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VIRTUAL CURRENCIES AS AN ALTERNATIVE TO TRADITIONAL CURRENCIES

Abstract: this article will indicate on the emergence of virtual currencies. This article explores the defining features of virtual currencies and their potential as an alternative to traditional currencies. However, there are many challenges these currencies face for widespread adoption.

Keywords: virtual currencies, traditional currencies

ВИРТУАЛЬНЫЕ ВАЛЮТЫ В КАЧЕСТВЕ АЛЬТЕРНАТИВЫ ТРАДИЦИОННЫМ ВАЛЮТАМ

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Virtual currencies have rapidly emerged as a transformative force in the world of finance, captivating the attention of investors, technologists, and consumers alike.

Unlike traditional fiat currencies issued by governments and centralized authorities, virtual currencies exist solely in digital form, leveraging decentralized technologies such as blockchain to facilitate transactions and maintain security. This innovative approach enables users to send and receive money directly without the need for intermediaries, ushering in a new era of financial flexibility and empowerment [1].

The most well-known virtual currency, Bitcoin, was introduced in 2009 and has since paved the way for thousands of alternative cryptocurrencies, each with unique features and applications. From enabling cross-border transactions and smart contracts to powering decentralized finance (DeFi) and non-fungible tokens (NFTs), virtual currencies are at the forefront of a broader digital revolution that is redefining how value is created, exchanged, and stored [2].

A virtual currency is a digital representation of value. It is stored and transacted through designated mobile or computer applications. Transactions involving virtual currencies occur through secure, dedicated networks or the internet. They are generally issued by private parties or groups of developers and are mostly unregulated.

How Virtual Currencies Are Used. Cryptocurrency is most commonly purchased and sold by investors and traders on cryptocurrency exchanges to profit from price fluctuations and increases. However, they are also used in some countries by people who don't have access to other payment methods or financial services. In its 2023 Geography of Cryptocurrency Report, blockchain and crypto-assets analysis firm Chainalysis reported that cryptocurrency adoption is down from previous years; however, lower-middle-income countries are adopting these currencies at a much higher rate than others. Many video games offer virtual currencies you can buy with real money and use to purchase items in-game. Most of these in-game currencies and tokens are not usable outside the game and cannot be transferred. However, there are blockchain-based games that use in-game currency which can be purchased with cryptocurrency. In this case, both currencies are virtual currencies because real-world value is being transferred[1].

Virtual currencies are digital representations of value whose transactions occur in online networks or the internet. All virtual currencies are digital currencies, but the opposite is not true. Virtual currencies are issued by private organizations or groups of developers and are mostly unregulated. Some virtual currencies strive to increase transaction speeds by removing intermediaries from the process. There are two types of virtual currencies: closed and open.

Closed Virtual Currency, as the name suggests, CVC (closed virtual currency) operates in a controlled and private ecosystem. It cannot be converted into another virtual currency or a real-world fiat currency. Examples of closed virtual currencies are currencies in gaming systems. Though such currencies can be used in their respective environments (in this case, games), they cannot generally be converted into real-world cash.

Open virtual currency, operates in open ecosystems and can be converted into another currency within or outside the platform. Examples of open virtual currencies are stablecoins and cryptocurrencies. Bitcoin and Ethereum, the two biggest cryptocurrencies by market capitalization, can be converted into other cryptocurrencies or certain fiat currencies. This conversion process can trigger taxes, depending on how long you hold your cryptocurrency and its market value when you purchased and sold it. Though most open virtual currencies have a decentralized setup, some cryptocurrencies might be centralized in design, meaning a central agency is responsible for their production and distribution [2].

The advantages of virtual currencies are as follows: The technology behind virtual currencies can eliminate geographical boundaries. Decentralized virtual currencies can eliminate intermediaries during monetary transactions and establish a direct connection between two transacting parties. Some virtual currencies can be programmed to complete automated transactions. For example, smart contracts on Ethereum's blockchain can hold and release money in escrow accounts without human intervention. Virtual currencies are digital repositories of value and can assign value to disparate sets of objects, from gaming tokens to artwork.

The disadvantages of virtual currencies are as follows: virtual currencies are attractive targets for hackers. There have been several cases of cryptocurrency theft by hackers. Virtual currencies can be used in scams. Several initial coin offerings (ICOs), which became popular after a runup in cryptocurrency prices, were scams in which private developers sold worthless tokens for hypothetical networks. Unregulated virtual currencies do not offer legal recourses to investors or users because they are issued by private entities and, for the most part, are not regulated by financial authorities[1].

Cryptocurrencies are digital tokens. They are a type of digital currency that allows people to make payments directly to each other through an online system. Cryptocurrencies have no legislated or intrinsic value; they are simply worth what people are willing to pay for them in the market. This is in contrast to national currencies, which get part of their value from being legislated as legal tender. There are a number of cryptocurrencies – the most well-known of these are Bitcoin and Ether.

Activity in cryptocurrency markets has increased significantly. The fascination with these currencies appears to have been more speculative (buying cryptocurrencies to make a profit) than related to their use as a new and unique system for making payments. Related to this, there has also been a high degree of volatility in the prices of many cryptocurrencies. For example, the price of Bitcoin increased from about US\$30,000 in mid 2021 to almost US\$70,000 toward the end of 2021 before falling to around US\$35,000 in early 2022. Rival cryptocurrencies like Ether have experienced similar volatility. The extraordinary interest in cryptocurrencies has also seen a growing amount of computing power used to solve the complex codes that many of these systems use to help protect them from being corrupted. Despite the increased level of interest in cryptocurrencies, there is scepticism about whether they could ever replace more traditional payment methods or national currencies [2].

How Does a Cryptocurrency Transaction Work? Cryptocurrency transactions occur through electronic messages that are sent to the entire network with instructions about the transaction. The instructions include information such as the electronic

addresses of the parties involved, the quantity of currency to be traded, and a time stamp. Suppose Alice wants to transfer one unit of cryptocurrency to Bob. Alice starts the transaction by sending an electronic message with her instructions to the network, where all users can see the message. Alice's transaction is one of a number of transactions that have recently been sent. Since the system is not instantaneous, the transaction sits with a group of other recent transactions waiting to be compiled into a block (which is just a group of the most recent transactions). The information from the block is turned into a cryptographic code and miners compete to solve the code to add the new block of transactions to the blockchain. Once a miner successfully solves the code, other users of the network check the solution and reach an agreement that it is valid. The new block of transactions is added to the end of the blockchain, and Alice's transaction is confirmed. (This confirmation is not instant as it takes time for six blocks of transactions to be processed so that users can be certain that their transaction has been successful.)

Is Cryptocurrency Money? A frequently asked question is whether cryptocurrency can be defined as 'money'. The short answer is that cryptocurrency is not a form of money. To understand why, we can ask whether the characteristics of cryptocurrencies match the key characteristics of money.

Widely accepted means of payment – can cryptocurrencies be used to buy and sell things? Money generally comes in the form of a nation's currency, and is widely accepted as a means of payment. While cryptocurrencies can be used to buy and sell things, they are not widely accepted as a means of payment, and surveys suggest that only a small fraction of cryptocurrency holders use them regularly for payments.

Store of value – can the purchasing power of cryptocurrencies (their ability to purchase a similar basket of goods and services) be maintained over time? Large fluctuations in the price of many cryptocurrencies mean that their purchasing power is not maintained over time, reducing their effectiveness as a store of value.

Unit of account – are cryptocurrencies a common way of measuring the value of goods and services? In Australia, the prices of goods and services are measured in

Australian dollars. While some businesses may accept cryptocurrencies as payment, they are not commonly used to measure and compare prices.

So, while cryptocurrencies can be used to make payments, currently their use as a means of payment is limited and they do not display the key characteristics of money.

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