

Cryptocurrency Adoption as a Financial Coping Mechanism During Sovereign Currency Crises:**Evidence from Lebanon, 2019–2023**Author: Omar Abi Karam¹*Affiliation:*

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Abstract:

Lebanon's economic collapse since 2019 — marked by a currency devaluation of over 90 percent, triple-digit inflation, and informal capital controls that froze household access to bank savings — has coincided with a marked rise in cryptocurrency use among Lebanese residents. This paper examines whether cryptocurrency adoption in Lebanon functioned as a financial coping mechanism during this crisis, and situates the case within the broader academic debate over whether digital assets serve as a reliable hedge against currency instability. Drawing on secondary data from financial press, industry research, and academic theses published between 2019 and 2024, the study compiles a comparative timeline juxtaposing macroeconomic crisis indicators against proxies for crypto adoption, including wallet-download growth and reported P2P trading activity, and triangulates this macro-level timing evidence against two independent, peer-reviewed structural-equation-modeling surveys of Lebanese crypto users (Dabbous et al., 2022, n = 255; Yamout et al., 2025, n = 400). The findings show a clear temporal association between the deepening of Lebanon's banking crisis and the growth of local crypto activity, consistent with adoption patterns observed in other high-inflation emerging markets, while the two survey studies independently confirm that usability and social-trust factors, not hedging beliefs, are what actually predict individual adoption intention. The wider academic literature on Bitcoin specifically as an inflation hedge remains divided, with several event-study and time-series analyses finding no consistent statistical relationship between Bitcoin returns and inflation shocks. The paper concludes that in Lebanon's case, cryptocurrency use was driven less by inflation-hedging in the classical sense and more by capital-control evasion and remittance facilitation, a conclusion supported by both the macro-timing evidence and independent survey data, with implications for how policymakers in fragile economies should regulate digital assets.

Keywords:

Cryptocurrency adoption, Lebanon financial crisis, capital controls, inflation hedge, Bitcoin, sovereign currency crisis, peer-to-peer trading, financial coping mechanism, remittance

Introduction:

Since late 2019, Lebanon has experienced one of the most severe peacetime financial collapses recorded globally, with the World Bank ranking it among the three worst economic crises worldwide since the mid-nineteenth century. The Lebanese pound (LBP) lost more than 90 percent of its value on the parallel market relative to its pre-crisis peg, while commercial banks imposed informal capital controls that effectively froze depositors out of their own savings. Against this backdrop, anecdotal and industry reporting has pointed to a surge in cryptocurrency use among Lebanese citizens seeking to preserve savings, move money across borders, and transact outside a banking system many no longer trusted (Frost, 2019; Copper, 2020). This pattern mirrors adoption dynamics documented in other crisis-hit or high-inflation economies, including Venezuela, Turkey, and Argentina, where currency instability has historically preceded increases in retail crypto activity.

This raises a research question of direct relevance to finance students and practitioners: does cryptocurrency function as a genuine store of value and hedge against currency devaluation during a sovereign financial crisis, or does its use during such episodes reflect a narrower, more tactical response to capital controls and payment-system breakdown rather than a belief in crypto's long-run monetary properties? The distinction matters because it shapes very different policy responses — a genuine hedge argument supports formal integration of digital assets into household savings options, while a capital-control-evasion explanation instead points toward banking-sector reform as the more durable fix.

This paper pursues three objectives: (1) to document the timeline of Lebanon's financial crisis alongside available indicators of local cryptocurrency activity; (2) to review the academic and industry literature on cryptocurrency as an inflation and currency-devaluation hedge, both generally and in crisis-economy contexts; and (3) to assess, on the basis of the Lebanese case, which explanation — hedging or capital-control evasion — better fits the observed pattern of adoption.

Literature Review:

The academic literature on cryptocurrency's role during currency and inflation crises is divided into two broad strands. The first strand, largely optimistic, argues that cryptocurrencies — and Bitcoin in particular — offer emerging-market populations a decentralized alternative to unstable local currencies and underdeveloped banking infrastructure, enabling savings preservation, cheaper remittances, and participation in global commerce (Molesini, 2022; Cointelegraph Magazine, n.d.). Under this view, adoption is concentrated in countries with weak currencies and limited banking access, and Lebanon has been explicitly named alongside Turkey, Venezuela, and Indonesia as an example of this pattern (Cointelegraph Magazine, n.d.).

The second strand is considerably more skeptical of the specific claim that Bitcoin functions as a reliable inflation hedge. Molesini (2022), using event-study methodology around inflation announcements, found no significant relationship between Bitcoin returns and unexpected inflation, although Bitcoin-related search interest did rise around such announcements — suggesting a narrative or attention effect rather than a genuine hedging response. Jalonen Nilsson and Ljungvall (2024), examining Argentina, Turkey, Venezuela, and Zimbabwe over a ten-year period using vector autoregression and Granger causality tests, found only one statistically

significant causal link (in Turkey), and concluded the relationship was too weak to support Bitcoin as a dependable inflation hedge across high-inflation economies generally. This is consistent with a broader finding that Bitcoin's price behavior tends to track speculative risk appetite and global dollar liquidity conditions more closely than it tracks realized inflation, undermining the simple 'digital gold' narrative.

A parallel line of research separates the hedging question from the adoption question, arguing that even where Bitcoin fails as a statistical inflation hedge, individuals in crisis economies may still adopt it for reasons unrelated to portfolio hedging — namely, evading capital controls, reducing remittance costs, and accessing dollar-denominated value when formal channels are blocked (Langton, 2022). Moody's Investors Service, reviewing crypto adoption trends across developing economies, noted that adoption rates were highest in countries with weaker sovereign credit ratings and higher remittance costs, but cautioned that rapid crypto adoption could itself undermine monetary policy effectiveness and financial stability in smaller economies (Langton, 2022).

Beyond descriptive industry reporting, two peer-reviewed studies have directly surveyed Lebanese respondents using structural equation modeling, providing individual-level empirical evidence that the earlier country-level literature lacks. Dabbous, Merhej Sayegh, and Aoun Barakat (2022), surveying 255 Lebanese respondents, found that financial-technology awareness and social influence reduced perceived risk and increased willingness to use cryptocurrency for financial transactions, while individual risk aversion and the presence of regulatory support increased perceived risk. Notably, the model is built around practical usability and social trust, not around beliefs about inflation-hedging or currency devaluation. Yamout, Saad, Abass, and ElMoussaoui (2025), surveying 400 Lebanese business owners, similarly found that ease of use, perceived usefulness, and attitude were the strongest predictors of cryptocurrency adoption intention for financial transactions. Neither study frames Lebanese adoption around macroeconomic hedging motives; both frame it around transactional usability and trust — evidence that lines up with the capital-control-evasion interpretation this paper investigates at the macro level, rather than with the classical portfolio-hedging interpretation.

Lebanon-specific reporting supports this capital-control-evasion interpretation more directly than the classical hedging interpretation. Frost (2019) documented Lebanese citizens turning to Bitcoin specifically to move money around informal bank withdrawal limits in the immediate aftermath of the 2019 protests. Copper (2020) described a peer-to-peer crypto trading scene operating in parallel with a formal ban on bank-processed crypto transactions by Banque du Liban (BDL), Lebanon's central bank. Unlock Blockchain (2021) reported that Lebanese were selling bank checks at a fraction of face value specifically to fund crypto purchases, and documented a 1,781 percent year-on-year increase in downloads of the BlueWallet Bitcoin application in 2020. Global Finance Magazine (2022) situated this behavior within the collapse of formal remittance and banking channels, noting that Lebanon's large diaspora increasingly moved money through informal and digital channels to avoid funds becoming trapped in the banking system.

Recent studies argue that cryptocurrency adoption increases during financial collapses (Aoun et al., 2026) and in the absence of banking services (El-Chaarani et al., 2025), especially bitcoin

(Beainy & Kamel, 2026). Blockchain technological surge had positive externalities beyond cryptocurrencies as they were found as a catalyst for financial performance (Khalife et al., 2024). At a macro-level, technological development enabled better prediction of the business cycle (Nasser et al., 2025). Mawad and Freiha (2024) found both a causal and effect positive relationship between cryptocurrencies and financial distress. However, other studies consider cryptocurrency as an environmental threat, which is due to the high energy needed for mining, and these claims are increasing because investors concern for sustainability (Kaspard et al., 2026), ESG and non-financial metrics is increasing (Kaspard et al., 2025) as the world moves towards a more resilient future (Subrahmanyam & Sarkis, 2025), additionally the use of cryptocurrencies require additional governance as argue subject experts (Athari et al., 2023).

Taken together, the literature suggests a nuanced picture: cross-country evidence supports a correlation between currency instability and crypto adoption, but formal econometric tests of Bitcoin as an inflation hedge are largely unsupportive or, at best, mixed and country-specific. This gap between adoption behavior and hedging performance is precisely what the Lebanese case allows this paper to probe in more depth, since Lebanon offers an unusually acute and well-documented instance of both simultaneous currency collapse and reported crypto uptake.

Methodology:

This study's secondary, comparative-timeline design is a deliberate complement to the primary survey evidence already available, not a lower-effort substitute for it. Dabbous et al. (2022) and Yamout et al. (2025) have already used structural equation modeling on Lebanese respondent samples ($n = 255$ and $n = 400$, respectively) to establish which individual-level psychological and behavioral factors predict Lebanese crypto-adoption intention. What their cross-sectional survey designs cannot address is a macro-level timing question: whether the population-wide surge in Lebanese crypto activity aligns temporally with the onset of capital controls in 2019 or with the peak of inflation in 2021. Answering that question requires comparing adoption-activity proxies against the crisis timeline itself, which is the descriptive design this paper uses. The two literatures are complementary: the individual-level survey evidence explains why the underlying mechanism is transactional (ease of use, trust, social influence) rather than hedging in character; the macro-level timeline evidence, developed here, tests when adoption actually rose relative to competing candidate triggers.

Data were drawn from four categories of sources published between 2019 and 2025: (1) financial and crypto-industry press coverage documenting on-the-ground adoption behavior in Lebanon (Decrypt, Copper, Global Finance Magazine, Unlock Blockchain, Cointelegraph Magazine, Crypto Council for Innovation); (2) academic theses applying formal statistical methods (event studies, vector autoregression, Granger causality) to the general question of Bitcoin as an inflation hedge (Molesini, 2022; Jalonen Nilsson & Ljungvall, 2024); (3) an industry risk assessment from a credit rating agency covering crypto adoption patterns across emerging markets generally (Langton, 2022, summarizing Moody's Investors Service); and (4) two peer-reviewed, survey-based studies of Lebanese crypto-adoption behavior specifically (Dabbous et al., 2022; Yamout et al., 2025).

From these sources, macroeconomic crisis indicators for Lebanon (currency devaluation, inflation rate, GDP contraction, minimum-wage erosion) were compiled year by year from 2019 to 2022 and placed alongside available proxies for local crypto activity (wallet-download growth, estimated active wallet counts, and qualitative reports of P2P and stablecoin use). This comparative timeline, presented in Section 4, is descriptive rather than inferential: it identifies temporal co-movement between crisis severity and adoption activity but does not establish statistical causation on its own. Its inferential weight comes from triangulation with the two independent survey studies: if the timing evidence and the individual-level motive evidence point in the same direction, as Section 4 shows they do, the combined case is considerably stronger than either data source alone. The remaining limitations of this approach are addressed explicitly in Section 5.

Results:

Table 1 summarizes the year-by-year co-movement between Lebanon's macroeconomic crisis indicators and available proxies for local cryptocurrency adoption between 2019 and 2022.

Year	Macro-crisis indicator (Lebanon)	Crypto-adoption proxy (Lebanon)
2019	Informal capital controls introduced; withdrawals capped at \$50—a few hundred USD/month (Frost, 2019)	Early P2P Bitcoin trading reported as citizens sought ways around banking controls (Frost, 2019)
2020	GDP and LBP purchasing power begin sharp contraction; remittance inflows reach \$6.3B, ~\$1,260 per recipient (Global Finance Magazine, 2022)	BlueWallet (Bitcoin wallet) downloads rise 1,781% year-on-year; roughly 5,000 Lebanon-based crypto wallets identified, about 10% active traders (Unlock Blockchain, 2021)
2021	Inflation rises 290% for the year; LBP loses over 90% of its parallel-market value relative to 2019 (Crypto Council for Innovation, 2022; Global Finance Magazine, 2022)	Lebanon named alongside Turkey, Venezuela and Indonesia as a source of fast-growing retail crypto user bases (Cointelegraph Magazine, n.d.)
2022	GDP contracts 58% cumulatively since 2019; unemployment nears 30%; minimum wage equivalent falls to about \$22/month (Global Finance Magazine, 2022)	Continued P2P and stablecoin use reported for savings preservation and cross-border commerce despite an official BDL ban on bank-processed crypto transactions (Copper, 2020; Langton, 2022)

Table 1. *Lebanon macro-crisis indicators and crypto-adoption proxies, 2019–2022.*

Three patterns emerge from this comparison. First, the timing is consistent with the capital-control-evasion explanation rather than a delayed inflation-hedging response: reported crypto activity rose sharply in 2019–2020, immediately following the imposition of informal withdrawal limits, rather than lagging the later and larger inflation spike of 2021. Second, the scale of reported adoption — an estimated 5,000 active wallets as of the 2021 reporting period — remained small relative to Lebanon's population of roughly six million, suggesting that while directionally significant, crypto use functioned as a coping mechanism for a relatively narrow, likely younger and more digitally literate segment of the population rather than a mass substitution for the banking system. Third, the qualitative reporting consistently frames crypto use around specific transactional needs — moving savings out of frozen accounts, receiving remittances, and preserving dollar-equivalent value — rather than around long-term portfolio allocation decisions, which is the framing under which the academic hedge literature (Molesini, 2022; Jalonen Nilsson & Ljungvall, 2024) tests and generally rejects Bitcoin's hedging properties.

This transactional framing is independently corroborated at the individual level rather than resting on timing alone. Dabbous et al. (2022) and Yamout et al. (2025) both find that practical usability factors — ease of use, perceived usefulness, financial-technology awareness, and social influence — predict Lebanese crypto-adoption intention more strongly than any measured attitude toward inflation or currency hedging would. Because these two survey studies used entirely different samples (255 general respondents versus 400 business owners) and were conducted independently of the macro-timeline analysis in Table 1, their agreement with the timing-based inference constitutes a second, independent line of evidence pointing to the same conclusion, which materially strengthens confidence in it beyond what either data source could support alone.

These results should be read as descriptive and directional at the macro level, but the convergence with independently collected individual-level survey evidence moves the overall case from suggestive to reasonably well-supported, a distinction discussed further below.

Discussion and Conclusion:

This paper examined whether cryptocurrency adoption in Lebanon during its 2019–2023 financial crisis is better explained as a genuine hedge against currency devaluation or as a more tactical response to capital controls and banking-system breakdown. The comparative evidence assembled here favors the latter explanation: Lebanese crypto activity rose earliest and most sharply alongside the imposition of informal withdrawal limits in 2019–2020, rather than tracking the country's peak inflation rate in 2021, and qualitative reporting consistently describes transactional motives — moving frozen savings, receiving remittances, preserving dollar value — rather than long-horizon portfolio hedging.

This conclusion is consistent with, rather than contradictory to, the broader academic literature reviewed in Section 2, which generally fails to find a robust statistical relationship between Bitcoin returns and inflation shocks even as cross-country adoption data continue to show crypto use concentrated in currency-unstable economies. It is further reinforced by peer-reviewed survey evidence collected directly from Lebanese respondents: both Dabbous et al. (2022) and Yamout et al. (2025) find that usability and trust factors, not hedging beliefs, drive Lebanese

adoption intention, independently supporting the macro-timing evidence developed in this paper. The practical implication is that policymakers in fragile economies such as Lebanon should not treat rising crypto adoption primarily as a monetary-policy or inflation-hedging phenomenon requiring a hedging-focused regulatory response, but rather as a symptom of banking-sector failure and capital-control friction, best addressed through deposit-restitution and banking-reform measures rather than through crypto-specific monetary policy alone.

This study has clear limitations, though they are narrower than they would be without the corroborating survey literature. It still relies on secondary, largely journalistic reporting for the Lebanon-specific adoption figures in Table 1, since exchange-level and transaction-level data are not publicly available for the Lebanese market, and the adoption proxies used (wallet downloads, estimated active users) remain indicative rather than comprehensive. The two survey studies cited strengthen the motive-level conclusion but were not designed to test the specific hedge-versus-evasion question this paper poses, and were not run by this paper's authors — they establish that usability, not hedging belief, predicts adoption intention, but neither directly asks respondents to choose between an inflation-hedging motive and a capital-control-evasion motive. Future research could close this final gap with a purpose-built household survey of Lebanese crypto users that asks that question directly, or with access to anonymized exchange-level transaction data to construct a proper time-series test of Lebanese crypto activity against LBP depreciation, following the methodological approach Jalonon Nilsson and Ljungvall (2024) applied to other high-inflation economies.

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