

# Are Cryptocurrencies Currencies? Bitcoin as Legal Tender in El Salvador

Based on BFI Working Paper 2022-54, “Are Cryptocurrencies Currencies? Bitcoin as Legal Tender in El Salvador,” by Fernando E. Alvarez, University of Chicago; David Argente, Pennsylvania State University; and Diana Van Patten, Yale University

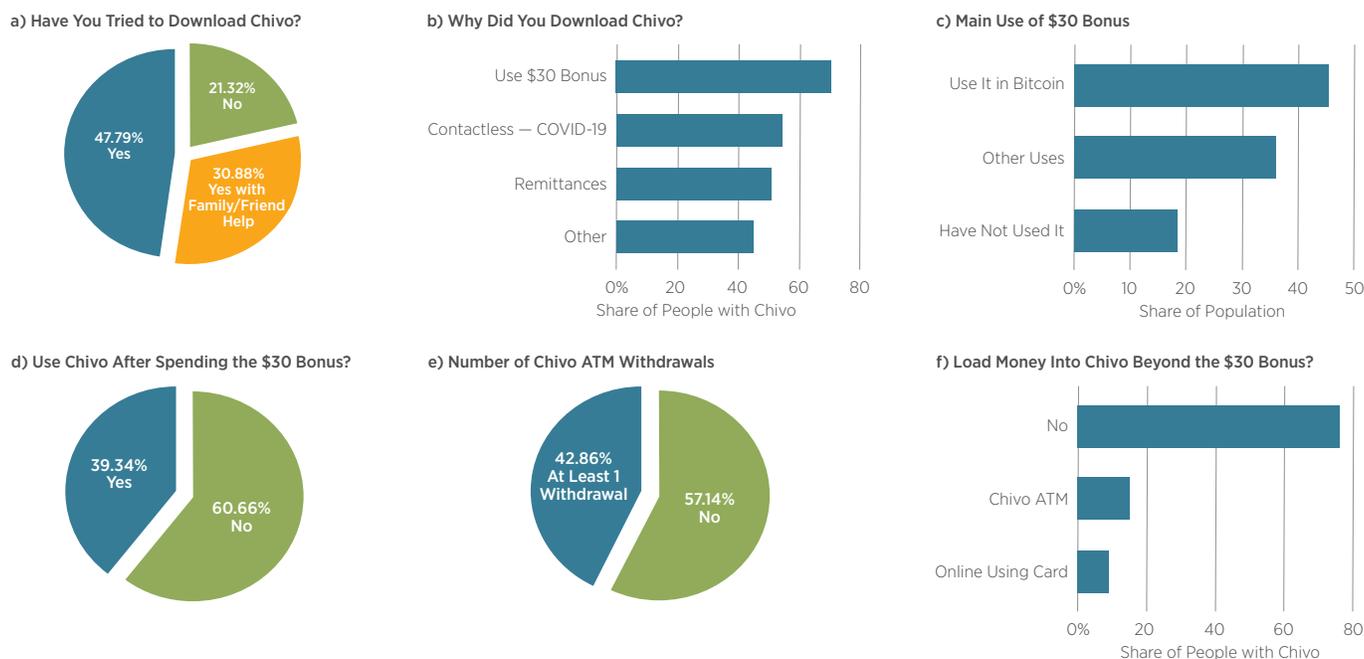
*Despite El Salvador’s “big push” and a large fraction of people downloading a currency exchange app, everyday bitcoin use is low and concentrated among the banked, educated, young, and male population.*

Interest is growing among monetary authorities to begin promotion of digital currencies, which disincentivize the use of cash and could increase financial inclusion. However, little is known about the potential of cryptocurrencies to become a widely used payment method. This paper studies a unique natural experiment: On September 7th, 2021, El Salvador became the first country to make bitcoin legal tender, which not only established bitcoin as a

means of payment for taxes and outstanding debts, but also required businesses to accept bitcoin as a medium of exchange for all transactions.

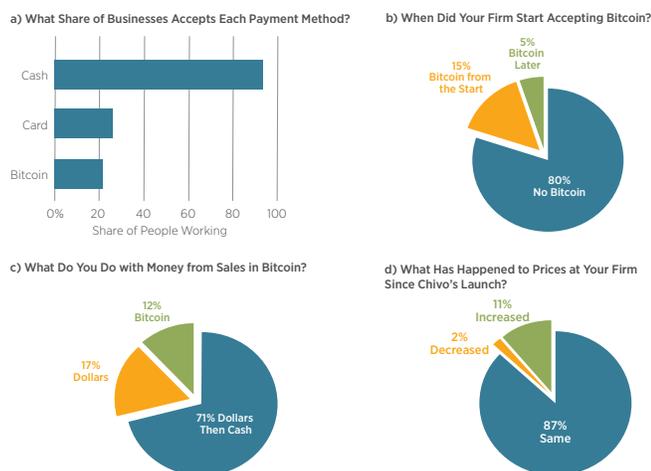
To ease transition to this new payment system, El Salvador also launched an app, “Chivo Wallet,” which allows users to digitally trade both bitcoin and dollars without transaction fees. As an incentive, citizens who downloaded this app

**Figure 1 • Adoption and Use of Chivo Wallet**



Note: This figure shows answers conditional on knowing about the existence of the Chivo App. Data was collected by the authors through the survey described in Section 2 of the working paper.

**Figure 2 • Bitcoin Acceptance by Firms**



Note: These figures are based on responses of a subsample of individuals who identified themselves as owners of firms, or employees at firms who knew about the accepted methods of payment of their employer. Data was collected by the authors through the survey described in Section 2 of the working paper.

received a \$30 bitcoin bonus from the government, a significant amount in this dollarized Central American country with a per capita GDP of \$4,131, along with discounts for gas.

Given these and other incentives, to what degree was bitcoin adopted? As El Salvadoran government restricts access to information, this research employs a nationally representative survey to answer this question. The survey, which involves 1,800 households, was conducted via face-to-face interviews to avoid the selection issues that may emerge if the survey conditioned respondents on owning a phone or having internet access. The authors' findings include the following:

- While most citizens in El Salvador have a cell phone with internet, fewer than 60% of them downloaded Chivo Wallet, and only 20% continued to use the app after spending their \$30 sign-up bonus.
- Without the \$30 bonus, 75% of the respondents who knew about the app would not have downloaded it.
- Most downloads took place just as Chivo Wallet was launched; 40% of all downloads happened in September 2021, with virtually no downloads in 2022. Likewise, remittances in the first quarter of 2022 were at their lowest point since the app's launch.
- Five percent of citizens have paid taxes with bitcoin, and despite its legal tender status, only 20% of mostly large firms accept bitcoin, and just 11.4% report having positive sales in bitcoin. Further, 88% of those businesses that report sales in bitcoin transform money from sales in bitcoin into dollars, and do not keep it as bitcoin in Chivo Wallet.
- The fixed cost of technology adoption was high, on average, 0.7% of annual income per capita.

This research should give pause to policymakers advocating for the adoption of digital payment systems. Even after a big governmental push and under favorable circumstances, a digital currency's viability as a medium of exchange faces big challenges.

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