Value and the Bitcoin Question

by **Luis R. CHACIN**

With the pandemic accelerating the adoption of digital payments and the growing movement towards open banking and decentralized finance (DeFi), with increasing demand for transparency and lower transaction costs, many financial institutions around the world, even central banks, are considering creating their own cryptocurrencies. A ?digital loonie? issued by the Bank of Canada as a stablecoin alternative to cryptocurrencies like Bitcoin, for example, would likely have a significant impact in payment processing and Canada's financial services industry as a whole, so it is not surprising that Bank of Canada Deputy Governor, Timothy Lane, recently dismissed interest in Bitcoin as a ?speculative mania.? Maybe he is right, or maybe he is missing why the market values Bitcoin at all.

Value is in the eye of the beholder. If beauty is subjective, then so is value. The nineteenth century Austrian economist Carl Menger, credited with the subjective theory of value, argued that both sides gain from exchange because each side values what they receive more than what they give up. Menger also reminded everyone that money is not an invention of the State.

I recall hearing the modified expression ?value is in the eye of the beholder?, for the first time, in graduate school. The course was Advanced Corporate Finance, and the lesson was delivered by way of a business valuation exercise that was specifically designed to show that the same business could be valued differently depending on who was looking to buy it. Since then, I have relied on the expression many times to explain why some people like yellow cars and other things I simply don't understand. I was reminded of this lesson recently when I saw the news that Tesla had acquired $1.5 billion in Bitcoin, propelling the cryptocurrency's price past U$50,000 and arguably causing Tesla's stock to drop since the announcement.

But what is Bitcoin? How does anyone assign value to it? In its simplest expression, at least as I understand it not having a computer programming background, Bitcoin is a string of computer code that records all transactions in a public distributed ledger known as a blockchain. I like to think of it as a large public spreadsheet where all transactions are recorded and maintained by consensus. There is no central administrator or authority because the ledger is maintained by way of a set of coded governance rules that guarantee the integrity of the blocks in the chain and make the number of Bitcoin that can be ?mined? finite.

It is important to note that it is this set of coded governance rules that have also opened the door to DeFi and concepts such as the decentralized autonomous organization where the process of decision-making that would involve the management of an organization is automated by the execution of smart contracts that govern the behaviour of all participants.

If you are wondering how a ledger of transactions has any value at all, then you are not alone. There is, of course, the ?hype? influencing the price of Bitcoin, with many buyers choosing it over lottery tickets in what could rightfully be called a ?speculative mania.? If there is more to Bitcoin, my best guess is that its value is derived from its convenience and the perceived stability of the blockchain.

Bitcoin's convenience is simply the fact that you can transfer Bitcoin seamlessly, securely, without any third-party financial intermediaries, such as banks or other financial institutions, and at a very low cost. Where a wire transfer currently requires the involvement of numerous individuals to accept, process, and execute various debits and credits from multiple accounts, it is possible to transfer the same amount in Bitcoin within minutes and at a fraction of the cost.

Bitcoin can also be used in smart contracts for the automation of payments, and to protect personal financial information, such as credit card information shared with a services provider that may be subject to a cybersecurity breach.

Bitcoin's perceived stability comes from its popularity, which adds weight to the integrity of the Bitcoin blockchain. The more popular Bitcoin is, the more stable the consensus becomes, and the less vulnerable to attack by a controlling group within the blockchain. This does not say anything about the security afforded by any particular cryptocurrency exchange or wallet.

Of course, the value that the market assigns to the convenience and perceived stability of the Bitcoin blockchain is simply the aggregation of each participant's subjective valuation, limited by the size of their pockets and their ability to influence the market, together with the finite number of Bitcoin that can be mined. After all, Bitcoin's convenience and perceived stability may be outweighed by the high volatility of its market price, which is not what most of us expect when setting aside funds for payments due in the short-term.

Although a digital loonie with a central authority in the Bank of Canada would certainly offer price stability and a level of convenience similar to that offered by cryptocurrencies such as Bitcoin, central bankers may be missing the value assigned by the market to the perceived stability of a widely decentralized network like the Bitcoin blockchain that is subject to consensus and no central authority.

*lchacin@carters.ca