



**Committee:** Economic and Financial Affairs Council - ECOFIN

**Topic:** The question of cryptocurrencies.

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### Introduction

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. Rival cryptocurrencies tend to have 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 skepticism about whether they could ever replace more traditional payment methods or national currencies.

### The issue

The impact of cryptocurrency on the global economy is a complex and evolving subject. While cryptocurrencies have the potential to influence the global economy in various ways, their effects are still in the early stages and subject to ongoing developments. Some of the impacts suggested by cryptocurrencies that threatens global economy are the Financial Inclusion, the remittance, global trade, investment opportunities, Monetary Policy and Central Banks, Innovation and Blockchain Technology, Speculation and Volatility, Regulatory Challenges, Taxation and Reporting, Environmental Concerns, Global Payments Infrastructure, Financial System Resilience.

Cryptocurrencies can provide financial services to the unbanked and underbanked populations worldwide. This increased access to financial tools and services can promote economic participation and growth in underserved regions.

Cryptocurrencies can lower the cost and increase the speed of cross-border remittances. Workers sending money to their home countries can benefit from reduced fees, which can have a positive impact on the economies of receiving nations.

Some businesses are starting to accept cryptocurrencies for international trade transactions. This can streamline cross-border payments and reduce currency conversion costs, potentially benefiting global trade efficiency.

Cryptocurrencies have become an asset class for investors, attracting institutional and retail investors alike. This can influence capital flows and investment patterns on a global scale.

Central banks are exploring the development of Central Bank Digital Currencies (CBDCs). The introduction of CBDCs could impact traditional monetary policy, currency exchange rates, and global financial stability.

### CBDCs purpose

Cryptocurrencies have driven innovation in blockchain technology. Blockchain is being adopted in various industries, potentially improving transparency, supply chain management, and data security on a global scale.

The speculative nature of cryptocurrency markets can lead to rapid price fluctuations. While this can create investment opportunities, it can also pose risks and affect market sentiment and stability.

Cryptocurrency regulations vary by country. Regulatory decisions can impact the global crypto market, with some countries embracing cryptocurrencies and others implementing stricter controls.

Governments are working to establish tax frameworks for cryptocurrencies, impacting individuals and businesses involved in the crypto space.

The energy-intensive nature of some cryptocurrency mining operations has raised environmental concerns. Efforts to address these concerns may influence global sustainability initiatives.

Innovations in blockchain technology and cryptocurrencies could influence the future of global payment systems, potentially challenging or complementing traditional financial infrastructure.

Disruptions in cryptocurrency markets, such as large-scale hacks or collapses of exchanges, can have cascading effects on global financial stability.

### Key events

Event/ Date	Explanation
<b>David Chaum's Blind Signatures in 1983</b>	In 1983, cryptographer David Chaum introduced the concept of blind signatures, laying the groundwork for cryptographic protocols that would later influence digital currencies. His work aimed to ensure privacy and untraceability in electronic transactions, setting the stage for the development of cryptocurrencies.

<p><b>Adam Back's Hashcash in 1997</b></p>	<p>Adam Back's invention of Hashcash introduced the concept of proof-of-work (PoW) to stop spam emails. This PoW mechanism became integral to cryptocurrencies like Bitcoin, providing a secure and decentralized mechanism for transactions.</p>
<p><b>Hal Finney's Reusable Proof of Work (RPOW) in 2004</b></p>	<p>Hal Finney's introduced the Reusable Proof of Work (RPOW), which marked an early attempt to create a tradable token using PoW. Although the RPOW was short-lived, it showcased the potential of cryptographic tokens and their applicability beyond spam prevention.</p>
<p><b>Satoshi Nakamoto's Bitcoin White Paper in 2008</b></p>	<p>This is considered the most significant event in the History of Cryptocurrency. With the release of Satoshi Nakamoto's white paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System." Satoshi's document laid the foundation for Bitcoin, introducing a concept of the decentralised digital currency operating on a Blockchain.</p>
<p><b>Birth of Bitcoin in 2009</b></p>	<p>Nakamoto mined the first block of the Bitcoin blockchain. Which is known as the "genesis block." This marked the official launch of Bitcoin, embarking on the birth of a new era in finance and technology.</p>
<p><b>First Bitcoin Transaction in 2010</b></p>	<p>Laszlo Hanyecz made a historic purchase of two pizzas for 10,000 Bitcoins. This transaction is widely recognized as the first real-world transaction involving Bitcoin. This event made news across the world, emphasising the practical utility of cryptocurrencies as a medium of exchange.</p>
<p><b>Emergence of Alternative Cryptocurrencies in 2011</b></p>	<p>Since Bitcoin became the talk of the town in its early days, alternative cryptocurrencies (altcoins) started emerging. Litecoin, created by Charlie Lee, introduced faster block generation times and a different hashing algorithm, becoming one of the first major altcoins. Several other coins registered their presence and joined the Cryptocurrency wave.</p>
<p><b>Rapid Price Surge and Media Attention in 2013</b></p>	<p>In the year 2013, Bitcoin's price surged to over \$1,000. This attracted significant media coverage and mainstream attention. This interest ignited the concept of Cryptocurrency into the public consciousness, sparking debates about its legitimacy and potential.</p>

<p><b>Ethereum and Smart Contracts in 2015</b></p>	<p>Ethereum is the most famous types of cryptocurrencies after Bitcoin; Ethereum was launched by Vitalik Buterin in 2015. Ethereum introduced the concept of smart contracts, enabling programmable and self-executing agreements on the blockchain. This innovation expanded the possibilities of blockchain technology beyond simple transactions, which was also the reason for its popularity.</p>
<p><b>Initial Coin Offerings (ICOs) in 2017</b></p>	<p>The ICO boom of 2017 ignited the fire of new cryptocurrencies and tokens being issued to raise funds for various projects. While ICOs revolutionized fundraising, they also raised concerns about investor protection and regulatory compliance due to their legitimacy and uncertain values.</p>
<p><b>Bitcoin Halving and Institutional Adoption in 2020</b></p>	<p>In the year 2020, companies like Tesla and MicroStrategy publicly announced their substantial holding of Bitcoin. This worked as a signal of the adoption of cryptocurrencies into the mainstream world. In May of the same year, Bitcoin's value was halved, which in turn highlighted its scarcity and its potential as a store of value.</p>
<p><b>NFT Craze and DeFi Explosion in 2021</b></p>	<p>The rise of Non-Fungible Tokens (NFTs) captured the world's attention, highlighting the potential of blockchain technology beyond currency. The DeFi (Decentralized Finance) movement gained momentum, showcasing the transformative power of decentralized financial applications.</p>
<p><b>The Ethereum Merge in 2022</b></p>	<p>It is one of the most anticipated events by Cryptocurrency followers. With the Ethereum merge, the Cryptocurrency shifted to PoS (Proof of Stake) from PoW (Proof of Work), which made it more energy efficient (almost by 99.95%).</p>
<p><b>World Crypto Conference in 2023</b></p>	<p>The World Crypto Conference in Switzerland brought together various key players from the digital worlds like Metaverse, DeFi, and</p>

	financial entities. This conference aimed to promote investment in Blockchains and discussed the role of digital assets in the evolving digital economies.
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### Advantages and disadvantages

Cryptocurrencies make it possible to reduce costs and bureaucracy in asset transactions and facilitate access to capital through non-centralized channels. However, the high volatility of cryptocurrencies also poses a challenge for risk managers.

### Advantages of Cryptocurrency

17 main benefits stand out when investing in cryptocurrencies

#### 1. Easy Transactions

Cryptocurrency transactions are simpler, cheaper, and more secure than most other types of transactions which is one of the main advantages of crypto. Everyone can transfer and receive several cryptocurrencies using a basic smartphone application, hardware wallets, or exchange wallets.

#### 2. Incredible Security

Decentralized cryptocurrencies usually make for secure methods of payment since they are dependent on cryptography and blockchain technology which is among the important benefits of crypto.

Hash rate is a key factor in cryptography security. The greater the hash rate, the more computer power is required to breach the network. Bitcoin has the greatest hash rate of any network, making it the most protected cryptocurrency.

#### Hash rate

In the world of cryptocurrencies, hashrate is a metric used to analyze the strength and security of the blockchain.

#### 3. Short Settlement Times and Low Fees

While some investors are primarily interested in the potential price growth of cryptocurrencies, others may see value in the technology's potential application as a medium of exchange.

Transaction fees for bitcoin and ether can range from pennies to dollars or maybe more, among the benefits of cryptocurrency trading. Many crypto transactions are completed in a matter of seconds or minutes. Bank wire transfers typically take three to five working days and might be much more expensive.

#### 4. Exponential Industry Growth

The cryptocurrency market has had quick growth since its inception. According to a new study by the US-based international bank, Citi, it has been estimated that the cryptocurrency market will reach nearly [\\$4.94](#) billion by 2030. Thus, the industry has the potential for exponential growth in the coming years. It is one of the major benefits of investing in cryptocurrency.

#### 5. Outsized Returns

It is no surprise that over the past 12 years, Bitcoin has outperformed all other assets. Almost no value existed when Bitcoin started in 2009, and it has increased over the years to tens of thousands of

dollars. It represents gains in the millions of percentage points and is one of the benefits of staking crypto. In contrast, the average annual return on the S&P 500 stock index is roughly 8%.

### **6. More Private Transactions**

One advantage of cryptocurrency is privacy; however, it's not as private as some people might imagine. With blockchain technology, all transactions are permanently recorded in a public ledger. Although this ledger displays wallet addresses, monitoring transactions is still feasible if a user's identity can be linked to a particular wallet.

### **7. Portfolio Diversification**

The asset class of cryptocurrencies is currently recognized as being uncorrelated. Cryptocurrency markets operate mainly autonomously, and the direction of their price movement is frequently influenced by variables different from those that influence equities, bonds, and commodities. It is among the advantages of investing in cryptocurrency.

### **8. Inflation Hedge**

Another of the benefits of using cryptocurrency is that the limited quantity of mineable cryptocurrencies like Bitcoin, Litecoin, and Monero, to mention a few, are ideal inflation hedges. Things becoming more scarce tend to increase in value since monetary inflation can happen when government agencies and central banks produce more money, thereby raising the supply.

### **9. Cross-Border Payments**

National boundaries are irrelevant to cryptocurrencies which is a significant advantage of a cryptocurrency over traditional currency. Without any additional difficulties, a person in one nation can send coins to a person in another nation. Transferring money across international borders can be time-consuming and expensive with conventional financial institutions. Due to rules, penalties, or conflicts between particular nations, doing so may not even be feasible in some circumstances.

### **10. A more Inclusive Financial System**

Cryptocurrency offers several advantages to those who don't have a connection to the conventional banking system. One advantage of cryptocurrencies is that anyone can use them because it is decentralized and permission-less. Thus, it is among the major crypto advantages.

### **11. Transactional Freedom**

One of its many advantages is cryptocurrency's ability to be utilized as an asset exchange between two sides. Since it can be done without the participation of a third entity, the transaction is more open and censorship resistant.

### **12. 24/7 Markets**

In the context of the New York Stock Exchange, stock markets are only active on working days from 9:30 am to 4:30 pm Eastern Time, and most conventional financial markets are closed on nights, weekends, and festivals.

Contrarily, crypto markets are open for business every day of the week, twenty-four hours a day which highlights the benefits of cryptocurrency on the economy. The only things that may prevent someone from trading cryptocurrencies would be a power failure, an internet shutdown, or a failure of a centralized exchange.

### **13. Transaction Speed**

One of the significant benefits of cryptocurrency investment is that crypto transactions can be finished in a matter of a few minutes, unlike conventional transactions that settle in between three and five days or even wire transfers, which typically take at least 24 hours. The funds are ready for usage in crypto transactions after the network has approved the block containing your transaction.

### **14. Accessibility**

Anyone can use cryptocurrency, which is another of the major advantages of using cryptocurrency. Internet access and a computer or phone are everything you require. If we compare the process of creating an account at a conventional financial institution to set up a bitcoin wallet, the latter is incredibly quick. There is no ID checking, and there isn't a credit or background check.

### **15. Security**

It is among the major crypto benefits. Nobody can authorize transactions or access your funds until they have permission to access the private key for your cryptocurrency wallet. Unfortunately, there is also no method to get your money back if you misplace your private key.

Additionally, due to the design of the blockchain system and the distributed computer network that verifies exchanges, transactions are safe. The network gets safer as more processing power is given to it.

### **16. Transparency**

Transparency is unquestionably one of the benefits of cryptocurrency. All crypto exchanges take place on the widely used blockchain ledger, and anyone can use tools to search for transaction information. Transparency, to this extent, can lessen fraudulent activity. A person can demonstrate that they have sent funds and that it has been received or that they have the necessary finances to complete a transaction.

### **17. Self-governed and Managed**

Any currency's governance and upkeep are important factors in its growth. Developers/miners keep cryptocurrency transactions on their hardware in exchange for a charge known as a transaction fee. Since they obtained it, the miners have kept transaction data correct and up to date, maintaining the decentralized nature of the records and the coin's security which is one of the benefits of trading cryptocurrency.

## **[Disadvantages of Cryptocurrency](#)**

### **1. Illegal Transactions**

Since cryptocurrency transactions are highly private and secure, it is challenging for the authorities to hunt down any person through their wallet address or maintain surveillance of their data. Bitcoin has historically been used to exchange money during many unlawful transactions, such as purchasing narcotics on the dark web and thus being one of the greatest disadvantages of cryptocurrency. Many people have also utilized it to transfer their illegally obtained money through a legitimate middleman to conceal the source.

### **2. Risk of Data Loss**

The designers sought to create impenetrable authentication processes, virtually undetectable ASCII documents, and robust hacking defenses. Positioning money in cryptocurrency rather than actual cash

or bank vaults would make it more secure. However, if a user misplaces their wallet's private key, there is no way to recover it, which is among the major disadvantages of crypto. The number of coins within the wallet will also stay kept away.

### **3. The Power Lies in a Few Hands**

Although cryptocurrencies are renowned for their decentralized nature, some currencies' market flow and supply are nonetheless regulated by their developers and certain organizations. These holders can manipulate the coin to cause significant price movements. Even highly traded coins like Bitcoin, whose value more than doubled, are susceptible to these tricks, which is one of the major drawbacks of blockchain.

### **4. Buying NFTs with Other Tokens**

Only one or a few fiat currencies can be used to exchange some cryptocurrencies. It necessitates the user to first change these cryptocurrencies into one of the more popular ones, such as Bitcoin or Ethereum, before exchanging that money for the one they want. It may only apply to some cryptocurrencies. This adds additional transaction costs to the technique and results in unneeded expenditures.

### **5. No Refund or Cancellation**

The coin cannot be returned to the sender in cases where there is a disagreement between the parties involved or when money is inadvertently sent to the incorrect wallet address. Many people might use it to defraud others for their money. There are no reimbursements; thus, it is simple to fabricate one for a transaction where the goods or services were never delivered. It is one of the significant disadvantages of staking crypto.

### **6. High Consumption of Energy**

It takes a lot of computer power and electricity to mine bitcoins, making it a very energy-intensive process. Bitcoin is frequently the biggest offender here. Advanced computing power and a lot of energy are needed for bitcoin mining. It cannot be done with standard computers. Significant Bitcoin miners are located in nations like China, where coal is used to generate electricity. China's carbon footprint has greatly expanded as a result.

### **7. Vulnerable to Hacks**

Cryptocurrencies are quite safe, but trades do not appear to be. Many exchanges keep track of users' wallet information to determine their user ID. Hackers frequently steal this data, granting them access to numerous accounts. It is one of the major disadvantages of investing in cryptocurrency.

### **8. Decentralized but Still Operated by Some Organization**

The decentralized nature of cryptocurrency is well-known. However, some currencies' issuers and some organizations continue to have control over the circulation and stock of some of these currencies. The fact that these holders have the power to control the coin's price with significant fluctuations is among the other drawbacks of cryptocurrency.

### **9. Some Coins are not Available in Other Fiat Currencies**

Only a single or a small amount of traditional money can be used to trade certain cryptos. This compels the consumer to first exchange these currencies into a significant currency, such as Bitcoin or Ethereum, and then utilize other exchanges to change that currency to their preferred one. Quite a few cryptocurrencies are affected by this.



## 10. Adverse Effects of mining on the environment

Cryptocurrency mining is a highly energy-intensive process that demands a significant amount of computational power and electrical input. The most energy-hungry cryptocurrency is Bitcoin, which requires state-of-the-art computers and a considerable amount of energy, rendering it inaccessible to most computers. China is a hub for Bitcoin mining, utilizing coal-generated electricity which greatly contributes to the country's carbon footprint.

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