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

Scarcity is directly proportional to value. This theme is repeated multiple times across various industries and products, and applies to Satoshi Nakamatos' 'Bitcoin'. The Stock-to-flow model is used to analyze the value of bitcoin by putting bitcoin in the same bracket as precious metals such as gold, palladium, silver etc. Precious metals, as the name implies are relatively scarce in supply retaining their value over a long time, they can be termed as 'store of value commodities'. The 'stock' refers to the amount of a particular commodity in circulation (total supply) and the 'flow' refers to the amount produced per year (supply per unit of time). Using the stock and flow terms, a **stock to flow ratio** is calculated. This represents the market entry for a commodity each year relative to the total supply. Hence, the higher the stock to flow ratio the less new supply enters the market and as a result of this, the more valuable the commodity.

The bitcoin definitely ticks all the boxes as a valuable store of value according to the stock to flow model. In order to ensure scarcity of the bitcoin, every 210000 blocks (approximately four years) a **bitcoin halving occurs.** This means that the reward for miners is reduced by 50% and the new supply of bitcoin over the next 210000 blocks is half of that for the previous 210000 blocks. This reduces the amount of bitcoins being generated drastically and gives rise to a huge price rise regarding that **demand** remains high. The maximum supply of the bitcoin is capped at 21 million coins and this enables to calculate the flow of the bitcoin based on the present day conditions and predict the value of the bitcoin in coming years.

Although the model can be applied to bitcoin, there are risks in its application.The occurrence of a **black swan event** is not accounted for by this model. A black swan event is any sudden event that could have a significant effect on the market. If for instance a government decided to place a ban on the trading of bitcoin in a country, the stock to flow model cannot possibly account for this. An event of such can lead to a reduction in the demand for bitcoin and although the stock to flow ratio remains unchanged, the value of the bitcoin reduces. This just highlights one shortcoming of the stock to flow model in regards to the bitcoin. The **volatility** of the bitcoin also creates issues using this model as the prices of the bitcoin are always changing and this valuation model loses its predictability. The prices of bitcoins are also subject to personal interests which means that holders of bitcoins (trader,speculators) are free to determine the prices at which they sell and this contributes to the volatility of the bitcoin.

The stock to flow model regards bitcoin as a scarce asset and based on all the assumptions it should be a good store of value over time. This model however, does not account for all factors that can affect the value of bitcoin and also disregards the fact that the bitcoin is only about a decade old and a larger time frame is needed to define bitcoin as a good store of value.