Forum: General Assembly 2

Issue: Measures to regulate cryptocurrencies

Student Officer: Ivy Kang

Position: Chair of General Assembly 2

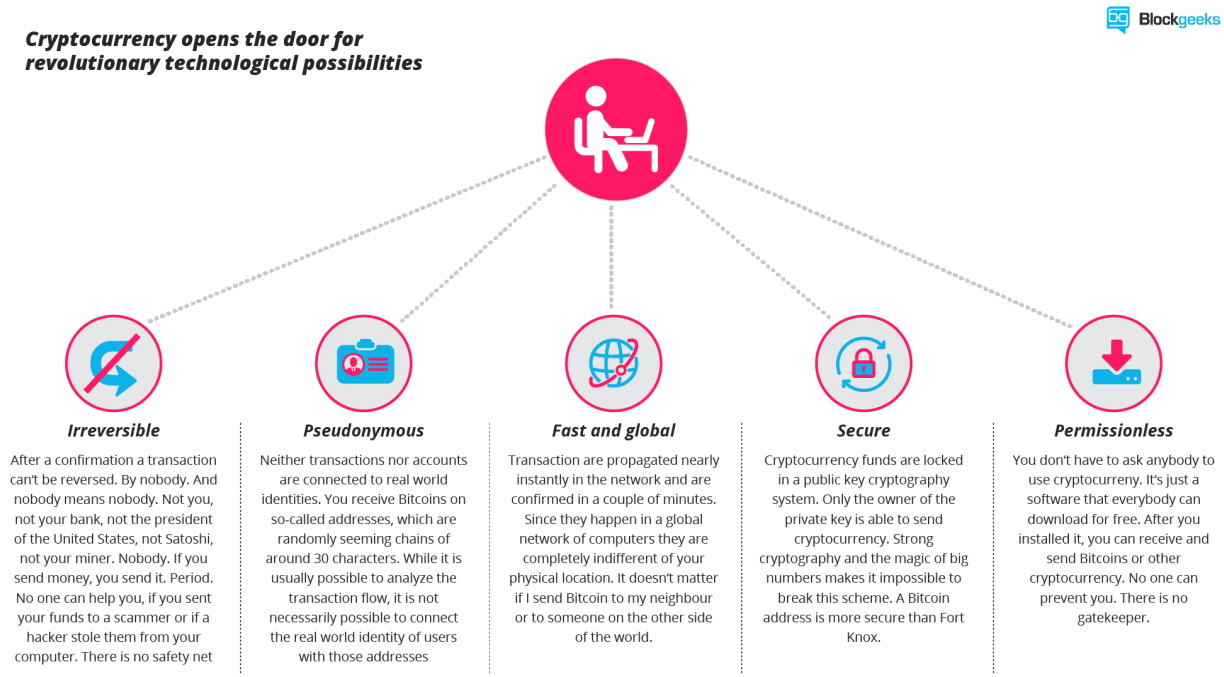


Diagram showing the key aspects of a cryptocurrency

Introduction

The first real cryptocurrencies first began in late 2008, with the creation of Bitcoin by Satoshi Nakamoto. It was a side invention of his "Peer-to-peer Electronic Cash System". He did this to circumvent the problems encountered by digital cash makers in the 90's and the failures of the Trusted Third Party based system, a system in which a "trusted" centralized party oversees the transactions of currency. From there on, numerous other electronic currencies, such as Ethereum, were developed, and Bitcoin increased its value from worth next to nothing to around $7500 today.

Cryptocurrencies are triggering the modern day gold rush, but are extremely volatile. Currencies often gain up to 10%—sometimes even 100%—just to lose that same amount the next day. This lack of

stability makes it impossible for cryptocurrencies to move into everyday usage. Transactions are anonymous and irreversible, making it extremely easy for scammers and hackers obtain funds and get away with it as there is no safety net. This also means governments have no control over transactions, which causes a massive number of issues such as volatility and insecurity (explored in further depth later in the report).

Definition of Key Terms

Cryptocurrency

a digital currency which operates independently of a central bank.

Bitcoin

The first and largest cryptocurrency, whose basic blockchain (see later definitions) and peer to peer (see later definition) electronic transfer system is still the system used for transactions by most cryptocurrencies today.

Blockchain

A decentralized complete record of all transactions made by cryptocurrencies.

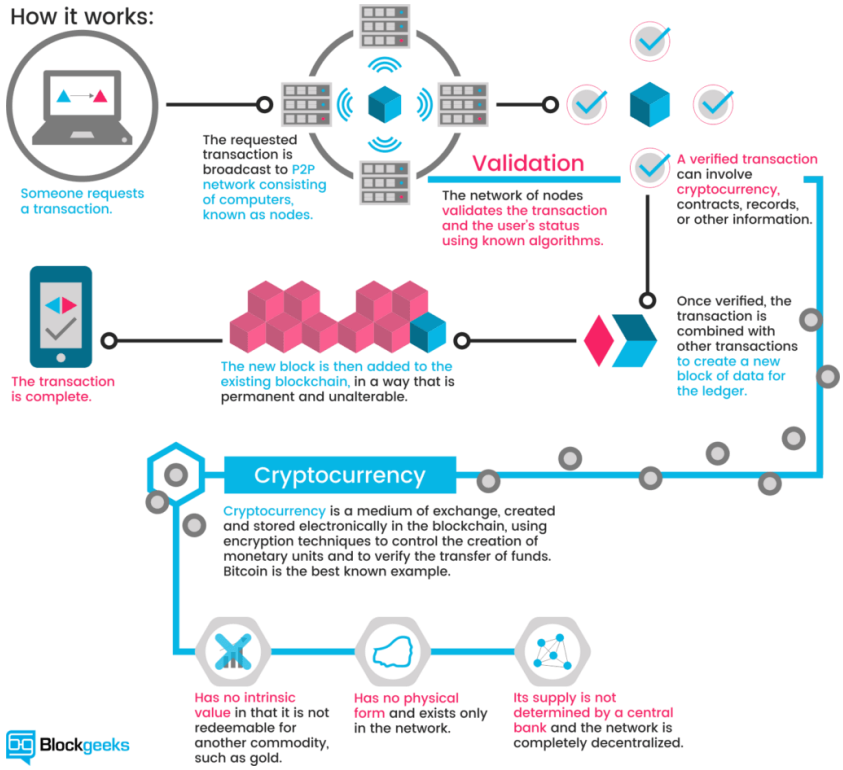


Diagram demonstrating how a blockchain works

Peer to peer electronic cash system

A digital currency system in which there is no centralized third party to store and process accounts, balances, and transaction. Instead, all of these processes are done by a network of "peers", which means that every computer on the system keeps a record of transactions and compares its record to other records, to make sure that every transaction is the same and no double spending or other problems have occurred, before adding it to the blockchain.

Miners

Miners are a major part of the cryptocurrency process. They are an essential part of the peer to peer transaction system as they confirm transactions, and are sometimes rewarded by blocks of currency, which they add to the block chain.

Double Spending

As the name suggests, double spending is the act of spending the same amount of money multiple times, like photocopying a $100 bill, and spending it twice. The is one of the largest problems that miners help to solve.

General Overview

Problems raised

Cryptocurrencies Are Insecure

Outside of cryptocurrencies, most financial transactions are reversible and traceable. This means that there is a governing body to process any transactions, and prevent fraud and scam. Cryptocurrencies, do not have such a system, which makes customers prone to fraud. For example, if you purchase a product in an online shop, but the vendor never sends you the product, you can contact your credit card provider, explain the situation, and after a brief investigation your money can be returned. People feel safe using credit cards as they are protected and overseen by a governing body, which cryptocurrencies do not have. If you are a victim of fraud or scam, there is little to no chance of compensation. Nearly 25,000 customers of Mt Gox, which was once the world's largest Bitcoin exchange, are still waiting for compensation after its collapse into bankruptcy three years ago. Mt Gox is estimated to have lost 400 million dollars. This problem is made worse as exchanges do not provide compensation for illegally stolen currencies. Hackers can steal Bitcoin without repercussions, which has prompted at least 3 dozen major discovered

heists of cryptocurrencies since 2011. This has caused the loss of 980,000 Bitcoins, or around 4 billion dollars. Over the last 15 months alone, Bitfinex has lost 72 million dollars' worth of Bitcoin to hackers. Those who are affected by this have little chance of recovering their losses.

Black Market Transactions

Due to the lack of a third party to oversee the transactions, cryptocurrencies are often the preferred method of payment for criminals and in the black market. In the July of this year US authorities shut down the website BTC-e exchange, which was one of the world largest, and ordered it to pay a $110 million dollar fine. The US Treasury Department said that it "facilitated transactions involving ransomware, computer hacking, identity theft, tax refund fraud schemes, public corruption, and drug trafficking." This is caused by the "Mickey Mouse" effect. Anyone can open accounts for cryptocurrency transaction with just a name and an email address. The name provided isn't even required to be the legitimate name of the user, which has caused the many people to give fake names, and this can be used to fly under the radar of law enforcement. This is backed by the testimony of a former US federal prosecutor who testified before Congress "large drug kingpins and serial fraudsters" were increasingly using unregulated foreign exchanges that didn't verify their customers. Due its anonymity, cryptocurrencies are the preferred method of transfer for the dark web. In October 2013, FBI shut down the dark web site Silkroad, which used BitCoin to initiate illegal transactions. They went undiscovered for years, and many other websites still use BitCoin to remain undetected.

Cryptocurrencies Are Volatile

Between January 2013 and November 2013, the price of Bitcoin rose by 8,313%, then collapsed to half of its value. These so called "flash crashes" are a risk unique to cryptocurrencies: unlike stock exchanges, cryptocurrencies aren't required to have circuit breakers to halt trading during wild price swings. Additionally, digital cash exchanges are frequently under attack from hackers, which has a side result of creating down times that could greatly affect traders at the most critical moments. On May 7, traders on a U.S. exchange called Kraken lost more than $5 million when it came under attack and couldn't be accessed. During the incident, the exchange's price of a cryptocurrency called ether fell more than 70% and the traders' leveraged positions were liquidated.

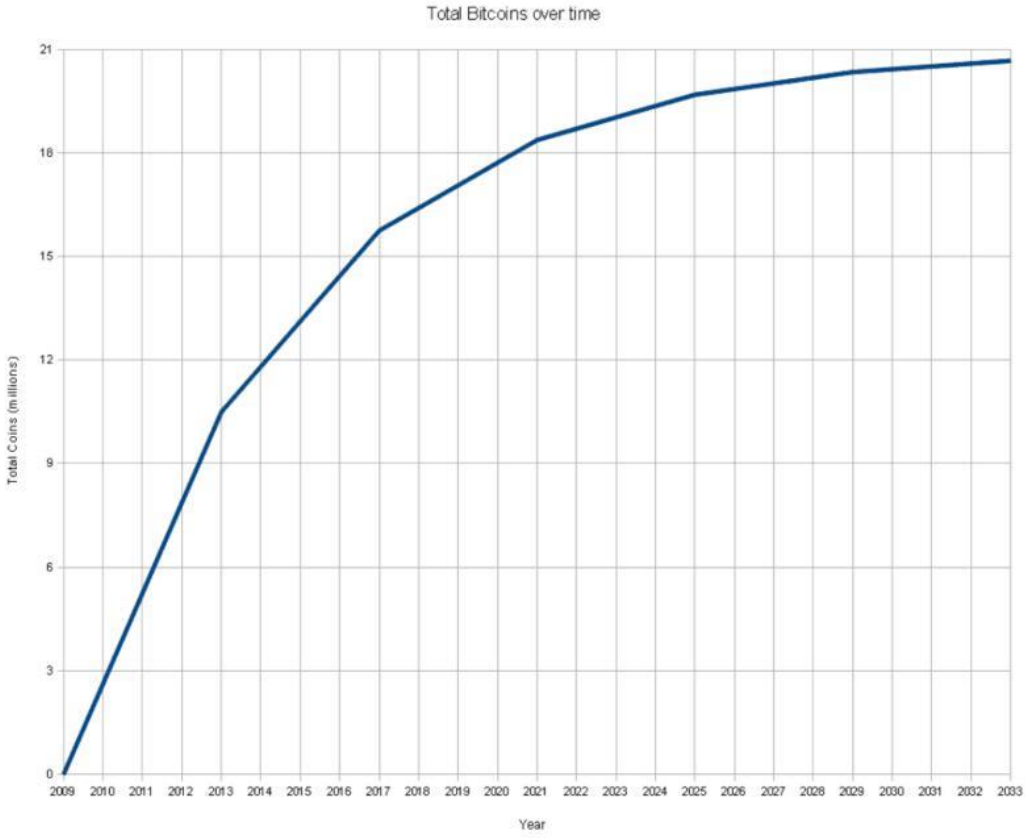
These types of price fluctuations make it incredibly difficult for businesses and consumers to make their financial decisions. Because of this volatility, cryptocurrencies are highly used by speculators (people who invest in a particular thing and hold on to it until it rises) and not often

used for long term savings and everyday transactions. This increases the volatility of the currency and prevents it from achieving its true goal: becoming a currency that can be used in everyday life. Another problem posed by this volatility is that many banks have refused to deal with this new currency, or are cautious of them. At a bank investor conference in New York, Jamie Dimon, CEO of JPMorgan Chase, called Bitcoin "a fraud" and predicted it will "blow up". Boycotts by banks can make it impossible for exchanges to make transfers that allow customers to buy or sell cryptocurrencies with traditional currencies, such as RMB or US dollars. In March, Wells Fargo stopped processing wire transfers for an exchange called Bitfinex, leaving customers unable to transfer U.S. dollars out of their accounts, except through special arrangement with the exchange's lawyer.

Money Is Created at A Depreciating Rate

Changing the rate at which currency is created is a common way for governments to regulate the economy. In times of economic hardship, more money is printed. Although this causes inflation, this allows more currency to flow into the economy. The rate at which money is printed is closely controlled by the government to best stimulate the economy.

Most cryptocurrencies do not follow this system. Money is instead created at a quickly depreciating rate. In the case of Bitcoin, by 2025 there will be no new coins on the market. Once every coin has been released, the currency could experience hyper-inflation. Some companies are working to create cryptocurrency reserves. The coins will be held when the currency is rising in price, and made available when the currency is dropping in price. This could help to stimulate the Bitcoin economy, and even out the ebbs and flows of the currency. Unfortunately, these reserves are incredibly expensive. Unlike the government, there is no non-profit organization that is willing to accept that kind of financial outlay.



Graph showing the amount of bitcoin in the world over time, and showing that less Bitcoins are being generated

International actions

United Kingdom

In 2015, the UK sought to stabilize and regulate cryptocurrencies. It was the UK's first attempt to grapple with the regulatory and consumer safety issues surrounding digital currencies. The government issued a report recognizing the potential of cryptocurrencies as a method of payment, and said that "the government considers that digital currencies represent an interesting development in payments technology ... the potential advantages are clearest for purposes such as micro-payments and cross-border transactions." The report also noted that lack of regulation was harmful to the cryptocurrency industry, and was the main reason that banks didn't want to deal with such currencies, and denied service to digital currency businesses. The report concluded with the development of what they called a "regulatory sandbox", where entrepreneurs can test new ideas in a lightly regulated atmosphere. Regulations such as the application of anti-money laundering regulation to digital currency exchanges in the UK, to support innovation and prevent criminal use. The government also supported the development of a "pioneering" framework of standards for consumer protection. The government worked with the British Standards Institution

(BSI) and the digital currency private-sector to create a series of standards for consumer protection which addressed the risks of digital currency use, identified in the report as storage security, fraudulent or insolvent exchanges, and price volatility.

India

After the June cyberattack that crippled India's largest container port, Indian Finance Minister, Aran Jaitly, turned his attentions to the digital protection of India's population. Among the agenda was BitCoin, the virtual currency demanded by extortionists who had held ransom the Jawaharlal Nehru Port Trust, along with nuclear power stations and oil companies across Europe, America and Asia. Demands for ransoms in Bitcoin increased by 300% over last year's amount, with the biggest data breach reaching over 3.2 million debit cards. India expects a six-fold growth in digital transactions to 25 billion in the year to March 2018, up from 4 billion in 2015-16, according to the World Payments Report 2017. A chunk of this would come from online filings by 8 million tax payers every month under the goods and services tax and increased compliance on income tax. SISA information security, in tandem with the government are launching a security operations center to monitor cyberattacks on governments and private sector, said Nitin Bhatnagar, head of business development at SISA, which audits online payment systems. The June presentation made to the finance minister lists a number of concerns about virtual currencies. It explored banning trade in cryptocurrencies, regulating and taxing it or treating it as a digital asset similar to gold.

Timeline of Events

DATE	PRICE OF BITCOIN	WHAT HAPPENED
OCT 2008	N/A	Satoshi Nakamoto introduces Bitcoin
JAN 2009	N/A	The first transaction of Bitcoin currency, in block 170, takes place between Satoshi and Hal Finney
OCT 2009	$0.0007	New Liberty Standard opens a service to buy and sell Bitcoin, with an initial exchange rate of 1,309.03 BTC to one U.S. Dollar.

FEB 2010	$0.004	First real world transactions, the most notable transaction one of 10,000 BTC used to indirectly purchase two pizzas delivered by Papa John's.
JUL 2010	$0.08	From July 12 to 17, the value of Bitcoin increases ten times from US$0.008/BTC to US$0.080/BTC.
JUL 2011	$14.5	Bitcoin Forum member, allinvain, claims that 25,000 BTC were stolen from his wallet. At the time, this would have been worth around $375,000.
NOV 2011	$3.41	Market cap for Bitcoin exceeded 1 billion dollars
Nov 2013	$700	Virgin Galactic Announces they will accept Bitcoin for space travel trips.
May 2017	$1800	There are over 1000 currencies on the market.
Jun 2017	$2400	Market Cap Exceeds $100 Billion.

Possible solutions

Using a system that encourages spending

The current system that most cryptocurrencies employ a system that typically encourages keeping your cryptocurrency instead of spending it. This is because of the price fluctuations, which means that speculators are more likely to purchase the currency and keep it, which causes further price fluctuation. One possible system to prevent this from happening is introducing a system which enables people to gain a small amount of money, or the currency, every time they make a transaction, thus encouraging them to make more transactions. This could be paid for by a tax levied on those who keep their money without spending it. This way, those who spend more money will become comparatively more wealthy, and those who attempt to turn a profit through

the arbitrary nature of the currency itself will be pushed out. This would lead to the currency stabilizing, and attracting more business and customers.

Creation of a single centralized trading area

Many problems arise from the uncertainty about the legitimacy of the trading area, and scams involving fake trading areas. Creating such a platform would help to cut down on the black market run on crypto currencies, especially if pseudo-anonymity was banned on it. Trade on this singular platform would be monitored by the UN, or some central authority. This would decrease the instability of the currency, as fraudulent activities can be monitored, the aggressor held accountable, and the victim compensated. This can be done on this platform, as transactions can be made reversible, and a complaint office can be created as part of that central authority. Furthermore, a heavily protected centralized platform could have better defenses compared to the small scattered ones that exist today, and thus would be less prone to hacking. This will help to increase the legitimacy of such currencies and help to better their reputations.

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