Introduction to cryptocurrencies

This is the first trading lesson on cryptocurrencies which will be followed by many and gives you a basic knowledge about the cryptocurrencies and its market.

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Cryptocurrency industry evolution

A currency is usable if it is a reliable store of value. In ancient times, commodities or precious metals were used as a payment method but later on, governments started issuing paper money backed by gold. However, with time, countries left the gold standard and started issuing fiat currencies. Apart from being a reliable store of value, a successful currency should have the features of scarcity, divisibility, utility and transferability. Bitcoin has all these characteristics to be called a currency.

Bitcoin's foundation was laid out by Satoshi Nakamoto in October 2008 by issuing Bitcoin whitepaper and later he steered the 1st ever Bitcoin transaction in January 2009 to programmer Hal Finney. The main purpose of Bitcoin creation was to use it for peer-to-peer payments but the whole technology behind it is far more than that. It has not only revolutionized digital payments but also has the ability to provide innovative solutions in every field of life.

What is cryptocurrency?

A cryptocurrency like Bitcoin is a form of money developed digitally using cryptography and implemented using distributed ledgers operated worldwide with the collaboration of various people. These currencies are managed by decentralized protocols and cannot be managed at a centralized place. These digital currencies are considered to be the future of money.

Cryptocurrency design and economics

Understanding the economics of an industry and asset is necessary before we start their trading. Let's take a look at the economics of the cryptocurrencies to know how they are developed, managed, supplied and have various features that can affect our trading goals.

- **Development of Cryptocurrencies**

A method by which a coin is developed makes a big impact on its value and risk associated with it. Some cryptocurrency code and blockchains are developed from scratch like Bitcoin. Another common way is to take an existing code and launch your own coin by making some changes to it as Litecoin did by taking the code of Bitcoin. There is another

class that launches a new coin via a hard fork of any existing coin like Bitcoin Cash. Another popular method these days is the development of a new coin using the infrastructure of an existing cryptocurrency like ERC-20 tokens created on the Ethereum network. Obviously a coin created from scratch is considered to be more valuable than the one created through a hard fork or by making small changes to an existing code.

- **Governance**

Governance is an important part of managing, protecting and growing the network. Governance is required to define parameters for the network, making changes to the code or to protect the network in the state of crises like a hack. Governance varies coin to coin as sometimes it is more centralized and in other instances more decentralized. Sometimes they need voting to decide on some issue to move forward.

- **Consensus algorithm**

A consensus algorithm keeps the overall network aligned to some defined rules. It protects the blockchain from the nodes that do not follow the rules and it also ensures that transactions are recorded on the blockchain uniquely, recorded in an order they originated and many other rules like the holder will be able to spend as much he holds. One of the most important rules that consensus algorithms provide is the way to decide who will create the next block to distribute to others. There are mainly three methods to decide on this. One and most used method is the proof-of-work (POW) method where miners compete with each other and the one who solves a complex computational problem before others become the owner of the next node. While in the proof-of-stack (PoS) system, they randomly select the creator of the next block like a lottery ticket selection and in Delegated proof-of-stack (DPoS) people vote to select the next node operator.

- **Cryptocurrency Supply**

Supply of coin is one of the most important economic indicators for a coin. A coin with a limited supply usually has a higher value than the one with lower supply. Like Bitcoin has a limited supply of 21 million and its value is far higher than Ethereum that has an unlimited supply. Every coin has a different supply and different issue rate. Some coins are mined and others are pre-mined. Some coins supply is fixed during the launch of networks and

others supply kept flexible and adjustable as required. All these decisions not only affect the price of the coin but also the risk associated with it.

- **How Coins are valued**

At start during the launch when a coin is listed on an exchange it is given value usually controlled by the team launching it but later on, its value is determined and adjusted according to its supply and demand. A coin's value tends to increase that have low supply and higher demand and on the other hand if a coin's supply is high and demand is low then its price is expected to drop. Media, marketing, manipulators are also major stakeholders in determining the price of a coin. A coin with proof-of-work (POW) consensus algorithm tends to have a higher value than the one with proof-of-stake (PoS). There are several other coin characteristics and market variables that determine and vary the price of the coin over time.

- **Anonymity and Privacy**

Usually, coins transaction history is traceable for everyone unlike the banks that keep the transactions private. But some coins transactions can be more anonymous and transaction history might only be accessible by some keys. On the other hand transactions, traceability can be even improved by assigning the keys to them. It all depends upon the initial design of the coin which is also adjustable later on.

- **Acceptability**

Acceptability of cryptocurrency requires someone who is ready to accept it as a payment against some goods or services. Some websites or games launch their coin that initially used to fund customers' accounts and later might be used for some other reasons as well. Every coin looks to solve a problem and its acceptability is more popular inside the ecosystem where that problem exists. Acceptability of coins is also one of the major variables in the price growth of a coin.