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The political economy of Bitcoin as legal tender in El Salvador

Temporary bandages to permanent wounds?

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Abstract: This paper provides a contextual analysis of the adoption of Bitcoin as legal tender in El Salvador. First, we outline the historical context and the political situation of the period 2019–24 that serve as context for the passage and implementation of the Bitcoin law (Decree No. 57). We identify the institutional and political context and the main areas of contention. Next, we delve into the macroeconomic context of El Salvador, outlining the fundamental features of its economy and highlighting how they relate to currency issues. Our analysis reveals that the adoption of Bitcoin cannot be understood without factoring in the mounting strains surrounding dollarization, remittances, and foreign debt. We conclude by putting forth a set of hypotheses regarding the potential dynamics and future of Bitcoin as legal tender in El Salvador that point beyond Bukele's tactics.

Key words: cryptocurrencies, Bitcoin, El Salvador, international political economy, digital finance

JEL classification: E42

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1 Introduction

As of 7 September 2021, El Salvador has become the first country to adopt Bitcoin (BTC) as legal tender.[1] The unexpected and last-minute move by President Nayib Armando Bukele Ortez has attracted international attention from crypto enthusiasts and critics alike. Since then, El Salvador and Bukele have received extensive international media coverage.

The reasons behind the adoption of Bitcoin as legal tender lead to numerous speculations; however, a systematic analysis of this issue from an international political economy perspective is still lacking. This gap is not restricted to the case of El Salvador. The emerging field of 'cryptoeconomics' (or more properly crypto-microeconomics) has been dominated by approaches from the Austrian school of economics and the quest of proper monetary incentives or punishment to stimulate certain behaviour of individuals in a system (Brekke 2019; Brekke and Alsindi 2021). Despite the rapidly growing literature from different disciplines, international political economy studies have been slow in tackling the issue of cryptocurrencies (Campbell-Verduyn 2018; Campbell-Verduyn and Hütten 2019; Cuéllar 2021; Vázquez 2022), especially the heterodox and critical schools of thought. This study thus examines the case study of El Salvador as a first step in developing a critical international political economics approach to cryptocurrencies.

The introduction of Bitcoin as legal tender occurs within the backdrop of an ongoing international crisis for El Salvador, with rising levels of foreign debt. Different international financial institutions have been almost unanimous in expressing very early concerns about this adoption. The International Monetary Fund (IMF), for instance, has stated that cryptocurrencies pose operational risks related to their volatile value, cybersecurity risks, and financing risks associated with money laundering and terrorism and has urged El Salvador to implement strong regulations to mitigate these. The IMF also emphasized that the adoption of Bitcoin as legal tender could lead to difficulties in monetary policy implementation as well as increased risks to financial stability (Adrian and Weeks-Brown 2021). After the adoption of the cryptocurrency as legal tender, the IMF, in its annual country report, called for removing the legal tender status of Bitcoin (IMF 2022). The consequences of the adoption of Bitcoin in relation to the integration of El Salvador into the international financial architecture (i.e. financial markets and their institutions) are only just becoming apparent. For example, lack of compliance with the guidelines of the Financial Action Task Force might have consequences for El Salvador and its national banks (Hanke et al. 2021b).

These national and international critical voices have nevertheless not deterred the Salvadoran government from moving forward with the adoption of Bitcoin as legal tender and from budgeting US$203.3 million for its implementation. The funds cover for costs such as the establishment of a reserve fund, the installation of a network of Bitcoin-enabled automated teller machines or ATMs, and a substantial campaign of advertising (Alvarado 2021). Whatever the final outcome of Bukele's Bitcoin experiment, the Salvadoran economy and people will be the ones footing this bill.[2] Following its implementation, this fund has been expanded to finance the investment in

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[1] The Central African Republic followed El Salvador in April 2022. However, only 1 year later the parliament retracted the step, and companies are no longer required to accept Bitcoin but are allowed to use Bitcoin alongside other currencies. There were intense rumours of Paraguay following suit due to its cheap (and clean) electricity, though this plan was archived in December 2022 after the blow to Paraguay's related Bitcoin mining law. On the variegated (legal) status of crypto assets or pilot projects in Latin America, see Appendino et al. (2023).

[2] A staggering 73% of this initial fund (US$150 million) is expected to go into a fund to ensure 'Chivo users can use the "automatic and instant convertibility" of bitcoin to dollars' (Alvarado 2021).

Bitcoin reserves that are estimated to have cost US$117 million, allocated towards the purchase of BTC2,822 (Nayib Bukele Portfolio Tracker, n.d.).[3]

These two apparently contradictory movements (international and domestic tendencies) are at first sight puzzling. And it is in this apparent contradiction that most of the literature also navigates. However, this is rooted in the use of two incompatible levels of abstraction: on the one hand generalities about Bitcoin and its shortcomings, and on the other some short-term specificities of El Salvador. In other words, in this study we propose to go beyond these limitations by making specific links between the political economy of cryptocurrencies and the specificities of El Salvador.

Furthermore, before we advance our case, it is necessary to put a caveat on the uncritical use of the discourse of mainstream financial institutions to criticize El Salvador's Bitcoin plans. Despite the validity of these criticisms in some cases, they follow a trend that is also applicable to ongoing discussions on cryptocurrencies. International financial organizations attempt to position themselves as 'institutions with deep knowledge of financial activities and innovative technologies, which perform experiments wisely' (Faria 2019); however, this contrasts sharply with their catastrophic failures seen even in the recent past. Latin America as a region, including El Salvador, is far from being an exception when it comes to the troubled track record of institutions such as the IMF. In the case of El Salvador, as well as more broadly in the context of cryptocurrencies, scandals are part of a moral economy that places blame on individuals, thus diverting attention from the underlying structural issues (Brekke and Alsindi 2021; Campbell-Verduyn and Hütten 2019). Thus, along the multiple echoes of stories of Ponzi schemes and ultra-volatile assets, Bitcoin's origins as a criticism of the banking system, international financial markets, and the 2008 financial crisis are downplayed and lost in translation (Campbell-Verduyn and Hütten 2019; Lehdonvirta 2022). As we will see later in the discussion, the adoption of Bitcoin as legal tender in El Salvador also could not possibly be understood as a form of critique of dollarization and international transfers.

This study sets to answer the burning question about the conditions and constraints that triggered the decision to make Bitcoin legal tender in El Salvador. In what follows we explore first the institutional context and explain the political forces at play. Second, we discuss El Salvador's macroeconomic context, outlining the main structural features of this economy and emphasizing the specific ways these are related to money. We then analyse the most common existing explanations against these features and conclude by showing that Bukele's bluff plays on top of growing tensions in the issues of money, dollarization, and a near future paved with geopolitical tensions.

2 Context

2.1 Political context

Nayib Armando Bukele Ortez was elected president of El Salvador in 2019, after serving as the mayor of San Salvador between 2015 and 2018. Due to his age (Bukele was born in 1981) and his style (he likes to show up for public appearances wearing a baseball cap and leather jacket), media

[3] Given that there is no public data (!) of these purchases despite the data having been requested, this estimate comes from the site nayibtracker.com that collects data from Nayib Bukele's public tweets (@nayibbukele on X, formerly Twitter), including price information. At the time of writing, these funds depreciated around 25% given Bitcoin's volatility, although this might change in the future.

often refer to him as the 'millennial president'. Bukele was elected on a law-and-order platform against organized crime and corruption.

Bukele's election marked a break with the Salvadoran bipartisanship since the transition to democracy and has been interpreted as an expression of the exhaustion of this post-war arrangement (Roque 2021). Between 1994 and 2014, the two parties Alianza Republicana Nacionalista (ARENA, Nationalist Republican Alliance) and Frente Farabundo Martí para la Liberación Nacional (FMLN, Farabundo Martí National Liberation Front) concentrated on average 87.3% of all votes (Artiga-González 2019: 19). Bukele ran for the Gran Alianza por la Unidad Nacional (GANA, Grand Alliance for National Unity)—his own party, Nuevas Ideas ['new ideas'], did not submit the necessary paperwork on time— and won in the first round with 53.1% of votes (1.4 million). In 2021 and despite the COVID-19 pandemic, the government and its allies (Nuevas Ideas, GANA, Partido de Concertación Nacional [National Coalition Party], Partido Demócrata Cristiano [Christian Democratic Party]) further increased their majority to an unprecedented super-majority in Salvadoran history, accumulating a total of 64 out of 84 seats in the February mid-term elections.

From a political strategy viewpoint, Bukele has been characterized as populist due to his communication style (Boos 2022; Masek and Aguasvivas 2021; Nilsson 2022; Tobar 2020). He ran a populist outsider campaign in 2019; he accused 'the same as always' ('*los mismos de siempre*') of corruption ('*el dinero alcanza cuando nadie roba*') (i.e. money is not scarce if nobody steals) and characterized them as a homogeneous political elite ('*el FMLN es ARENA 2.0*'). If we do not stick to a shallow definition of populism merely as 'communication style', it is Bukele's deployment of social media, which helps him to style himself as a young millennial, that is one of the most striking elements of Bukele's government and helps him to curb the increasingly autocratic strands of his government (Meléndez-Sánchez and Levitsky 2021; Siles et al. 2021) (see Figure 1).

Bukele's increasingly authoritarian traits attracted international attention in 2020. International institutions criticize Bukele's populist government for the human rights situation in the country and regard the independence of the judiciary in danger (Amnesty International 2021; United Nations 2021). Since taking office in 2019, he has systematically purged political institutions of dissenting voices and attacked the opposition, journalists, and others. On 9 February 2020, he forced the opposition to agree to a loan to fund the security forces and military by deploying the military in the Salvadoran parliament (BBC 2020a). A year later in 2021 (1 May), a so-called self-coup followed when Bukele, in violation of Article 185 of the Constitution, removed the Attorney General and five judges of the Constitutional Court and appointed judges who later ruled favourably on his re-candidacy in the 2024 presidential election (Meléndez-Sánchez and Levitsky 2021). On 31 August 2021, Bukele removed one-third of the country's judges through pension reform (Cáceres et al. 2021). Accusations of corruption against the government are also being voiced, and (former) members of the Bukele government are now listed on the U.S. Department of State's (2021) Angel List of corrupt and anti-democratic actors. Finally, in response to a series of killings, the Bukele government declared a state of emergency on 27 March 2022, which has since been extended ten times and is still in place. Although the government justifies the state of emergency with the fight against organized gang crime—a strategy that appears to be partially successful (Martínez et al. 2023)—it comes at the cost of widespread human rights violations committed by the security forces (Human Rights Watch 2022).

Figure 1: Bukele on social media

Source: Juan Grigera's screenshot of Nayib Bukele's profile on X (formerly Twitter).

2.2 Macroeconomic context

El Salvador's dynamics of capital accumulation throughout the nineteenth and twentieth centuries are not too divergent from the overarching tendencies of Central America. An agro-export model dominated with almost no challenges (and only feeble attempts at import substituting industrialization that was quickly overthrown because of pressures by the internal elite and the United States) until the debt crisis of the 1980s (Segovia 2022). The key crops of the agricultural export sector have traditionally been coffee, sugar, corn, and cotton.

The second and strongest wave of neoliberalization was under the auspices of ARENA (1989–2009) after the civil war. It instrumentalized the shift towards a predominance of (mostly financial) services and non-traditional exports. Public banks, many of which had been nationalized by the military dictatorship in 1980, were privatized as part of the standard liberalization and privatization objectives of the Washington Consensus. The dollarization of the Salvadoran economy on 1 January 2001 was a second major overhaul of the financial sector. Without this, the current effort to introduce new legal tender is incomprehensible.

El Salvador's economy was highly dependent on the US dollar, with over 50% of its trade being conducted with the United States. The country's national currency, the colón, was unstable - even with a currency board due to inflation. For instance, even when the nominal exchange rate remained stable between 1993 and 1999 at 8.78 colóns per US dollar, the real exchange rate depreciated by 50% (UN-ECLAC 2022).

The phasing out of the colón was done in a 90-day period where colóns could be exchanged for US dollars at a fixed exchange rate of 8.75 colóns per US dollar. After that, the colón was no longer legal tender and all transactions were required to be conducted in US dollars (Towers and Borzutzky 2004).

After 2009, with the election of FMLN a number of post-Washington Consensus policies were introduced, including the Programa Integral Anticrisis (Comprehensive Anti-crisis Programme), which included a limited number of social reforms in the education and health sectors and attempted to reform the tax system, alongside a pushback against the worst austerity measures promoted by the IMF. Neither these reforms nor the lukewarm changes in the terms of trade (that improved after 2011 unlike most of the region; see UN-ECLAC 2022) lead to nothing like structural change of the Salvadoran economy.

The current patterns of accumulation have been substantially shaped by the reforms of the early 1990s. The main features are its reliance on the services sector and remittances, a declining weight of the agricultural sector, and a growing external debt that sits on top of other long-term structural issues of the labour market (including poverty, unemployment, and informality).

The economy of El Salvador is that of a lower-middle-income country, with a GDP per capita of about US$4,100—among the poorest in Latin America (alongside Bolivia, Honduras, and Venezuela, still four times higher than Haiti). With a population of approximately 6.4 million people, almost 25% of whom lived in poverty in 2019 (US$5.5 per day, PPP2011 World Bank data; see World Bank 2023a). With high levels of informal employment (69% in 2019 as per ILOSTAT—a figure that is still below the 80% of neighbouring Guatemala, Honduras, and Nicaragua; see ILO 2023) and a relatively low rate of unemployment, the labour market is marked by low wages and remarkably low inequality rates, even more so in comparison to the rest of the region (a Gini index of 39 in 2019 places El Salvador among the three most equal countries of the region), which is a consequence of the high amount of private remittances into the country since the 1990s. The services sector accounts for the largest share of Salvadoran economic output, with 23% coming from financial services alone in 2020 (UN-ECLAC 2020). Remittances are an important pillar of the Salvadoran economy. El Salvador ranks sixth in the world in terms of annual remittances as share of GDP: in 2020, they accounted for 24.1% of GDP, with over 94% of the US$4.8 billion in remittances in the same year sent back to El Salvador from the United States (see World Bank 2023b).

External debt is a relevant feature as well. For 2021, the IMF forecast a budget deficit of 5.8% of GDP. Budget deficit and high debt service lead to an increasing need for financing, so that by 2026 the public debt could amount to 96% of GDP (IMF 2022). Following the passage of the Bitcoin law, Salvadoran government bond prices fell sharply, depreciating by almost 30% over the course of 2021 (Donald and Vizcanio 2021).

Segovia (2022: 25–30) contends that 'unlike other rentist models' the domestic market plays a more important role with the structural limitation that domestic consumption is mainly financed through private remittances and consumer credits. Thus, the domestic market is also vulnerable to external shocks such as changes in immigration policies and capital flow movements in countries where Salvadorans reside.

2.3 Parliamentary debate and implementation

On 8 June 2021, the parliament passed Ley Bitcoin (Bitcoin law, Decree No. 57), which established Bitcoin as El Salvador's second official currency alongside the US dollar from 7 September 2021 onwards. Bukele's move took everyone by surprise. The announcement was made with minimal notice and without substantial consultations among experts and the public. The parliamentary debate on the matter was notably brief, lasting less than 2 hours before the vote was cast. During the limited interventions made by members of the parliament (12 in total, all very brief), a prevailing theme emerged, echoing Bukele's argument that the adoption of Bitcoin and blockchain technologies would bring substantial benefits to the economically-disadvantaged population, particularly in the Global South (Scott 2016). Bukele's speeches, interventions in the debate, but also the law itself, follow this developmental narrative citing as benefits the financial inclusion of the unbanked, the attraction of foreign investments and cost reductions for remittances.

Moreover, the government's communication strategy reveals prominent use of a narrative centred on modernization and technological solutionism to rationalize its Bitcoin policy (Morozov 2014). Bitcoin is not only portrayed as a panacea for addressing the inherent structural challenges within the Salvadoran economy but is also depicted as the gateway to positioning El Salvador at the forefront of forthcoming technological advancements, thereby elevating the country to become a financial centre akin to a 'Singapore of Latin America' (Asamblea Legislativa 2021a). The resounding effectiveness and remarkable degree of consensus surrounding this narrative were evident in the scarce interventions made by the opposition during the debate, which amounted to a mere three instances. During these interventions, the opposition framed their criticism of the law emphasizing that their stance was not rooted 'against modernity' nor 'against technology' and 'not against innovation-based economic development' (for a detailed analysis, see Boos 2023).

From a technical point of view, the Bitcoin law contains 16 articles that roughly outline some of the cornerstones of Bitcoin adoption. Even 2 years after its adoption, the entire legal framework surrounding the Bitcoin policy remains relatively modest in scope and complexity (see Table 1). Consequently, significant matters continue to be left unaddressed or in apparent contradiction to the government's earlier communication. While Articles 7 and 12 explicitly state that all economic agents must accept Bitcoin as payment if they have the technological means to do so, the government later emphasized that the use of Bitcoin would be voluntary. Additionally, adherence to established central bank anti-money laundering or know-your-customer standards is mandated (Article 16), yet the precise mechanisms for ensuring compliance remain undefined.

Unsurprisingly, following its introduction in September 2021, reports on the government app (named Chivo, which translates roughly as 'cool') show a lack of adequate security features. According to these reports, the app is flawed, potentially costing the government millions of US dollars in fake transactions; accounts under false or stolen identities were widespread in the beginning; and recent reports shed light on the dubious contracting practices and technical details behind the app (Gerard 2021; Rauda Zablah 2022b).

Table 1: Laws and regulations relating to Bitcoin in El Salvador

Instrument	Description	Year	Date	Body
Decreto 57	Ley Bitcoin	2021	8 June	Asamblea Legislativa
Decreto Ejecutivo No. 27	Reglamento de la Ley Bitcoin	2021	27 August	Poder Ejecutivo
Decreto 137	Ley de Creación del Fideicomiso Bitcoin	2021	31 August	Asamblea Legislativa
RP 29	Normas técnicas para facilitar la participación de las entidades financieras en el ecosistema Bitcoin	2021	7 September	Banco Central
CD-29	Lineamientos para la autorización del funcionamiento de [. . .] de servicios con Bitcoin y dolares	2021	7 September	Ministerio de Economía

Decreto 49	Creación de la Oficina Nacional del Bitcoin	2022	10 November	Asamblea Legislativa
Decreto 643	Ley de Emisión de Activos Digitales	2023	11 January	Asamblea Legislativa

Source: authors' compilation based on official publications by the legislative assembly (Asamblea Legistativa), ministries (the Executive and the Ministry of Economy), and the Central Reserve Bank of El Salvador (Banco Central).

3 Unravelling the enigma: exploring three hypotheses behind the Bitcoin legal

Upon preliminary analysis, the decision to designate Bitcoin as legal tender gives rise to a multitude of economic and political uncertainties. This unprecedented move by President Bukele has triggered a range of explanations aimed at unravelling the motives behind his unexpected action. Within this context, we aim to shed light on the underlying rationale behind the Bitcoin legislation by critically analysing the three primary hypotheses that have gained substantial traction.

1. *The emic hypothesis*: This hypothesis takes Bukele's narrative at face value, considering it as the primary driving force behind the Bitcoin legislation. Thus, in this explanation the driving force behind the adoption of Bitcoin as legal tender is its potential benefits, such as financial inclusion, technological innovation, attracting foreign investment, and geopolitical advantages for El Salvador.

   The narrative of financial inclusion is structured around the argument that traditional banking systems have left a significant portion of the population unbanked or underbanked, limiting access to basic financial services. By integrating Bitcoin into the mainstream economy, proponents argue that marginalized communities, including the rural and unbanked population, can benefit from increased access to financial services, digital transactions, and potential wealth accumulation.
2. *The popularity/distraction hypothesis*: This frequently articulated hypothesis interprets Bukele's Bitcoin policy as a strategic communication and public relations tactic. The argument is twofold: on the one hand, Bukele will try to gain popularity among voters with the audacious adoption of Bitcoin as legal tender. On the other hand, this move is perceived as a diversionary tactic, deflecting attention from the government's challenges and its escalating tendencies towards authoritarianism.
3. *The geopolitical strategy hypothesis*: This third hypothesis revolves around the geopolitical strategy behind the Bitcoin legislation. According to this line of thinking, the decision may be driven by considerations beyond the domestic realm. Proponents argue that embracing Bitcoin as legal tender can enhance El Salvador's global positioning and geopolitical influence. By aligning with the growing global interest in cryptocurrencies, the country may seek to forge new alliances, attract foreign investments, and gain geopolitical leverage in the evolving digital economy landscape.

3.1 The emic hypothesis

The first examined explanation for the implementation of the Bitcoin policy by the Bukele government centres on the government's purported ability to fulfil its promises. Simultaneously, there is a critical stance that shares this premise and evaluates the policy only insofar as it delivers or not its proclaimed commitments.

This explanation is supported by three main advantages quoted in the literature and propaganda surrounding cryptocurrencies and their potential positive effects for countries in the Global South, namely financial inclusion of the unbanked, the attraction of foreign investments, and cost reductions for remittances (Scott 2016). These are the cornerstones of the government's justification.

Financial inclusion

The official narrative insists that embracing Bitcoin as legal tender can contribute to financial inclusion, particularly for the unbanked population. The Bitcoin law itself states that, given

> approximately seventy percent of the population does not have access to traditional financial services [. . .] it is the State's obligation to facilitate the financial inclusion of its citizens in order to better guarantee their rights. With the purpose of promoting the economic growth of the country, it is necessary to authorize the circulation of a digital currency whose value obeys exclusively to free market criteria, in order to increase the national wealth for the benefit of the greatest number of inhabitants. (Asamblea Legislativa 2021b, authors' translation)

Thus, by leveraging the decentralized nature of cryptocurrencies, individuals who lack access to traditional banking services will be able to participate in the digital economy, conduct secure transactions, and accumulate wealth.

Evidence so far seems to strongly suggest that the 'financial inclusion effect' is unsubstantiated. This is unsurprising, given the intersectional dimension of exclusion: financial exclusion correlates well with the digital divide (for some data on the latter, see World Bank 2016). The first in depth study conducted by Alvarez et al. (2022) on the adoption of Bitcoin revealed a significant correlation between familiarity with the app for Bitcoin and its actual use and the demographic characteristics of being banked, educated, and a young male. However, the main reason for downloading the app was the US$30 incentive by the government, as they found that most users (60.66%) did not continue to use the app beyond redeeming this initial incentive. Even app users use it mostly for transfers in US dollars, which is in line with the finding of the study that most Salvadorians still prefer cash.

As expected, access to financial services and the internet correlates with household income (CEPAL 2020; Demirguc-Kunt et al. 2018): Only 30.4% of adults in El Salvador had a bank account in 2017 (24.4% of women; 37.6% of men) compared with an average of 55.1% in Latin America and the Caribbean at the same time. In 2019, only 23.5% of households had internet access (World Bank 2016).

The revelation that Bitcoin does not serve as a means of financial inclusion is not unexpected. Moreover, it casts doubt on whether this motive was ever a driving factor behind the adoption of Bitcoin as legal tender in the first place.

Attracting foreign investment

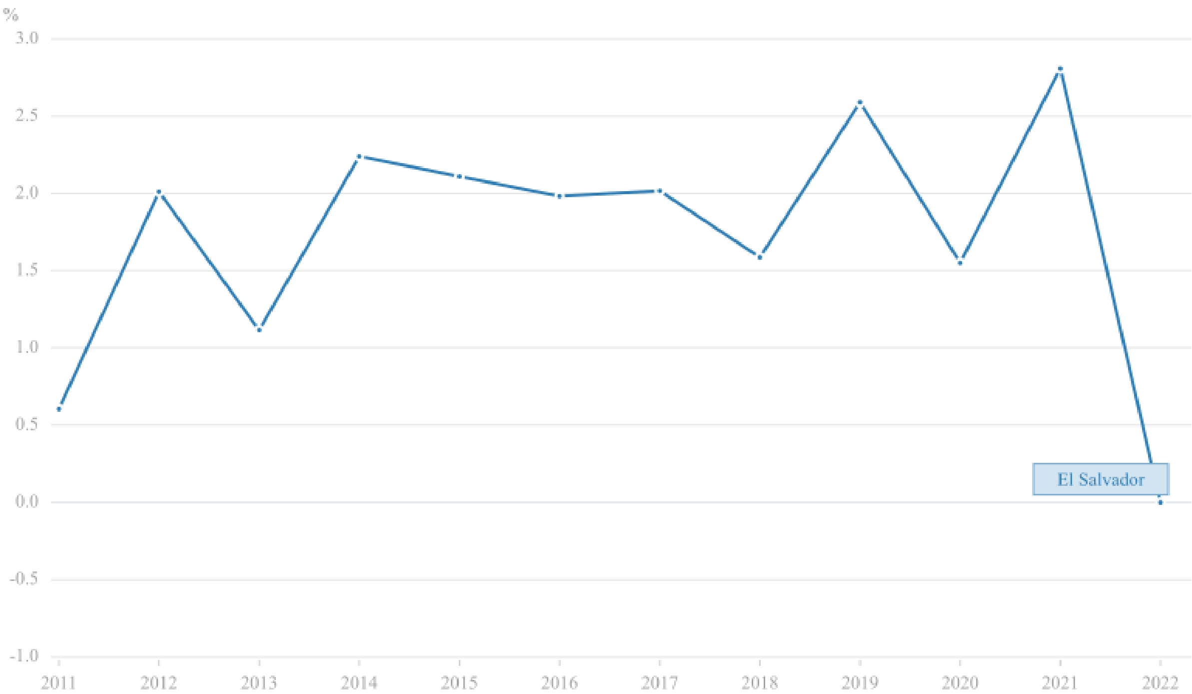
Another line of argument also mentioned by the government highlights the potential of Bitcoin adoption to attract foreign investments. Proponents argue that positioning a country as a cryptocurrency-friendly environment can stimulate investor interest, particularly from technology-driven enterprises and cryptocurrency enthusiasts. By embracing Bitcoin as legal tender, countries may signal openness to innovative financial technologies, potentially leading to increased foreign direct investment (FDI) and economic growth. This narrative suggests that the Bukele government's Bitcoin policy may be driven by the desire to attract foreign investments and promote economic development. It also goes in line with other announcements such as the recent Innovation and Technology Manufacturing Incentives Act, which eliminates income taxes, municipal taxes, capital gains taxes, and import taxes/duties for investors in innovation or technological manufacturing projects.

Two main objections can be raised to diminish the significance of this dimension. First, the adoption of Bitcoin has predictably raised the turbulence of financial prospects and captured the negative assessments of established credit agencies and the IMF. Examples of negative assessments include S&P Global's credit rating of El Salvador being degraded from B− in 2021 to CCC+, Moody's from Caa1 to Caaa3, and Fitch from B− to CCC. International financial institutions have raised concerns over regulatory oversight, money laundering, and the potential for illicit activities associated with cryptocurrencies, straining the already tense relationships. Second, the fragmented nature of Bitcoin's adoption, independent of other policies, leads to the reasonable expectation that its isolated impact may not be substantial. In essence, it becomes evident that Bitcoin adoption alone cannot sufficiently address broader economic challenges or instigate significant transformative effects on its own.

For the time being, FDI flows since the adoption of Bitcoin do not indicate an increase in investment in the country (see Figure 2). The impact of the COVID-19 pandemic, the recency of the legalization, the volatility of FDI in El Salvador, and the quality of the available data make it difficult to draw further conclusions.

Similarly, as observed in the argument concerning financial inclusion, the significance of attracting foreign investment is also subject to doubt. This scepticism arises from both the empirical evidence indicating a negligible actual impact and the logical expectations that render the notion implausible as a motivation behind the Bitcoin law.

Figure 2: Foreign direct investment, net inflows (% of GDP), 2011–22, El Salvador



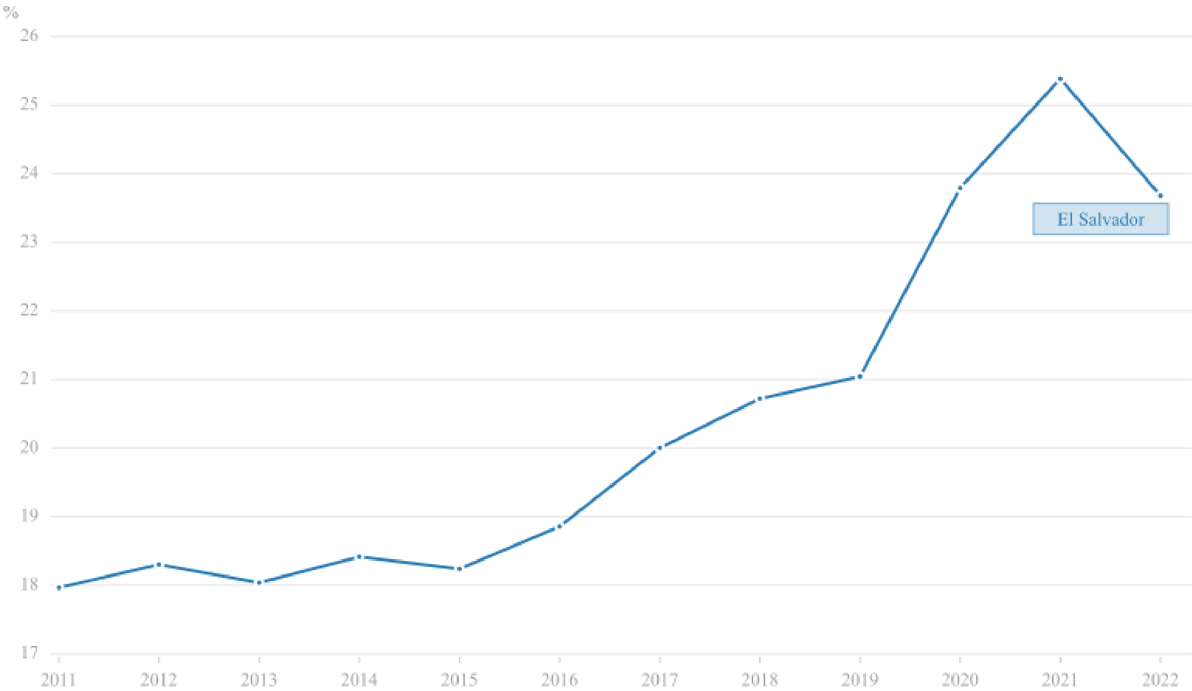
Source: World Bank data based on International Monetary Fund (IMF), International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates. Reproduced under the Creative Commons license CC BY-4.0.

Remittance cost reduction

The third argument points to the potential cost reductions associated with remittances, which are a significant source of income for El Salvador. By bypassing traditional financial intermediaries, individuals sending and receiving remittances may experience lower fees and faster transfer times. We discuss this in depth as there are some grounds for remittance cost reduction to be a potential motivator of Bitcoin adoption.

A critical examination suggests that the adoption of Bitcoin as legal tender may not be firmly grounded on the main promises made by President Bukele and his government. While the narratives of financial inclusion, attraction of foreign investments, and cost reductions for remittances have repeatedly been mentioned as potential benefits of Bitcoin adoption, there seems to be little ground to correlate these to the motivations let alone any significant outcomes. The first two, even if they sound laudable, do not seem to correspond to the expected outcomes of Bitcoin adoption nor to the actual outcomes. As for remittances, let us say that one can promote Bitcoin use for remittances in many ways, and making Bitcoin legal tender is an 'overshoot' (see Figure 3).

Figure 3: Personal remittances, received (% of GDP), 2011–22, El Salvador



Source: World Development Indicators (World Bank 2023b), reproduced under the Creative Commons license CC BY-4.0.

3.2 The popularity/distraction hypothesis: Bitcoin adoption as diversion of focus from other policy issues

One of the most common interpretations of Bitcoin adoption interprets Bukele's move as a public relations stunt to (i) gain national and international popularity and (ii) distract the public from his regimes authoritarian turn and human rights violation (e.g., see Rauda Zablah 2022a).

This interpretation posits that President Bukele strategically embraced Bitcoin as legal tender to generate positive publicity and enhance his popularity both domestically and on the international stage. By associating his government with the innovative and rapidly growing cryptocurrency space, Bukele may have sought to portray himself as a forward-thinking leader and attract attention from cryptocurrency enthusiasts and investors. Furthermore, proponents of this interpretation argue that the adoption of Bitcoin as legal tender served as a distraction tactic to shift public focus away from the growing concerns surrounding the Bukele regime's authoritarian tendencies and human rights abuses. By introducing a high-profile policy measure that captured widespread attention and sparked debates, Bukele may have aimed to divert public scrutiny and create a narrative that emphasized his government's supposed commitment to economic progress and technological advancement.

However, upon further investigation, the validity of this hypothesis becomes increasingly questionable.

First, Bukele's approval ratings were very high before he announced that he would make Bitcoin the country's legal tender, and it remained high afterwards. Before Bukele announced his intention to push the Bitcoin bill in June 2021, his government's approval rating in the country was very high, with 87.5% of the population believing that the government represented a positive change for the country. This approval rating was even slightly better than the government's rating after its first year in office. The survey also shows that this positive image seems to be driven by the figure of Bukele himself: 66.8% of respondents trust the president (Iudop 2021a). Moreover, the president still has the best reputation among all official institutions (Iudop 2021b). Other indicators also confirm Bekele's popularity, such as the results of the 2021 midterm elections. Not only did Nuevas Ideas win more seats in parliament but also the result is even more surprising in light of the pandemic. As Grigera (2022) shows, almost all ruling parties in Latin America lost national elections held during the pandemic. The only exceptions are Nicaragua and El Salvador, with Nicaragua having low levels of voter turnout and serious accusations of fraud.

Therefore, these surveys do not suggest a need to increase Bukele's popularity by adopting Bitcoin as legal tender but quite the opposite: voters' positioning on Bukele's Bitcoin policy suggests that voters are at best indifferent or even opposed to the adoption. From the outset, the much-cited study of the Universidad Centroamericana José Simeón Cañas (UCA) left little doubt about the public's scepticism: 66.7% of respondents were against the law and 82.8% had little or no confidence in the Bitcoin (see Iudop 2021b). A large proportion of respondents (43%) also believed that the Bitcoin would have a negative impact on the economy and that the prices of basic goods will rise; 35.8% believed that the Bitcoin will benefit the rich, 21.5% believed it will benefit foreign investors, and 14.8% believed it will benefit the government. The survey also revealed a lack of information, with some respondents not knowing what the Bitcoin is or having a very limited idea of its characteristics (Iudop 2021b). On the day of its official launch (7 September 2021), the adoption of Bitcoin even sparked one of the few, though small, street protests since Bukele took office (Pineda 2021). This scepticism did not vanish over 1 year after the introduction of Bitcoin. A most recent study revealed that 64.6% reject further spending of public funds on Bitcoin and a similar number (65.5%) qualify the introduction of Bitcoin directly as a failure (Iudop 2022). Consequently, in its public release of the survey, the UCA reiterates that 'as the latest Iudop survey confirms, the introduction of bitcoin is the most unpopular policy, the most criticized and the worst rated by the people' (UCA 2022).

At the international level, the explanation that the Bitcoin adoption was motivated by public relations considerations also does not hold up in the light of a contextual analysis: shortly after Bukele's announcement at the Bitcoin conference in Miami in May 2021, international financial institutions and experts pointed out the problematic aspects of this move from a financial policy perspective (Adrian and Weeks-Brown 2021; BBC 2021; Hanke et al. 2021a). More than international appreciation, the move fuelled criticism of the government's incompetence.

As far as the international crypto-community is concerned, the picture is mixed. The announcement of the introduction of Bitcoin as legal tender was initially greeted with enthusiasm and interpreted as a sign of the final breakthrough. However, a certain disillusionment quickly set in as legal and technical problems became increasingly apparent. A whole army of self-proclaimed Bitcoin journalists made their way to El Salvador, either on their own or on government-organized trips, to see how it was working on the ground. In the wake of increasing authoritarianism and bizarre announcements by Bukele, such as the construction of a Bitcoin city, Bitcoiners increasingly distanced themselves from El Salvador's Bitcoin experiment, often blaming the contradiction between the idea behind Bitcoin and its imposition by a state (Posch 2021; Rauda Zablah 2021). Nevertheless, Bukele has managed to gather a group of loyal crypto entrepreneurs around him, who seem to be in charge of projects such as Bitcoin City or the so-called Volcano Bond. In an interview with Ekaitz Cancela, Jorge E. Cuéllar speaks of an 'alliance between national techno-capitalists and Silicon Valley entrepreneurs in a mutually beneficial but risky enterprise [. . .] in the sense that country tax law, legal-tender laws, and economic development is being reoriented for a single purpose: Bitcoin', which he coins 'fiduciary colonialism' (see Morozov 2021). The question remains as to how the benefits of such an alliance can explain such a far-reaching step as adopting Bitcoin as legal tender.

A variant of the popularity hypothesis revolves around the idea of Bitcoin as a distraction. The argument here is that Bukele uses the Bitcoin and his spectacular announcements related to it as a distraction from criticism of his government in areas such as human rights violations. Again, this hypothesis does not seem very plausible in light of the public communication and perception of his iron-fist policy in recent years. At the national level, Bukele's popularity seems to be largely rooted in these policies, that is, he is popular with voters not in spite of these policies but because of them.

This became already visible during the COVID-19-pandemic, when Bukele adopted one of the harshest confinements globally. Then, after a series of killings, the government released photos of sealed prison cells and paraded gang prisoners in front of journalists, announcing that they will see 'no ray of sunlight' (BBC 2020b). As already mentioned, as the only government in the region, Bukele gained popularity during the pandemic (Grigera 2022).

But the strongest evidence against the distraction hypothesis is the political developments since March 2022. In response to a series of homicides, the government declared a state of emergency on 27 March, which has since been extended ten times and is still in effect. In a recent report, Human Rights Watch (2022) documented widespread violations of the state of emergency, including arbitrary arrests, short-term disappearances, torture, and 90 documented deaths in custody. The report counted more than 58,000 arrests between March and November 2022, mostly targeting low-income groups. However, contrary to the assumption beyond the distraction hypothesis, the measures taken by the government are very popular with the population. In September 2022, 75.9% of the population approved of the state of emergency and considered it effective against crime (Iudop 2022). However, at the same time survey respondents criticized the suspension of constitutional rights and their approval of the state of emergency began to decline compared with the beginning of its implementation.

At the international level, in 2021, the adoption of Bitcoin may have helped to divert attention in the short term from growing concerns about Bukele's moves against political institutions and the opposition. In the long run, however, it put the country and Bukele in the international spotlight. As a very generic form of evidence in this regard, global trends of Google searches for El Salvador shows that 'Bitcoin' was the most searched topic (6th) after other terms related to the COVID-19 pandemic since Bukele took office on 1 June 2019 (see Table 2).

Table 2: Summary of popularity/distraction arguments and sources

	Popularity	Distraction
National	• Highly popular before adoption (Iudop 2021a); results of the midterm elections in 2021 • Bitcoin adoption unpopular in population indifference (Iudop 2022; UCA 2022)	High approval of state of emergency implemented by the government (Iudop 2022)
International	• Financial institutions reject adoption (Adrian and Weeks-Brown 2021; BBC 2021) • Gradual distancing of the Bitcoin space in the wake of developments (Posch 2021; Rauda Zablah 2021) such as 'fiduciary colonialism'—alliance around Bukele (see Morozov 2021)	El Salvador moves into the international spotlight due to Bitcoin adoption (Gtrends, n.d.)

Source: authors' compilation based on resources mentioned.

3.3 Geopolitical considerations

Those who presuppose geopolitical considerations behind El Salvador's adoption of Bitcoin do this while arguing these are multifaceted, extending beyond mere economic interests.

The move towards Bitcoin is thus presented as part of a broader geopolitical strategy in the context of an evolving multipolar world. As the global geopolitical landscape shifts, countries like El Salvador may aim to align themselves with other emerging powers and decrease their traditional dependence on the United States. The export profile already shows some of this diversification. Embracing Bitcoin, which operates independently of any single nation's control, may be perceived as a step towards asserting greater autonomy and fostering ties with a more diverse range of international partners.

As we will see in the next section, we do find some grounds to link the adoption of Bitcoin to the crisis of dollarization in the region. In this context, adopting Bitcoin could represent an attempt to address some of the limitations and constraints that dollarization imposes on the country's monetary policies and economic autonomy.

4 Bitcoin as international money

The explanations outlined in Section 3 suffer from one of two primary limitations. They either (i) lack sufficient consideration of El Salvador's context, so that rather than delving into the specifics of El Salvador, they rely on a generic critique of the shortcomings of Bitcoin or (ii) overlook the question of correspondence between public policy decisions and the political economy of a country, thus leaning towards voluntaristic explanations that disregard the intricate relationship between government actions and their social and economic impact (Brand et al. 2021). In our case, given the opacity of government deliberation and motivations, engaging in such an endeavour becomes inherently speculative and challenging.

Therefore, we propose an explanation that leverages two crucial characteristics of the Salvadoran economy as foundational pillars. First, we highlight the significance of El Salvador's complete dollarization, dating back to 2001. The adoption of the US dollar as the only official currency has to be factored in when discussing changes to the country's monetary and financial policy. Second, we emphasize the immense importance of remittances in the Salvadoran economy. These inflows of funds have been growing in significance (see Figure 3) from 15% of GDP in 2001 to more than 26% in 2021. This places El Salvador alongside the topmost receivers of remittances as a share of GDP (alongside similarly sized Lebanon and above Honduras and Jamaica).

Dollarization brings about two important elements to understand the current conjuncture: (i) an important (and recent) antecedent of a change in legal tender rules; (ii) a number of problematic legacies that will require future intervention if Bitcoin fails.

For a quick comparison with the recent legalization of Bitcoin as tender, Towers and Borzutzky (2004) provide a concise overview of the unconventional path taken by El Salvador in adopting the US dollar as its legal tender in 2001, thereby abandoning the use of the colón as its national currency. The puzzle of 2001 encompasses several perplexing aspects. It involves the opaque motivations behind this decision, the ex-post falsification of commonly cited justifications such as inflation reduction (inflation was not high before and increased during adoption), interest rate reduction (that was minimal in a very tiny set of grants), and improvement of international credit ratings (simply did not happen) as well as the unexplained haste in adopting the new currency without significant parliamentary or public debate. Additionally, the transition was marked by a lack of education of the public regarding the use and implications of the new currency.[4] There is almost no need to make explicit how many of these points could be applicable to the current (non-exclusive) adoption of Bitcoin. Most relevant as a difference though is that the withdrawal of colóns resulted in a quick, close to 100% adoption of the US dollar as currency (see Table 3).

Table 3: Macroeconomic benefits of dollarization vs Bitcoin

Theoretical/quoted	Actual	Comments	Beneficiaries	Bitcoin
Decline in interest	Decline in rates from 13.9% in 2000 to 9.6% in 2001	Rates already declining, already relatively low in region, and decline increased by slowing economy	Financial sector with foreign debt	
Stabilize exchange rate	No change	Exchange rate already steady at 8.75 colóns to the US dollar since1994	Importers/exporters	Bitcoin highly volatile, so not applicable
Increase in FDI	Slight increase	Rates already increasing before 2001, no clear causal link	Financial sector	Worse credit ratings; no noticeable increase
Lower transaction costs	Lowered	No loss from changing currency; no need to keep books in two currencies		Transaction costs higher for Bitcoin transactions even with lighting, but see discussion below on Bitcoin as international currency

Source: authors' compilation based on own research project, with adaptation of Table 2 in Towers and Borzutzky (2004: 38).

Recent studies on digital money or fintech remittances for Central America reveal great potential for the region, for example, to lower transaction costs, which are still above the 3% mark envisaged in the Sustainable Development Goals set out by the United Nations (Bersch et al. 2021; Carare et al. 2022). However, the study by Alvarez et al. (2022) finds no evidence for a significant use of Bitcoin to pay taxes of the transfer of remittances according to interviewees.

[4] Towers and Borzutzky (2004: 46) compare this with the 3-year plan of Euro adoption.

The legacies of dollarization are telling in terms of the challenges of monetary policy in El Salvador. These seem to be missing from IMF's considerations of the risks of Bitcoin, including costs, decline of the United States, and political/governability issues. First consider costs. Beyond the initial stock cost 2.1% of GDP, El Salvador has an estimated annual loss of between 1% and 4% of GDP lost in interest from the US dollar reserves it now has in circulation. Also, there is the loss of an amount equivalent to annual GDP growth due to seigniorage. The 'opportunity costs' of dollarizing are thus not negligible. Second, the changing international scenario seems to be displacing the United States and its currency from the centre of the scene: if 60% of exports went to the United States in 2002 and a similar number of imports, this figure in 2022 is less than 25% and China is increasingly having a larger share of international trade with El Salvador. Finally, the policy has been a source of discontent during the adoption (with only 2% of the population in favour; see Towers and Borzutzky 2004: 35), the widespread idea that 'it only serves oligarchic/business interests' and the loss of sovereignty due to the 'loss of a cultural symbol' (Towers and Borzutzky 2004: 50).[5] Additionally, having lost control of the monetary policy means potentially higher political instability due to the inability to intervene in a fiscal crisis or as lender of last resort in a financial/banking crisis. Unsurprisingly, foreign debt skyrocketed in El Salvador since 2001. As Levy-Yeyati (2021: 51) concludes his assessment of the dollarization after two decades, 'El Salvador showed no improvements in any of the fields identified as potential OD [official dollarization] benefits, and it may have paid the price of lower resilience to crises'.

It seems highly improbable that Bitcoin would effectively address any of the aforementioned issues. Instead, it appears that Bitcoin might continue the crisis by other means. In terms of costs, the current government might expect the deflationary tendencies of Bitcoin to prevail over the long run (i.e. that Bitcoin remains a reliable store of value in the long term). Similarly, the government might see Bitcoin as a way of providing an alternative to the US dollar/US hegemony. Then, there is an attempt to appeal to *modernization anxieties* in the narrative of the adoption of Bitcoin—namely, to counterbalance the 'loss of sovereignty' in the national currency that is not fixed by Bitcoin (equally beyond national sovereignty), it is portrayed as 'progress' or 'modern'.[6]

In conclusion, while Bitcoin is definitely not a solution to these challenges, it does present an intriguing attempt to put the issue of dollarization and currency sovereignty on the agenda. In other words, Bitcoin is probably as false an option as trying to revert to using colón, but yet another attempt at escaping dollarization.

Finally, remittances pose an interesting problem:

1. Costs of remittances taken by Western Union are a high percentage of GDP. A quick estimate is that costs amount to 1% of GDP (given that remittances are close to one-fourth of GDP).
2. Remittances seem to fit the only strength of Bitcoin as currency, namely its role as potential international currency. Bitcoin is useless as a unit of account (because of its volatility), and very weak as a means of exchange (given that the ad hoc protocol lighting is limited and that operations are costly and slow on the blockchain). In terms of store of value, Bitcoin is volatile but probably valuable against the US dollar and other national currencies. Now, the real strength of Bitcoin is as *international currency* and this is what could be the rationale behind trying to get remittances this way. Indeed, there is no necessity for

[5] For the significance of a national currency for a national identity, see Helleiner (1998).

[6] For the concept of technology and 'modernization anxiety' in the context of the introduction of Uber, see del Nido (2019)

Bitcoin to be declared legal tender solely for remittances. Being legal tender is only necessary for issuing debt, paying taxes, and having central bank deposits.

However, to facilitate the practical use of Bitcoin for remittance purposes, having some form of guarantee or legal framework might be beneficial. This ensures that individuals can (i) swiftly spend their Bitcoin and (ii) exchange it for a less volatile currency when necessary.[7]

The impact of Bitcoin for remittances, however, is limited (as of this study). The data released by the Central Reserve Bank of El Salvador (BCR, n.d.) reveal that, until January 2023, the utilization of digital wallets for monthly remittances in El Salvador has been rather limited. Based on the available data, the share of remittances transferred via digital wallets did not exceed 2% (except for October 2021, when it reached 5%). From October 2021 to January 2023, total documented remittances amounted to US$10.4 billion, while estimated remittances via digital wallets were a mere US$192 million (1.9%). Furthermore, the trend indicated a decreasing share of remittances transferred via digital wallets during this period (see Figure 3). This suggests that, despite the adoption of Bitcoin and the purported potential for remittance facilitation, the actual use of digital wallets for this purpose has not been as significant as anticipated.

5 Conclusions

This study has provided a comprehensive contextual analysis of the adoption of Bitcoin as legal tender in El Salvador. By examining the historical and political context, macroeconomic factors, and potential future dynamics, the study shed light on the institutional and political context surrounding the passage and implementation of the Bitcoin law.

We have highlighted the essential connection between the adoption of Bitcoin as legal tender and a number of peculiarities of El Salvador's economy, including currency issues, particularly dollarization, remittances, and foreign debt. In other words, we have emphasized that the adoption of Bitcoin cannot be fully comprehended without considering the mounting strains associated with these factors.

The study explored the three dominant hypotheses concerning the future of Bitcoin as legal tender in El Salvador. The first hypothesis is that the adoption of Bitcoin was motivated by the motives outlined by the government, that is to say that Bitcoin will contribute to financial inclusion, attracting FDI and facilitating remittances. The second hypothesis explored is that the adoption of Bitcoin is a mere public relations stunt and an attempt by Bukele at gaining national or international popularity. Finally, we discussed the adoption of Bitcoin as an attempt to reconfigure El Salvador's geopolitical position. We have shown the limitations of these dominant explanations and proposed an alternative explanation rooted on the nature of Bitcoin as international money. This is a preliminary conclusion, namely that most common hypothesis as to why El Salvador adopted Bitcoin as legal tender are questionable, and an attempt at setting an agenda of future research on a different path.

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[7] On a more general note, it is interesting that while the utopian argument put forth by Bitcoin enthusiasts claims that Bitcoin can function independently without such guarantees, the reality is that the purported promises of Bitcoin can only be fully realized when it is integrated into a (global) financial system, despite Bitcoin positioning itself as an alternative to traditional systems.

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