THE QUARTERLY JOURNAL OF AUSTRIAN ECONOMICS

VOLUME 22 | NO. 4 | 634–641 | WINTER 2019 WWW.QJAE.ORG

BOOK REVIEW

THE BITCOIN STANDARD: THE DECENTRALIZED ALTERNATIVE TO CENTRAL BANKING

SAIFEDEAN AMMOUS
HOBOKEN, N.J.: JOHN WILEY AND SONS, 2018, XVIII + 286 PP.

KRISTOFFER M. HANSEN*

From time to time, bitcoin enthusiasts vent their frustration at the preference of benighted investors for gold. At the time of writing, the digital assets management company Grayscale Investments, LLC, has launched another crusade against the barbarous relic, encouraging investors to #DropGold. The seriousness of their marketing campaign can be judged from the fact that their main arguments are that one, gold represents the past (after all, Nixon dropped gold already in the ’70s!) and two, gold is physically very heavy.[1]

In such an environment, it is always with some trepidation that I read a new book on bitcoin. Is this going to be a fanatical screed or a thoughtful study that tries to advance our knowledge?

* Kristoffer M. Hansen (kristoffi@gmail.com) is a Ph.D. candidate at the University of Angers and a Mises Institute research fellow.

[1] See Drop Gold, Grayscale Investments, LLC, 2019, https://dropgold.com.

Creative Commons
BY-NC-ND 4.0 License

Happily, Professor Ammous of the Lebanese American University has written a book that falls squarely in the latter category. Treating bitcoin from the point of view of Austrian economics, Ammous not only discusses it in terms of monetary theory but also relates it to the theory of the market economy as a whole. His assessment of bitcoin is conservative but still optimistic. Bitcoin is not necessarily an alternative to gold, he argues, but it can function as a global reserve currency and disrupt the role of central banks.

The Bitcoin Standard goes over all the basics of money, investment, and production, the role of time preference, the importance of sound money, and the history of money before he introduces bitcoin. Although this may seem roundabout, there is a clear and reasonable method to this approach: we must know what money is and how society functions before we can understand what possible function bitcoin could have in the modern economy.

Along the way, we are treated to Ammous's very amusing descriptions of modern art:

> A stroll through a modern art gallery shows artistic works whose production requires no more effort or talent than can be mustered by a bored 6-year-old. Modern artists have replaced craft and long hours of practice with pretentiousness, shock value, indignation, and existential angst as ways to cow audiences into appreciating their art, and often added some pretense to political ideals, usually of the puerile Marxist variety, to pretend-play profundity. (pp. 100–01)

And:

> Only with unsound money could we have reached this artistic calamity where the two largest economic, military, and political behemoths in the world were actively promoting and funding tasteless trash picked by people whose artistic tastes qualify them for careers in Washington and Moscow spy agencies and bureaucracies. (p. 102)

There is also an acerbic commentary on Keynesians and Monetarists woven through the book. Ammous's brutal putdown of Friedman and Schwartz's *Monetary History of the United States* alone is worth the price of the book:

> it is an elaborate exercise in substituting rigor for logic. The book systematically and methodically avoids ever questioning the causes of

> the financial crises that have affected the US economy over a century, and instead inundates the reader with impressively researched data, facts, trivia, and minutiae. (p. 121)

The book is thus very entertaining as well as enlightening, but also, at times, very frustrating. For although Ammous presents economic theory and history lucidly, it seems that at times he does not get it exactly right. There are three points that merit critique in particular: some aspects of monetary theory, of monetary history, and of the theory of banking.

When it comes to monetary theory, Ammous begins quite correctly with the state of barter and the problem of the double coincidence of wants. He goes on to present a theory of salability, showing the different criteria that a good medium of exchange needs to fulfill: salability across scales, across space, and across time (pp. 2–4). These clearly correspond to the classic criteria for a good medium of exchange: divisibility, portability, and durability, and his presentation of them is very lucid. The problem arises when we turn to the supply of money. Here Ammous focuses on the relation between stock and flow, existing supply and current production of the monetary commodity. This relation, he says, is a good indicator of how hard or sound a money is, and monetary history shows how harder money wins out over easier money—up to and including the displacement of silver by gold. Gold has a much higher stock-to-flow ratio than silver; it is therefore a better money and was eventually chosen as money on this basis (pp. 5–7, 19–25).

This telling of monetary history is, however, not entirely correct, and the claims about the importance of the relation between stock and flow are specious.[2] Let's take the last point first: money is always demanded to be held—it is always in somebody's cash balance. Any commodity that is used for monetary purposes will therefore exist in large quantities, spread out between the different holders of money, and the very fact of its being used as money will lead it to have a high stock-to-flow ratio.

Present production obviously cannot be expanded infinitely, since this would mean that the factors of production are not scarce.

[2] With thanks to Chris Calton.

Rather, production of the money commodity will be directed by the search for profits on the part of entrepreneurs, and in the long run the law of costs will hold—meaning that there is no special profit to be gained from producing money and increasing the money supply. What will happen is that increased production of the money commodity will cause an excess supply of money at the given price or purchasing power of money (PPM). If the commodity is only used for monetary purposes, all that would happen is that the increased supply of money would lead to a fall in PPM and an increase in the quantity of money demanded until demand and stock were again equal. However, both gold and silver are commodities that also have use value in consumption and production. A higher supply leading to a lower PPM would therefore lower the opportunity cost of using the money for a nonmonetary purpose, and the commodity would flow from monetary holdings to consumption and industrial use. Not only would this increase production of consumer goods and thereby the satisfaction of consumers, it would also mitigate the effect of increased production of the monetary commodity on the PPM and on monetary demand.[3]

All this is not to say that there is no meaningful distinction to be made between hard and easy, sound and unsound money. But focusing on the stock-to-flow ratio is, to my mind, a red herring; the important distinction is between a money that can be increased at will (fiat money), and one that must be produced like any other commodity. That silver has (and had) a lower stock-to-flow ratio than gold is therefore not a reason to conclude that it is a less hard form of money—it may simply be used more for nonmonetary purposes than gold is and was. Figure 3 on page 33 of the book itself gives clear confirmation that the proportion of stock to flow is not important: it depicts the gold/silver price ratio from 1687 to 2017. What is remarkable is the stability of the ratio, with very little fluctuation from year to year (within the band between 14 and 16) until the early 1870s. Now, what changed in the early 1870s? There were no source discoveries or advances in mining that radically changed the stock-to-flow ratio of silver. There was, however, a radical change in the monetary systems of the industrial world, as virtually all countries

[3] On the workings of the gold standard, see Salerno (2010), Skousen (1996), and White (1999).

adopted a monometallic gold standard, leading to the virtual disappearance of monetary demand for silver.[4] But if stock-to-flow ratios are of crucial importance, why did silver have an almost constant value in terms of gold until it was demonetized even though it does not have the same stock-to-flow ratio?

This brings me to the problems with Ammous's description of monetary history. He describes the evolution of money and especially the change from silver to gold as a consequence of the gradual realization of the inherent superiority of the gold standard. There is no mention of Gresham's law or of the problems of bimetallism. It would be much closer to the truth to say that the gold standard was the unintended consequence of monetary manipulations and attempts to set a legal ratio between the prices of gold and silver, first in England at the Royal Mint,[5] then in France after Napoleon. When Germany and the Scandinavian countries adopted the gold standard in the early 1870s, it was a conscious governmental decision, not the spontaneous outcome of an unimpeded market process.

The other reason for the dominance of gold, according to Ammous, is the growth of banking and specifically the fact that it was necessary to centralize gold holdings, first in banks and then in central banks, in order to facilitate payment (pp. 37–38). This argument, I must confess, baffles me. Now, it is true that international clearing and settlement is a good way to minimize the need to transport gold between countries, and it is also true that this clearing increasingly took place between central banks—but it is quite a leap to say that therefore gold holdings had to be centralized. Banking is not the only way to facilitate clearing, as merchants can facilitate it just as well through the use of bills of exchange. Indeed, perhaps the first discussion of clearing and international trade, by Richard Cantillon, is conducted in terms of bills of exchange drawn on correspondent banks (Cantillon 2010, 195–201). The growth of banking systems pyramided on top a central bank cannot be explained by the need to store gold in clearinghouses, as a decentralized system could function just as well, if not better. The history

[4] The interested reader can check this development by referring to Officer and Williamson (2020).

[5] See Cantillon (2010, 213–16), for a contemporary discussion of the policies of the Royal Mint critical of Newton's role.

behind the growth of central banking is, rather, one of government privilege given to banks seeking profit through credit expansion, and of government involvement in this business to get a share of those profits. Ammous is clearly familiar with banking theory, and it is a shame that this part of the book is not informed by it.

Finally, this brings us to Ammous's case for bitcoin. What role can bitcoin play in the modern economy? The discussion of the pros and cons of bitcoin is both clear and frank. The advantage of bitcoin is seen against modern banking institutions: with bitcoin, we need not rely on trust in third parties of dubious repute to facilitate payments around the world (p. 208). This can be done simply via the medium of bitcoin. Although it is not strictly correct to say that it eliminates third parties—the whole network becomes, in effect, the third party to any and all transactions—it is correct to assert that the need for trust is completely eliminated. The discussion of possible challenges to bitcoin is also very convincing, although some will certainly be upset with Ammous's dismissal of alternatives to bitcoin as inherently inferior.

Does this mean that bitcoin will replace cash? The conclusion arrived at is, surprisingly, no. It is simply too expensive to transact in bitcoin, especially since we can expect transaction fees to rise as demand for bitcoin increases. There are also inherent constraints to the technology, which limit how many transactions can be performed. The bitcoin network will never, in Ammous's estimation, be able to compete with the likes of Visa and Mastercard when it comes to processing payments (pp. 233–34). It will simply be too costly in terms of processing power. The role of bitcoin, argues Ammous, will rather be to settle transactions between large institutions such as central banks. Here it is superior, because there is no need for trust in a third party, and auditing is extremely cheap—anyone can look at the blockchain. A supporting infrastructure will then be built around bitcoin that allows the common man to exchange using tokens or through institutions based on bitcoin. The growth of the lightning network that is being adopted now is one possible way that this can come about, but how exactly digital cash based on bitcoin will be made available is up to entrepreneurial experimentation.

Although he argues convincingly, Ammous's conclusion fails to persuade in the end. It seems to rest on the spurious problem of

centralized gold holdings criticized above, and on seeing trust in third parties as a problem. But there is no reason that trust should be a problem—on the market, we trust third parties all the time, and generally without issues. The problem is government control over and involvement in monetary affairs. Governments and privileged banks have again and again proven themselves untrustworthy, as they have engaged in destructive and antisocial policies again and again, while bamboozling the general public. In the absence of government involvement, it does not seem probable that bitcoin would win out over gold as the money of choice of a free society.

This does not mean that bitcoin is useless, or perhaps just a speculative bubble fed by easy money and ideological fervor. Ammous has pinpointed exactly what the function of bitcoin is in the present context: just as owning money in general is a hedge against uncertainty, so too is owning bitcoin a hedge against a specific kind of uncertainty. Owning bitcoin is a way to get around capital controls and embargoes, and other obstacles governments place in the way of free exchange. In short, owning bitcoin is a hedge against what Robert Higgs called regime uncertainty (Higgs 1997). As such, it will regrettably prove very useful for many people in the foreseeable future.

Its weaknesses notwithstanding, however, *The Bitcoin Standard* is a book well worth reading. Ammous's treatment of bitcoin, though marred by some of the issues I have criticized above, is very good, and any blockchain enthusiast would do well to consider Ammous's strictures on the utility of blockchain technology. The book is full of many thought-provoking remarks about the relations between money and a host of economic and social issues, about art, about the family, and about the impact of easy money on food quality. One is left feeling that a whole monograph could be written on each of these topics. Above all, Ammous has succeeded in producing a book that clearly demonstrates the possible usefulness of bitcoin under present conditions.

REFERENCES

Cantillon, Richard. 2010. *An Essay on Economic Theory*, ed. Mark Thornton and trans. Chantal Saucier. Auburn, Ala: Ludwig von Mises Institute.

Higgs, Robert. 1997. "Regime Uncertainty. Why the Great Depression Lasted So Long and Why Prosperity Resumed after the War." *Independent Review* 1, no. 4: 561–90.

Officer, Lawrence H., and Samuel H. Williamson. 2020. "The Price of Gold, 1257–Present.," MeasuringWorth. http://www.measuringworth.com/gold.

Salerno, Joseph T. 2010. "The 100 Percent Gold Standard: A Proposal for Monetary Reform." Pp. 323–53 in *Money, Sound and Unsound*. Auburn, Ala.: Ludwig von Mises Institute. http://mises.org/books/sound_money_salerno.pdf.

Skousen, Mark. [1977] 1996. *Economics of a Pure Gold Standard*. 3d ed. Irvington-on-Hudson, N.Y.: Foundation for Economic Education.

White, Lawrence H. 1999. *The Theory of Monetary Institutions*. Malden, Mass.: Blackwell.