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The Impact of Stablecoins on U.S. Dollar Dominance: Evidence from Emerging Market Economies

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Abstract: This paper explores the role of stablecoins in challenging the dominance of the US dollar, especially in emerging market economies. This paper examines the defining characteristics of stablecoins, classifies their mechanisms, and analyzes the growing appeal of stablecoins in the context of currency instability and limited access to dollars. Using recent examples from Argentina, Egypt, and Brazil, the paper highlights how stablecoins can bypass the traditional financial system and provide an alternative to store of value and cross-border transactions. While stablecoins enhance financial inclusion and payment efficiency, they also raise concerns about regulatory gaps, transparency issues, and the potential erosion of national monetary sovereignty. This paper further explores how the widespread adoption of stablecoins is exacerbating the dollarization of emerging economies, thereby undermining the effectiveness of independent monetary policy. By reviewing existing literature and real-world case studies, the paper concludes that while stablecoins may promote innovation and efficiency, their unfettered use could undermine financial stability unless a sound regulatory framework is in place. The future of stablecoins therefore depends on balancing financial innovation with effective regulation to ensure that they contribute positively to the evolving global financial architecture.

Keywords: Stablecoins, Dollar Dominance, Emerging Market Economies, Cross-Border Payments.

1. Introduction

In recent years, the rise of stablecoins has attracted global attention due to their potential to reshape international finance and challenge existing monetary structures. A stablecoin is a digital asset designed to maintain a stable value, offering an innovative solution to the volatility of traditional cryptocurrencies and the inefficiencies of the traditional financial system. The growth of stablecoins has been particularly significant in emerging markets. In these markets, local currency volatility, inflation, and limited access to foreign exchange have created a strong demand for more stable and convenient financial instruments. The use of stablecoins in countries such as Argentina and Egypt shows that digital currencies can help individuals and businesses preserve their value and facilitate cross-border payments. In addition, some scholars have argued that stablecoins could reduce reliance on the US dollar in international trade, thereby undermining its global dominance. Despite these benefits, stablecoins also come with considerable risks, including weakened regulatory controls, lack of transparency, and threats to monetary sovereignty. As these dynamics develop, an urgent question

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arises: Can stablecoins become a sustainable alternative to the dollar without destabilizing the financial system?

Over the past decade, the emergence of stablecoins has reshaped the global financial landscape, particularly in emerging market economies (EMEs). Unlike traditional cryptocurrencies, stablecoins are pegged to fiat currencies and offer a more stable medium of exchange and store of value. Their ability to provide low-cost, efficient, and accessible digital financial services makes them attractive to populations in countries facing high inflation, currency devaluation, and limited access to global financial markets.

Stablecoins have the potential to transform international trade and financial transactions by improving efficiency, reducing costs, and speeding up payments. Many scholars have explored their advantages and risks, especially compared to the traditional financial system. Bullmann et al. emphasize that stablecoins use blockchain technology to simplify payment processes, improve transparency, and accelerate financial digitization [1]. However, challenges remain, including technical vulnerabilities, financial stability risks, and regulatory uncertainty.

Compared with traditional payment methods such as credit cards and fast payment systems, stablecoins have both advantages and risks. Ho et al. argue that while stablecoins offer benefits in terms of privacy, cross-border payments, and financial innovation, they also face challenges related to transaction costs, consumer protection, and payment system stability [2]. Stablecoins do not currently replace traditional payment methods, but rather serve specific use cases where traditional systems are inefficient. This is consistent with the findings of Calomiris, who explored the potential of fractional reserve stablecoin banking. He argues that with the emergence of more efficient digital currencies, the relevance of Bitcoin, which lacks intrinsic value, may decline. Conversely, stablecoins with greater stability and lower transaction costs may challenge centralized banking and Bitcoin itself. Furthermore, Calomiris highlights that fractional reserve stablecoins may promote financial inclusion while facing opposition from traditional financial institutions and regulators [3].

In addition to their impact on banks and retail payments, stablecoins may also reshape the global financial structure. Fantacci and Gobbi discuss how stablecoins and CBDCs can weaken the dominance of the US dollar by providing alternative payment systems and reducing reliance on networks such as SWIFT [4]. They highlight that China's digital yuan (e-CNY) and Russia's SPFS are key initiatives to promote financial independence from the US dollar. Jin, Li, and Xue further support this view, examining why some users prefer stablecoins to US dollars [5]. Their results suggest that stablecoins do not necessarily provide better financial returns or risk diversification, but psychological factors such as technological interest and preference for political autonomy drive adoption. In addition, the anonymity and regulatory loopholes associated with stablecoins also increase their appeal, raising concerns about financial regulation and its broader impact on US dollar hegemony.

The question of dollar dominance is further examined by Dovonou, who revisits the Mundell-Fleming trilemma to analyze how global dependence on the dollar constrains the monetary autonomy of other economies [6]. The study highlights the challenges faced by countries dependent on the dollar and explores how foreign exchange intervention and reserve policies attempt to mitigate US monetary spillovers. These findings highlight the importance of alternative financial infrastructure, including stablecoins, in providing monetary flexibility to economies seeking to reduce their dependence on the dollar.

This paper will argue that while stablecoins offer significant advantages for users in emerging markets—such as inflation hedging and cross-border transaction efficiency, they also pose critical risks to the monetary sovereignty of these countries by accelerating dollarization and undermining central banks' policy effectiveness. Through an analysis of stablecoin adoption in EMEs, this study evaluates their dual role as both a stabilizing force and a disruptive financial innovation.

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2. Stablecoin features

2.1. Definition

Cryptocurrency is a new type of digital currency that originated from the invention of Bitcoin in 2008. Compared to traditional digital currencies, cryptocurrencies are characterized by decentralization and are said to eliminate the need for financial intermediaries.

Stablecoins are a special category of cryptocurrencies that maintain a stable value by being pegged to a reserve asset (usually a national currency). Unlike traditional cryptocurrencies that are highly volatile, stablecoins are designed to provide greater price stability. The cryptocurrency market is volatile, especially when compared to the US dollar. This volatility is due to the lack of a sound regulatory framework, standardized company reporting, and comprehensive market analysis, which are common activities in traditional financial markets [7]. One proposed solution to mitigate cryptocurrency price volatility is to peg the digital asset to a stable underlying reserve to ensure price stability. This approach is called a stablecoin.

This paper chooses to follow the definition by Bullmann et al., which states that stablecoins are digital units of value that are not a form of any specific currency (or basket thereof) but, rather, by relying on a set of stabilization tools, try to minimize fluctuations in their price in such currencies [8].

2.2. Classification

Stablecoin Classification Based on Stabilization Mechanisms, as shown in Table 1 [4].

Table 1: Stablecoin classification

Type	Description	Example	Key Characteristics
Fiat-backed Stablecoins	Fully backed by fiat currency reserves, ensuring a stable value.	Tether (USDT)	Collateralized by fiat reserves, maintains a fixed value (e.g., USD peg).
Off-chain Collateralized Stablecoins	Secured by traditional financial assets such as bonds but may face transparency concerns.	Saga	Backed by traditional financial assets; transparency issues may arise.
On-chain Collateralized Stablecoins	Backed by other crypto assets, requiring over-collateralization due to high volatility.	DAI	Collateralized by cryptocurrencies, needs over-collateralization.
Algorithmic Stablecoins	Not backed by any assets but maintain stability through algorithmic supply adjustments.	Ampleforth	Stability achieved through supply elasticity mechanisms, no collateral.

3. The effect of emerging countries

3.1. Currency stability and store of value

Recently, some emerging economies have experienced significant fluctuations in their currency markets, such as the depreciation of the Argentine peso and the Egyptian pound against the US dollar. In December 2023, Argentina's new government implemented a "shock therapy" policy, devaluing

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the official peso exchange rate by 54% fast [9]. This was done to narrow the gap between the official and black-market exchange rates, as well as to address soaring inflation and a shortage of US dollars. Similarly, the Egyptian pound fell from 15.7 pounds to the dollar in 2022 to nearly 50 pounds to the dollar by the end of 2024 [10]. This was primarily due to a shortage of foreign exchange and inflationary pressures, compounded by factors such as high interest rates in the US and capital outflows triggered by the Israeli Palestinian conflict. Currency depreciation and high inflation are common problems in emerging economies, where both individuals and businesses frequently face extreme fluctuations in the value of their local currencies. These currency crises erode public confidence in national currencies, prompting more and more businesses and individuals to seek effective ways to hedge against currency devaluation risks. However, due to foreign exchange controls and limited US dollar supplies in these countries, many people are unable to easily hold US dollars. In this context, stablecoins have emerged as a relatively reliable solution, gaining widespread attention and trust. According to Bitso's report on "The Cryptocurrency Landscape in Latin America," the use of cryptocurrencies, especially dollar-backed stablecoins like USDT and USDC, has surged in Argentina [11].

In this way, stablecoins provide consumers with a tool to preserve value while offering businesses a means to avoid currency fluctuations and inflation risks. According to Chainalysis' report, Argentina is a key player in the Latin American cryptocurrency sector, ranking second in the region for cryptocurrency adoption and 15th globally [12]. This function is especially important in emerging economies, where these countries often lack strong mechanisms to safeguard their national currencies.

3.2. Cross-border payments and international trade

Traditional cross-border payment systems, such as SWIFT, have long been plagued by high transaction costs, long settlement times, and susceptibility to interference from other countries, as payments typically go through multiple intermediary banks. This problem is particularly acute for businesses in emerging economies, where strict currency controls and limited support from international banking systems further exacerbate issues in cross-border payments.

Stablecoins provide a more efficient payment method. Businesses can use stablecoins to conduct cross-border payments directly, bypassing intermediary banks and avoiding high fees and time delays in the banking system. For example, according to a survey by Deloitte, 75% of 2,000 retail executives in the US planned to accept cryptocurrency or stablecoin payments within the next 24 months [11]. Due to their price stability, merchants have fewer concerns about their volatility, with stablecoins like USDT being given a "very high" priority by 39% of those surveyed. This demonstrates growing optimism toward stablecoins and indicates a shift from the question of "whether to use them" to "how to use them."

Not only businesses, but some countries have already started using stablecoins to improve cross-border payments. For example, El Salvador became the first country in the world to legalize Bitcoin in 2021, and through the "Bitcoin Law," the country has promoted the widespread use of Bitcoin and stablecoins in international payments and remittances. In Argentina and Brazil, businesses have also started using stablecoins for cross-border trade settlements, thereby avoiding the risks of devaluation in their local currencies. The governor of Brazil's central bank, Gabriel Galipolo, stated that Brazil has seen a significant increase in cryptocurrency adoption, with stablecoins currently driving nearly 90% of digital asset transactions.

This trend highlights the growing importance of stablecoins in cross-border payments and international trade. Stablecoins provide greater stability and convenience for cross-border payments and international trade, especially in economically unstable countries. They offer businesses and individuals an alternative currency choice, avoiding additional costs and long transaction times. However, the widespread use of stablecoins also presents challenges for monetary policy in emerging

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economies. As the use of stablecoins increases, governments may lose some control over their national currencies, particularly in countries with strict foreign exchange controls. This could create regulatory challenges, potentially affecting the implementation of monetary policy and exacerbating the risks of capital flight.

4. Risks and prospects

4.1. The risk of declining legal currency status in EMEs

As emerging markets become more dependent on stablecoins, the phenomenon of "demonetization" may be exacerbated, thus affecting the status of domestic legal tender. When more and more people use stablecoins instead of legal tender for transactions and savings, the central bank's ability to control money supply and exchange rates will be greatly weakened. Moreover, stablecoins not only provide the advantage of being directly linked to the US dollar but also provide the convenience and cost reduction of cross-border payments, further weakening the market position of domestic legal tender, it may eventually lead to the government having to adopt a dollarization policy. However, according to the research of Aslan, M., & Ozgur, O., dollarization may trigger a negative feedback loop in which economic barriers and uncertainties fuel dollarization, which in turn leads to financial and economic instability, and then directly or indirectly undermines independent monetary policy [13]. Therefore, the widespread use of stablecoins has exacerbated the risk of dollarization to a certain extent, weakened the independence of monetary policy, and made it more difficult to take effective regulatory measures in the face of economic difficulties.

4.2. Risks of lack of transparency and regulation

The lack of transparency and regulatory oversight in stablecoins poses a significant risk to financial stability and investor confidence. Opaque reserves can lead to panic withdrawals by issuers under market pressure, and the lack of disclosure rules prevents investors from accurately assessing risks and reduces trust. Due to their decentralized nature, cryptocurrencies such as stablecoins often lack the transparency and regulatory framework of traditional financial systems, which allows their issuers to operate without adequate supervision, which may lead to market manipulation or abuse. For example, stablecoin issuers often hold too many illiquid assets to maximize profits without supervision, making them vulnerable to sudden redemption requests) [14].

Venezuela's "Petro" faces this transparency problem. Although the government claims that the "Petro" is linked to the country's oil reserves, the actual lack of independent auditing and information disclosure makes investors skeptical about its value and reliability [15]. This has prevented the currency from gaining widespread acceptance and trust, and has instead become an exacerbating factor in economic difficulties.

The collapse of TerraUSD (UST) also faced similar transparency issues. Although UST claims to maintain a 1:1 stability with LUNA, the reality is that the stability of UST is heavily dependent on market arbitrage, and the lack of sufficient reserve data and mechanism transparency makes it difficult for investors to clearly assess its risks. Finally, when the market fluctuated violently, investors' trust in UST quickly collapsed, resulting in a large amount of funds being quickly withdrawn, and LUNA's market value fell from $100 billion to 0. This lack of transparency and supervision will greatly limit the application of stablecoins in the international financial system.

4.3. Prospects

As stablecoins are widely used in emerging economies, we will see more far-reaching impacts on payment systems and financial markets in the coming years. First, the process of de-dollarization may

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accelerate, especially in countries facing currency devaluation and foreign exchange shortages. Stablecoins are likely to replace local currencies due to their ease of trading and stability, thereby challenging the dominance of the US dollar in global trade. However, this shift is also accompanied by serious challenges, including monetary policy failure and capital outflows, which may force some countries to adopt dollarization policies and lose the ability to regulate independent monetary policies. Second, as the size of the stablecoin market expands, transparency and regulatory issues will become important issues that the global financial system needs to address urgently. The past examples mentioned above show how stablecoins that lack transparent reserves and supervision can quickly lose trust under market pressure. In order to prevent similar incidents from happening again, regulators around the world will need to take stricter measures to ensure that stablecoin issuers provide sufficient transparency and strengthen the market regulatory framework to maintain the stability of financial markets. In general, the key to the future of stablecoins lies in how to balance innovation and regulation and reduce people's concerns about dollarization, ensuring that stablecoins can play a positive role in the global financial system and avoid causing turbulence and loss of control in financial markets.

5. Conclusion

This study examines the evolving role of stablecoins in shaping the future monetary system, with a particular focus on their impact on the dominance of the US dollar in emerging market economies (EMEs) and monetary sovereignty. In the short term, stablecoins provide significant utility by facilitating faster, cheaper, and more convenient financial services, especially in an environment of macroeconomic instability, currency depreciation, and weak financial infrastructure. Stablecoins' ability to make cross-border payments more efficient and act as a store of value in an inflationary environment makes them particularly attractive to users in emerging economies.

However, the long-term effects of stablecoins pose challenges to the domestic monetary autonomy of emerging market economies. As stablecoins gain traction in local payment systems and informal finance, they could entrench dollarization, reducing demand for local currencies and limiting central banks' policy space. The resulting erosion of monetary sovereignty, combined with regulatory arbitrage and capital flow volatility, could undermine the macroeconomic resilience of emerging market economies and exacerbate systemic risks.

Thus, while stablecoins offer innovative solutions to circumvent financial risk, their unregulated adoption could exacerbate global financial asymmetries. The integration of stablecoins into the monetary system will ultimately depend on the regulatory response and institutional capacity of each country.

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