STOCK TO FLOW MODEL

A stock to flow model is based upon current supply(stock) to new supply(flow) for a given commodity. It is the ratio of stock to flow for that commodity. Stock can be understood to be the size of the existing reserves while flow is the yearly production. Mathematically, the ratio of stock to flow can be represented as Stock-flow $= \frac{Stock}{Flow}$. The inverse of stock-flow is called 'supply growth rate'.

The original consensus algorithm for a block-chain network is called the PoW(Proof of work). It is used to confirm the completion of transactions on the network and produce new blocks to the chain. Miners are made to compete against one another to complete transactions on the network and get rewarded. Bitcoin has a fixed supply. When a miner successfully finds the hash to satisfy the PoW, new Bitcoins are then created in the new block. The first transaction in each block is called the coin-base and The block contains the block reward consisting of fees paid by people to get transactions done on the block and the newly created coins(called subsidy). Bitcoin subsidy started at 50 coins. This subsidy is halved every 210000 blocks, and this is attained approximately every 4 years. Halvings cause the supply growth rate to be stepped up rather than being smooth.

This bitcoin model is based on the fact that some precious metals have been able to retain great monetary value all through history because of their unforgeable costliness and very low supply rate. A very good example is Gold which has been able to retain a great value because newly mined Gold is insignificant as compared to the current stock and because it is not practical to equal the vast amount of Gold in reserves across the world.

What is wrong with the bitcoin stock to flow model.

Ideally, the model is based on the assertion that the market capitalization(USD) of a monetary good is directly obtained from its rate of supply. However, this assumption has not been backed by any research paper or actual evidence. It is based upon this model that the value of one bitcoin has been predicted to reach 235,000,000,000 by the year 2045.

The Bitcoin model applies a linear regression (which is rather guileless) and results in the high probability of a researcher finding bogus results. It is commonplace for researchers to ignore the fact that 'Good' statistical results may not necessarily translate to meaningful findings and such techniques may often lead to false positives.