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BLOCKCHAIN TECHNOLOGY- AN INSTRUMENT OF ECONOMIC EVOLUTION?

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ABSTRACT

Man has not only evolved biologically and culturally but also economically. Human economy has grown over many centuries through continuous addition of value. This value addition has been an evolutionary factor as it has influenced the formation of the main economic sectors-namely Primary, Secondary and Tertiary. Recently after the advent of Blockchain technology, Bitcoin achieved Gold parity. This paper analyses whether such an event will have any impact on the evolution of our economies.

First we discuss the various sectors of the economy. Then we evaluate how Bitcoin achieving Gold parity may influence the outcome of future economic scenarios. The paper concludes by summarizing the importance of technology in our economic systems and how it affects its evolution.

INTRODUCTION

A cryptocurrency is a medium of exchange using cryptographic techniques to safeguard transactions and also manage the formation of additional units of the currency.

A BlockChain is a widely disseminated archive of data that maintains a continually-expanding register of records fully and reliably protected from any alteration or modification. Each block has a timestamp and link to the preceding block. A Crypto wallet is an encrypted electronic device that allows an individual to make electronic cryptocurrency transactions.

Each wallet will have a public key visible to anyone. But it can be operated by only a person who has a private key. Transactions on the cryptocurrency network are usually anonymous. When people send cryptocurrencies to each other, someone has to keep account of who spent how much at what time.

In case of fiat money (or paper money) it is done by banks (known as Trusted Third Parties, for which they charge a commission). But in case of Cryptocoins, it is registered on a ledger called BlockChain (with nil or minimal fees).

The cryptocurrency network makes this possible by detailing all the transactions made during a certain timeframe into a list. This list is known as a block. A certain set of people called 'miners' verify these transactions mathematically and register them on the BlockChain.

Those bona-fide miners who have successfully verified the transactions are paid freshly created Cryptocoins. This is how miners are rewarded, and new cryptocurrencies are generated. This is also the reason why no transaction costs are levied, as the network (in the form of miners) verifies the transactions.

Bitcoin is a peer-to-peer based cryptocurrency which is not backed by any commodity and (unlike fiat money) carries no sovereign guarantee

whatsoever. Regulated and Sovereign Backed Cryptocurrencies (RSBC), on the other hand are government backed cryptocurrency akin to paper currency, but in digital form.

In this system, the cryptocurrencies (known as NationCoins) are backed by Sovereign Guarantee. They are run on a highly secure Controlled BlockChain (CBC). NationCoins are completely managed by the Sovereign Authority i.e. the Government. This system is based on the K-Y Protocol ^[1]. The K-Y Protocol is a set of rules and instructions to implement the Regulated and Sovereign Backed Cryptocurrency (RSBC) system ^[2].

Man first settled down for agriculture, and started the process of economic and social development. In fact, this event led to conditions where mankind could experiment and evolve new economic and social systems. Earlier, during the hunter-gatherer phase, there were very few niche specialties. A hunter had to sharpen his own spear and go to hunt with the group. Once man settled down, distribution and differentiation of labor started. Villages sprang up where there were blacksmiths, cattle herders, and traders etc. who became part of the then-nascent human society.

Agriculture is classified as belonging to the primary sector, manufacturing as secondary and services as tertiary sector. If we analyze the pattern of economic activities through the centuries, we see that from very early on until the industrial revolution, primary sector contributed majorly to any economy. From the industrial revolution onwards, the secondary sector started its ascent. Most of the developed countries (OECD nations) today have very strong manufacturing sectors, which employ a majority of the work force and contributes the maximum to the economy.

Some countries have a very well developed service sector contributing substantially to the economy.

If you see the usage of technologies in various sectors, one can observe certain interesting features.

(1) Primary sector employs minimal technology (though application of genetics brought about green revolution in many countries) compared to other sectors.

(2) Secondary sector employs more technologies than primary but less than tertiary.

(3) Tertiary sector has maximum technology applications.

This progressive increase of technology usage correlates to addition in value. i.e. more is the value addition needed, more will be the technologies used. In terms of investments, we can classify them as.

Primary: - where asset is in the form of land.

Secondary: - where asset is in the form of house and building.

Tertiary: - where asset is in the financial assets like shares, bonds etc.

Fiat money/cash can be viewed as the medium through which we can convert assets from primary to tertiary or tertiary to secondary etc.

Cryptocurrencies act both as a medium of value exchange as well as a tertiary investment. Those with the knowledge of Blockchains are usually ones with the technology worldview. This is because, usage of cryptocurrencies-

- 1) Needs the use of personal devices (smart phones and computers)
- 2) Some minimum basic amount of understanding of the technology is essential to use and trade cryptocurrencies

Majority of the masses invest in either land or gold. Recently 1 Bitcoin became equal to one ounce of gold ^[3]. This has huge economic implication.

As I have pointed out earlier, various sectors of our present day economy have evolved based on value addition.

As bitcoin has reached Gold parity (GP) an important psychological barrier has been broken. Future economic scenario may play out in the following manner.

As bitcoin gains in value, gold prices will relatively fall ^[4]. Bitcoin is usually held by people who have technocratic outlook. As more such people will realize that bitcoin has surpassed gold, they will start investing in bitcoin (and other cryptocurrencies). Therefore more and more market value will shift to people holding Bitcoin (BTC). Much (or some) of the value shifting to BTC will come from the falling value of gold. Consequently gold prices will continue to fall. These will probably kick start a virtuous cycle where BTC rises and gold falls.

Those who hold Gold, still believing in traditional savings, might find their holdings eroding in value.

Those who hold BTC (and who are more technocratic) will find their purchasing investment power to rise. Now, the technocratic people with new found BTC money (BTC can also be used as medium of exchange) will invest in those sectors which will provide highest returns, which are the technology companies (assuming that they won't invest that money back into land or gold). This way, money will be available to startups and entrepreneurs who have core competency in technology. (Majority of the top 10 companies by market capitalization are technology or service companies ^[5])

This will trigger a process where more and more people who are into research and are technical specialists will find ready employment in technology and service companies.

Consequently we may witness an explosion in technology entities, akin to the industrial revolution; A Technology Revolution. This may culminate in the creation of a truly Artificial Intelligence (as investment and research into Data analytics and automation technology will increase, thanks to investment in Blockchain Technology) leading to Technological Singularity ^[6].

We are probably going to observe acceleration in technology growth influenced greatly by blockchain and allied systems. Blockchain technology therefore will influence economic evolution towards adoption of newer and advanced technologies in our day-to-day lives.

CONCLUSION

We have evaluated, as to how human commerce has evolved from an economic perspective and we found that value addition processes have differentiated economic sectors and labor participation. Value addition therefore formed the bulwark of our modern economies. With bitcoin achieving gold parity, we will probably witness the shift of purchasing power from people who follow traditional saving methods to people who understand some (or all) aspects of Blockchains (and thus more technocratic).

This will lead to more investment in technology companies and their products. And technology adds value to work faster, cheaper and more sustainable ways than earlier. A technology explosion might occur -a sort of technology revolution, due to increased investment by technology

mindful people with money on the Blockchain. This might culminate in Artificial Intelligence and technological singularity. Once technological singularity is attained a whole new era of fast-paced value addition may occur, changing the nature of the various economic sectors. Many people may shift from holding gold, to investing in Cryptocurrencies leading to continued growth of technology companies. More people may migrate into the tertiary sectors from the primary and secondary sectors in terms of their investment holding and savings. Thus Blockchain technology may become an instrument of economic evolution in human society.

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