Lecture 5: The Economics of Bitcoin

Hello and welcome to your fifth lecture, The Economics of Bitcoin?

In this lecture you will learn:

- What gives Bitcoin value?
- What is supply and emission and why does it matter?
- What is market capitalization and liquidity?
- What are some important statistics about Bitcoin?

Some of the numbers in this lecture may be out of date, but economic principles are timeless. The numbers are as of July 2017.

So why does Bitcoin have value?

Value is derived from the trust that someone else also values it.

In other words, if you use BTC as payment, there is an inherent trust that someone else will also accept BTC

There is a shared acceptance of Bitcoin's value.

There is also intrinsic rarity and a fixed supply. If there were infinite Bitcoin, nobody would value it since there would always be someone who is willing to sell it cheaper.

This concept may seem strange at first, but you actually experience it every day!

Recall that fiat is government issued currency. Fiat has a trust in the governing body that issues the currency and trusts that others will also accept that the currency has value. We have seen fiat currencies lose value in unstable governments.

Cryptocurrencies have no trusted issuing party, but also has the trust that others will also accept that the currency has value.

The existing economic system runs on fiat currency, but fiat has the same intrinsic value that Bitcoin does.

You can't eat dollars or Bitcoin, but both can be exchanged for food.

Ok, so if something is agreed to have a value, what would be a fair price?

This is where economics steps in.

It is all about supply and demand.

The price of Bitcoin is dependent on how much people want to buy and how much people want to sell.

On the right you can see a graph of the supply of Bitcoin over time. If you had a similar graph for demand over time, you could predict the price. Unfortunately, predicting demand is nearly impossible.

The supply of Bitcoin increases over time until a maximum of 21 million coins. Gold operates similarly in that there is a maximum fixed supply not determined by anyone.

Bitcoin also has an emission rate and market cap.

A certain predefined number of Bitcoin get created in each block to reward miners.

Currently, the reward is 12.5 BTC.

The reward halves every 4 years in an event known as "The Halvening"

There is a cap of 21 million on the number of Bitcoin that can ever exist

Market capitalization can be calculated using the price of a coin and the supply of a coin.

Market cap is equal to the price times current supply.

This gives a quick estimated "valuation" of a coin. This is also useful for estimating what the current demand for a coin is.

You may start to notice that many of these concepts can be applied generically. We are generating a framework to better understand the crypto market as a whole.

These same concepts can be applied to fiat as well. Fiat also has a supply.

"Narrow Money" is what is usually referred to as being the supply of money.

We have a graph here from the Trading Economics website showing the supply of USD over time.

The supply of USD is determined by the federal reserve who is trying to ensure economic stability.

As of July 2017, the supply of dollars was roughly 38 trillion.

The purpose of these parallels is to show that the economic principles that govern Bitcoin are no different than the economic principles that govern everyday economic activity.

Market depth and liquidity are very important concepts to understand in openly traded markets.

Liquidity is the amount of value available in a market. In other words, the amount of value you could exact either on the "buy side" by buying up what is being offered or on the "sell side" by selling the product on the market.

Highly liquid markets are easy to buy/sell in and out of

Market depth is the amount of open orders there are on the market. Having healthy market depth in a highly liquid market is important for an asset to maintain value. A market crash occurs when there is too much on the sell side and not enough on the buy side.

Liquidity and depth are important for any asset. Bitcoin is highly liquid with a large daily trading volume. This means Bitcoin is easily exchangeable into many fiat currencies.

Here are a few other fast facts that also play a part in governing Bitcoin's price. Capped Supply, current supply, market capitalization, block time, mining algorithm and emission rate are some of the basic things to look at when analyzing crypto tokens.

Coins have a variety of specifications which influence their value. There is a great deal of fundamental analysis that can be done to help determine the market potential of a coin. We will go over this framework in depth in lecture 7.

And this concludes this lecture on the Economics of Bitcoin. Thanks and we hope you found this lecture helpful!

