From Digital Value Medium to Legal Tender: The Implications of the Adoption of Bitcoin as a National Currency

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by

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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From Digital Currency to Legal Tender: Exploring the Implications of the Adoption of Bitcoin

During the Bitcoin 2021 conference, President Nayib Bukele shocked the world by announcing that El Salvador would be the first country to adopt Bitcoin as a legal tender. Since the introduction of decentralized cryptocurrencies in 2009, Bitcoin has been a subject of continuous debate as to whether it can serve as a legitimate currency comparable to the U.S. dollar or euro (Ciaian et al., 2017). To promoters of Bitcoin as a national legal tender, Bitcoin is a low-income country's best chance to fully integrate a struggling national economy into a vibrant world economy. To their critics, however, Bitcoin as a national legal tender is a betrayal of the nation's majority who view globalization as a threat rather than an opportunity and believe the leader is using Bitcoin to consolidate his power. Proponents and opponents of Bitcoin as a legal tender in a sovereign nation compete to advance their respective agendas. According to the annual report (2018) of the Bank for International Settlements, accepting Bitcoin may disrupt financial systems and global economic order, especially if more countries follow suit. Since the passing of the "Bitcoin Law" in El Salvador on June 9, 2021, the Central African Republic (CAR) has joined as the second country to adopt Bitcoin as a legal tender, as of April 27, 2022 (Person, 2022).

Advocates of Bitcoin seek to build political and public support through lobbying and publicity campaigns, while opponents publicize the risks of adopting the digital currency, often through organized protests. Both sides use social media to reach large audiences. President Faustin-Archange Touadéra of the CAR and President Nayib Bukele of El Salvador have both supported Bitcoin on Twitter. The International Monetary Fund (IMF) has opposed El Salvador's adoption of Bitcoin as a legal tender (Martin, 2022). Salvadoreans protested in the streets before

and after the government announced the new "Bitcoin Law" (Villacorta, 2021). On social media, some cryptocurrency enthusiasts promote Bitcoin as a legal tender in principle, apart from the particular countries concerned. For example, a community on Reddit illustrates such enthusiasm. Such groups have a slight practical effect, but they may contribute to the credibility of cryptocurrency, which in turn may improve its acceptance as a legal tender.

Literature Review

Throughout history, various forms of currency have been implemented. Bryan & Rafferty (2007) explain commodity money has intrinsic value rather than government backing, such as gold, salt, or livestock. Chen (2020) describes fiat money as government-issued currency without commodity backing, enabling central banks to regulate the money supply for economic control. Bitcoin, created by Satoshi Nakamoto (2008), is a leading cryptocurrency designed to establish a decentralized, peer-to-peer electronic cash system, allowing people to make transactions without intermediaries like banks or payment processors. According to Bholane (2021), cryptocurrency networks are inherently secure because of blockchain technology, a blockchain is a digital ledger of transactions.

Researchers have noted how Bitcoin differs from conventional currencies and whether it has the potential to become a global currency. Chowdhury et al. (2014) state that Bitcoin obtains its value from decentralization and anonymity, which makes it "difficult to manage credit, counterparty, liquidity, market, operational and legal risks." Dabrowski et al. (2018) mention that money must fulfill three criteria: a medium of exchange, a unit of account, and a store of value. Bitcoin's unstable store of value and limited medium of exchange was said to invalidate its chances of being a legal tender. However, McCall (2021) perceives Bitcoin's decentralized

nature to be more favorable than the centralized money system. Decentralization eliminates the risk of a centralized authority being hacked, while also reducing time, fees, and human errors by removing the need for a middleman.

Alvarez (2022) explains the Salvadorean government released the Chivo wallet for free, allowing users to send and receive remittances, make payments, and convert Bitcoin into dollars or vice versa without transaction fees. It also supports instant transactions via the Bitcoin Lightning Network. Poon & Dryja (2016) describe the Bitcoin Lightning Network as a layer-2 payment protocol built on top of the Bitcoin blockchain that facilitates faster and cheaper off-chain transactions between participants. According to Gorjón (2021), Salvadorans have the option of using another digital wallet provided by Strike, which offers advanced features for mobile payments, such as linking bank accounts or debit cards, however with transaction fees.

Advocates of a potential new currency strive to legitimize it by seeking support and forming partnerships with local businesses and institutions. Friden (1998) notes that powerful business interests supported the euro due to the potential for exchange-rate stability, which would fulfill the promise of a single European market. According to Hileman (2014), the Brixton Pound was promoted through marketing campaigns, events, partnerships with local businesses, distribution of free currency, and support from the local government to encourage local spending. BerkShares in Massachusetts is another local currency that gained popularity through community outreach and partnering with local businesses that offered discounts on products and services to customers (Matti & Zhou, 2022).

Magnin & Hansin (2014) state that free trade agreements are supported by financial elites and corporations who argue they increase economic growth, lower prices, and create jobs.

However, social justice advocates and labor unions oppose them, claiming outsourcing jobs leads

to low wages, unemployment, unfavorable working conditions, and environmental harm in developing countries. Domhoff (1990) states financial elites have greater political influence, resources, and media access, allowing them to shape trade policies that benefit their interests. Social justice advocates use protests, grassroots organizing, lobbying, and advocacy campaigns to influence government policies and raise public awareness about the negative impact of free trade agreements on workers' rights (von Bülow, 2009).

Advocacy Efforts from Presidents

In efforts to adopt Bitcoin as a legal tender, a president's advocacy may be decisive. The President of El Salvador chose the Bitcoin 2021 conference to unveil his plan, the first of its kind in the world (Kurmanaev et al., 2021). He made the announcement via prerecorded video, knowing the news would garner media attention. On Twitter, President Nayib Bukele promoted Bitcoin by publicizing El Salvador's planned digital wallet, called "Chivo." Bukele (2021) tweeted, "The #ChivoPoints are being built everywhere. There they will be able to get help on how to use the app, how #bitcoin works, how to withdraw or deposit money, how to use the ATMs, and how to receive money from anywhere in the world." The tweet reassures citizens by addressing typical anxieties about the transition and noting its practical advantages. On September 20, 2021, @nayibbukele tweeted "We just bought the dip. 150 new coins! El Salvador now holds 700 coins." Such a display of confidence in Bitcoin may have been intended to build public trust in it.

¹ Los #PuntosChivo se están construyendo en todas partes. Ahí podrán recibir ayuda en cómo utilizar la aplicación, como funciona el #bitcoin , como retirar o depositar dinero, como usar los cajeros y como recibir dinero de cualquier parte del mundo.

Presidents believe adopting Bitcoin will promote financial independence and inclusion in their country. President Nayib Bukele also stated at the Bitcoin conference, "This will generate jobs and help foster financial inclusion for thousands of people outside the formal economy" (Kurmanaev et al., 2021). The president of the second country to adopt Bitcoin as a legal tender, Faustin-Archange Touadéra of the Central African Republic (CAR) says, "The alternative to cash is cryptocurrency. For us, the formal economy is no longer an option" (Savage, 2022). Since 1945, France has imposed the CFA franc currency on 14 African countries. The CAR is the first of these countries to make an effort to abandon it (Hunte, 2022). Touadéra (2022) tweets, "#Bitcoin is the blueprint for the new monetary system. Sound #money. Apolitical and uncensorable. Neutral and decentralized. Guided by community. Orchestrated by code. A better #currency for a better world."

To boost the country's revenue, presidents are introducing cryptocurrency-based tourist attractions. President Nayib Bukele announces his plans to build a "Bitcoin City" at the Latin American Bitcoin & Blockchain Conference (LABITCONF) in November 2021. He says, "Bitcoin City' is not only an idea, it will also be a reality in El Salvador. It will have residential areas, shopping malls, restaurants, a port, everything around bitcoin" (Presidente Nayib Bukele, 2021). The Bitcoin Beach initiative, launched by an American surfer in 2019 in the small beach town of El Zonte in El Salvador, has demonstrated success even before the country officially adopted Bitcoin as a legal tender. According to Reuters (2021), the use of Bitcoin has improved the economy of El Zonte and provided financial opportunities for the locals. President Touadéra plans to launch a "Crypto Island," where virtual places in the metaverse will be backed up by

² "Esto generará empleos y ayudará a fomentar la inclusión financiera a miles de personas fuera de la economía formal" (author's translation).

³ "Bitcoin City' no solo es una idea, también será una realidad en El Salvador. Tendrá zonas residenciales, centros comerciales, restaurantes, un puerto, de todo en torno al bitcóin" (author's translation).

real properties in the capital of the CAR, Bangui (Komminoth, 2022). According to "Why the Central African Republic Adopted Bitcoin" (2022), Touadéra states he wants to build the "first legal Crypto Hub recognized by a country's parliament, that welcomes businesses and attracts global crypto-enthusiasts."

Concerns Over El Salvador's Adoption of Bitcoin

Financial institutions express their concerns publicly to raise awareness of the risks. Following the implementation of the Bitcoin Law, the IMF's board directors urge El Salvador to reverse its decision stating, "Given Bitcoin's high price volatility, its use as a legal tender entails significant risks to consumer protection, financial integrity, and financial stability. Its use also gives rise to fiscal contingent liabilities" (IMF, 2022). The World Bank rejected El Salvador's request for funding, citing the risk of money laundering and instability, as well as environmental and transparency shortcomings. (Presse, 2023; Chipolina, 2021). The governor of the Bank of England spoke at Cambridge University's student union, "It concerns me that a country would choose it as its national currency. What would worry me most of all is, do the citizens of El Salvador understand the nature and volatility of the currency they have" (Stephton, 2022)? According to Goschenko (2021), the Bank of Spain criticizes, "With just over 50% of its population with Internet access and a market share of smartphones that barely reaches 40%, El Salvador is at the bottom of the Central American countries in terms of the level of digital training."

Economists and educators voice their opposition on social media platforms to reach diverse audiences. Professor of Law, Robert Hockett (2021) posts on Cornell's media page, "El Salvador's 'legal tenderization' of Bitcoin is a distraction because it is far too volatile to serve as a

national currency, and appears to have been adopted by the nation's president — notwithstanding the move's unpopularity — simply to draw attention away from constitutional challenges he is facing." Economist Peter Schiff (2022) tweets, "I just don't like to see El Salvador and its people being sacrificed to help pump #Bitcoin so certain people can get rich dumping it." Another economist, Steve Hanke (2022), tweets "Since El Salvador made BTC legal tender in Sept. 2021, ELSL has purchased \$106.4M #Bitcoin. Pres. Bukele's roll of the dice is now worth a messily \$39.4M, a 63% loss. In a normal country, such irresponsible, reckless behavior by a President would result in an IMPEACHMENT."

According to surveys, Bitcoin is not used or accepted by a majority of Salvadoreans. The National Bureau of Economic Research (NBER) conducted a survey and reported that Bitcoin is not being widely used because users "do not understand it, they do not trust it, it is not accepted by businesses, it is very volatile, and it involves high fees" (Renteria, 2022). A poll conducted by Central American University (UCA) revealed that 9 out of 10 Salvadorans lack a clear understanding of Bitcoin, 8 out of 10 have little or no confidence in its use, and most believe that the wealthy, foreign investors, the government, and business leaders will be the main beneficiaries (Pymnts, 2021). In a survey conducted by The Francisco Gavidia University (UFG), 62.3% of Salvadoreans indicated their disagreement with Bukele's decision to adopt Bitcoin as a legal tender and expressed their preference for the dollar instead (Redacción, 2022).

Bitcoiners on Reddit Encourage Mainstream Adoption of Bitcoin

Bitcoiners promote an attractive image of Bitcoin and its effects as a legal tender in El Salvador. Such publicity may improve the acceptance of Bitcoin in other countries. When President Bukele first announced his plans, one Reddit user commented, "If this goes well, most

other latin american countries will follow suit, because El Salvador will finally get up from under the unpayable debt that the US-run petrodollar system forces onto weaker economies" (100_Jose_maria_001, 2021). Thunderoceans (2021) adds, "Countries like El Salvador need Bitcoin and Strike to help process remittances. The fees are very high and lots of times it can be very dangerous for the receivers to get their money." Marginal_Caller (2021) emphasizes, "El Salvador is a developing country with a majority of the people excluded from the global financial economy, Bitcoin is a tool that gives these people financial inclusion and freedom." Nullama (2023) explains how El Salvador's economy will not be destroyed regardless of Bitcoin's value, "In any case, the amount of money El Salvador invested in Bitcoin is very small for a country pockets. Even if it goes down in value the country can continue to work."

Bitcoiners argue that media outlets have a bias toward publishing negative articles about El Salvador's adoption of Bitcoin, despite there being evidence of some success. In response, Bitcoiners use Reddit to spread alternative positive news and call out the critics. User CoinCorner_Sam (2022) comments, "While some "financial experts" have been calling this a failed experiment, they fail to recognise the right of a sovereign country in building its own future. ... Future built on math money, a currency that's limited to 21 million and can't be inflated. Rome wasn't built in a day either." Simplelifestyle (2023) shares positive news that they claim the media ignores, "Last year, many media/news reports said El Salvador was gonna default on their \$800m sovereign debt because they adopted Bitcoin. Well, El Salvador just paid all of it back... and the same media now refuses to cover it." Hiddntoor (2023) posts a video of a Salvadorean man named Milton using Bitcoin to instantly pay his bills, saving him the hassle of spending an hour on the bus and two hours waiting in line.

Bitcoiners claim that government and political leaders in developed countries are hesitant to adopt Bitcoin as their legal tender because they want to maintain their power. A Reddit post asks why nations are slow to adopt Bitcoin as a legal tender, chastjones (2022) responds "Because governments are resistant to giving up control. Control of the money is control of the people." User Regular_Apartment850 (2022) also comments, "The way the system works enables a very small group of people at the top to grow ever wealthier and powerful while the masses grow poorer and poorer. Why would political leaders want to change the system that's made them so wealthy? They don't, and as long as we as a population are kept dumb and entertained we won't mobilize for true change." Zukaza (2022) adds a similar perspective, "Governments can print fiat ad infinitum. Why would they opt to anchor themselves to a limited monetary supply? ... BTC will first be adopted by the masses, then smaller governments with less to lose (see El Salvador), the US will be one of the last hold outs."

Salvadoreans' Perspectives on Bitcoin

Opponents of Bitcoin organized protests in El Salvador to force the government to abandon it as a legal tender. Salvadoreans marched the street holding powerful signs, such as "No to presidential reelection, no to bitcoin, no to militarization, no to dictatorship"⁴ (Villacorta, 2021). One of the demonstrators stated, "What the government is doing is arrogant, it's authoritarianism"⁵ (Villacorta, 2021) since the new law would force all businesses to accept Bitcoin as payment. Protestors also urge Bukele to leave Twitter and pay attention to the streets. An attendee from a protest states, "That the repression ceases, that he does not impose Bitcoin,

⁴ "No a la reelección presidencial, no al bitcoin, no a la militarización, no a la dictadura" (author's translation).

⁵ "Lo que está haciendo el Gobierno es arrogante, es autoritarismo" (author's translation).

that he respects the separation of powers and above all that he dedicates himself to work because tweeting is not his job" (Castro, 2021).

Salvadoreans also expressed their discontent with the adoption of Bitcoin as a legal tender on Twitter. In a Twitter thread discussing Salvadoreans' stance on Bitcoin, user @loquillosalv (2021) argues, "In El Salvador there are few raw materials and almost everything is imported, the volatility of bitcoin will cause an extreme fluctuation of prices, pensioners will be hard hit." El caverario (2021) emphasizes in his tweet that President Bukele's decision to legalize Bitcoin was due to his personal investments and suggests that the country is unprepared to handle the instability and extreme volatility of this cryptocurrency. Realidades Políticas de El Salvador (2023) tweets, "The only economic policy he came up with was the wretched Bitcoin, and we already know how it ended. To this day we do not know if we will recover those millions because that information is reserved."

Many Salvadoreans accept Bitcoin and are looking forward to their country's future. Elisa, a Salvadoran citizen, expresses her happiness, "Who feels proud to be the first country in the world with Bitcoin for legal use? My Canadian coworkers are excited for El Salvador and want to visit" (Elisa, 2021). Daniel Reyes (2022) believes that Bitcoin will bring great financial returns for the country and its citizens. He tweets "El Salvador is making the best investment anyone has ever seen, safeguarding value in a currency that will increase in the coming years,

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⁶ "En El Salvador hay pocas materias primas y casi todo es importado, la volatilidad del bitcoin causara una fluctuacion extrema de precios, los pensionados saldran duramente golpeados" (author's translation).

⁷ "el baboso de bukele en el Salvador las legalizó porque tiene inversiones en Bitcoin, pero condenó a la miseria a el Salvador , no saben de la volatilidad de esa moneda" (author's translation).

⁸ "Quien se siente con orgullo de ser el primer país nel mundo con el Bitcoin de uso legal? Mis compañeros se paran a mi oficina para hablame de esto! Son todos Canadienses! Y están felices por El Salvador! Con deseo de conoser su lindo país! Orgullo" (author's translation).

and with it the wealth for all its people and foreign companies that have already seen it coming." Mr. Anderson (2021) replies to an article that states the U.S. government will run out of money within the next few months. He explains the U.S. government can simply print more money, but this leads to inflation which affects dollarized economies, making Bitcoin a sensible choice for El Salvador since it can't be inflated. Kosten Art (2021) believes, "The future is decentralized currencies, there is no other way. Banks are no longer to be trusted, they must always be bailed out, and they hurt all markets."

Conclusion

The adoption of Bitcoin as a legal tender has generated debates and controversies, and the recent developments in El Salvador and the Central African Republic have intensified this discourse. It is not simply a controversy over a decentralized system becoming a legal tender, but may also be an issue of the elite exploiting their political and organizational advantages against the majority. Some perceive the president's role as a leader's effort to aid the nation, while others view it as a dictator's investment for personal gain and power consolidation. Resistance came from those who lived in the affected countries and did have any use or interest in this new currency, rallying on social media and the streets to voice their discontent. The decision to implement a digital currency in underdeveloped countries where the majority of the population lacks access to technology is a contentious choice that sparks worries regarding the currency's

⁹ "Hoy El Salvador está por lograrlo con la mejor inversión que nadie vio resguardando valor en una moneda que aumentará en los próximos años, y con ello la riqueza para todo su pueblo y las empresas extranjeras que ya la vieron venir, no te quedes fuera" (authors translation).

¹⁰ "Qué pasará cuando el gobierno de EUA se quede sin dinero? , fácil imprimiran \$\$ que necesiten, el problema es la inflación en precios que destaran para que el \$ no caigan al nivel de un peso mexicano, pobres economías dolarizadas, ahora el bitcoin tiene sentido en El Salvador" (authors translation).

¹¹ "El futuro son las monedas desentralizadas, no queda otra. Los bancos ya no son de confiar, siermpre deben ser rescatados, e igual perjudican a todos los mercados" (author's translation).

accessibility and usability for the public at large. Despite concerns, the adoption of a decentralized cryptocurrency may provide an opportunity for developing countries to escape the pitfalls of centralized fiat currencies and potentially thrive in the global economy.

However, further work is needed to examine the impact of Bitcoin adoption on the economy and financial systems, and to determine if its volatility is as significant as it appears. Many media outlets tend to report negative news regarding countries that have adopted Bitcoin, but readers can seek primary sources from residents to broaden their understanding. Developed nations may resist Bitcoin due to the fear of losing control over the people, as control of money is often linked to power. The recent developments provide crucial knowledge and perspectives for policymakers and researchers in assessing the potential benefits and risks of adopting cryptocurrencies as a legal tender. The decision to adopt Bitcoin as a legal tender is not only contentious, but also has the potential for transformative change.

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