**STOCK-TO-FLOW MODEL**

Stock-to-Flow is defined as the flow of new supply relative to the existing supply. The model looks at gold and silver as the benchmark and argues that gold held its value for a long time because of its scarcity. This model treats Bitcoin as being comparable to commodities such as gold, silver or platinum. These are known as 'store of value' commodities because they retain value over long time frames due to their relative scarcity. It is difficult to significantly increase their supply i.e. the process of searching for gold and then mining it is expensive and takes time. Bitcoin is similar because it is also scarce. In fact, it is the first-ever scarce digital object to exist. There are a limited number of coins in existence and it will take a lot of electricity and computing effort to mine the 3 million outstanding coins still to be mined, therefore the supply rate is consistently low. Created by trader PlanB, on January, 2019, the stock-to-flow (S2F) model plots the trend of Bitcoin’s future price based on its scarcity. Additionally, the model can also be used to predict the price of an asset, based on its total supply and amount produced each year.

Stock-to-flow ratios are used to evaluate the current stock of a commodity (total amount currently available) against the flow of new production (amount mined that specific year). Put another way, it is the years of inventory relative to annual supply.

Commodities are unique investments because they are not cash yielding. Their only returns are through price changes and therefore are tied to real-world use more than speculation. For most consumable commodities, a high ratio indicates trouble in the market, with more supply than demand. This is based on extremely high usage rates for most commodity items like corn or wheat. However, with store of value (SoV) commodities like gold, platinum, or silver, a high ratio is indicative of the fact that most gold is not consumed in industrial applications. Instead, the majority is stored as a monetary hedge, thus driving up the stock-to-flow ratio.

For a commodity such as Bitcoin, the stock-to-flow ratio refers to the total supply of that asset divided by the amount that is produced each year. Therefore, the ratio measures how many years of production would be required to reach the current supply if we hold constant the current production rate.

Commodities that have bigger stock-to-flow (STF) ratios are preferred to those with smaller ones — since they are perceived to be scarcer. Gold has the highest ratio with 62. This means that at the current production level, it would take 62 years to produce the current total supply of gold. One of the many reasons why some people refer to Bitcoin as ‘digital gold’ is because of its high stock-to-flow ratio.

One can argue that, the underlying data set used for this model is skewed, and therefore as the prediction nears upper bounds, error increases massively. Also, there’s always the potential for Bitcoin whales. While viewing the S2F model chart as bullish, some analysts are presenting bearish sentiments for the world’s largest cryptocurrency. The major reason for this sentiment is the COVID-19 global pandemic. The correlation with the S&P 500 continues to be a concern and that could point Bitcoin to a downward trajectory in the short term. Finally, a new model S2FX, by PlanB, is the updated version of S2F, which takes into account the phase transitions of certain assets.