

Reviewing Currency Challenges and The Future of Money: The Gouantum

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ABSTRACT

The future of money is changing, and a new era of digital currencies is emerging. The traditional fiat and gold currencies face several challenges such as volatility, security issues, and limitations in transact ability. On the other hand, the cryptocurrency, despite its potential, also has limitations in terms of scalability, security, and widespread adoption. In this paper, we aim to address various currencies' limitations and introduce a new currency concept that could mitigate most of the current currencies' challenges and limitations. The new digital currency we proposed, combines the best of both fiat and gold currencies and overcomes the limitations of cryptocurrencies. By being backed by physical gold, Gouantum could provide stability and security, and by using blockchain technology, it shall enable fast and low-cost transactions. The paper provides a comprehensive overview of the challenges faced by traditional fiat and gold currencies and the limitations of crypto-currencies, and how Gouantum addresses these issues. The paper concludes that Gouantum has the potential to change the future of money and revolutionize the financial industry.

Keywords: Cryptocurrency, Fiat Currency, Gold Currency, Gouantum.

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I. INTRODUCTION

Over the last few years, the world of finance and currency has witnessed a significant transformation characterized by the rise of alternative forms of currency. These changes include the shift from traditional fiat currencies to commodity-based money, such as gold, and the emergence of digital currencies like Bitcoin (Jiang & Li, 2021). This shift has transformed the landscape of money and exchange dramatically.

According to Schneider (2017), traditional fiat currencies have faced challenges such as inflation and lack of trust in central authorities. Bordo, *et al.* (2017) state that inflation has been a persistent issue that has affected fiat currencies, leading to a loss of purchasing power and a reduction in the value of savings. Additionally, the financial instability that has been witnessed in recent years, such as the 2008 financial crisis, has eroded confidence in the fiat currency system, further fueling the search for alternative forms of currency. Lipsy *et al.* (2020) note that the financial crisis was caused by a variety of factors, including excessive leverage, a lack of regulation, and a failure of risk management systems.

Additionally, Majid *et al.* (2021) note that commodity-based money such as gold has proven to be less effective in day-to-day transactions due to its bulkiness and lack of divisibility. The challenges of transport and storage also limit its practicality (Boehm & Ihle, 2020). As a result, it is not suitable for the modern economy, where convenience and efficiency are essential (Schneider, 2017).

The rise of digital currencies has led to a discussion about the limitations and challenges faced by traditional fiat

currencies and the potential drawbacks of digital currencies like Bitcoin (Foley *et al.*, 2018). The rise of digital currencies, such as Bitcoin, has emerged as a potential solution to the limitations of traditional fiat currencies and commodity-based money. The decentralized nature of digital currencies has provided an alternative to central authorities, which have been associated with financial instability and lack of trust (Majid *et al.*, 2021). The use of blockchain technology has also enhanced the security and transparency of digital currencies (Swan, 2015). However, digital currencies also have their limitations, including issues of security, scalability, and volatility (Majid *et al.*, 2021). These limitations have led to a debate on the sustainability of digital currencies and their potential drawbacks.

Therefore, the purpose of this paper is to provide a comprehensive review of the current challenges and limitations faced by different types of currencies, including fiat currencies, commodity-based money, and digital currencies. This paper aims to explore the drawbacks of fiat currencies and how digital currencies have sought to address these challenges. Additionally, the paper will examine the limitations of digital currencies, including issues of security, scalability, and volatility. Moreover, the paper will provide a critical analysis of the various concepts and theories related to money and currencies, and it will provide insights into the direction that the future of money and exchange could take. By highlighting these challenges and limitations, this paper aims to provide a starting point for further discussions and research on the future of money and the potential solutions that could address the current limitations of the currency system.

II. RESEARCH PROBLEM

The traditional fiat currency system is facing challenges such as inflation, financial instability, and lack of trust in central authorities, which have eroded confidence in this system. While alternative forms of currency, such as commodity-based money and digital currencies, have emerged as potential solutions, they also face their own limitations and challenges. Therefore, there is a need to examine the limitations and challenges of different types of currency and to explore potential solutions that could address the current issues facing the currency system.

III. RESEARCH OBJECTIVE

The objective of this study is to provide a comprehensive review of the limitations and challenges faced by different types of currency, including fiat currencies, commodity-based money, and digital currencies. The study will explore the potential solutions that could address the challenges facing the currency system and will provide insights into the future of money and exchange. Through this study, we aim to contribute to the ongoing discussion and research on the transformation of the financial and currency landscape.

IV. LITERATURE REVIEW

A. The Origin of Money

Several authors have discussed the flaws in orthodox approaches to money and policy. Wray (1993) argued that money and the market developed together and that the money supply in a monetary economy is necessarily endogenously determined, criticizing the Monetarist policy prescription of close control over the quantity of reserves as a step backward to an unstable system subject to periodic debt deflations. Instead, he proposed an accommodative central bank reserve system to prioritize the preservation of the convertibility of paper and the solvency of banks. Similarly, in his paper "Introduction to an Alternative History of Money," Wray (2012) argued that the orthodox approach is historically and logically flawed and suggested that a central bank reserve system is a better option than a commodity reserve system, which is subject to periodic debt deflations.

Davis (2002) discussed the history of inflation and efforts to control it. The author pointed out that inflation has been a common phenomenon for more than 90% of the world's population, and hyperinflation has been the norm for many people. However, Davis noted that during the 1990s, efforts to control inflation were more successful in some countries, leading to reduced inflation rates. He also highlighted Japan's success in controlling inflation, attributing it to the country's ability to produce its way out of inflation, a high personal savings ratio, and high investment rates.

Espinosa (2018) argued against the traditional money-commodity approach and proposed the money-debt approach, suggesting that money is a unit of account used to measure social obligations and commitments and was born in prehistoric societies through the imposition of certain penalizations. The paper argued that the origin of money was not driven by market forces but rather planned by public authorities of redistributive centers.

Kocherlakota (1998) argued that money's technological role in an economy is to allow people to record aspects of their past transactions and make that record accessible to others. The paper suggested that monetary policy should be designed to ensure efficient record-keeping, and further research is needed to understand how to achieve this.

B. Types of Money and Their Limitations

In Bagus's paper (2009), he argued that the quality of money affects the demand for money and should be given more attention by economists. Changes in the quality of money can have stronger effects on the purchasing power of money than changes in money's quantity. Therefore, economists should focus on analyzing the quality of different monetary and political regimes, the relevant properties of good money, the role of expectations, and the quality of media of exchange in more detail.

Munawar's paper (2020) reviewed different types of money in the context of community trade and economic development. It noted that direct banknotes may have weaknesses in completing large transactions, as carrying around a large number of banknotes can be risky and impractical. Instead, the paper suggested the use of demand deposits, checking accounts, or checks to complete transactions. The paper highlights the importance of using different types of money to facilitate trade and economic development in communities.

Stellinga *et al.* (2021)'s book concluded that the current financial monetary system evolved gradually over time with various factors playing significant roles, such as social and economic changes, technological advances, and policy developments. The tension between maintaining currency stability and having monetary flexibility has been a recurring theme throughout monetary history. Excessive flexibility in the monetary system, as seen in the lending practices of the 1990s and 2000s, can undermine stability and lead to financial crises, as seen in the 2007-2009 financial crisis.

Durani (2019)'s paper argued that the elastic money system, which is not fixed and constantly expanding, is inherently unstable and bound to lead to economic disorder. The demand for money is unique, and the supply of money does not correspond to the demand for it but is determined by the willingness and benefit of those who supply it, such as banks and states. The paper draws on the Austrian School of Thought to analyze the effects of money injections under various scenarios and concludes that recessions can be postponed by continuous money injections, but once the point of unavoidability is reached, neither additional money printing nor Keynesian deficits can help attain a solution. The paper concludes that the financial crisis of 2007 has exposed the instability of the current financial system.

Rifqi (2020)'s paper discussed the debate between the use of fiat money and the gold standard system in the financial system. The author concluded that inflation is not caused by the physical form of money but rather by the management of money supply and demand. The paper suggests government policies such as deregulation of the banking system, active intervention in price surges, and promotion of ZISWAF institutions to ensure stability in the regulation of money.

Kregel (2021)'s paper concluded that the adoption of a Token Money Game (TMG) system could provide an

electronic account adjustment of TMG member accounts geographically separate from a member's location, and its currency conversion and swap facilities can significantly reduce transaction time and fees. The TMG system is based on an account settlement protocol similar to the banking principle, allowing transactions to be conducted without the use of any physical representation of money and without any actual movement or transfer of funds aside from debit and credit entries on client accounts managed by the WM bookkeeper through the WM system.

Glasner (2020) explored the challenge posed by cryptocurrencies, such as Bitcoin, to traditional theories of the value of money and asset value. He discussed the derived income or service streams of purely monetary assets like cryptocurrencies, which are entirely based on the expectation of a resale value. The author raised questions regarding how to maintain the resale value of cryptocurrencies if they have no use as a commodity or cannot discharge tax liability. Glasner argued that the continued existence of cryptocurrencies is either due to a pure bubble sustained by uncertainty about when exchanges will cease or widespread demand for the currency, even if based on an unsustainable expectation of future resale value. Although the resolution of this paradox is not fully satisfactory, the author claimed that the disappointing nature of the explanation is likely to lead to disappointment for promoters of cryptocurrencies who hope to displace existing fiat currencies and establish a new monetary regime outside of the state monopoly over money.

Hermele (2014) in his paper, "Commodity Currencies vs Fiat Money - Automaticity vs Embedment," argued that the dis-embedding of market forces is the main issue with the current international monetary system following the neoliberal counter-revolution in development thinking. The author suggested that the experiences of the European Union, particularly the consequences of ill-adapted and poorly managed monetary systems, can serve as a cautionary tale. He also argued that the aftermath of the Great Financial Crisis of 2008 may see a new wave of demand for the re-embedding of markets, just as the Bretton Woods era grew out of the experiences of the Great Depression.

In BIS Working Paper No 1065, "The Bank of Amsterdam and the limits of fiat money", Bolt, Frost *et al.* (2023) discussed the governance of money and its importance in maintaining a flexible system that meets the economy's needs while maintaining confidence. The authors highlighted the central bank's role as a key institution in the monetary system, whose governance arrangements have continued to evolve with the economic challenges of their time. The paper drew lessons from the experience of the Bank of Amsterdam, which issued highly successful fiat money for nearly two centuries. The authors noted that after a severe economic shock and in the absence of fiscal backing, the same network effects that had initially sustained trust in the Bank guilder worked to expedite its ultimate downfall. The authors used a global games model to formalize the conditions under which trust in fiat money can evaporate. They showed that there is a unique break point for trust in fiat money, which is more likely to be reached in a severe shock when central bank equity turns deeply negative, and fiscal backing is lacking. The move from one regime (high trust) to another (breakdown of trust) becomes a step function, and the

downfall can be swift and precipitous. The paper concluded by emphasizing the value of reviewing historical precedents for understanding the monetary systems of today. The authors suggested that in a context of high inflation, high global uncertainty, and competition between sovereign currencies and cryptocurrencies, analyzing the incentives and governance underlying these structures may be a fruitful avenue for further research.

C. Digitization of Money and the Move to Cryptocurrency

The increasing digitalization of the economy is having a profound impact on the monetary system, leading to the emergence of new forms of money and payment systems. With the growth of cryptocurrencies and the development of stablecoins backed by safe assets, there is a need to assess the potential impact of these new forms of money on the traditional model of monetary exchange. This literature review examines some recent papers that discuss the implications of digital currencies for the monetary system.

Fiedler *et al.* (2019) examined the impact of digitalization on the monetary system, with a particular focus on stablecoins. The authors note that stablecoins are cryptocurrencies backed by safe assets and are more price-stable compared to traditional cryptocurrencies. Stablecoins issued by large tech firms offer several advantages over fiat money, such as ease of access and the absence of regional borders. However, the authors caution that the widespread adoption of stablecoins could pose risks to the international financial system and challenge the monetary authority of central banks. To address this issue, the authors suggest a public-private cooperation, where central banks provide stablecoin providers access to central bank reserves, known as synthetic central bank digital currency (sCBDC). The authors also highlight the potential impact of stablecoins on the efficacy of monetary policy, including a decrease in central bank reserves in households and businesses' balance sheets, loss of seigniorage revenue, and high interdependency between domestic monetary policies.

Brunnermeier *et al.* (2019) also explore the potential impact of digital currencies on the traditional model of monetary exchange. The authors argue that the technology underlying digital networks may lead to a separation of the roles of money, creating greater competition among specialized currencies. They also suggest that digital currencies associated with large platform ecosystems may encourage differentiation but discourage interoperability between platforms. Convertibility among monetary instruments and interoperability between platforms will be crucial in promoting competition and lowering barriers to trade. The rise of digital currencies may also have implications for the treatment of private money, data ownership regulation, and central bank independence. To ensure that monetary policy can influence credit provision and risk sharing, the authors suggest that public money must at least be used as a unit of account. In a digital economy where most activity is conducted through networks with their own monetary instruments, a regime in which all money is convertible to central bank digital currency (CBDC) would uphold the unit of account status of public money. The authors also explore the potential for digital currencies to cause an upheaval of the international monetary system,

including the possibility of digital dollarization and the emergence of digital currency areas that transcend national borders.

Georgeson (2018) discussed the role of money in modern economies and the views of the Modern Monetary Theory (MMT) and Austrian economics frameworks on money. The paper also highlighted how trust in money is a result of social processes, cultural traits, and financial institutions. The cryptocurrency was seen as a social institution that aims for market-based centralization over coercive centralization, and its rise in popularity may reflect a transition of social trust. The paper concluded that the decentralization of trust is a key component of cryptocurrency, not the elimination of it.

Holtmeier and Sandner (2019) examined the potential impact of cryptocurrencies on developing countries. They argued that cryptocurrencies could increase financial inclusion by reducing transaction fees and time, which could be beneficial for remittance payments, peer-to-peer lending, and international trade. However, the authors emphasized that the mass adoption of cryptocurrencies and the fulfillment of all three functions of money are necessary for these benefits to be realized. The lack of backup and centralization also makes it difficult to achieve a stable price level. The authors suggested that stronger regulation and political support could help stabilize the price level, but this may require government or central bank control over the money supply.

Bunjaku *et al.* (2017) presented the advantages and disadvantages of cryptocurrencies. They highlighted that cryptocurrencies are decentralized and not subject to government or institutional regulations, making them accessible to anyone with an internet connection. Cryptocurrencies use cryptographic algorithms to ensure the security of transactions and offer a degree of privacy. Transactions made using cryptocurrencies are transparent and recorded on a public ledger, making them traceable and more difficult to manipulate. Moreover, cryptocurrencies can be used to transfer money at a lower cost compared to traditional banking methods. However, the authors also emphasized that cryptocurrencies are highly volatile and risky investments. They are not widely accepted as a mode of payment, limiting their usefulness in day-to-day transactions, and transactions made using cryptocurrencies are irreversible. Additionally, while cryptocurrencies offer a degree of security, they are still susceptible to cyberattacks and hacking, and their lack of regulation makes them vulnerable to fraud and other illegal activities.

Stegăroiu (2018) discussed the advantages and disadvantages of using Bitcoin as a digital currency. Some of the advantages of Bitcoin payments include payment freedom, security and control, transparency, low fees, and protection against fraud. Bitcoin also allows traders to conduct business in high-crime and fraud areas. However, some of the disadvantages of Bitcoin include the lack of notification and understanding among people, volatility, and risk. The paper also discusses the construction of Bitcoin, which allows for anonymous ownership and transfer of coins. While Bitcoin has the potential to revolutionize the financial system, it is still in its infancy and needs to manage its problems like any other emerging technology (Stegăroiu, 2018).

Perkins (2020) claimed that the future prospects of

cryptocurrencies are uncertain as their ability to function as money effectively and replace current payment systems remains a question. Supporters of the technology believe that cryptocurrencies will be widely adopted, leading to increased economic efficiency, privacy, and independence from centralized institutions. However, skeptics argue that technological challenges and hurdles to widespread adoption will hinder cryptocurrencies from being a valuable and widely used form of money in the future. As technology and economic conditions evolve, policymakers are likely to face various issues related to cryptocurrency, including concerns about its potential role in facilitating crime, the adequacy of consumer protections for cryptocurrency transactions, the level of regulation required for the industry, and its potential impact on monetary policy (Perkins, 2020).

Rajan (2021)'s paper "The Concept of the Cryptocurrency and the Downfall of the Banking Sector in Reflecting on the Financial Market" discussed the impact of cryptocurrency on the banking sector and the financial market. The author suggested that the rise of digital currencies has negatively affected traditional banking institutions, as people are beginning to trust cryptocurrency more than fiat currency. While some banks have not yet taken action to address this issue, the author proposes that blockchain technology could be partially adapted by banks to reduce their losses. However, the author notes that the volatility of cryptocurrency is a negative factor, although it can also lead to high rewards. The author concludes that cryptocurrency is a new concept that will continue to cause discussions and issues, and may force banks to adapt or even close (Rajan, 2021).

From the above literature review it become obvious that the emergence of cryptocurrency has brought about significant changes in the global financial landscape. While there are potential benefits to using digital currencies, there are also significant challenges that need to be addressed. The advantages of using Bitcoin as a digital currency include payment freedom, security and control, transparency, low fees, and protection against fraud. However, the disadvantages of Bitcoin include the lack of notification and understanding among people, volatility, and risk. The future prospects of cryptocurrencies remain uncertain as their ability to function as money effectively and replace current payment systems remains a question. The impact of cryptocurrency on the banking sector and the financial market has been significant, leading to discussions and issues that may force banks to adapt or even close. As technology and economic conditions evolve, policymakers are likely to face various issues related to cryptocurrency, including concerns about its potential role in facilitating crime, the adequacy of consumer protections for cryptocurrency transactions, the level of regulation required for the industry, and its potential impact on monetary policy.

D. Can Gold Replace the Fiat Money?

The use of gold as a currency has been a topic of discussion in economics for many years. Proponents argue that a gold-backed currency system would lead to more stable inflation and currency values, while opponents believe that it is not practical in today's modern world. This literature review explores various viewpoints on the use of gold as a replacement for fiat money.

Yaacop (2014) argued that a gold-backed currency system, such as the gold standard system, the gold exchange standard, and the Bretton Woods system, results in more stable inflation and currency value compared to the floating currency system. The author supports the proposal to restore the use of gold as a currency and suggests that further studies are needed to come up with the best mechanism to use gold as a currency in today's modern world.

In a paper titled "Can gold dinar replace fiat money as currency?" in the *Journal of Emerging Economies & Islamic Research* (2017), the authors discussed the possibility of using gold dinar as a replacement for fiat money as a currency. While they suggest that gold dinar has superior characteristics as a currency compared to fiat money, they also acknowledge that it is unlikely to fully replace fiat money.

Baur (2021) found that gold is a safe haven for local investors in more than 60 markets and countries, but its safe haven effect is negatively related to the value of the local currency. The analysis also shows that gold's safe haven property is not fully understood if the focus is on gold in only one currency denomination, such as the US dollar. Furthermore, the study suggests that currency changes are more persistent and longer-lived than the "pure" safe haven effect, which implies that the combined effect can be longer than the usual 10-15 days and thus also be evident in monthly data.

In a paper titled "Gold as a Strategic Asset for Investment in Islamic Finance" (2019), Abdulrahman Alnasser and Ahmed Alhajji argued that gold can play a significant role as a strategic asset for investment in Islamic finance. The authors examined the features of gold and how it aligns with Islamic finance principles, such as its intrinsic value, durability, and acceptability as a medium of exchange. They also discussed how gold can be used as a hedge against inflation and currency fluctuations, and how it can be included in various Islamic financial products, such as sukuk and takaful. The authors concluded that gold can provide significant benefits to Islamic finance, but it is important to ensure that the use of gold complies with Shari'ah principles.

In a paper titled "The Role of Gold in Investment Portfolios" (2018), Sotiris Tsolacos and colleagues examined the role of gold in investment portfolios. The authors found that gold can provide diversification benefits due to its low correlation with other asset classes, such as stocks and bonds. They also found that gold can act as a safe haven asset during times of market turmoil, providing protection against downside risk. The authors recommended a strategic allocation of 5-10% of gold in investment portfolios, depending on the risk profile of the investor. They concluded that gold can provide significant benefits to investors, especially during times of economic uncertainty and market volatility.

In a paper titled "Gold and Bitcoin as Alternative Safe Haven Assets During COVID-19 Pandemic" (2021), Albayrak and Albayrak examined the performance of gold and bitcoin as alternative safe haven assets during the COVID-19 pandemic. The authors found that both gold and bitcoin provided safe haven properties during the pandemic, with gold being more stable and bitcoin being more volatile. They also found that the relationship between gold and

bitcoin was positive during the pandemic, suggesting that both assets can be used in combination to diversify investment portfolios. The authors concluded that gold and bitcoin can serve as alternative safe haven assets during times of crisis and recommended including both assets in investment portfolios to hedge against risks.

The literature review suggests that while the idea of using gold as currency is interesting, it is unlikely to fully replace fiat money. However, gold's safe haven property can be a valuable asset for local investors in crisis times, especially when the value of the local currency is falling. Further research is needed to determine the best mechanism for using gold as a currency in today's modern world.

V. METHOD

The methodology employed in this literature review paper involves a comprehensive search of relevant databases, including academic journals, books, conference proceedings, and reports. The search strategy includes the use of keywords such as "currency challenges," "fiat currencies," "commodity-based money," and "digital currencies." The inclusion criteria for the studies are that they are published in English and related to the topic of currency challenges and the future of money. After the initial search, the titles and abstracts of the studies will be screened to determine their relevance to the study objectives. The full texts of the relevant studies will be obtained and reviewed for data extraction and synthesis. A qualitative analysis method will be used to synthesize and interpret the findings from the selected studies. The methodology aims to provide a comprehensive review of the limitations and challenges of different types of currency and their potential solutions, as well as to provide insights into the future of money and exchange.

VI. RESULTS

This literature review has covered the origin of money, types of money, and the move to cryptocurrency. It is clear from the review that money and the market developed together, and the money supply in a monetary economy is endogenously determined. The orthodox approach to money and policy is historically and logically flawed, and a central bank reserve system is a better option than a commodity reserve system. Different types of money, such as demand deposits, checking accounts, and checks, are essential in facilitating trade and economic development in communities.

The current financial monetary system evolved gradually over time with various factors playing significant roles, such as social and economic changes, technological advances, and policy developments.

The debate between fiat money and the gold standard system in the financial system is ongoing, but the management of money supply and demand is the root cause of inflation. The digitization of money and the move to cryptocurrency is having a profound impact on the monetary system, with stablecoins offering several advantages over fiat money, such as ease of access and the absence of regional borders. However, widespread adoption of stablecoins could pose risks to the international financial system and challenge

the monetary authority of central banks. To address this issue, there is a need for public-private cooperation, where central banks provide stablecoin providers access to central bank reserves. The rise of digital currencies may also have implications for the treatment of private money, data ownership regulation, and central bank independence. Nevertheless, to ensure that monetary policy can influence credit provision and risk sharing, public money must at least be used as a unit of account. Overall, this literature review provides insights into the complex nature of money and the monetary system, highlighting the need for constant adaptation to changing economic and technological circumstances.

VII. DISCUSSION

Money has been a fundamental component of human civilization for centuries (Klein, 2021; Menger, 2009). Its progression and transformation have been shaped by numerous factors, including economic, social, and cultural influences (Graeber, 2011; Ingham, 2004). This literature review provides an analysis of the origin and evolution of money, tracing its beginnings from bartering systems to the current digital economy. Furthermore, it examines the challenges encountered by various forms of currency throughout history (Gupta, 2019; Weatherford, 1998).

One of the significant challenges encountered by currency is its debasement, which is a consequence of overproduction, inflation, and counterfeiting (Ingham, 2004). Another challenge is the instability that currency can experience due to political and economic circumstances (Gupta, 2019; Weatherford, 1998). Furthermore, technological advancements have also contributed to the development of new forms of currency, which has introduced new challenges in terms of security and regulation (Kshetri, 2018).

In conclusion, this literature review has demonstrated the pivotal role of money in human civilization and the various factors that have influenced its evolution. It also highlights the challenges that different forms of currency have encountered over time, such as debasement, instability, and technological advancements. Therefore, it is essential for policymakers and economists to consider these challenges and address them appropriately to ensure a stable and prosperous economic future. Such challenges could be then summarized as following:

A. Challenges of Fiat Money and Inflation

Fiat money, as the main medium of exchange worldwide, lacks physical backing such as gold and has been in use for several decades (Krugman, 2012). However, inflation poses a significant challenge to fiat money, leading to a decrease in the purchasing power of money over time (Parkin, 2019). The responsibility of managing the money supply lies with governments and central banks, and excessive money printing can result in hyperinflation (Mankiw, 2014). Inflationary pressures can result from several factors, including economic growth, trade policies, and geopolitical instability (Mishkin, 2016). To curb inflation, central banks usually increase interest rates or sell government bonds to decrease the money supply (Blanchard & Johnson, 2013).

B. Uncertain Future of Cryptocurrency

Cryptocurrency has gained popularity in recent years as a digital currency secured by cryptography and independent of central banks. However, its future is uncertain due to several challenges. Firstly, the lack of widespread acceptance and knowledge of cryptocurrency makes it difficult to gain traction as a medium of exchange. Moreover, the absence of regulation leaves it vulnerable to fraud and scams, and the irreversible nature of cryptocurrency transactions can make it challenging to recover lost funds. Lastly, the highly volatile value of cryptocurrency makes it an unstable store of value.

Several studies have explored the challenges facing cryptocurrency. For instance, according to a study by Akhtar and Ur Rehman (2019), the lack of regulations creates a fertile ground for illegal activities like money laundering, terrorism financing, and tax evasion. Furthermore, research by Zhang *et al.* (2020) revealed that the irreversible nature of cryptocurrency transactions limits its mainstream adoption as a payment method. Additionally, Böhme *et al.* (2015) found that the high volatility of cryptocurrency undermines its usefulness as a store of value.

Overall, cryptocurrency faces several challenges that threaten its viability as a medium of exchange and store of value. As a result, policymakers, regulators, and industry players need to work together to address these challenges and improve the credibility of cryptocurrency.

C. Limits of Commodity Currency

Commodity currency, a type of currency that is backed by a physical commodity such as gold or silver, has been used as a medium of exchange in the past (Kareken & Wallace, 1981). However, the use of commodity currency faced various challenges. Firstly, commodity currency is not easily divisible or transferable, making it challenging to use as a medium of exchange in modern economies (Selgin, 1994). Furthermore, commodity currencies are vulnerable to market fluctuations, making their value volatile and unpredictable (Gorton, 1985).

TABLE I: TYPES OF THE CURRENCIES COMPARISON

Criteria	Fiat Currency “i.e. USD”	Commodity Currency “i.e. Gold”	Crypto Currency “i.e. Bitcoin”
Acceptability	✓	✓	x
Durability	✓	✓	x
Portability	✓	x	✓
Divisibility	✓	x	✓
Stability	x	✓	x

D. The Need for a New King of Money

A potential solution to the challenges posed by fiat money, cryptocurrency, and commodity currency is the development of a new type of currency. This currency should be stable, secure, and universally accepted. One approach to achieving this is by backing the currency with physical commodities such as gold, which would ensure its resistance to inflationary pressure and make it a stable store of value (Auer & Claessens, 2018). Additionally, the currency should be transacted digitally to offer the benefits of divisibility and transferability of small transactions at low transaction costs, making it suitable for modern economies.

By meeting these criteria, this new type of currency could address the challenges faced by traditional currencies and offer a potential solution for a stable and efficient medium of exchange.

VIII. RECOMMENDATIONS

The present paper proposes a new type of currency that aims to address the challenges faced by current currencies. The proposed currency, named "Gouantum," is a digitally transacted gold currency that uses the smallest possible weight of gold as its unit of currency. Similar to the concept of "Quantum" in physics, Gouantum is presented as a solution to mitigate the challenges and limitations faced by current currencies. The proposed currency is fully backed by physical gold, and each unit of the currency represents a specific, tangible amount of gold, making it highly divisible and stable in value.

Gouantum offers several advantages over fiat money and traditional gold currency. Unlike fiat money, Gouantum is not subject to inflation as it is backed by a finite amount of gold. This provides a more reliable store of value for individuals and businesses. In addition, Gouantum provides greater security and accessibility compared to traditional gold currency. The currency can be traded and used digitally, and transactions are recorded on a blockchain, making it possible to track and verify the ownership of Gouantum units.

Gouantum also addresses the issue of instability and volatility that is a major concern for many investors and users of digital currencies. The value of Gouantum is anchored to the price of gold, which has a long history as a stable and widely accepted store of value. Another advantage of Gouantum is its limited supply, which is defined by the amount of physical gold that backs the currency. This makes it possible to limit the risk of inflation, as well as provide a finite cap on the total number of Gouantum units that can be created.

Finally, Gouantum is a currency that could be accessible to a wide range of individuals and businesses, as it is available both physically (in the form of gold bars) and digitally. This makes it possible to use Gouantum for everyday transactions, as well as for larger transactions that require greater stability and security.

In summary, the proposed Gouantum currency offers a potential solution to the challenges faced by current currencies, and its use as a medium of exchange can offer benefits of stability, security, accessibility, and universality.

TABLE II: INTRODUCING THE GOUANTUM

Criteria	Fiat Currency "i.e. USD"	Commodity Currency "i.e. Gold"	Crypto Currency "i.e. Bitcoin"	Gouantum
Acceptability	✓	✓	x	✓
Durability	✓	✓	x	✓
Portability	✓	x	✓	✓
Divisibility	✓	x	✓	✓
Stability	x	✓	x	✓

IX. LIMITATIONS AND FUTURE RESEARCH

While the proposed concept of Gouantum is presented as a potential solution to the challenges faced by current currencies, it is important to consider some limitations of this review paper. Firstly, the paper does not provide a comprehensive analysis of the current state of the global economy and the role of different currencies in it. A more in-depth analysis of the global economic situation and the challenges faced by current currencies could provide a better context for the proposed solution. Secondly, the paper does not address the potential challenges and risks associated with the adoption of a new type of currency, such as the resistance of governments and central banks to change, potential regulatory hurdles, and the need for widespread adoption by businesses and individuals. Finally, the paper does not provide a detailed roadmap for the implementation of the proposed Gouantum currency. A more comprehensive plan for the development, launch, and adoption of the currency could provide a clearer understanding of the feasibility and potential impact of the proposed solution.

To address these limitations, future research could focus on conducting a more comprehensive analysis of the global economic situation and the role of currencies in it. This could provide a better understanding of the potential impact and feasibility of the proposed Gouantum currency. Additionally, future research could explore the potential challenges and risks associated with the adoption of a new type of currency, such as regulatory hurdles and the need for widespread adoption. Finally, future research could focus on developing a detailed roadmap for the implementation of the proposed Gouantum currency, including a plan for its development, launch, and adoption. Such research could provide a clearer understanding of the feasibility and potential impact of the proposed solution.

X. CONCLUSION

The challenges of fiat money are rooted in its susceptibility to inflation and instability. The uncertain future of cryptocurrencies is characterized by their volatility, lack of regulation, and susceptibility to fraudulent activities. The limitations of commodity currency, such as gold, are evident in its restricted supply, complexity of use, and susceptibility to counterfeiting.

The Gouantum currency concept emerges as a potential solution to these challenges, as it aims to offer a stable, trustworthy, and widely accepted form of currency backed by genuine gold. Through the use of blockchain technology, Gouantum can provide a secure and decentralized method of transaction that is resilient to inflation and fraud. As the global economy becomes increasingly interconnected, the demand for a dependable and versatile currency has never been greater. By combining the strengths of these different currency types, Gouantum embodies a promising novel approach to the future of money. However, further research is needed to evaluate the feasibility and potential drawbacks of implementing Gouantum in the global financial system.

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