The Bitcoin Stock to Flow Model

Before we discuss the bitcoin stock to flow model designed by PlanB, I would like to give a quick background to what the stock to flow model is. The stock to flow (S2F) model was designed as a supplementary tool to help gold experts and researchers predict the price movement of gold with certain degree of confidence at a particular period of time. The model considered two metrics; the stock and the flow. The stock is the total amount of gold (or other commodities like wheat) that is currently available while the flow is the amount of the gold produced in a year; The S2F is then calculated by dividing the stock by the flow which gives us the ratio. Now, PlanB though since the model was applied to gold and other precious materials or commodities, it could be used to predict the price of Bitcoin as well. PlanB therefore designed his model by analyzing the historic data of bitcoin and computing its correlation & regression to work in similar fashion as the stock to flow model. However, since the release of the model by PlanB, a lot of Crypto enthusiast like me think the model will fail and would not work as proposed by PlanB. I base my assertions majorly on three points which are: the subjective theory of value, the S-Curve and the parameters used in the model.

The subjective theory of value states that the value of anything is dependent on the supply and demand of that particular item. That been said, the bitcoin stock to flow designed by PlanB only takes into account the supply. It does not include demand which is a very key element in economics and without this element the model is flawed. Similarly, in real-life, models used in the financial market are never linear because there are price actions that will tend to pull the market down when it reaches a certain peak, hence the S-Curve. According to PlanB’s model, in 2050 the price of one bitcoin will be about 1 trillion dollars and its market capitalization will be a thousand times bigger that the entire world’s economy which does not make sense at all. It is important at this point to also point out that Bitcoin Blockchain currently consumes a significant amount of energy and could increase after every halving. If we are to apply PlanB’s model, we might have to harness nuclear fusion energy for bitcoin Blockchain to run and I do not see that happening in the next 50 years.

Furthermore, PlanB’s used some of his parameters incorrectly. In the model, PlanB used a constant S2F value for gold without considering that the value changes each year; this inadvertently will skew the results gotten. Many people also argue that the current S2F value for gold used in the financial market could be wrong due to the fact that large amount of gold have been mined in the early days of civilization.

As flawed as this model is, we have to commend PlanB’s ingenuity for giving us an idea of the possibility of creating a model that could predict bitcoin price. However, the only way I thing we can create a model to predict bitcoin price with a high degree of accuracy is by using machine learning. It is therefore important that we consider the arguments discussed above and also the arguments raised by others to help us create a better model.