ADVISER INVESTMENTS

SPECIAL REPORT

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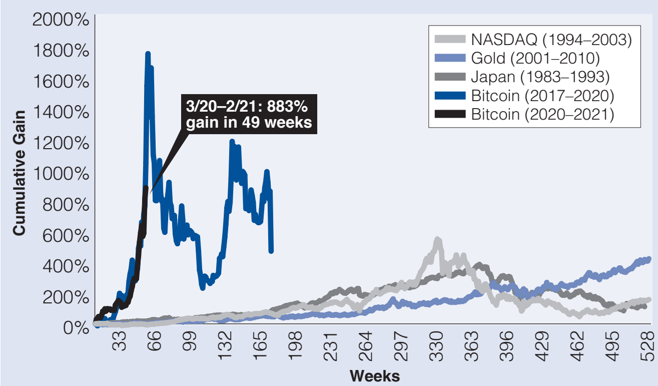
Betting on Bitcoin

INVESTMENT OR GAMBLE?

More and more investors are asking if they should jump on the bitcoin bandwagon. Before we weigh in with our advice, we want to make sure you're informed about what bitcoin is and what it is not.

For many bitcoin buffs, the story begins on May 22, 2010, when a Florida-based programmer named Laszlo Hanyecz exchanged 10,000 bitcoins for two pizzas in what was one of the first retail bitcoin transactions. Those 10,000 bitcoins were worth just $30 at the time. May 22 is now celebrated as Bitcoin Pizza Day by the digital currency's fans, and while the pizza is long gone, the bitcoin frenzy has exploded. In fact, at recent prices (over $50,000 per bitcoin as of mid-February 2021), Laszlo's 10,000 bitcoins would be worth more than $500 million. (No matter where bitcoin prices go from here, suffice it to say that was a life-changing meal for Laszlo!)

Bitcoin is More Manic Than Prior Manias



Note: Chart shows weekly cumulative percentage gain in each asset or index's price over the period indicated. Sources: Morningstar, Bloomberg, Adviser Investments. Data as of February 19, 2021.

Seriously, What Is Bitcoin?

The response to this question is usually a mixture of technobabble and hyperbole that leaves the questioner even more confused than before. We'll try to clear it up.

Without getting too technical, bitcoin is a form of online currency that is neither controlled nor regulated by any institution or country. It is not backed by a government and there is no bank overseeing its creation or its use. While its transactional use remains minimal, it has become a popular and volatile investment. However, in the words of former Federal Reserve Chair Janet Yellen, bitcoin is a "highly speculative asset" that "doesn't constitute legal tender." The key word here is "speculative"—bitcoin's volatile price swings, along with its lack of intrinsic value, make it a risky investment.

Bitcoin, like many other cryptocurrencies, is a decentralized, self-sustaining payment system where all transactions occur directly between parties (peer-to-peer), with no financial institution acting as agent to accept or reject the exchange of virtual "coins." No application or approval is required to open an account and anyone can create an address—a mix of numbers and letters signifying your place in the bitcoin network.

Think of the bitcoin ecosystem as a digital safe instead of a bank account—you maintain control of your bitcoin balance and no third party (bank) can lend it out. A private key called a "wallet" provides the only verification needed to access this safe. If you keep that key secret, your coins are yours alone and they remain safe (in theory, in fact, many bitcoin holders have been victims of crypto-crime, but that's another story).

While a public address (your digital safe) designates where to send and receive virtual coins, it has no connection to any personally identifying information, since no application was required to open it. This anonymity is a major attraction for criminals and libertarians alike. It is also one of bitcoin's biggest drawbacks—lose, forget or accidently share that private key (or get hacked) and you'll not only be out of luck, but also out of bitcoins. You can't click "reset password" or count on a fraud protection plan, federal insurance or customer service to help you regain access to your account or recover your stolen coins.

You may have heard that bitcoin's payment network is secure. In a sense, it is. Transactions cannot be forged, copied, edited or rolled back. A verifiable and immutable transaction mechanism is built into the network's record-keeping. This brings us to the technology that underpins this entire enterprise as well as the systems behind other cryptocurrencies: Blockchain.

The Blockchain

Blockchain, also known as a distributed ledger, is a continuously updated public history of transactions. Like an accountant's ledger, every bitcoin that changes hands is recorded in the bitcoin blockchain. But instead of trusting an accountant to verify every exchange on a single ledger, new transactions are grouped together in blocks and encrypted using complex mathematics before being distributed to the entire network.

Designated bitcoin "miners" use powerful computers to decrypt the complex math problems for each new block, which can only be solved using the previous blocks. Newly verified blocks are added to the ever-growing blockchain, which periodically has its encryption algorithms increased to match the level of computing power focused on mining, making it even more secure. This helps maintain a steady rate of block generation. Since the entire network has a complete and verified copy of the ledger, the system is self-sustaining and extremely resilient to hacking. Miners are rewarded for their efforts with newly generated bitcoins.

But bitcoin cannot be mined forever: There is a finite supply. Right now, 6.25 bitcoins are generated per block; the rate is set to be cut in half every 210,000 blocks—approximately every four years—so in 2025 it will be 3.125 bitcoins per block. Once the count hits 21 million coins, no more can be created. That limited supply is yet another feature attractive to some investors. There are over 18.6 million bitcoins in existence today—it will take an estimated 120 years to mine the remaining 2.4 million.

Bitcoin and Its Risks

The blockchain technology behind bitcoin is revolutionary, but hardly flawless. While blockchain use appears likely to become more pervasive in global commerce, that doesn't mean that creating, trading and ultimately using a digital currency through the blockchain is ever going to replace the dollar, euro, yen or British pound.

Even though blockchain technology makes each individual bitcoin secure, most bitcoin buyers use centralized exchanges such as Coinbase to buy, hold and ultimately sell digital currencies. And these exchanges are vulnerable. Because they are not banks, they are untested and loosely regulated. If the exchange where you've stored your private key is compromised, well, there goes your bitcoin. It's not an idle risk; exchanges have been hacked in the past. For example, a well-known Japanese bitcoin exchange named Mt. Gox was compromised over a four-year period from 2011 to 2014. The heist resulted in more than 800,000 stolen coins (worth $40 billion at mid-February 2021 prices). The company went out of business shortly thereafter, and many customers were never reimbursed.

Compromises like the Mt. Gox hack have surfaced serious risk and regulatory concerns. While the transparency aspect of cryptocurrencies is alluring for some, it can be a nightmare in terms of tracing and prosecuting bad actors. And because cryptocurrencies are virtual, hacking an exchange can net hundreds of thousands of stolen bitcoins in one fell swoop. (You couldn't walk off with as much if you were stealing physical gold or even robbing a bank.)

Can I Invest in Bitcoin at Fidelity or Vanguard?

AS IT STANDS TODAY, neither Fidelity nor Vanguard allow their retail brokerage customers to purchase bitcoin in their accounts. If you want to buy bitcoin, you need to do so through a crypto platform (like Coinbase), and to trade cryptocurrencies, you need to do it on a crypto exchange.

Of the two fund companies, Fidelity seems more likely to make bitcoin accessible to investors. Fidelity CEO Abigail Johnson had a bitcoin mining machine in her office long before bitcoin captured our attention. Additionally, Fidelity launched a private fund that holds only bitcoin, Wise Origin Bitcoin Index Fund I. This option, however, is only available for qualified Fidelity clients willing to make a high initial investment.

Regulators realize the risk and have been working over the last decade on how to best monitor crypto exchanges. As it stands today, regulation of cryptocurrencies varies by jurisdiction. In December 2020, however, the U.S. Treasury's Financial Crimes Enforcement Network proposed new regulations that would require banks and money services businesses to submit reports, keep records and identify customers related to digital asset transactions over certain thresholds.

Additionally, investors should be aware that they must disclose any cryptocurrency holdings when they file their taxes. (1040 tax forms now include a question about ownership of virtual currency over the tax year.) Virtual currencies are treated as property, not as traditional currency, so you will be taxed on any gains when you sell them.

Meanwhile, bitcoin does not pay interest or dividends, nor does it entitle holders to profits from any type of business—like gold, bitcoin has no intrinsic value. While stock and bond prices are supported by underlying cash flows, there's nothing fundamental supporting bitcoin's price aside from what the next buyer is willing to pay for it.

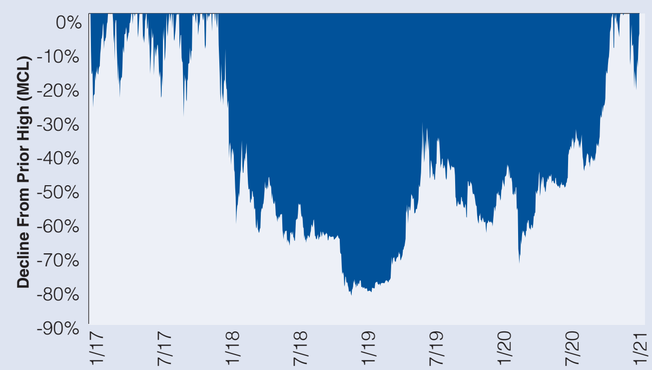
Another clear risk is volatility: The price of bitcoin and other digital currencies has fluctuated unpredictably and dramatically over the years, and there's no sure way to predict when the next downdraft will occur.

This extreme volatility isn't only a risk to investors, it also means bitcoin doesn't work very well as a currency for buying and selling goods or services. A sharp drop in the price could wipe out a merchant's profit by the time the transaction settles. And let's face it, most proprietors aren't in the business of speculating on the price of bitcoin.

Bitcoin's Big Price Gains...

Source: Bloomberg. Data as of February 2021.

...Came With Big Drawdowns



Source: Bloomberg. Data as of February 2021.

Institutional and Corporate Adoption

During the infamous 2018 cryptocurrency crash, when the price of bitcoin plunged 60% in less than two months, from an intraday record of $19,783 in December 2017 to under $8,000 early the following February—and then fell further still that year for an 80% total decline in 2018—the demand for cryptocurrency died down a bit. Fast forward to 2020: The global pandemic, all-time-low interest rates, trillions in stimulus spending and a search for yield combined with increased appetites for risk have blasted bitcoin back into the stratosphere.

Unlike 2017, it's not just retail investors jumping on the bandwagon this time. Over the last year, platforms like PayPal have started to accept cryptocurrency, Bank of New York Mellon Corp., America's oldest bank, began transacting in bitcoin on behalf of its clients, and some corporations have announced they are holding bitcoin on their balance sheets. One can't deny that there's been a notable increase in institutional adoption of crypto, which, in part, could start to build a floor under rising prices. On the flip side, however, the broader the adoption, the more severe the impact on the financial system should a crash occur.

Which brings us to the $10 billion question.

Is Bitcoin in Another Bubble?

A market bubble, by definition, is a rapid price escalation that doesn't comport with the underlying fundamentals of the asset in question. As we've noted, bitcoin has no fundamental characteristics. Its intrinsic value is whatever someone is willing to pay for it at any given time. In this case, we have an asset that's increased in price more than

1,200% from $3,858 in March 2020 simply because a collective group of people think it's worth that. You'd be hard-pressed not to call that a bubble.

We've seen this pattern before. In 2000, the technology bubble inflated on the promise of vast riches for any dot-com company involved with the rapidly expanding Internet. Before the bubble burst, tech stocks of all stripes, from little unknowns to giants like Cisco Systems, had been swept up in the mania. Investors who believed prices would only continue to rise got badly burned.

Not too many years later, investors leapt with both feet into a housing market with soaring prices fed by low interest rates, easy lending terms and a public fascination with the "flippers" who were buying properties and unloading them at higher prices just months later. The housing bubble burst and helped send the U.S. into the Great Recession.

Then, in 2017, bitcoin shot up 2,339% from low to high, only to crash some 80% the following year. However, unlike the bubble bitcoin investors found themselves in back then, there is more legitimate adoption of the currency today, as noted above.

If there is a crash, then we think the support level (the lowest price an asset is likely to fall to) is higher than it was three to four years ago. With greater individual and institutional acceptance, however, comes regulation, so a future risk to bitcoin price hikes could come from policymakers.

For now, our advice is this: Don't invest in more cryptocurrency than you're willing to lose.