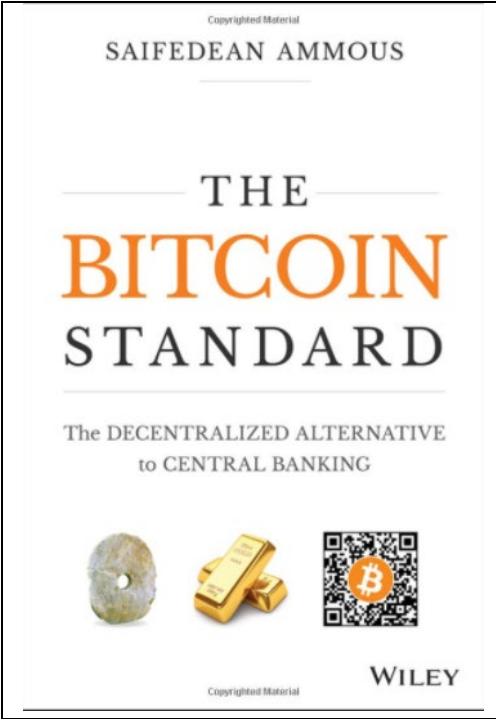


The Central Bank of Barbados Book Review Series seek to highlight publications which offer useful insights and analysis on topics related to finance, economic development, and other issues relevant to small island developing economies. The views expressed are those of the author(s) and do not

	THE BITCOIN STANDARD: THE DECENTRALIZED ALTERNATIVE TO CENTRAL BANKING
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The Bitcoin Standard: The Decentralized Alternative to Central Banking

By Saifedean Ammous

Money can be defined as the stock of assets that can be readily used to make transactions (Mankiw, 2007). Conventionally, economists acknowledge the following three major functions of money:

1. A medium of exchange – used to buy goods and services
2. A store of value – transfer of purchasing power from the present to the future
3. A unit of account – used by everyone as a common unit to measure prices and values.

The facilitation of the exchange of goods and services evolved from the use of barter to the use of precious coins, and finally, to government/central bank-issued paper currency. However, in 2009 the newly developed cryptocurrency bitcoin was launched, with the aim of challenging the system that has state-backed currency at its foundation.

The main thesis of Ammous' book, is that bitcoin can be used to address the ability of governments to ultimately undermine the "soundness" of money given their penchant to inflate the supply of currency. Historically, since money was widely used to purchase goods (medium of exchange) and was accepted by all nations worldwide as a common metric of price, a fixed unit of gold was used to support the value of a domestic currency. The author argues that gold's natural characteristics limit the supply of gold. For instance, gold is not easily manufactured or extracted, and this moderates its supply, while increases in demand by individuals and governments, increase the value of gold in the long run. Therefore, gold is an effective store of value, which means that gold has "sound money" characteristics.

In Ammous' libertarian framework, sound money is defined as "money which emerges freely chosen on the market by the people who transact with it not imposed on them by a coercive authority, and money whose value is determined through market interaction, and not through government imposition". Under his framework, sound money is not prone to abrupt appreciation or depreciation in purchasing power in the long run, as it is aided by self-correcting mechanisms essential in a free market society. Sound money is highly divisible, profitable across time, and can be used to accumulate capital through savings, leading to production and technological advancement.

In 1914 with the outbreak of the First World War, most countries abandoned or suspended participation in the gold standard, as countries heavily engaged in the war relied on the printing of money or debt financing in the face of unsustainable gold outflows. Governments increased the money supply without increasing the equivalent gold necessary to maintain the reserve levels, hence inflation was the result. The author relates this imperfection of the monetary system to the fact that fiat money (the cash we use today), which was introduced to replace the gold standard, is not backed by a commodity but by market confidence.

However, different perspectives have also highlighted the flaws in the gold standard era. Well-known economic theorists Keynes and Friedman noted that the gold standard was phased out because the production cost of gold mining was expensive, and the alternative of producing fiat money (cash not backed by physical commodity), was less expensive in terms of potential output and unemployment losses. In addition, in economic depressions and trade deficits, the gold standard was unfavourable as deflation persisted due to a decrease in the money supply and hence the supply of gold (Bordo, 1999).

However, Ammous states that increased spending decreases savings and capital investment, thus decreasing the production of goods and services and ultimately leading to less economic growth. The author purports that the abandonment of the gold standard led to an imbalance of trade and the fluctuation of nations' currencies which gave rise to the International Monetary Fund (IMF) and central banks, thus further exacerbating the situation. Consequently, "unsound money" was created.

While the concept of cryptocurrency, is not new, Ammous states that the creation of the bitcoin has brought back the potential for sound money. Cryptocurrency is a subset of virtual money (IMF, 2016) while virtual money is a digital representation of value that is neither issued by a central bank or a public authority, nor necessarily attached to fiat currency, but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically (European Banking Authority, 2014).

Ammous notes that bitcoin has similarities to the gold standard. He argues that the supply of Bitcoin is pre-programmed, and thus predictable like gold. For example, like gold, the supply of bitcoin is limited and thus an increase in demand leads to an appreciation of the value of a bitcoin. There can only be 21 million bitcoins in existence due to technical factors in its design and by the year 2140, the supply of bitcoins becomes stagnant.

Another use of bitcoin identified by Ammous, is as a reserve currency for central banks. IMF guidelines dictate that the stock of official reserve assets be dominated in reserve currency¹. As reserve currencies depreciate in value in comparison to the appreciating bitcoin value, Ammous advises central banks to acquire bitcoins as soon as possible. He argues that if bitcoin continues to appreciate, central banks would have more flexibility with their monetary policies and international settlement accounts. It would be disadvantageous to central banks if they fail to invest quickly, as it would be costlier in the long run due to the rising value of bitcoin and hence higher costs. Ammous states that the first central bank to invest would create a domino effect for others to invest because of its recognition status. This would also cause the value of bitcoin to rise significantly. His position is somewhat supported by Stephens and Moore (2016), who have suggested that if the Central Bank of Barbados invests in bitcoin, active trading of the asset/currency should be considered along with the use of tools to transmit cryptocurrencies on the blockchain².

The author also believes that bitcoin has a role in settling international payments. While the gold standard has similarities, Ammous states that bitcoin has the advantage of being neutral to monetary policy, unlike gold, due to governments' limited control over bitcoin. Bitcoin can have settlements completed in minutes and transactions can be approved quickly and at a low cost, while settling payments with gold takes a long time because transporting gold is a lengthy process. Ammous further argues that the long-distance settlements are very costly due to the high banking fees and can take time to clear, exposing users to a "significant foreign exchange risk" due to currency fluctuations. Bitcoin has the ability to eliminate the need for financial intermediaries since all transactions are done online using the digital platform.

In reality, with bitcoin's decentralised feature, opportunists can create price fluctuations since security and price stability are not guaranteed. Bitcoin is considered relatively new in the market, thus the small number of users and low liquidity also enables fluctuations as large holders of bitcoin heavily influence

¹ Reserve currencies are currencies that are widely accepted globally. The currencies used in IMF's Special Drawing Rights (SDR) basket of currencies are prime examples of reserve currencies.

² The platform on which Bitcoin operates on.

the market. Bitcoin transactions are irreversible, hence creating security complications as hackers have affected both users and exchanges.

Bitcoin has competition with other well-known digital platforms, for example, money transfers and the emergence of alternative cryptocurrencies. Disadvantages can also be noted. The speed of bitcoin transfers can range from an hour up to a couple of days. In relation to money transfers, these result in similar delays as traditional methods due to required security measures and the type of transfer. For example, international transfers take longer than domestic ones.

Due to its lack of recognition by central banks, bitcoin has difficulty being accepted and used by persons and also needs to overcome the challenge of not being acknowledged as a legitimate medium of exchange. For example, virtual currencies do not meet the currency, financial asset or liability definition of the IMF and thus would not be recognised in the international investment position of any economy (Walkes & Okey, 2018). Similar to fiat currency, bitcoin is not backed by a commodity, but backed by speculative interests. Consequently, the volatility of bitcoin is continuously questioned by monetarists who disagree that it is a monetary medium. However, with the rise of cryptocurrencies and digital transactions, the issuers of cash, central banks, have started to take notice of the decline of cash (Ward & Rochemont, 2019). In response, central banks around the world are contemplating the use of central bank digital currencies (CBDC) to address the developments of cryptocurrencies. Unlike Bitcoin, CBDCs would be monitored by central banks, be available to the public without restriction and would be recognised as legal tender similar to fiat currency.

A critique of the book is the extent to which the author focuses on the gold standard in order to provide support for bitcoin. The author also neglects to inform readers of the negative implications of the gold standard whilst portraying it as a 'near-perfect' period for economies worldwide. The lack of empirical evidence to support many of his claims is also a relevant critique. Another shortcoming is that Ammous has not considered the implications of a finite quantity of bitcoin which can create disadvantages for those who never invested in the cryptocurrency. It would become more expensive, or even impractical for those persons to acquire bitcoin, hindering its function as a medium of exchange. However, the book can be recommended to readers interested in the history of money and the gold standard era. *The Bitcoin Standard: The Decentralized Alternative to Central Banking* provides insight into the development of bitcoin and its potential in reducing the need for central banks and third-party intermediaries. While bitcoin currently does not have all the features associated with what we know as money, it does represent a potentially important financial innovation that has spurred the search for improvements in settlements and payments globally.

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