

## **Write a 500-word explanation of the Bitcoin stock-to-flow model and make an argument for why it is a bad model?**

The Bitcoin stock-to-flow pricing model was designed and proposed by PlanB (@100trillionUSD on Twitter). The model argued that **scarcity** as measured by SF (stock-to-flow) drives **value**. The model also evaluates the scarcity of Bitcoin and its current supply in relation to the volume of production.

Stock-to-flow pricing model reveals the amount of years it will take production to reach circulating stock at the current production rate, quantifying scarcity using stock-to-flow, and using stock-to-flow to model bitcoin's value.

In this model, scarcity is quantified by **SF**= Stock/Flow. The Stock-to-flow model values Bitcoin the same way gold, silver etc because of their scarcity.

It is based on the fact that wide and common commodities like petroleum, cocoa and copper aren't good stores of value because there are always good amounts of supplies. Only a small quantity or amount of bitcoin is introduced regularly which makes it more scarce and thereby increases its value.

The stock-to-flow model opines that a statistically significant relationship between stock-to-flow and market value exists and the possibility that the relationship between stock-to-flow and market value is caused by chance is close to zero.

### **Why is the Bitcoin stock-to-flow model a bad model?**

1. PlanB in his article where he introduced Stock-to-flow Model asserted that, "The model predicts a bitcoin market value of \$1trn after next halving in May 2020, which translates in a bitcoin price of \$55,000." Meanwhile, according to the Bitcoin price index (July 2012 to August 2020), the price of bitcoin as at May 2020 is \$9,688.32--it doesn't come close to what the model predicted according to PlanB.
2. Stock to Flow doesn't take into account the demand. If there's no demand, stock to flow is irrelevant. Therefore, Stock to flow alone says nothing unless taken into account other factors.
3. Bitcoin supply is highly predictable.. There are no ups-n-downs in supply. It's not the same story with demand. Imagine a full fledged bitcoin ban across the world.
4. Gold or precious metals will never get obsolete. Technology will.
5. Bitcoin is nothing like Gold or any other precious metal. A duplicate network can be created any time of the day. There can be alternates/substitutes of Bitcoin but there are no alternatives/substitutes of Gold or other precious metals.
6. The Model is desperately based on Gold and other precious metals with Bitcoin. While the truth is, Gold has inherent qualities that can never be altered, modified or tampered with and those are exactly the traits that give confidence to its users. How is any of that true for Bitcoin?
7. Bitcoin is unlike any commodity. It doesn't exist if the internet doesn't exist and also bitcoin doesn't have an intrinsic value
8. Bitcoin is using immense electricity resources. How does that work out with the sustainable future that all world bodies are gearing up for? Gold mining is no exception but given it's an established industry, can only be improved and not curbed down.
9. According to a comment I saw online, stock to flow model for Bitcoin invalidates the Efficient Market Hypothesis - which states that all publicly available information are priced in.

