

# **Finance Matters**

## **Lecture 6 (Part 2)**

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# Price Fluctuations

- ◆ In 2017, the price of Bitcoin rose from a little under \$1,000 at the beginning of the year to close to \$19,000, ending the year more than 1,400% higher.
- ◆ The price of the bitcoin is dependent on the size of its mining network since the larger the network is, the more difficult – and thus more costly – it is to produce new bitcoins.
- ◆ As a result, the price of a Bitcoin increases as its cost of production also rises. The Bitcoin mining network's aggregate power has more than tripled over the past twelve months.

# Bitcoins and Risk

- ◆ Investing money into Bitcoin is very risky
- ◆ Bitcoins are a rival to government currency and may be used for black market transactions, money laundering, illegal activities or tax evasion.

# Why People like Bitcoins

- ◆ Some people like the fact that Bitcoin is not controlled by the government or banks.
- ◆ People can also spend their Bitcoins fairly anonymously. Although all transactions are recorded, nobody would know which 'account number' was yours unless you told them.

# Advantages

- ◆ **Easy transfer** of funds directly between two parties in a transaction
- ◆ No need for a trusted third party such as a bank or credit card company
- ◆ **Controlled supply:** there is a limit in the supply of the tokens. In Bitcoin, the supply decreases in time and will reach its final number sometime around the year 2140. All cryptocurrencies control the supply of the token by a schedule written in the code (like virtual gold)

# Disadvantages

- ♦ Cryptocurrencies are virtual and do not have a central repository, a digital cryptocurrency balance can be wiped out by a computer crash if a backup copy of the holdings does not exist, or if somebody simply loses their private keys
- ♦ Anonymous is good ( privacy) and bad (money laundering and tax evasion)
- ♦ The cost of producing a bitcoin, which takes an increasingly large amount of energy, is directly related to its market price
- ♦ They are short lived and highly speculative

# Bitcoins and Fraud

- ◆ One especially notorious hacking incident took place in 2014, when Mt. Gox, a Bitcoin exchange in Japan, was forced to close down after millions of dollars worth of bitcoins were stolen.
- ◆ For instance, in July 2013, the SEC brought legal action against an operator of a Bitcoin-related Ponzi scheme.

# SWIFT

- ◆ The **Society for Worldwide Interbank Financial Telecommunication (SWIFT)**, legally **S.W.I.F.T. SCRL**, provides a network that enables financial institutions worldwide to send and receive information about financial transactions in a secure, standardized and reliable environment

# China

- ◆ In China, people are also prohibited from purchasing or selling cryptocurrencies, setting prices for cryptocurrencies, or providing other related agent services.
- ◆ Government authorities may shut down the websites and mobile applications of platforms that fail to comply, remove the applications from application stores, or even suspend the platform's business licenses

# A government cryptocurrency

- ◆ On July 6, 2018, the People's Bank of China indicated that Chinese authorities had identified 88 virtual currency trading platforms and 85 **ICO** platforms, which have “basically all safely withdrawn from the market.” In the wake of the regulatory measures the government has instituted since September 2017
- ◆ “Unlike Bitcoin or other digital money issued by the private sector, the **digital fiat currency** has the same legal status as the Chinese yuan, the only fiat currency issued by the People's Bank of China”

# Iran

- ◆ The main purpose of any Iranian digital asset will be to bypass the established banking and financial system in order to avoid economic sanctions
- ◆ In January 2019, the Central Bank of Iran unveiled plans for a more comprehensive cryptocurrency program
- ◆ A gold-backed token is being created called **Paymon**. Another blockchain infrastructure project called **Borna** is being developed in a private-public partnership and is funded directly by the Central Bank of Iran.

# El petro in Venezuela

- ◆ El petro is an oil-backed cryptocurrency designed at an October 2017 meeting at the Venezuelan central bank. A white paper and official announcement followed in December.
- ◆ El petro was described as a failure by many Western observers.

# Libra and Facebook

- ◆ Libra was pitched as being both closely tied to major fiat currencies such as the dollar and the euro, and an engine of mass financial inclusion for around 2bn people left behind by the banking system
- ◆ The goal of Libra — using blockchain, the technology underlying bitcoin on other cryptocurrencies — is to make it as easy to send money across the world as it is to send a photo. But unlike bitcoin and others, Libra will be backed by more stable government-backed money

- ◆ Last Friday, Visa, Mastercard, Stripe, eBay and Mercado Pago pulled their support from Libra
- ◆ The digital currency will not be run by Facebook, but rather by a non-profit association supported by a range of companies and organizations

# Other Digital Money

- ◆ There are now at least 2,248 different kinds of cryptocurrencies. Many of these are actively and enthusiastically exchanged and traded by a growing number of people

# The Periodic Table of Cryptocurrencies

An overview of the cryptocurrency market

Created by Daniel Frumkin for [www.investinblockchain.com](http://www.investinblockchain.com)

Bitcoin BTC '09																		Monero XMR '14					
NAME TICKER YEAR FOUNDED	<ul style="list-style-type: none"> <li>Payments/Currency</li> <li>Gaming, Media, &amp; Social</li> <li>FinTech</li> <li>Computing, Data Management &amp; Cloud Services</li> <li>Platforms</li> <li>Others</li> <li>Protocols, Exchanges &amp; Interoperability</li> <li>Privacy Coins</li> <li>Business &amp; Enterprise</li> </ul>																						
Litecoin LTC '11	Bitcoin Gold BTG '17																	Ethereum ETH '14	Cardano ADA '16	EOS EOS '17	NEO NEO '14	NavCoin NAV '14	Zcash ZEC '15
Bitcoin Cash BCH '17	Decred DCR '16																	Ethereum Classic ETC '16	Qtum QTUM '16	Zilliqa ZIL '15	NEM NEM '15	Enigma ENG '17	Bytecoin BCN '12
Nano NANO '14	Dogecoin DOGE '13	Binance Coin BNB '17	Kyber Network KNC '17	Ox ZRX '16	Aion AION '17	ICON ICX '17	Golem GNT '16	Augur REP '15	Aragon ANT '17	Power Ledger POWR '16	Storm STORM '17	Steem STEEM '16	Lisk LSK '16	Rchain RHOC '17	Nxt NXT '13	PIVX PIVX '15	Verge XVG '12						
Dash DASH '14	DigiByte DGB '13	Waves WAVES '16	Huobi Token HT '13	Bytom BTM '17	Hshare HSR '17	Wanchain WAN '17	SONM SNM '17	Siacoin SIA '17	DentaCoin DCN '17	Aeternity AE '17	Substratum SUB '17	Tron TRX '17	Basic Attention BAT '17	Elastos ELA '17	Skycoin SKY '13	Zcoin XZC '15	Bitcoin Diamond BCD '17						
Gas (NEO) GAS '14	MonaCoin MONA '13	BitShares BTS '13		Loopring LRC '17	Bancor BNT '16	Ark ARK '17	Byteball Bytes GBYTE '16	aelf ELF '17	MaidSafe Coin MAID '14	IOTA IOTA '15	Cortex CTXC '17	Loom Network LOOM '17	Nebulas NAS '17	Status SNT '17	ReddCoin RDD '14	ZenCash ZEN '17	Bitcoin Private BTCPP '17						
Electro num ETN '17	USD Tether USDT '15	KuCoin Shares KCS '13	Gifto GTO '17	Quamb-Stamp QSP '17	Mixin XIN '17	iEx.ec RLC '16	Storj STORJ '15	GXChain GXS '17	Holo HOT '17	Wayki-Chain WICC '17	Kin KIN '17	FunFair FUN '16	WAX WAX '17	Revain R '17	CloakCoin CLOAK '14	Komodo KMD '17							
		Ripple XRP '12	Stellar XLM '14	OmiseGo OMG '17	Populous PPT '15	Polymath POLY '17	Maker-DAO MKR '14	DigixDAO DGD '14	Request Network REQ '17	QASH QASH '17	Iconomi ICN '16	TenX PAY '15	Fusion FSN '17	Salt SALT '16	Ethos ETHOS '17	Monaco MCO '16							
		VeChain Thor VET '17	Walton-chain WTC '16	Stratis STRAT '17	Ontology ONT '17	ARDor ARDR '16	IOStoken IOST '17	Dragon-chain DRGN '17	Factom FCT '14	Centrality CENNZ '16	Ubiq UBQ '14	Emercoin EMC '14	Nuls NULS '17	Neblio NEBL '17	Syscoin SYS '14	---- ? Future							

LOGO	SYMBOL	NAME	MAX SUPPLY	TYPE	BASED ON	PECULIARITIES	DECENTRALIZED EXCHANGE	BLOCKCHAIN	PROOF TYPE
	BTC / XBT	BITCOIN	21,000,000	CURRENCY	N.A.	-First Blockchain technology, -longest chain	N.A.	YES	PoW
	LTC	LITECOIN	84,000,000	CURRENCY	N.A.	-Segwit activated	N.A.	YES	PoW
	XEM	NEM	8,999,999,999	CURRENCY	N.A.	-Great success in Asia - Catapult	N.A.	YES	PoI
	DASH	DASH	18,900,000	CURRENCY	N.A.	-Best marketing - anonymity governance	N.A.	YES	PoW / PoS
	DCR	DECRED	21,000,000	CURRENCY	N.A.	-governance similar to Dash but allowing users to decide	N.A.	YES	PoW / PoS
	XMR	MONERO	N.A.	CURRENCY	N.A.	-focused on anonymity	N.A.	YES	PoW
	ZEC	ZCASH	21,000,000	CURRENCY	N.A.	-anonymity	N.A.	YES	PoW
	IOC	I/O COIN	16,000,000	CURRENCY	N.A.	-focused on minimum energy consumption	N.A.	YES	PoW / PoS
	DGB	DIGIBYTE	21,000,000,000	CURRENCY	N.A.	-focused in fast transactions	N.A.	YES	PoW
	STEEM	STEEM	251,936,413	CURRENCY	N.A.	-social network with rewards	N.A.	YES	PoW
	ETH	ETHEREUM	N.A.	PLATFORM	N.A.	-Smart contracts - platform already widely used	YES	YES	PoW

# Suggestions for watching and reading

- ◆ <https://blockgeeks.com/guides/what-is-cryptocurrency/>

# The end

