Edward Jones
MAKING SENSE OF INVESTING

Bitcoin, Cryptocurrencies and Blockchain

A TECHNOLOGY AND FINANCIAL SERVICES SECTOR REPORT

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Key Takeaways:

- We believe cryptocurrencies are highly speculative.
- Edward Jones does not offer a way to purchase or hold cryptocurrencies.
- Investors should expect extreme volatility to continue.
- The SEC recently issued a detailed warning on cryptocurrencies.
- Be aware of companies trying to take advantage of cryptocurrency interest.
- We believe the technology behind bitcoin, known as blockchain, does have many potential applications.

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Bitcoin is powered by a promising new technology, though many uncertainties remain

The meteoric rise in the price of bitcoin, which represents more than half of the nearly $500 billion cryptocurrency market, has dominated the headlines recently. But the price of bitcoin, and other cryptocurrencies, have been extremely volatile due to significant uncertainties such as long-term supply-and-demand dynamics, the impact of government policies, and the question of which cryptocurrency, if any, will survive over time. In addition, there are other risks unique to cryptocurrencies, such as loss due to failed storage devices, hacked exchanges, sending funds to the wrong digital address, or, simply, forgotten passwords. **We believe prices for cryptocurrencies will remain extremely volatile for the foreseeable future, and we view any investment in cryptocurrencies as highly speculative at this time.**

Blockchain facilitates online transactions

Bitcoin is the product of a technology called blockchain. The original intent of blockchain was to enable peer-to-peer digital payments that do not require a trusted third party, such as a financial institution. The problem blockchain solves is assuring the recipient of a digital asset that the asset is wholly transferred (as opposed to copied and then transferred), thereby eliminating the possibility of digital double-spending. Blockchain thus removes the need for a third party to verify peer-to-peer digital transactions.

Is bitcoin a bubble?

Many investors are questioning whether bitcoin and other cryptocurrencies are the latest asset bubble at risk of popping. While no one knows for certain, we do know that the over 1600% price increase year-to-date far surpasses previous bubbles such as the dot-com bubble of the late 1990s, and the recent U.S. housing market bubble. While predicting the near-term, or even long-term, direction of bitcoin is impossible, we believe the one certainty is that extreme volatility is likely to continue.

Risks to investing in bitcoin and other cryptocurrencies

Unlike an investment in a stock or mutual fund, there are no underlying fundamentals (cash flows, profits, etc.) to support the valuation of any given cryptocurrency. The uncertainty this creates has led to extreme volatility in cryptocurrencies such as bitcoin, ethereum and litecoin. Other risks include price manipulation by unknown market participants, the potential for government interference, and competition from other cryptocurrencies. The SEC recently issued a letter warning investors of these risks.

Please see important disclosures and certification on page 3 of the report.

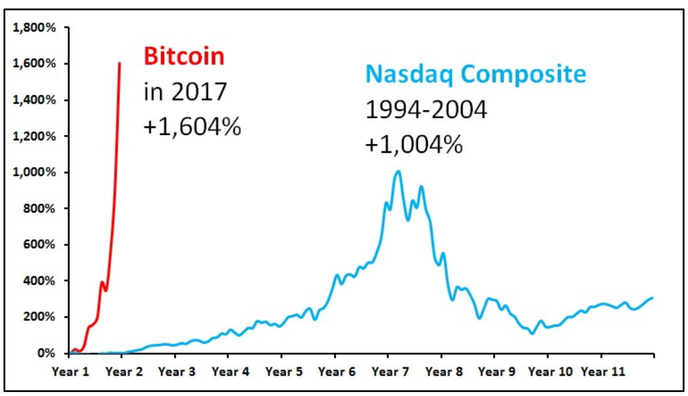
A trust protocol for online transactions

On January 3, 2009, a person (or group of persons) under the pseudonym Satoshi Nakamoto launched the bitcoin blockchain computer network. The original design of the network was to enable peer-to-peer digital payments that do not require a trusted third party, such as a payment network or financial institution. The problem it solves is assuring the recipient of digital funds that the funds are wholly transferred (as opposed to copied and then transferred), and thereby eliminating the possibility of digital double-spending. Thus, blockchain removes the need for a third party to verify peer-to-peer digital transactions.

Blockchain itself has many potential applications

By removing the need for a central authority to verify online transactions, blockchain allows for the exchange of digital value directly and securely. Thus, blockchain technology has many potential applications, including 1) regulatory recordkeeping of any sort (health history, land title, etc.), 2) financial transactions or transfers of value (payments, loans, etc.), 3) personal control of online identity, 4) supply-chain optimization, and 5) consumer-royalty programs.

Figure 1. Bitcoin price appreciation in 2017



Sources: CoinDesk.com, FactSet, Edward Jones. The Nasdaq Composite Index is made up of all the stocks that trade on the Nasdaq stock exchange. It is capitalization-weighted, meaning each company's weighting is proportionate to its market value, and it is heavily weighted in technology and Internet stocks. Price as of Dec. 7.

Blockchain mechanics (how it actually works)

Blockchain is a digital ledger, or record, of transactions managed by a decentralized network of computers. Each computer on the network has a copy of the ledger. In order to make a ledger entry, a special type of computer ("miner") must solve a mathematical puzzle and, in doing so, expend energy in the form of electricity. For a set of ledger entries ("block") to be successfully added to the blockchain, all computers on the network must agree that the entries are accurate, which they are able to do because they each have a copy of the ledger. If they all agree, then the block will be added, and the miner is rewarded in the form of bitcoin. If not, the miner has expended useless energy. In this way, miners are incentivized to add valid transactions to the ledger, removing the need for a central trust authority.

Risks to investing in cryptocurrencies

While blockchain solves an important technology problem, the value of any given cryptocurrency remains highly uncertain. Cryptocurrencies such as bitcoin, ethereum and litecoin have all exhibited significant price fluctuations due to these high levels of uncertainty. In addition to price risk, there are other risks to investing in cryptocurrencies, such as loss of the device storing the digital asset, potential for government interference, and competition from other cryptocurrencies. Also, cryptocurrencies are not common stocks of companies and do not trade on stock exchanges. Edward Jones does not offer a way to purchase or hold cryptocurrencies, or future contracts on cryptocurrencies. It's also important to note that money launderers and other criminal organizations often use cryptocurrency to launder illicit funds. Finally, each cryptocurrency is unique and claims to offer some sort of service or utility to the market. However, not all, if any, will be useful or valuable in the future. Unlike an investment in a stock or mutual fund, there are no underlying fundamentals (cash flows, profits, tangible assets, etc.) to support the valuation.

Be Aware of Companies Taking Advantage

Advisors should also be aware that several small publicly traded companies have recently rebranded their businesses to take advantage of the growing interest in cryptocurrency, even though their actual underlying business strategies have little or nothing to do with blockchain technology or cryptocurrencies.

SEC's position on cryptocurrencies

SEC Chairman Jay Clayton recently issued a statement on cryptocurrencies. Clayton warned that 1) there is substantially less investor protection in cryptocurrency markets, 2) cryptocurrencies are not securities and are beyond the SEC's jurisdiction, 3) no "initial coin offerings" (companies raising money by selling cryptocurrencies) have been registered with the SEC, and 4) no ETFs holding cryptocurrencies have been registered with the SEC.

What is Edward Jones' guidance?
While we believe blockchain technology has significant promise, we view any investments in cryptocurrencies as highly speculative. We recommend following time-tested investment principles and avoid letting the "fear of missing out" impact your long-term investment strategy.

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