

## El Salvador's Bitcoin experiment is not as disruptive as it may seem at first sight

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Bitcoin | Representative image

When President Nayib Bukele of El Salvador announced that Bitcoin would be accepted as legal tender for settlement of tax obligations owed to the State, it promptly stirred intense reactions across the world with some announcing that the next frontier for cryptocurrencies would be emerging markets while others dismissed it as a stupid decision.

As confusion continues over El Salvador's move and the future of national currencies, it is useful to dissect the issue using the fundamental tenets of 'modern money'.

An economically sovereign country with its own modern money defines its unit of account and issues a fiat currency – its own promissory notes or financial liabilities – that is legal tender. These financial liabilities are then the only medium with which tax and all other obligations owed to the state by the private sector can be settled. An extra word of caution over the term 'fiat' currencies is necessary. The state can promise convertibility of fiat currencies into other currencies as with full capital account convertibility. This promise, however, must not be at a fixed rate but only at the market rate for the currency to qualify as modern money. When obligations to the state are settled, the financial liabilities or modern money created by it are destroyed. In modern economies, bank deposits – the financial liabilities of commercial banks – also serve, by design, as legal tender.

While fiscal policy controls the quantum of money created by the state, monetary policy seeks to influence the demand for credit and consequently, creation of bank money or deposit accounts by commercial banks. Sharp fluctuations in the supply of money and its value or the inflation rate can be therefore be controlled by the state.

El Salvador does not issue its own modern money. It is a fully dollarized economy. The US dollar acts as the unit of account, medium of exchange as well as legal tender. To obtain dollars, El Salvador must either sell goods and services in international markets or issue liabilities denominated in dollars. When there is an excess inflow of dollars, the country could face inflationary pressures. In such a situation, the government could raise taxes, collect dollars and accumulate them as reserves. On the other hand, if there is a shortage of dollars, it can make them available from its

dollar reserves or, if insufficient, seek loans as, for instance, the present bailout package of more than a billion dollars that El Salvador is currently negotiating with the International Monetary Fund (IMF). Without this option, to earn dollars, the country must take recourse to severe 'internal devaluation' wherein export competitiveness is forced upon the country through a reduction in labour costs.

However, the crux of full dollarization is that the money in circulation (the dollar) is not the financial liability of the El Salvadorian state. It is instead a financial asset to both the government and private sector but no one's liability within the country, making it more akin to the use of physical assets as money, typically gold or silver, which are no one's liabilities. A dollarized or precious metal-based monetary regime is, therefore, starkly different from modern money of an economically sovereign country. Bitcoins, much like precious metals, are digital assets. Importantly, to reiterate, they are no one's liabilities.

## Two assets

The crucial question is the implication of the simultaneous circulation of two 'assets' – the dollar and Bitcoin – as a medium of exchange and as legal tender. Monetary history is actually replete with such situations.

As long as a country held one metal (say, gold) as the unit of account and let the price of the other (say, silver) float according to its market rate, the two metals circulated smoothly as medium of exchange. If, however, the state tried to fix the rate or ratio of exchange between the two metals — bimetallism — it failed miserably. Any small deviation of the market price from the fixed ratio led to the metal which was overvalued as currency (over its market rate) simply driving out from circulation the metal undervalued as currency. This is known as Gresham's Law.

A piece of trivia: Sir Isaac Newton, as Master of the Royal Mint in 1717, undervalued the silver shilling as currency and drove it out of circulation, which eventually led to England moving on to a gold standard.

To illustrate this phenomenon, assume that El Salvador declares the dollar as the unit of account but fixes the ratio between the dollar and Bitcoin at 1 Bitcoin to \$36,000. However, a week later the market rate is 1 Bitcoin to \$40,000. Will an individual who has an obligation to the El Salvadorian government of \$36,000 use dollars or Bitcoin to settle the debt? Obviously, dollars because she could fetch \$40,000 in the market with a single Bitcoin, settle her obligations of \$36,000 and still have \$4,000 with her. Only dollars will remain in circulation as currency while Bitcoins are hoarded. It is for this reason that El Salvador has chosen the dollar as the unit of account, made both, the dollar and Bitcoin as legal tender but allowed the dollar-Bitcoin ratio be determined at the market rate.

What if El Salvador were to make Bitcoin the unit of account, which is tantamount to phasing out the dollar? To understand the consequences of such a move, suppose the dollar-Bitcoin rate were 1 Bitcoin to \$40,000. Further, El Salvador's exports (clothing) are priced at 0.001 Bitcoin per shirt (\$40) while its imports are priced at \$40,000 (1 Bitcoin) for a luxury car. If the Bitcoin-dollar rate were to drastically change to 1 Bitcoin to \$80,000 then with the 1000 shirts the El Salvadorian exporter could now import two cars. As in the case of an appreciation of domestic currency, El Salvador's exports become costly while its imports become cheap. If El Salvador as a small country cannot influence the dollar-Bitcoin rate or the dollar price of the car, it will undergo a phase of internal devaluation until the unit price of shirts fall to 0.0005 Bitcoin (\$20). A depreciation of Bitcoin, on the other hand, would cause a spike in El Salvador's price level as exports thrive but imports contract. Although the

numerical values are logical as a theoretical exercise, it nonetheless remains more than likely that, in general, fluctuations in international Bitcoin prices will result in wide oscillations of El Salvador's Bitcoin-denominated domestic prices, and ultimately have disastrous effects on its domestic economy.

El Salvador introducing Bitcoin as legal tender with the dollar-Bitcoin exchange ratio at the market rate while simultaneously maintaining the dollar as the unit of account is not as disruptive as it may seem at first sight. Instead, it is the transition to Bitcoin as the unit of account that poses a bigger challenge, but for now El Salvador has assured the IMF that it has no plans to replace the dollar with Bitcoin.

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