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"Certitude is not the test of certainty. We have been cocksure of many things that were not so." – Oliver Wendell Holmes

Bill Miller, CFA

Recently, there's been an unusual confluence of opinion by some of the world's best and most sophisticated investors, financial executives and academics about an investment we hold in some client accounts: Bitcoin. Jamie Dimon, Ray Dalio, Howard Marks, Larry Fink, Bob Shiller and Paul Krugman all are on the record with comments on the cryptocurrency. **Dimon called it a "fraud" and people who owned it "stupid;" Dalio said it was a "bubble;" Marks referred to it as "an unfounded fad;" Fink said its price was an "index of money laundering;"** Shiller said it was the "best example" of a bubble right now; and Krugman had previously proclaimed it "evil." In a CNBC interview in 2014, Warren Buffett advised investors to stay away from it and called it a "mirage." He said the idea that it had some "huge intrinsic value" was "just a joke in my view."

This group is a modern day "murderers' row" of financial and academic titans. The original murderers' row, as all baseball fans know, was the name given to the first six hitters of perhaps the strongest team in baseball history, the 1927 New York Yankees: Earl Combs, Mark Koenig, Babe Ruth, Lou Gehrig, Bob Meusel, and Tony Lazzeri. I am usually happy to be a contrarian on what is often thought the wrong side of an investment issue, but to be on the other side of this financial murderers' row on the merits of an investment is usually to be wrong.

My first reaction to these comments was to recall Justice Holmes' quote from his article *Natural Law (1918)*: **"Certitude is not the test of certainty. We have been cocksure of many things that were not so."** Their comments seemed fairly high on the certitude scale. It was less clear to me how much knowledge they had about Bitcoin or how deeply they had studied it. Venture capitalist and Bitcoin believer Marc Andreessen, when asked about Buffett's comments on Bitcoin, caustically replied: "the historical track record of old white men who don't understand technology crapping on new technology is, I think, 100 percent." The record of even those who do understand technology crapping on new technology is also pretty bad.

Thomas Watson of IBM said in 1943, “I think there is a world market for maybe five computers.” Ken Olsen, the founder of Digital Equipment, said in 1977, “there is no reason anyone would want a computer in their home.”

In general, I think the strongly held negative views on Bitcoin fall under the rubric **“new things, old thinking.”** Whenever we are confronted by something we haven’t seen before we try to understand it by assimilating it to something we have seen before or that we think we understand. We reason by analogy, or we employ metaphors that seem to fit. Sometimes this is effective, other times not. As we gain greater understanding and experience, our thinking becomes (hopefully) better and more accurate.

Go back and read what was being said about Google when it came public. The general view, expressed in *The New York Times* and *The Wall Street Journal*, was that Google’s valuation made no sense, that it would be dumb to buy it on the IPO, and that it was just another overhyped tech name like in the internet bubble of a few years earlier. A very smart tech executive told me with great conviction that he was going to short Google when it came public because its business model violated the laws of economics. That is, its model was to sell search results, but since the marginal cost of search rounded to zero, and the price of a commodity (which he said search was) would over time sell at its marginal cost, Google’s business would eventually be worth zero. He pointed out that other search engines, such as Alta Vista, were easily superseded and that would probably happen with Google as well.

Amazon, which now is viewed as an unassailable juggernaut that will upend and disrupt every industry it goes after— which is mostly true, by the way—was for years derided as an overvalued joke. Amazon.bomb, *Barron’s* called it. A prominent credit analyst confidently predicted it would go bankrupt. My friend Harvey Eisen told *The Wall Street Journal* in 1999 that I must have been drunk when I bought Amazon.
My view on Bitcoin is that it is a technological experiment that may or may not prove to have any long lasting value. Most startups fail and only about 1% ever reach a valuation of $1 billion. As of this writing, Bitcoin has a market capitalization greater than 90% of the companies in the S&P 500, but it might still fail. I don’t know and neither does anyone else, no matter how certain they are of their opinion. No one has privileged access to the future.

On May 22, 2010, Laszlo Hanyecz bought 2 pizzas for 10,000 Bitcoin, a day now celebrated as Bitcoin Pizza Day. That those 10,000 bitcoin are now worth over $50 million seems absurd to almost everyone, and it may well be absurd. Those who pronounce Bitcoin a bubble do so because its price has advanced so rapidly, and there are a lot of people who have made a lot of money on it (mostly millennials if my unscientific surveys are at all representative) without apparently doing much, if any, work.

Bitcoin may very well be a bubble if by “bubble” one means something whose price is far in excess of any fundamental value. Usually bubbles burst, and the price declines dramatically to something closer to whatever constitutes fair value. Bubbles are easier to spot when there are reasonably well-regarded markers of value, such as earnings, or cash flows, or dividends. Those are missing with Bitcoin. At a recent conference on collective intelligence sponsored by the *Santa Fe Institute*, Shyam Sunder, a professor at Yale, opined that money in our wallet is also a bubble as the fundamental value of that paper is pennies and the government can produce it in unlimited quantities. Most of the money in the economy is electronic and has no intrinsic value. Gold has been in a bubble for thousands of years as it has no earnings and never will. Edvard Munch’s painting “The Scream” sold for $119.9 million and there were 5 eager bidders. The fundamental value of the paint and canvas? Not much.

I believe there is still a nontrivial chance Bitcoin goes to zero, but each day it does not, that chance declines as more venture capital flows into the Bitcoin ecosystem and more people become familiar with Bitcoin and buy it. Bitcoin has been going up for the most fundamental of economic reasons: supply and demand. The current supply of Bitcoin is 16.6 million according to Coindesk. It is increasing at a rate of around 2,000 coins a day under a formula that will continue until 2020. It is cumbersome to buy, has to be stored, and if lost or stolen, cannot be recovered. But the demand for it has steadily increased despite the collapse of Bitcoin exchanges, the recent Chinese crackdown on the cryptocurrency, and, of course, the bashing of it by a plethora of financial luminaries.

Despite the enormous run up in Bitcoin’s price, one of the more bullish factors is how few people own it. At a couple of recent investment conferences I asked how many people owned Bitcoin. The audience at both conferences was about 300 or so. At the first, I counted 6 who owned it and at the second there were about a dozen, but none over the age of 30. Bitcoins are stored in a virtual wallet and blockchain.info says there are 17.9 million wallets in existence, up from just 9.3 million a year ago. But many people have more than one wallet and many are probably no longer in use. Facebook has 2 billion users, all of whom are connected to the net and are potential buyers of cryptocurrencies. In August, the CBOE announced its intention to offer Bitcoin futures by the end of this year, subject to regulatory review, and I think it likely that a Bitcoin ETF will eventually be forthcoming if the regulatory issues can be resolved. Both futures and an ETF will make it considerably easier for investors to own Bitcoin.

Bitcoin's creator Satoshi Nakamoto referred to Bitcoin several times as "digital gold," which I think is a reasonable way to think about it. The value of all gold today is about $7 trillion according to some estimates. If Bitcoin were to reach 10% of gold's value it would be trading closer to $50,000, to give just one example of its potential. There are much higher estimates of what it could reach, but of course all of these are just guesses, as are predictions that it will go to zero.

The explosion of alternative cryptocurrencies this year (CoinMarketCap.com lists well over 1000) is similar to when banks were able to create their own currencies during the so-called free banking period in the United States from 1837 to 1863. Those who are bearish on Bitcoin have history on their side as that experiment failed and most of those currencies proved to be of little worth.

Friedrich Hayek argued in a monograph titled The Denationalization of Money that any private entity ought to be able to create money and the market would decide the value. The technology to do that was not up to the task when he wrote that piece in 1976, but it is now and the experiment is well under way.

That experiment may fail of course. If it does not, then what we are seeing is the creation of a new, uncorrelated asset class that might eventually find its way into almost every well-diversified portfolio.

Anyone who owns Bitcoin would be foolish to dismiss the opinions of the financial murderers' row that has lined up against it. The chances of their being collectively wrong on anything within their circle of competence may not be zero, but it isn't far from it. What gives me some comfort in being on the other side of this trade is that they have not seen anything like Bitcoin before.

In the 1934 All Star game, the American League fielded an even more potent murderers' row than did the 1927 Yankees. National League starting pitcher Carl Hubbell struck out in succession Babe Ruth, Lou Gehrig, Jimmie Foxx, Al Simmons, and Joe Cronin, all future Hall of Famers. How did he do it? He threw them screwballs, a pitch they had not seen before.