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TECHNOLOGY

What's Blowing Up the Bitcoin Bubble?

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Investors and speculators are biting into bitcoin — in a big way. The price of the cryptocurrency surged by nearly 1,900% in 2017, to an average high of $19,499 on December 15 across major bitcoin exchanges, before plunging down to just under $14,000 by year's end, according to blockchain.info. The ascent is striking especially since bitcoin emerged just eight years ago, the creation of a mysterious person or group of people named Satoshi Nakamoto. In 2009, bitcoin was worth zero.

Bitcoin's popularity persists even though it has no intrinsic value per se. It is not backed by gold or physical assets, nor does it pay interest or dividends. Bitcoin cannot be used as money in most places. That's why its skyrocketing price is causing concern. Fed Chair Janet Yellen called bitcoin a "highly speculative asset"; JPMorgan Chase CEO Jamie Dimon said it was a "fraud" although he has since softened his stance; billionaire Warren Buffett called it a "mirage," while Vanguard founder Jack Bogle told investors to "avoid bitcoin like the plague."

"There has been a lot of hype and excitement, and that clearly has driven the price possibly away from the real utility value of the network and much more into the speculative realm," said Christian Catalini, a professor of technological innovation, entrepreneurship and strategic management at MIT, on the Knowledge@Wharton show on SiriusXM channel 111. "The floor value of bitcoin is zero. Bitcoin only has value because people believe and agree it has value."

Much of bitcoin's stratospheric rise was achieved in the past year. For years, bitcoin traded in a much lower range due to its novelty, a spate of negative news such as the 2014 hacking of the now-defunct Mt. Gox bitcoin exchange, and early link to criminal activities (Silk Road). Those same concerns are still around — a South Korean digital currency exchange recently closed down after suffering its second cyberattack. However, bitcoin's adoption by major institutions gives it a sheen of market credibility.

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This month, the CME Group (Chicago Mercantile Exchange) and CBOE Global Markets (Chicago Board Options Exchange) began trading bitcoin futures. Nasdaq also plans to launch bitcoin futures in the first half of 2018, according to *The Wall Street Journal*. The New York Stock Exchange and the Cboe have filed with the Securities and Exchange Commission to list bitcoin ETFs (exchange-traded funds). "What you've been seeing recently [in bitcoin's price increase] is fostered by a lot of momentum around institutional investors getting more into bitcoin," Catalini said.

Institutional Players

The participation of these major exchanges in bitcoin "suggests a legitimacy of this technology, which I think is a valuable and important thing," said Kevin Werbach, Wharton professor of legal studies and business ethics. Crytocurrencies represent "potentially a new investment asset class, and the way that it becomes … legitimate and the way investors are protected against fraud and so forth is to have traditional institutional structures and mechanisms like derivatives available." (Listen to the full podcast of the SiriusXM show featuring Werbach and Catalini using the player above.)

However, even with institutions boosting bitcoin trading, it doesn't fully explain the size of the price increases. "It's not clear to anyone why bitcoin and some of these other cryptocurrencies have spiked," Werbach continued. Possibly it could be people's "fear of missing out, or fraud and manipulation. There's evidence that there are various kinds of funny business going on at some exchanges that trade bitcoin, especially outside the U.S."

While the NYSE and Cboe have applied to list bitcoin futures-based ETFs, the SEC has rejected bitcoin ETFs in the past. "Not because the organizations proposing the ETF in the U.S. did not do good enough governance, but because the price was so dependent on things outside their control," Werbach said. But whether bitcoin prices are up due to good or bad actors, the rate of the ascent should give people reason for concern, he added.

Cryptocurrencies are "highly speculative assets," Catalini added. "Here you're investing not only in very early stage projects but also in very early stage technology. Many of these assets may not exist five or 10 years from now, but some may be large successes…. We're really witnessing the dawn of a new industry."

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Contrarian View

But some believe that bitcoin is not in a bubble. Bitcoin magazine argues that it has "very different fundamentals than early internet stocks and a much more promising growth trajectory." The October 2017 article cites the following reasons for a bullish view: Bitcoin is gaining acceptance as legal tender, such as in countries like Japan; more merchants are taking it; bitcoin is becoming a way for people to store their wealth in troubled economies such as Venezuela; bitcoin has just gone mainstream with most people likely having heard of it; and bitcoin has a limited supply of only 21 million, which restricts dilution.

However, bubbles are often only recognized in hindsight. "A bubble is only a bubble when it pops," Werbach said. "Early investors only see it going up. We could see it go down very quickly as well." As such, the big swings in the price of bitcoin makes it tough to use as money. "If you want to use the currency for payment, you don't want the price to go up and down a lot." Imagine holding currency worth $100 that dives to $70 in a day. It would create all sorts of instability.

"It remains to be seen how much of a function bitcoin itself will serve," Werbach added. "It could be a reserve currency asset or it could be something volatile or it could eventually be tamed by these traditional financial mechanisms, which exist to bring more liquidity into the market." So is bitcoin a good investment? "I don't know the answer to that," he said. But "long term, is this basic technology of cryptocurrencies something real that's going to be a core part of the financial system? Absolutely."

Global Standing of Cryptocurrencies

Meanwhile, regulators, central banks and countries are ramping up their scrutiny of cryptocurrencies. France wants the world's top economies to debate bitcoin regulation at the G20 summit this year, according to Reuters. Countries that have banned cryptocurrencies or initial coin offerings include China, Iceland, Ecuador and Bolivia. Those that have accepted or are regulating them include Canada, Japan, Poland, Ukraine and Australia.

Central banks around the world are testing their own digital currencies. China has completed its trial run while Japan, Sweden and Estonia are developing their own as well, according to CNBC. Japan has J-coin, Sweden has E-krona and Estonia's is called Estcoin. Also, the U.K., Uruguay and Kazakhstan are interested. Singapore is wrapping up its own digital currency trial in 2018. In the U.S., the president of the Federal Reserve Bank of New York said the Fed is exploring the same idea but it is still "very premature."

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Is there room for multiple digital currencies? "I think so," said Wharton visiting professor Shimon Kogan, who teaches a course on fintech that includes the blockchain and cryptocurrencies. However, "clear winners haven't emerged yet." As for consumer adoption, it all depends on how user-friendly the interface is on top of the technology. "If you're a customer of Citibank and Citibank now uses this technology to allow you to transfer money to your friend in Europe in real time and a lot cheaper," he said, "you don't care how they do that necessarily, right?"

Blockchain over Bitcoin?

Kogan said the cryptocurrency community is divided on whether bitcoin is a "side show or *the* show." However, he believes that the "fundamental breakthrough is not necessarily bitcoin but the blockchain technology," which is the distributed ledger that tracks these transactions. Entries cannot be changed and are transparent to all parties involved. Typically, there is no central authority like a government or a bank controlling it.

"Serious players are investing" in blockchain technology, Kogan said. "It's hard to point to a serious financial services company or consulting company or technology company that is not already investing quite a bit into this." Some are doing it through bank consortiums, he added.

One such consortium is R3, Kogan said. It works with more than 100 banks, financial institutions, regulators and other stakeholders worldwide to develop its own distributed ledger called Corda. R3 and other groups are all experimenting with different protocols that are independent of bitcoin, Kogan said.

The blockchain's biggest impact on financial services is to make back office functions more efficient. "It's pretty clear that this kind of almost 19^{th} century way that [back office tasks are] being handled is just way too slow and way too expensive," Kogan said.