



What the Extent of Cryptocurrency Adoption Across Countries Reveals About the Future of the Global Financial System

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Abstract

Cryptocurrency has become a focal point of government policy, raising questions about its role in the future financial system. This paper examines differences in cryptocurrency adoption between emerging markets, where it is often used to address economic challenges, and developed markets, where it serves as a tool to balance global power. Through case studies and policy analysis, it explores countries' approaches and the extent of adoption. The findings show that while crypto offers opportunities such as faster remittances and greater foreign investment, most of the governments are bridging it with regulated systems to mitigate risks like volatility and illicit activity. The study concludes that cryptocurrency will not replace traditional money in the near term, but a hybrid system combining fiat currencies, stablecoins, and CBDCs is a future trend.

Introduction

Throughout human history, economic activity has followed a similar pattern across different regions. Trade began with bartering, exchanging goods, but to ensure fairness, societies soon created standardized forms of money. Various regions adopted their currencies, such as shells, coins, and salt, before these systems became centralized. Over time, money continued to evolve: from coins to paper currency, then to credit, and eventually to electronic payment systems[1]. This process of transformation continues even now. Cryptocurrency, a new form of digital currency invented in 2009, has gained significant attention since 2019. Before diving into the paper, it is important to understand what exactly cryptocurrency is. Cryptocurrency is a type of digital currency; however, unlike traditional fiat, it is independent from the government. In other words, the government does not issue this money. Cryptocurrency is well known for its privacy and decentralization, which attributes to blockchain technology, an open database that records transactions. To explain how it works, each transaction made through blockchain will be recorded as a "block". Together, these blocks form a "chain" that cannot be altered. While this system provides privacy and efficiency, it has also attracted illegal activities due to its anonymity. On many platforms, users must first purchase stablecoins, which function much like casino chips, and then exchange them for other cryptocurrencies. Among these cryptocurrencies, the most famous is Bitcoin. Although its origin is attributed to an individual, it is not under the control of any person or agency, and its price is based purely on supply and demand [2].

As cryptocurrency becomes increasingly visible in today's financial landscape, it raises an important question about its future role in the global market. This paper will analyze crypto's role in different countries over the last five years and examine whether it is likely to replace traditional currency in the near term.

Crypto Use Globally

Although initially met with skepticism, many countries have begun exploring crypto's applications in various areas. In emerging markets, crypto is intentionally used as an alternative

means to solve domestic economic problems. While in developed countries, crypto is used more to balance global power by facilitating cooperation.

Emerging Markets

Cryptocurrency (crypto) in emerging markets is often used to combat domestic economic problems, such as hyperinflation, financial exclusion, and high fee of remittances. However, not every case succeeds. El Salvador and Nigeria are the most representative countries in crypto use regarding government led and people led. El Salvador set crypto as a legal tender that didn't efficiently improve the country's problem, while Nigeria's focus on stablecoins led to its success in crypto adoption.

El Salvador was the first country to make Bitcoin legal tender in 2021 imposed by a top-down policy shaped by its history. In the late 1900s, El Salvador erupted into a civil war between the elite and the leftists. This war caused huge damage to the economy, and many Salvadorans emigrated to the US, where they started to send remittances (primary source of income) in dollars back home. So even before 2001, dollars were informally used by many. Considering its credibility and low interest, in 2001 President Francisco Flores adopted the US dollar as El Salvador's legal tender, and by 2004, the El Salvadoran colón was no longer in circulation. Dollarization indeed stabilized the economy, but it also removed the country's ability to adjust monetary policy in crises given El Salvador has no control over the U.S. dollar. Another key challenge was financial exclusion—about 70% of Salvadorans lacked access to traditional banking services.

Hoping to change this, two decades later, in 2021, President Nayib Bukele introduced Bitcoin as a second legal currency alongside the dollar [3]. He hoped Bitcoin could expand financial inclusion, attract foreign investment, and boost economic growth. To encourage adoption, the government launched the Chivo app, offering \$30 in free Bitcoin for downloads and discounts on gasoline purchases made with Bitcoin. Bitcoin transactions increase remittance speed and reduce fees. It also increased global visibility and made it easier to attract foreign investment. However, among 68.5% of people who knew about Chivo, only about 20% of people used Chivo after spending \$30 in subsidies, as most people reported that they preferred using cash and thought cryptocurrency was unsafe[4]. Furthermore, its volatility in price makes it impractical for everyday payment to restore value. It also did not solve the main problem for unbanked people who lacked the financial means to invest in Bitcoin.

Nigeria, in contrast, used stablecoins to combat the hyperinflation. Stablecoins are a bottom up necessity-driven adoption of crypto, or simply people push the government to accept this. The country has long struggled with macroeconomic instability, and in 2023, inflation soared to 24 percent, underscoring deep domestic challenges. Alongside inflation, a high unemployment rate, steep remittance fees of about eight percent, and limited access to global currencies have driven Nigerians to seek alternative financial opportunities. Although the government banned cryptocurrency in 2021, usage persisted. As the naira lost value, citizens increasingly turned to stablecoins to preserve their savings in stronger currencies. Stablecoins like USDT and USDC, both tied to the US dollar, facilitate easy value storage. Crypto trading platforms like Paxful and Binance P2P have been central to this growth, enabling users to exchange naira for stablecoin directly, bypassing the commercial banking system. Realizing that the ban had pushed users away from regulated financial institutions, the government introduced the eNaira—a state-backed digital currency. However, distrust in government financial institutions prevented the eNaira from gaining traction. Ultimately, in December 2023, the

government lifted the ban, allowing banks to open accounts for licensed crypto firms. New legislation now provides a legal framework for regulating exchanges, platforms, and service providers, enabling the state to tax and oversee what has become a significant sector of the informal economy. [5]

Key differences that led two countries in different results are: how crypto spread and what each focuses on. In El Salvador, adoption was driven by the government, while in Nigeria it was driven by the people. Nigeria's successful case suggested that it might be a better option to use stablecoins to avoid the volatility of crypto prices. One noticeable thing here is that usage in crypto didn't help the local currency to regain its value in both cases, instead, people turned to crypto to avoid these economic instability. This pattern indicates that, while crypto can serve as an alternative store of value or transaction method during crises, its role remains supplementary rather than substitutive.

Developed Markets

In developed countries, crypto is often used as a means to balance global financial power. Countries developed CBDCs that used crypto's technology to avoid dollar weaponization; in response, the U.S. imposed new law to counter this de-dollarization trend. Near the end of World War II, in 1944, the Bretton Woods Agreement established a system in which other currencies were pegged to the U.S. dollar, and the dollar itself was pegged to gold—granting the U.S. dollar's position as the dominant global currency, a status it has maintained ever since [6]. Because so many currencies are tied to the dollar, adjustments in U.S. monetary policy can cause significant fluctuations in other countries' exchange rates. Additionally, the dollar once accounted for about 72% of global foreign exchange reserves, giving the U.S. the power to freeze foreign assets. In response, a growing number of nations have diversified their reserves in order to evade the impact of dollar weaponization and declined to 57.8% in 2024 [7], a still large number.

One way to resist U.S.'s financial dominance, or de-dollarize, is CBDCs, Central Bank Digital Currencies, a state-backed digital currency using the technology of blockchain behind crypto, aimed at reducing reliance on the U.S. dollar in cross-border transactions. One prominent effort is by the BRICS, which has been developing central bank digital currencies (CBDCs) due to multiple reasons. Among the BRICS, China, Russia, and India are the most active countries. China's digital yuan has operated since 2023. This replaced 20% of bilateral trade with Russia. Russia accelerated its progress in CBDCs in response to U.S. sanctions during the Ukraine War. India is also exploring CBDCs. In fact, by 2025, there will be over 50 million users testing e-Rupee. The benefits of developing CBDCs are numerous: they enhance autonomy over the economy, lower transaction fees, and demonstrate their tech leadership roles.

In addition to CBDCs, China is also cautiously exploring the potential of cryptocurrency—though with a clear divide in approach. On the mainland, crypto remains strictly banned to prevent financial instability and uncontrolled capital outflows. However, Beijing uses Hong Kong as a kind of “financial sandbox” or buffer zone, allowing it to experiment with emerging financial technologies in a more controlled environment [10]. In recent years, Hong Kong has embraced what it calls the “Web3 era,” developing digitalization. A key example of this shift is OSL, a government-favored cryptocurrency-licensed platform that offers a variety of crypto-related business [11]. The platform's growth underscores Hong Kong's determination to

build a new type of financial infrastructure—one that blends innovation with regulation and could serve as a blueprint for China’s broader digital finance ambitions.

Not only are countries developing domestic technology, but they are also facilitating collaboration through CBDCs and other digital assets. For example, China has reached an agreement with Russia to use CBDCs and Bitcoins in energy transactions [8]. Brazil is in talks with China to use DREX—Brazil’s CBDC—for iron ore exports. Additionally, Beijing is conducting tests with Saudi Arabia in oil and gas trading [9]. These ongoing cooperations allow them to bypass Western financial institutions, such as SWIFT, and trade directly in dollars, promising greater autonomy and ability to evade sanctions.

To counter global de-dollarization trends, the United States introduced the GENIUS Act in 2025 and signed it into law on July 18th [13], which requires stablecoins to be fully backed by reserves. Under this rule, for every stablecoin issued, the issuer must hold an equivalent amount in U.S. government debt or cash [14]. In other words, this means that the crypto community will relieve the burden of the U.S. Treasury as their money in stablecoins is backed by real dollars. This act also responds to the illegal activities on crypto. By setting rules, it prioritizes the rights of stablecoin holders, protecting them from potential Ponzi schemes. This act is effective because it reinforces the dollar’s role in global finance through the crypto market.

This competition among developed nations indicates a future trend: the adoption of digital assets. However, the examples of CBDCs, licensed crypto firms to release stablecoins, and regulatory buffer zones all make it clear that these countries prefer to embrace such innovations under control. By integrating them into regulated systems, governments can safely capture the benefits of digital assets—such as faster transactions, reduced reliance on traditional systems, and claim a leadership role in technology.

Conclusion

The benefits of using crypto include attracting foreign investments, increasing the efficiency in remittances, preserving value of money, and balancing global powers. Meanwhile, the risks also remain as crypto being too volatile and the markets are not regulated. To solve these risks, governments are making progress by stepping in as a middleman: stablecoins serve as a bridge by tying digital assets to national currencies through licensed platforms, and CBDC as a new form of digital assets. In conclusion, traditional currency will not be replaced due to its acceptance rate, however, there will be a hybrid system — traditional financial markets integrating blockchain tech, stablecoins, and CBDCs.



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