

# DIGITAL CURRENCY AND ITS RISK

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## **Abstract**

We are born to communicate, to join, to connect, to share, to associate and above all to acquisition the facts, figures and relevant information on which our entire inquisitiveness is inclined upon. Precise knowledge about the past and current data is the chief reservoir of what we call as awareness. Digital currency is a payment method which exists only in electronic form and is not tangible. It allows the borderless transfer of ownership as well as instantaneous transactions. It is also referred to as digital money or cyber cash. Digital currency currently has a limited user base and the regulatory framework as well as tax treatment. It is still evolving and cannot be passed by banks or clearing houses. Digital currencies are not accepted by the banks and thus companies cannot earn interest on it. The infrastructures required to support the broader use of it is still being developed.

## **Keywords**

Digital, Reservoir, Tangible, Electronic form, Digital money, Cyber cash, Tax treatment. Clearing house

## **Introduction: Digital currency and its risk**

Digital currency is a type of currency available only in digital form, not in physical form. It exhibits properties similar to physical currencies, but allows for instantaneous transactions and borderless transfer of ownership. Examples include virtual currencies and cryptocurrencies or even central bank issued “digital base money”. Like traditional money, these currencies may be used to buy physical goods and services, but also be restricted to certain communities such as for use inside an online game or social network. Digital currency is a broad medium of monetary exchange in which the value is both stored and transferred electronically.

In 1983, a research paper by David Chaum introduced the idea of digital cash. In 1997, Coca-Cola offered buying from vending machines using mobile payments. Digital currency has only a limited user base and the regulatory framework as well as tax treatments of digital currencies is still evolving. The infrastructure needed to support digital currency is still being determined and developed. As payments are made directly between payers and payees, digital currencies can eliminate intermediaries, process steps and costs related to infrastructure unlike traditional payment methods which cannot bypass banks or clearing houses. It can also help in making the funds flow more simply and transparently. There are also risks associated with digital currencies such as security, currency, volatility and payment beneficiary identification. Virtual currencies and crypto currencies are both types of digital currencies. Digital currencies can include a multitude of common products, gift cards, product rebate cards, airline reward points, credit card cash-back rewards. Virtual currencies are centralized, internet based currencies, which are used as a medium of exchange in the framework of a virtual world. Similarly, crypto currencies are a form of digital currency but differ in that they are not denominated in an official currency and are not controlled by a centralized authority. Some areas of uncertainty like compliance with regulations and customer identification along with risk, limit the acceptance of digital currencies in the payment industry.

## **Research methodology**

The research methodology is mainly based upon the understanding of the growing use of digital currency and the risks associated with it. Digital currency is a payment method which exists only in electronic form and is not tangible. Digital currency can be transferred between entities or users with the help of technology like computers, smartphones and the internet. Although it is similar to physical currencies, digital money allows borderless transfer of ownership as well as instantaneous transactions. Digital currencies can be used to purchase goods and services but can also be restricted to certain online communities such as a gaming or social networks. Digital currency is also known as digital money and cyber cash. Digital currency currently has only a limited user base and the regulatory framework as well as tax treatments of digital currencies is still evolving. The infrastructure needed to support digital currency is still being determined and developed. Cryptocurrencies and virtual currencies are categories of digital currencies. As payments are made directly between payers and payees, digital currencies can eliminate intermediaries, process steps and costs related to infrastructure unlike traditional payment methods which cannot bypass banks or clearing houses. It can also help in making the funds flow more simply and transparently.

There are many benefits associated with digital currencies, such as the ability to easily make payments on time and lower transaction costs. At present, digital currencies are not accepted by banks, and as a result, interest cannot be earned on them by individuals or organizations. There are also risks associated with digital currencies such as security, currency volatility and payment beneficiary identification. It can rise up by 25 percent or crash down to zero at any moment while being traded in the market. The data used for the study of bitcoin is mainly secondary data. The data is mainly obtained from "The Economy Forecast Agency" which can be used to understand the volatility of bitcoin in the market.

#### Advantages of investing in Bitcoin

- ✧ **Protection from payment fraud:** Bitcoins are digital and cannot be counterfeited or reversed arbitrarily by the sender, as with credit card charge-backs.
- ✧ **Reduced possibility of identity theft:** When we give the credit card to a merchant, we give him/her access to our full credit line, even if the transaction is for a small amount. Credit cards operate on a "pull" basis, where the store initiates the payment and pulls the designated amount from our account. Bitcoin use a "push" mechanism that allows the bitcoin holder to send exactly what he or she wants to the merchant or recipient with no further information. Furthermore, bitcoins do not require names- just digital wallets.
- ✧ **Direct transfers for immediate settlement:** Purchasing real property typically involves a number of third parties, delays and payment of fees. Bitcoin contracts can be designed and enforced to eliminate or add third party approvals, reference external facts, or be completed at a future date or time for a fraction of the expense and time required to complete traditional asset transfers.
- ✧ **Access to historically inaccessible markets:** There are approximately 2.2 billion individuals with access to the internet or mobile phones who don't currently have access to traditional exchange systems. These individuals are primed for the bitcoin market.
- ✧ **Lower fees:** There aren't transaction fees for bitcoin exchanges because the bitcoin miner is compensated by the network with newly issued bitcoins. Even though there's no bitcoin transaction fee, many observers expect that most users will engage a third-party service, such as Coinbase, in lieu of creating and maintaining their own bitcoin wallets.

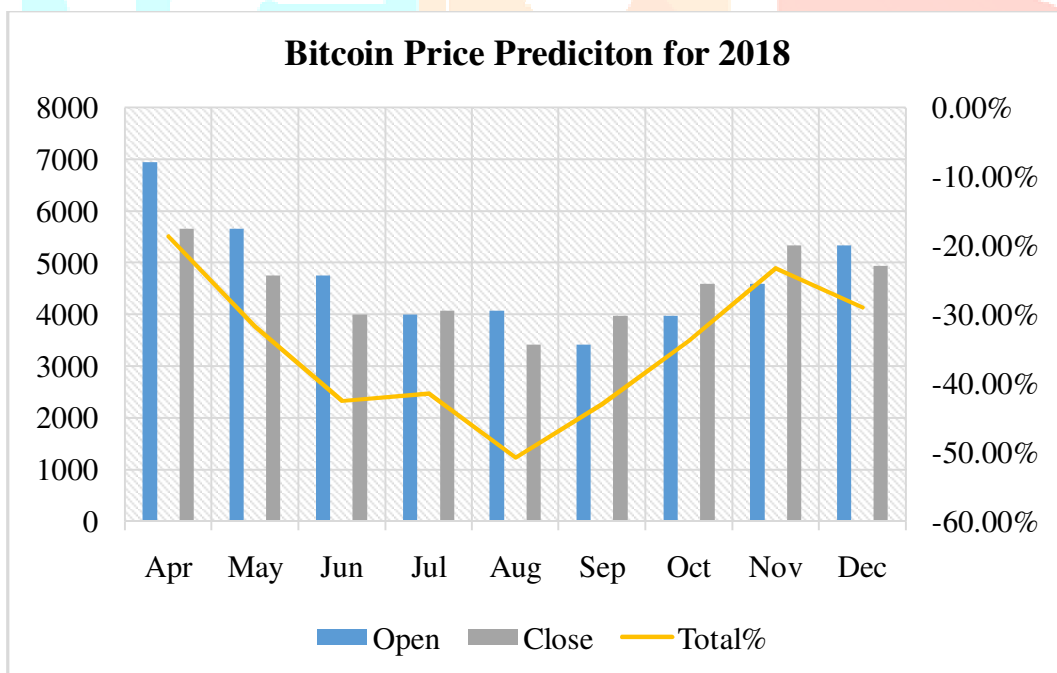
#### Disadvantages of investing in Bitcoin

- ✧ **Financing illegal and immoral activities:** Some believe that appeal of a bitcoin is that it can be used anonymously for illegal or antisocial acts. On October 2013, the FBI closed the notorious website Silk Road, seizing more than 144,000 BTC worth \$28 million. Digital currencies like bitcoin are being used to assist a broad array of criminal activities including illegal drug sales, stolen identities, and illegal weapon sale. It is also being used as a favorite of cyber criminals to pay for services such as developing and distributing malicious software to the movement of stolen funds resulting from account takeovers.
- ✧ **Lack of security:** There is no safety net or perfect way to protect the bitcoins from human error, technical glitches, or fiduciary fraud. According to an article in the UK edition of Wired, 18 of 40 web-based offering to exchange bitcoins into fiat currencies have gone out of business, with only six exchanges reimbursing their customers.
- ✧ **Limited scaling:** The design of the system limits the speed and number of transactions processed, making it unlikely that bitcoins will replace conventional credit card transactions.
- ✧ **Increased regulation:** While relatively "Benign" guidelines are currently in place, law enforcement agencies could decide that bitcoins are a "giant money laundering scheme", and enact more stringent regulations that would diminish the currency's value.
- ✧ **Excessive volatility:** According to an analysis published in "The Wall Street Journal" by Campbell Harvey, a finance professor at Duke University, bitcoins have been 7.5 times as volatile as gold, and more than eight times as volatile as the S&P 500 over the last three years.

**Tabular and graphical representation for the study**

**Bitcoin price prediction for 2018**

Month	Open	Min-Max	Close	Total%
Apr	6945	5253-7533	5648	-18.70%
May	5648	4412-6252	4744	-31.70%
Jun	4744	3706-4744	3985	-42.60%
Jul	3985	3780-4348	4064	-41.50%
Aug	4064	3175-4064	3414	-50.80%
Sep	3414	3414-4237	3960	-43.00%
Oct	3960	3960-4916	4594	-33.90%
Nov	4594	4594-5702	5329	-23.30%
Dec	5329	4587-5329	4932	-29.00%



**Interpretation**

In the beginning of April 2018, the bitcoin was priced at \$6945 and at the end of the December 2018, it will close at a price of \$4932. Here, a huge fluctuation can be seen in the bitcoin market. The prices for bitcoins are falling drastically.

**Findings**

It is the first decentralized digital currency, as the system works without a central bank or single administrator. Bitcoin is not exactly anonymous, it's rather pseudo-anonymous. There's no physical identity associated with any of the addresses on the Bitcoin system. It doesn't have a physical tangible form which is why it's called digital. Bitcoins are created as a reward for a process known

as mining. They can be exchanged for other currencies, products, and services. As of February 2015, over 100,000 merchants and vendors accepted bitcoin as payment. Research produced by the University of Cambridge estimates that in 2017, there were 2.9 to 5.8 million unique users using a cryptocurrency wallet, most of them using bitcoin. However, all transactions from any address can be tracked as its all public and transparent.

Some of my findings are listed below:

- ✳ Bitcoin is a decentralized operation and investors from all over the world have easy access to them.
- ✳ Bitcoin removes delays, payment of fees and a host of other third party approval.
- ✳ The costs associated with the transferring of bitcoin is nil or negligible.
- ✳ There is no need to share an individual identity or the details of the transactions made between an individual and the beneficiary.
- ✳ Nobody can steal an individual personal information from merchants, which ensures the privacy of individual's sensitive data.
- ✳ There is no involvement of the third party which makes the payment faster.
- ✳ Cryptocurrencies are relatively new and come with a learning curve. People end up investing without proper knowledge and lose money to something they did not learn about.

### **Conclusion**

The word bitcoin first occurred and was defined in the white paper that was published on 31 October 2008. It is a compound of the words bit and coin. It is the first decentralized digital currency, as the system works without a central bank or single administrator. The network is peer-to-peer and transactions take place between users directly, without an intermediary. As of now, bitcoin has no significant reception which is a major drawback but slowly and steadily it is consolidating its position. Both developed as well as developing countries are legalizing and regulating the use of bitcoin in some way or another. It is very large and only growing at an outstanding rate. Singapore and Switzerland are the most advanced countries in the use of cryptocurrency as of now.

- ✳ It is volatile than other bonds.
- ✳ It can raise up to 25% or crash anytime.
- ✳ People are not aware of how to use cryptocurrency and hence open themselves to hacker.
- ✳ It has no predictability.
- ✳ Several countries do not approve bitcoin.
- ✳ Very few countries have legalized the use of cryptocurrencies. It makes it impractical for everyday use.
- ✳ If an individual mistakenly pays someone by using cryptocurrency, then there is no way to get refund of the amount paid.
- ✳ There is a limit to the speed and number of transactions it can process at a time which has hindered the widespread adoption of digital currencies.

### **References**

#### **Articles:**

- ✳ <http://bitcoin.org/en/faq>
- ✳ <http://howtobuybitcoins.info>
- ✳ <https://en.bitcoin.it/wiki/Address>
- ✳ <https://bitcointalk.org/index.php?topic=17240.0>
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- ✳ [https://en.wikipedia.org/wiki/Digital\\_currency](https://en.wikipedia.org/wiki/Digital_currency)

#### **Books:**

- ✳ "Crypto assets" by Chris Burniske and Jack Tatar
- ✳ "The Book of Satoshi" by Phil Champagne
- ✳ "Cryptocurrency" by Abraham K. White
- ✳ "Mastering Bitcoin" by Andreas M. Antopoulos