

Effects of Cryptocurrencies on Global Economics: A Review Study

Rogash Younis Masiha

Researcher

Duhok

Kurdistan Region of Iraq

rogash.babiri@gmail.com

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Abstract— The features of a new global economy appear stronger and faster than the changes recorded by the economy throughout history, and the “Covid-19” pandemic has accelerated these transformations, achieving on the ground a global experience to deal with digital payment via credit cards and the use of online payment applications, and it marks the beginning of the end of the era of paper currencies. And the trend towards investing in crypto and digital currencies on the part of investors, in conjunction with the competition of countries around the world to win the issuance of the first digital currency issued by central banks. There are many questions about replacing the digital currency with gold or the dollar in a rapid transformation that changes the trends of the global economy, and the number of cryptocurrencies around the world has reached about 4337 currencies with a market value of \$ 1.003 trillion, “Bitcoin” holds the largest share by 66% with a market value of \$ 664 billion. Despite many official warnings against investing in these unregulated currencies, fintech startups are witnessing a surge in demand from consumers who are rushing to invest in cryptocurrencies amid great interest and momentum in Bitcoin. Like Revolut, eToro and Luno, cryptocurrency demand surged on their platforms amid the resurgence of Bitcoin prices.

Keywords—Economics, Cryptocurrencies, Global Economics, Bitcoin.

I. INTRODUCTION

The digital currencies change the shape of the global economy. While digital currencies continue to rise and return to record levels, analysts have revealed that cryptocurrencies will change the shape and performance of the global economy during the coming period.

Mahmoud Shoukry, CEO of EMC Investment Group, believes that the global economy is already facing major changes, especially that after every crisis the world

witnesses, the economy begins to change. He pointed out, in his speech to "The Independent Arabia", that digital currencies "managed during the last period to acquire a large segment of investment liquidity in the world, and achieved a wide spread despite the crackdown and tightening campaigns practiced by all governments against this market."

Shoukry said that the large spread of cryptocurrency trading "can give an indication of the enormity of this market, and confirms that it is promising despite its risks, whether on the performance of the main currencies, remittances, or their use in illegal activities, but the advantages that this market contains confirm the need for Central banks and governments around the world tend to legalize them and deal with them positively.”[1]

II. LITERATURE REVIEW

A. Quick and Easy Payments

A few days ago, a recent report by the International Monetary Fund revealed that cryptocurrencies provide fast and easy payments through innovative financial services, in addition to comprehensive access to parts of the world, in addition to complete confidentiality thanks to the crypto ecosystem. However, consumer protection risks remain significant given limited or insufficient disclosure and oversight.[1]

Along with the opportunities come challenges and risks. The latest Global Financial Stability Report describes the risks posed by the crypto ecosystem, and offers some policy options to help navigate this uncharted territory.

According to the report, the total market capitalization of all crypto assets has crossed \$2 trillion, as of September 2021, a 10-fold increase since early 2020. The entire ecosystem is also thriving, filled with exchanges, wallets, miners, and stablecoin issuers.[2]

The Fund stated that many of these entities lack strong operational, governance and risk practices. For example, cryptocurrency exchanges faced major turmoil during periods of market turmoil. There are also several high-profile cases of hacking-related client money theft.

So far, these incidents have not had a significant impact on financial stability. However, as crypto assets become more prevalent, they are set to increase in importance in terms of potential impacts on the broader economy.[2]

B. Customer Protection

The International Monetary Fund revealed that consumer protection risks remain significant given the limited or insufficient disclosure and oversight. For example, more than 16,000 tokens have been listed on various exchanges and about 9,000 exist today, while the rest have somehow disappeared. Also, many of them do not have folders, and the developers may have moved away from the project. It is possible that some of them were created only for speculative purposes or even outright fraud. Anonymization or counterfeiting of crypto assets also creates data gaps for regulators, and can open unwanted doors for money laundering, as well as terrorist financing. Although the authorities may be able to track illegal transactions, they may not be able to identify the parties to such transactions. In addition, the cryptocurrency ecosystem falls under different regulatory frameworks in different countries, which makes coordination more difficult.[3]

For example, most transactions on cryptocurrency exchanges occur through entities that operate primarily in offshore financial centers. This makes supervision and

enforcement not only challenging, but nearly impossible without international cooperation.

The report stated that stablecoins, whose value is usually pegged to the US dollar, are also growing at lightning speed, with their supply increasing fourfold throughout 2021, to reach \$120 billion.[3]

However, the term “stablecoin” captures a very diverse set of crypto assets and can be misleading. Given the composition of their reserves, some stablecoins could be subject to operation, with spillover effects on the financial system. Operations can be driven by investor concerns about the quality of their reserves, or the speed with which reserves can be liquidated to meet potential redemptions.

III. BITCOIN IS APPROACHING THE \$60,000 LEVEL

In terms of trading, during the past five sessions, the total market value of digital currencies increased by 4.7 percent, gaining about \$110.4 billion, after the combined market value rose from the level of \$2331.2 billion to \$2441.6 billion in today's trading.[3]

As for "Bitcoin", while it recorded a rise of 2.3 percent during the past hours, it achieved a weekly gain of 10 percent, to be traded today at the level of \$59,386. Its combined market value has also risen to about \$1120.5 billion at the present time. With this figure, "Bitcoin" acquires a market share of 45.89 percent of the total market value.

The "Ethereum" currency, which ranked second in the list of the largest cryptocurrencies by market value, recorded gains during the past hours by 5.5 percent, compared to weekly gains of 7.5 percent, to be traded today at the level of \$ 3842. Its total market value also rose to the level of \$453.2 billion in today's trading, to acquire a market share estimated at about 18.56 percent of the total combined value of the market.[4]

While the “Binance Coin” currency ranked third among the largest cryptocurrencies by market value, the currency recorded gains during the last week's trading of 8.2%, compared to a decline of 2.3% during the past hours, to settle the price of the currency at the level of 467 dollars. It also recorded a total market value of about 78.58 billion dollars, acquiring a market share estimated at 3.21 percent.

The "Cardano" currency, which ranked fourth among the top 10 digital currencies by market value, lost 2.7 percent during the last week's trading, compared to an increase during the past hours of 0.9 percent, to settle its price in today's trading at the level of \$2.21. Its combined market value stabilized at \$72.44 billion, reaping a market value of 2.96 percent.[4]

The "Tezer" currency came in fifth place, after the price of the currency stabilized at the level of one dollar. It also recorded a total market value of about 58.59 billion dollars, with a market share of 2.80 percent.

IV. POLKA DOT POSTS STRONG WEEKLY GAIN

The "X-Ripple" currency, which ranked sixth among the top 10 digital currencies by market value, achieved gains during the last week's trading of 8.5 percent, compared to an increase during the past hours of 1.6 percent, to settle its price in today's trading at the level of \$1.16. Its combined market value rose to \$54.22 billion, gaining a market share of 2.22 percent.

While the "Solana" currency came in seventh place, it recorded gains during the last week's trading of 4.2 percent, with a rise of 6 percent during the past hours, to settle its price in today's trading at the level of 160.11 dollars. Its combined market value also rose to the level of 48.23 billion dollars, with a market share estimated at 1.97 percent.[5]

As for the "Polka Dot" currency, which ranked eighth, it recorded gains during the last week's trading of 21.3 percent, compared to a decline of 0.4 percent during the past hours, to settle in today's trading at the level of 40.97 dollars.

Its total market value also rose to the level of 40.45 billion dollars, acquiring a market share of 1.65% of the total market value at the present time.[6]

The USD Coin ranked ninth among the top 10 digital currencies by market value, and its price stabilized at the level of one dollar, and its combined market value stabilized at the level of 32.88 billion dollars, with a market share estimated at 1.34 percent.[7]

The "Dogecoin" currency came in the tenth place, and the currency recorded losses during the last week's trading by 4 percent, compared to losses of 1.1 percent during the past hours, to be trading today at the level of \$0.234. Its combined market value stabilized at \$30.84 billion, acquiring a market share estimated at 1.26 percent. The Arab Monetary Fund believes that the risks of cryptocurrencies on the financial sector are related to the use of currencies and price volatility, and given the significant increase in the volume of "Bitcoin" circulating in the markets, this currency could pose a threat to financial stability.[8]

The fund indicated in a statement to "Vision" that there are 4 main elements that limit the use of bitcoin as an investment tool, including: the value of bitcoin and the volatility in the price of the cryptocurrency because it is relatively unrelated to most traditional assets, and its dependence in particular on the confidence of dealers, as well as the absence of investment funds based on Bitcoin, as it is an unregulated currency.

The fund stated that Bitcoin and other cryptocurrencies encourage circumvention of rules related to combating money laundering and terrorist financing and anonymizing remittances that could be used for criminal purposes (the online sale of illegal goods or services), or for the purposes of money laundering or terrorist financing.[9]

V. CENTRAL REFUSES

The Central Bank of the Emirates confirmed in a statement on December 6 last year that it does not currently accept or approve encrypted or virtual assets as legal cash exonerated in the UAE, as the UAE dirham is the only legal currency that has the absolute power of acquittal in the country. The statement came in response to allegations that the bank had implicitly "legalised" cryptocurrencies in the country.[10]

The Central explained that the "Store Value Facility System" aims to license institutions that issue or provide stored value facilities in the UAE, noting that stored value facilities are facilities whereby an amount of money or the value of money is accepted, which may include, among

other elements, Crypto or virtual assets, in exchange for storing the value of that money. He indicated that crypto assets are not currently recognized as a means of payment and can only be used as investment assets with potentially high risks.

The central bank said it is working on a new system called the Retail Payment Services System, which will incorporate the concept of payment tokens, defined as crypto assets, backed by a cash currency and used for payment purposes.[11]

A. Shake Confidence

The Bank for International Settlements denounced the risks associated with crypto operations that affect the financial system, stressing the need to adapt to new risks, including the loss of confidence in the financial system, and the development of crypto operations in its own digital world, without border barriers, and can operate independently of existing institutional environments or Any other infrastructure.[2]

B. The role of the pandemic

In turn, Dr. Safinaz Abdel Salam Al-Maghazi, who specializes in studies of educational psychology and psychotherapy, said that the pandemic produced a new world and changed psychological and economic concepts, as it accelerated new business patterns amid digital transformation in all aspects of life, driven by fear of exposure to Corona virus infections.[13]

In the Addition, that psychological feelings (fear, greed, anger and happiness) are always associated with crises that befall all peoples, which confirm the occurrence of psychological changes in the human personality and thus are reflected in the behavior and actions of humans, and their choices for their own quality of life and dealing with strange and unique things that not all people do. This calls to safety. She pointed out that everything that surrounds the individual of anxiety and tension makes defensive tricks resistant to anxiety in the search for what is new and strange, and this makes him deal with cryptocurrencies in that way.

C. Black Box

For his part, Dr. Alaa Jarrad, a university professor residing in Britain and an expert in institutional learning methods, said that the psychological state of cryptocurrency traders is a state fraught with anxiety and fear of the future; But the behavior and orientation of people is related to the extent to which they accept risk and adventure, especially in digital currencies, because it is still to this day a black box that no one understands what is inside, and there are more questions than answers on the subject of digital currencies.[14]

VI. THE IMPACT OF DIGITAL CURRENCIES ON THE MONETARY POLICY OF CENTRAL BANKS

The development of financial technology had a clear and evident impact on all aspects of economic and financial life, represented in the speed of completion of transactions and the reduction of their costs. Cryptocurrency is one of the applications that this technology has spawned, which has posed a major challenge to central banks. Since the emergence of these virtual currencies during the past two decades, questions are still being raised about their capabilities and ability to influence the local and international economies, their pros and cons, which prompted central banks and economic organizations to conduct studies and research to determine these negatives and risks that are expected to be generated by trading this type of currency. Currencies are outside the control of central banks.[15]

Of these risks, which must be prepared for, are the risks of counterfeiting, counterfeiting and money laundering, in addition to their impact on monetary policy, which is one of the most important tools of the Central Bank to achieve economic stability, as monetary policy is one of the main pillars in building macroeconomic policy, and virtual currencies have an impact on tools Monetary policy and its objectives, that is why it is necessary for central banks to develop a unified framework for organizing virtual money and setting controls for its issuance and circulation.[16]

VII. QUALITY TOOLS:

The Central Bank uses qualitative tools to influence the direction of credit and not its total volume, that is, to influence the volume of credit and the cost of the sector or some specific economic activities that the state wants to encourage or limit without others, and these tools work by setting or limiting prices (interest rates), Or determining the quantities through the regulations and its regulatory authorities to serve the objectives of the general economic policy.[17]

A. Quantitative credit control

This policy aims to determine the total volume of credit in the national economy by setting a maximum annual rate of credit increase that should not be exceeded. The Central Bank sets this limit in a way that is compatible with the growth situation of the national economy. The Central Bank determines the volume of credit and directs it to certain economic sectors.[18]

B. Change margin of guarantee

The margin of guarantee is intended to determine the ratio that must be observed between the value of the loan and the value of the guarantee on that loan, as commercial banks provide loans to some individuals in exchange for shares, bonds or real estate, and usually, these loans are not provided to these assets at what is equal to their market value, but rather their value and the risk ratio are determined first. It is then determined by a certain percentage, which is usually less than its market value. The Central Bank uses this tool to control and monitor the activity of commercial banks, through a change in the margin of guarantee ratio (reducing circulating liquidity), in addition to using it to limit the import of unnecessary consumer or luxury goods, by directing commercial banks not to provide credit facilities to traders, Only after the availability of a guarantee of no less than 50% of the value of opening the credit.[18]

C. The impact of digital currency on monetary policy tools

The development of digital currencies and their solutions to legal or paper money affect the tools used by central banks to implement monetary policy, including:

D. The impact of digital currencies on open market operations

The open market policy is based on the intervention of the Central Bank in the sale and purchase of private and government securities in the money market, and this method is intended to ensure financial stability and control inflation rates. Therefore, dealing with economic units in digital currency gradually pushes them to abandon legal money, which leads to Commercial banks return excess cash to the Central Bank in order to increase their cash reserve ratio, and this leads to limiting the ability of central banks to sell securities in order to absorb part of the liquidity in the commercial banks and thus affect their ability to grant credit. This depends on the extent of the spread of dealing with digital currencies by economic units, the greater the deal with digital currency, the greater its impact on the effectiveness of the open market policy and vice versa. As we know that the intervention of the Central Bank in the open market operations also affects the trends of interest rates, and this has effects on the volume of investment and other economic variables.[19]

E. The effect of digital currency on legal reserves

The spread of dealing in digital currency leads to an increase in the volume of deposits and then surplus reserves, and this leads to an increase in the liquidity ratio of commercial banks, then the demand for reserves at the Central Bank will decrease, hence the spread of dealing with digital currency has a negative impact on the effectiveness of the legal reserve policy.[20]

F. The effect of digital currency on the rediscount rate

Individuals can buy and sell digital currencies in exchange for legal currency issued by the Central Bank, and this money enters the treasury of commercial banks because digital currency issuers deposit the money they obtained from selling digital currency in commercial banks, and the latter increases its reserves with the Central Bank due to its increased liquidity , which leads to an increase in the reserves of commercial banks in excess of the desired size. [21] In this case, the banks choose between two things:

First: Purchasing assets from non-bank institutions and granting more loans.

Second: buying more assets from the central bank.

VIII. CONCLUSION

As we have already mentioned, monetary policy aims to achieve monetary balance in order to avoid the occurrence of inflationary effects, by controlling the money supply and the demand for money. Since virtual currencies have become a reality, their spread and dealing with them is increasing day by day at the level of dealers, and the implementation of cross-border transactions, away from the control and authority of central banks. For this reason, the central banks must deal with this currency with all professionalism, so that the central banks do not become a spectator, and a state of reactions.

Hence, central banks must deal with financial technology, and use its same tools, to work on controlling and regulating them in a way that maintains the financial stability of the state, and so that the central banks do not become a spectator. Accordingly, central banks should work to issue their own digital currencies, under their supervision and control, develop DLT technology, and deal with Block Chain technology to store and preserve data. These steps will have a significant impact on enhancing the role of central banks and their ability to Performing its functions and controlling the monetary policy tools.

In addition to the above, central banks are required to develop legislation and regulations for FinTech-based operations, in order to ensure that central banks play their role in supervising and controlling the emerging and financial technology-based operations.

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