Several modeling techniques have been postulated by crypto researchers for predicting bitcoin’s value. A popular one is the stock-to-flow model. This model is simply based on the idea that scarcity increases the value of a commodity because its supply can’t match the quantity already in circulation.

This metric has long been popular within the mining market especially with high SF-valued metals such as gold and silver. The stock-to-flow value is derived by finding the ratio between stock and flow capacity.

Stock-to-Flow = (quantity of already existing stock)/(flow or production capacity)

High stock-to-flow value suggests high value.

PlanB, a crypto analyst, authored a paper describing the stock-to-flow model as a tool for predicting bitcoin’s price up to the year 2140. Within bitcoin’s context, the model shows scarcity as the sole factor responsible for bitcoin’s value since 2010. Bitcoin’s stock-to-flow model is flawed in both economic and theoretical grounds.

The model assumes bitcoin’s market capitalization can be predicted if supply is limited. The model posits that gold’s value is a function of it’s high stock-to-flow. It erroneously then applies this logic to the bitcoin market on the premise that bitcoin’s stock-to-flow gradient increases exponentially during the halving of bitcoin’s mining.

Paying keen attention, an overestimation of these halving events is realized because dollar’s depreciation has significantly increased the market capitalization of both gold and bitcoin.

In fact according to strixleviathan, “stock-flow has no direct relationship with gold’s value over the last 115 years. Gold’s market capitalization held valuations between ~$60B to ~$9T, all at the same stock-flow value of 60. A range of $8T is not very indicative of explanatory power and lends itself to the obvious conclusion that other factors drive gold’s USD valuation.”

Again metals like Platinum and Palladium have measly stock-flow values but are worth more than gold on the basis any metric system. This clearly indicates a divergence in correlation between the stock-to-flow and monetary value of metals. To this end, there’s no economic reason in using stock-to-flow as a metric for price prediction.

Another crucial point the stock-to-flow model turns a blind eye to is the technical and non-technical bottlenecks that will impede the realization of its wishful projection.

1. Factors like government and financial regulators, anti-bitcoin lobbyists etc. pose a significant threat to the actualization of these projections.

2. Proponents of the stock-to-flow model have projected the price of bitcoin skyrocketing to $1 trillion (digitalikNet’s) by 2050. Hitting such benchmark is next to impossible because the world’s electricity infrastructure can’t sustain such outrageous demand of energy by a single entity.

I think its a fools errand to singularly determine the price elasticity of a commodity so volatile and nascent as bitcoin by its stock-to-flow ratio in a world economy constrained by multitudes of economic variables.

Probably, only if an hyperinflation (orders of magnitude >5% inflation rate of the USD) on the world’s economy devalues the dollar from $1 to $100K.

Else, how would the world economy sustain 20M bitcoins with a market capitalization of $20,000,000,000,000,000,000.

Impossible!