy to convert from any asset into Bitcoin and also convert from Bitcoin into any other asset, and Bitcoin is the most secure form of payment of all the choices we could make, why would we not choose to only accept Bitcoin? ... So, for us to change to something else, it would first have to overcome Bitcoin's security and liquidity properties and

then we would probably switch from Bitcoin into only that alternative — because there would no longer be a reason to accept Bitcoin."

6. So far, the attitude of most government regulation toward digital currencies has been, on the whole, cautiously positive.

At least in the United States, digital currency consumers and businesses have a decent amount of clarity around how the federal and some state governments will treat their activities. For instance, the Internal Revenue Service has said it will treat it as property for tax purposes and the Commodities Futures Trading Commission, as a commodity. Plus, the Fed has said it cannot regulate Bitcoin. Some of these regulations, like New York state's Bitlicense "may unintentionally create barriers to entry for new entrants, but here in the U.S., with companies like Coinbase, BitPay, Circle, Xapo and others, they are well-funded and are lawyered up and so are prepared to deal with whatever comes their way," says Silbert. Internationally, the reactions span everything from Russia's plans to ban conversions between rubles and cryptocurrencies to a ruling in Europe cheered by investors that Bitcoin was exempted from value-added tax (VAT). "In some places, the government is just getting up to speed and hasn't taken a position yet. In other places, we're seeing active government involvement and support," says Silbert. "It doesn't mean it will be a clear and easy road, but I'm cautiously optimistic given that the more developed financial markets all seem to be embracing the technology."

7. A comparison to gold suggests Bitcoin could be undervalued.

Silbert made his name as the founder of SecondMarket, a platform that enabled private companies to raise capital and allow their stakeholders to sell shares. He believes Bitcoin has two close analogs, the first being gold.

"Bitcoin has all the same attributes of gold in that it's scarce, there's a finite supply, it's fungible, it's highly divisible, it can't be counterfeit," he says, "but it has one real improvement over gold, which is its utility." Gold is good for jewelry and use in some industrial production processes, but as the price increases, it becomes less useful for both those uses, he says, "whereas Bitcoin, on the other hand, actually becomes more useful. It becomes more useful as a [money transfer] rail and as a ledger [of financial transactions]."

Today, the total value of gold rounds up to about \$7 trillion, while the market cap of Bitcoin the day I spoke to Silbert was about \$5 billion (it's \$6.5 billion as of press time). If, in periods of economic dislocation, people put their money into Bitcoin the way they've historically done with gold and Treasuries, the price of Bitcoin could rise, surmises Silbert: "If you look at what happened during the Greece crisis [when the price of Bitcoin

rose past \$300], the Bitcoin price went up, and I think there is reason to believe that Bitcoin — as a store of value, as a speculative investment — would perform well in periods of dislocation or distress." If so, he presents a hypothetical: If just 5% of the \$7 trillion in gold moved into Bitcoin, that would boost its value by \$350 billion. "So that would be a 70x increase in the price of Bitcoin if just 5% of gold, which, again, is just one use case, moves into Bitcoin."

Lee of BTCC says the best way to think about Bitcoin's value is per capita. And again, that puts it in a favorable light against gold. Right now, Bitcoin worth less than \$1 per person worldwide, whereas gold, which Lee calls "a so-called disregarded asset class that no one wants to talk about, the dirty four-letter word G-O-L-D" is about \$1,000 per person. But, he estimates that perhaps over the next few decades, Bitcoin's value could skyrocket to \$1,000 per person or higher, giving it a market cap of more than \$7 trillion — almost 1,100 times what it is today.

8. Comparing Bitcoin with a technology company also suggests it could someday be quite valuable.

Having spent most of his career in valuations, Silbert believes a good second analog to Bitcoin could be a technology company. In this thought experiment, Bitcoin the "company" has authorized 21 million shares to be issued, with about 14.9 million currently outstanding, and has a market cap of \$5.9 billion. If you look at businesses that could be affected by this new "company" Bitcoin, some may include Western Union, which has a \$9.5 billion market capitalization and PayPal, which has a \$43 billion market capitalization.

"As a technology, as a protocol, as a platform, could Bitcoin have the same impact on society as a Facebook or a Google or an Apple has had? The answer is that it could. I'm not saying it's going to, but it could," says Silbert, noting that Apple's market cap is nearing \$650 billion. He acknowledges that this method disregards factors such as price-to-earnings ratios and cash flows and adds, "the owner of a Bitcoin isn't ever going to see a dividend, and you're never going to get bought out," but says that the savings that Bitcoin could generate for financial services companies — estimated by Santander Innoventures to be \$15 billion-\$20 billion annually by 2022 from cross-border payments, securities trading and regulatory compliance — is somewhat akin to earnings. "So if Bitcoin as a company was to save annually, say, \$10 billion from the world, and you were to apply a 15 [price-earnings] multiple to \$10 billion, that's a \$150 billion market cap company," he says, then adding, "again, I'm conflating a lot of different concepts."

9. On pure trading metrics alone, it looks like a buy.

If you ascribe to the philosophy that patterns in securities' past behavior can predict their future performance, you would have reason to expect that Bitcoin would continue to rise. For instance, one theory says that if the 50-day moving average, which is the average of the stock price over the previous 50 days, is below where the security is presently trading, whenever it hits that moving average, it will bounce back up.



"The longer a time period a moving average covers, the stronger it is.... Bitcoin has strong support at its 200-week moving average of \$252.59, and just broke through resistance at its 100-week moving average of \$388.54," ARK's Burniske wrote in an email, but "bitcoin's inarguably enjoying a strong uptrend and clearing key resistance levels, which could give it legs to run."



Annotated Bloomberg chart of Bitcoin trading above 200-week moving average (Courtesy of Chris Burniske)

10. More investors are taking it seriously and using it as a portfolio diversifier.

Michael Sonnenshein, Grayscale's director of business development who talks with institutional investors and financial advisors interested in investing in GBTC, says he has seen a fundamental shift in the types of investors interested in Bitcoin. For the last few years, he says it's mostly been ultra high-networth individuals, family offices and smaller institutions or tech-type investors who can more easily wrap their head around Bitcoin.

"What we're starting to experience now is unprecedented interest from the financial advisor community as they are seeing a tremendous increase in the fielding of questions and inquiries from their clients and their clients' children and relatives about Bitcoin — should this be something that they are looking at to invest?" He's also seen a huge uptake in institutional interest due to heavy-hitting financial institutions investing in this space. "When people start seeing the Visas and MasterCards and the American Expresses of the world beginning to get involved with Bitcoin and blockchain technology, it suddenly wakes up in a lot of people that this is something they too should be looking at," he says. Plus, he sees that people who have been affected by global market gyrations in China or Greece are turning to digital currency as another portfolio diversifier.

These 10 arguments may have you ready to buy, however, a number of issues, which I will cover in part two of this series, cast doubt on the future value of Bitcoin. And even today's projections are merely that — projections. "When you try to figure out what that price will be in 10 years, and you apply assumptions to it, and you apply it back to today, very small changes in your assumptions have a pretty meaningful impact on the price," says Silbert. "From that perspective, it's very easy to come up with a calculation to show that the price of Bitcoin is going to go to \$10,000, and with some tweaks, I could get that back down to \$100."

More importantly, the question of whether or not to invest in Bitcoin depends on your own investment goals, time horizon and risk appetite. "In 10 years, the price will either be zero or much higher than it is today and so, as such, anybody who puts money into Bitcoin should only put money into Bitcoin that they can afford to lose," says Silbert.

Update Friday December 11, 1:50pm EST: The chart illustrating the theory that a stock bounces up after hitting its 50-week moving average was not of Bitcoin in particular.

Update Friday December 11, 4:30pm EST: A typo incorrectly stated the amount of venture capital in Bitcoin; it's \$314 million, not billion.

Laura Shin is the author of the Forbes eBook, The Millennial Game Plan: Career And Money Secrets For Today's World and co-author of Money Hacks: Forbes Stories Of Superstar Savers.

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