

# Can bitcoin be applied as an exchange medium?



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-So, can the bitcoin be applied  
as a means of exchange?

# 1 Definition of Exchange Means



- A medium of exchange is an intermediary instrument or system used to facilitate the sale, purchase or trade of goods between parties.
- For a system to function as a medium of exchange, it must represent a standard of value.
- Further, all parties must accept that standard. In modern economies, the medium of exchange is currency.

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# 1 Definition of Exchange Means



## Money :

“

Any item or verifiable record that is generally accepted as payment for goods and services and repayment of debts, such as taxes, in a particular country or socio-economic context.

”

### Main function

1 Medium of exchange

2 Unit of account

3 Store of value

4 Standard of deferred payment

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## 2 Definition of Bitcoin



### Bitcoin :

“

Bitcoin(฿) is a cryptocurrency, a form of electronic cash.

It is a decentralized digital currency without a central bank or single administrator that can be sent from user to user on the peer-to-peer bitcoin network without the need for intermediaries.

”

- The domain name "bitcoin.org" was registered on 19 August 2008.
- On 31 October 2008, a link to a paper authored by Satoshi Nakamoto titled Bitcoin.
- A Peer-to-Peer Electronic Cash System was posted to a cryptography mailing list.
- Nakamoto implemented the bitcoin software as open-source code and released it in January 2009.

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# 3 Perceptions of Bitcoin

## Benefit of Bitcoin

- Low transaction costs
- Peer-to-peer
- Government-free design
- Possibility to purchase special goods  
(e.g. illegal drugs)



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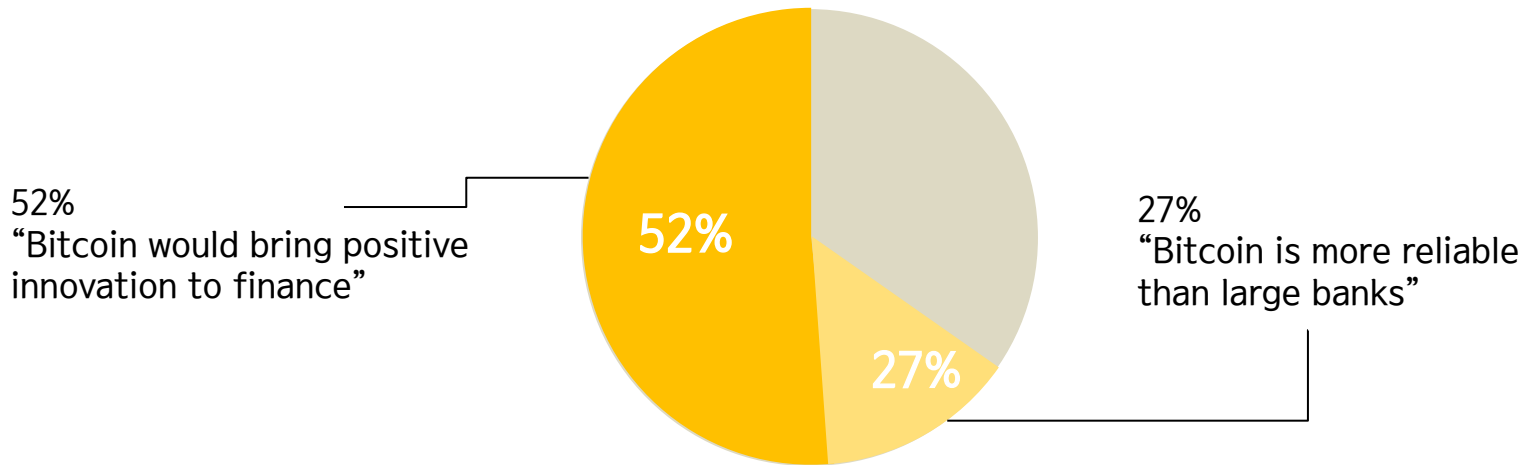
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# 3 Perceptions of Bitcoin

## Positive public opinion about Bitcoin

(A survey of 2000 American adults aged 18 to 34 years, conducted by Blockchain Capital, an American venture company, in October 2017)



"The cryptocurrency currency bitcoin can not be the actual means of trading."

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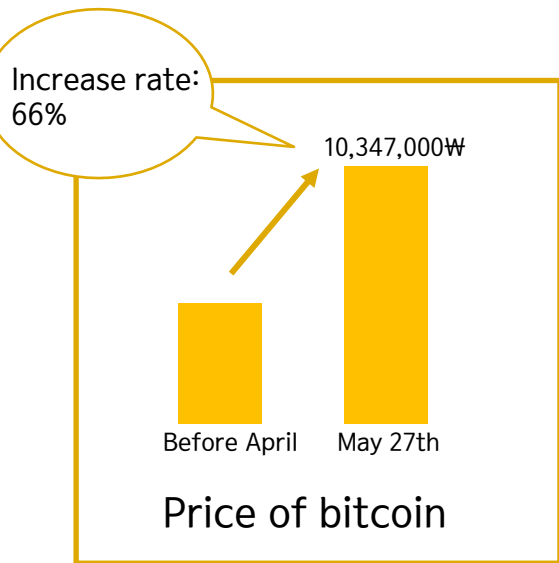
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# 3 Perceptions of Bitcoin



Bakkt,

in July it will begin to be able to use bitcoin and provide cryptocurrency trust trading services

U.S. Securities and Exchange Commission (SEC) could approve the launch of the bitcoin-listed Index Fund (ETF)

Bakkt has partnered with Microsoft, Starbucks, and Boston Consulting. They have focused on the actual use of bitcoin as a trading tool.

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# Perception 1 Money as a Means of Storing Value

- Among the requirements for the formation of money is the means of storing value.

To save the value of money,

It must ensure that this can exercise the purchasing power in the future.

The purchasing power of money itself should not change.



## Blockchain

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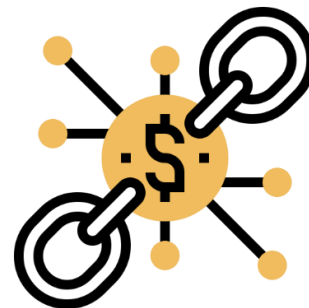
# Perception 1 Money as a Means of Storing Value

- Can Bitcoin fully preserve its current purchasing power in the future?

→ **Blockchain** : A system of bitcoin that maintains the purchasing power of money

- A system that allows all users to manage transaction books together.
- All subscribed users collect transaction details every 10 minutes and add them to the end of existing books.
- If someone's book is damaged, duplicate the book of someone who is not damaged and make up for it.
- It only accept transactions approved by a majority to prevent someone from tampering with the book at will.

- In addition, since the central bank does not exist in the bitcoin, it is impossible for a specific individual or group to issue a large amount of money arbitrarily.



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# Perception 1 Money as a Means of Storing Value

Is there a risk that a bitcoin is hacked and copied or manipulated?

- The bitcoin hack that can be seen in the news is a password wallet hack. Instead of attacking the block-chain network, the hacker seizes the "private key" of the wallet that holds the cryptogram.

## Types of encryption wallets

**Hot wallet** : Networked wallet

**Cold wallet** : Wallets that are offline

After you create your transaction history and perform the private key authentication process offline, and use Cold Wallet, which generates offline transaction history, you can safely store the bitcoin because the hacker does not have to be hijacked the private key.

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## Perception 2 Measure of Value Measurement



- The value of bitcoin is not stable enough to be used as a **measure of value measurement**.
- Its value depends only on the psychology of the market participants.

### Example of volatility

The Cyprus government, which received bailouts in March 2013, announced that it would compulsorily collect up to 40% of all banks' high-account accounts, regardless of whether they were citizens or foreigners.

Bitcoin prices soared from \$ 30 to \$ 250, but plummeted to \$ 100 in early April.

In December 2013, when the Chinese government banned transactions through financial institutions bitcoins, followed by China's largest search engine company Baidu, which stopped paying for bit coins, the price of 1 BTC dropped from \$ 1200 to \$ 600 in three days

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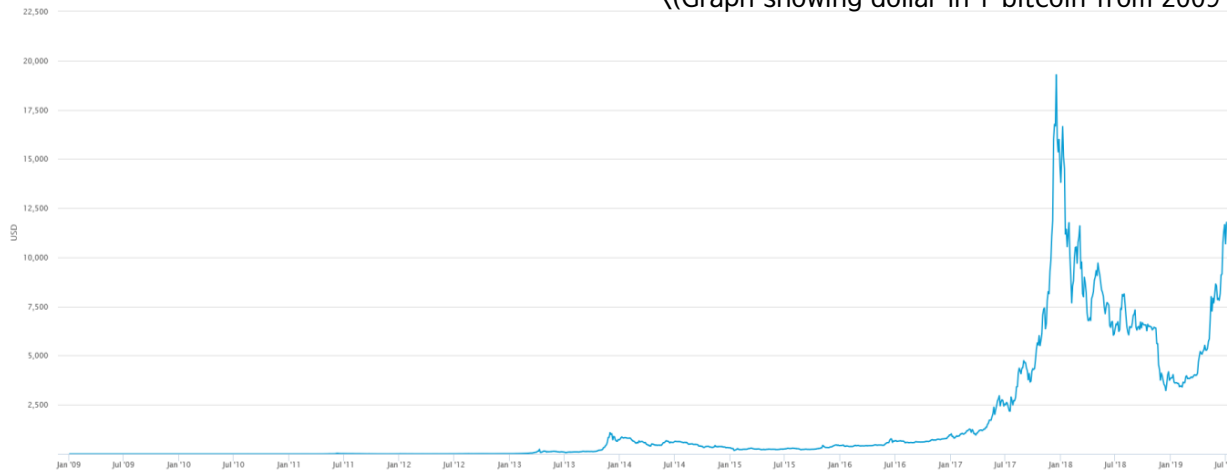
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## Perception 2 Measure of Value Measurement

《Graph showing dollar in 1-bitcoin from 2009 to present 》



Because of this bitcoin volatility, the graph is not stable.

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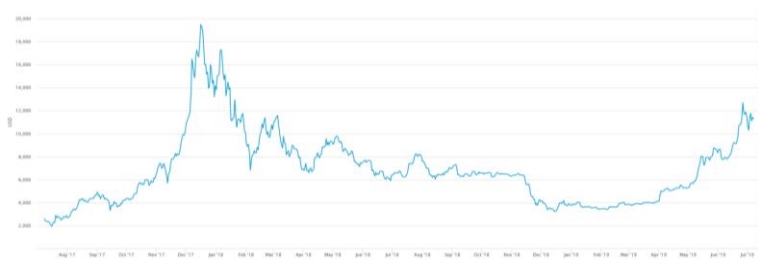
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## Perception 2 Measure of Value Measurement

- Bitcoin is not stable because there is no central authority to control value.
- Since there is no central authority, there is no way to stabilize it even if the volatility increases.



⟨Prices in USD per bitcoin of the last 2 years⟩



⟨Price in Euro per 1USD of the last 2 years⟩

- The price of 1 USD remained between 0.8 euro and 0.9 euro, but the price of 1 bitcoin fluctuates from \$ 2,000 to \$ 20,000.

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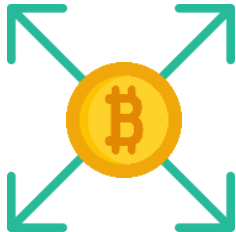
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## Expandability of Bitcoin



### Expandability:

Ability to accept changes that occur over time

If the expandability of bitcoin increases,  
it will function as money in the future.

#### Example of Expandability

Bakkt has partnered with microsoft, Starbucks, and boston consulting. They have focused on the actual use of Bitcoin as a trading tool. To buy starbucks coffee by paying with bitcoin on the platform of Bakkt. They've come up with a good example of blockchain payment.

#### Recent Expandability Problem

A typical expandability problem is a **slow transaction rate per hour.**

Users want to increase the place where can use of bitcoin. For this, transaction processing speed should be faster. Investors want the value of their bitcoin to rise, but because of slow transaction rate, the value of the bitcoin is unlikely to rise. Service providers, or businesses that use bitcoin, want higher transaction rate so that customers can use bitcoin-related services without inconvenience.

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## Conclusion

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- So, can the bitcoin be applied as a means of exchange?

Bitcoin has the advantage of functioning as a means of value storage among the functions of money, but it is not yet used as a means of exchange (currency) because of its **volatility**.

However, due to its **unique extensibility**, it is likely to be used as a means of exchange in the future.



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**Thank you**

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**Q&A**