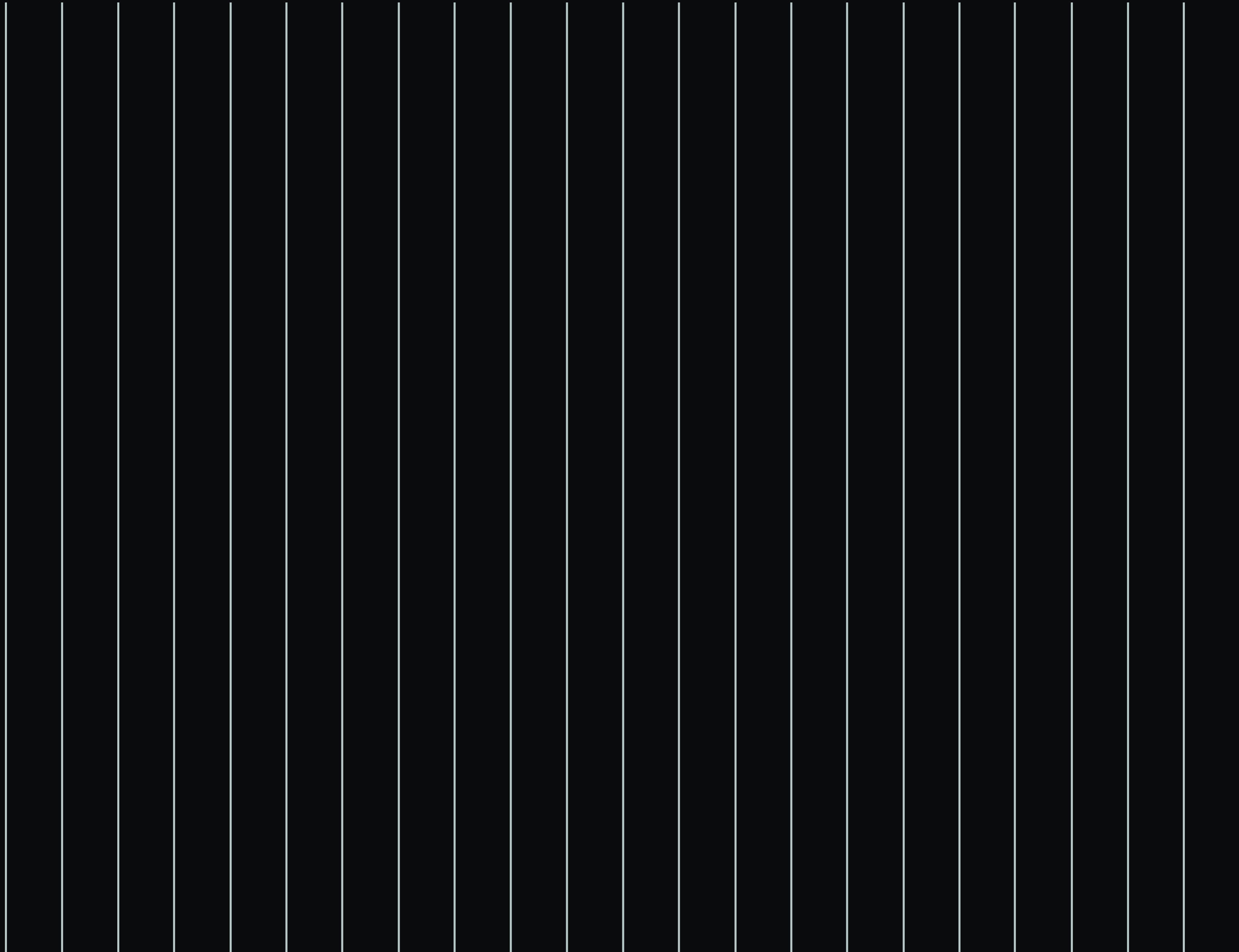




Where next for crypto in Latin America?

December
2021





Introduction

The adoption of cryptocurrency is a global phenomenon, but Latin America has been attracting particular interest of late. When El Salvador became the first country to adopt bitcoin as legal tender, it was certainly big news. However, macro trends across the region also explain the attractions of cryptocurrency as a store of value and means of exchange.

- Remittance payments are important for crypto take-up but by no means the only adoption theme.
- Regional history of inflation and currency devaluations amplifies the use cases for crypto.
- Crypto as a store of value is growing in importance, with stablecoins increasingly part of the mix.
- Navigating stringent capital and foreign exchange controls encourages the use of crypto as a bridging currency, or in the case of the USDC stablecoin as a dollar proxy.
- Global trends in smartphone usage and e-commerce penetration are present in the region and offer opportunities for crypto firms.
- Bitcoin becoming legal tender is not likely in the region's core economies, especially those with strong currencies.



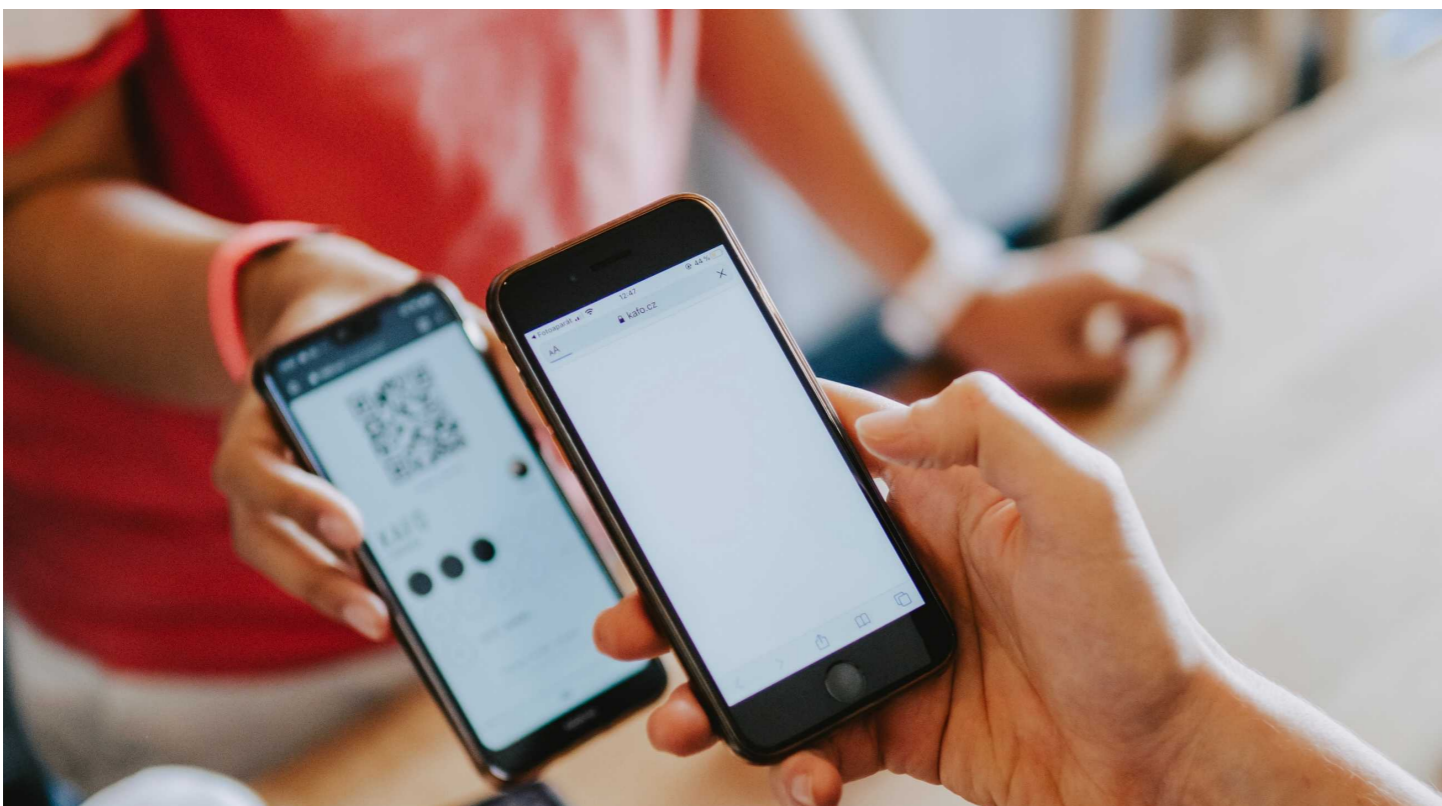


Macroeconomic climate in the region



Smartphone penetration at 70%

Smartphone penetration in the region is about 70% and expected to reach 78% by 2025. Many more people have powerful internet-enabled devices than have bank accounts — that’s an opportunity for crypto-powered fintech, subject to a suitable regulatory framework¹.



¹ [Channel VAS](#)

Governance issues

Latin American governance is characterised by democratic states across the region. There have certainly been challenges in a number of countries with a backdrop of political uncertainty. For example, a tightly fought election in Bolivia led to disputes over the outcome (that were eventually resolved). Peru has recently elected a new populist government with limited political experience and Colombia has seen protests related to Covid policies and social inequality. But perhaps the most salient takeaway on Latin American governance is the durability and relative robustness of its institutions. The most severe challenges exist in Venezuela, where confidence in state institutions is low.

Remittance inflows

In common with other developing economies, a significant number of countries in the region have large inflows of remittance payments from workers living abroad. In some cases these represent the country's largest source of foreign exchange.

Remittance payments as % of GDP

Country/Region		
Latin America & Caribbean	2020	2.4
Country		
Argentina	2020	0.2
Bolivia	2020	3.1
Brazil	2020	0.2
Chile	2020	0
Colombia	2020	2.5
Costa Rica	2020	0.8
Cuba	N/A	N/A
Dominican Republic	2020	10.6
Ecuador	2020	3.4
El Salvador	2020	24.1
Guatemala	2020	14.7
Honduras	2020	23.4
México	2020	4
Nicaragua	2020	14.7
Panama	2020	0.9
Paraguay	2020	1.7
Peru	2020	1.5
Uruguay	2020	0.2
Venezuela, RB	2014	0

50% of people in Latin America do not have bank accounts

Unlike in advanced economies, the informal economy is large, reflected in the fact that half the population does not have a bank account². Employment in the informal economy amounts to 59.19% of total employment, according to World Bank estimates — higher if Venezuela and Cuba were included in the Bank's informal economy database.

Inflation

Inflation is rising in Latin America, not just in Venezuela but in Brazil and a host of other countries. In response, policy-makers are raising interest rates. The situation in Argentina is particularly worrying for consumers and investors, especially those on fixed incomes; inflation data from October 2021 shows inflation running at 52.1%.

Why is inflation worsening at pace in Latin America? As elsewhere, the unleashing of pent-up consumer demand and related supply-chain constraints are a large part of the story. However, two words may explain why inflation in Latin America is rising so steeply and quickly: energy and food. Both feature more heavily in the basket of prices that measure inflation than in advanced countries³.

Certainly this is not just a Latin American problem. Globally food prices have risen 31% year-on-year, according to the United Nations' Food and Agriculture Organisation Food Price Index. Crude oil has bounced back after the pandemic-induced collapse in demand to now trade at around \$70 a barrel, while natural gas is trading at a seven-year high⁴. To combat inflation, governments in the region have been raising interest rates, providing another signal that encourages Latin Americans to hedge against economic travails by moving part of their wealth into digital assets.

² [The World Bank](#) Source: Elgin, C., M. A. Kose, F. Ohnsorge, and S. Yu. 2021. "Understanding Informality", C.E.P.R. Discussion Paper 16497, Centre for Economic Policy Research, London

³ [Food and Agricultural Organization of the United Nations](#)

⁴ [Reuters](#) September 9, 2021

Major Latin American economies: benchmark policy interest rate (%)

	Jan '20	Feb '20	Mar '20	Apr '20	May '20	Jun '20	Jul '20	Aug '20	Sep '20	Oct '20	Nov '20	Dec '20
Argentina	-	-	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00
Brazil	4.50	4.25	3.75	3.75	3.00	2.25	2.25	2.25	2.00	2.00	2.00	2.00
Chile	1.75	1.75	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Colombia	4.25	4.25	3.75	3.25	3.00	2.50	2.25	2.00	1.75	1.75	1.75	1.75
Mexico	7.25	7.00	6.50	6.00	5.50	5.00	4.50	4.25	4.25	4.25	4.25	4.25
Peru	2.25	1.75	1.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Major Latin American economies: benchmark policy interest rate (%)

	Jan '21	Feb '21	Mar '21	Apr '21	May '21	Jun '21	Jul '21	Aug '21	Sep '21	Oct '21	Nov '21	Dec '21
Argentina	-	-	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	-
Brazil	2.00	2.00	2.75	2.75	3.50	4.25	4.25	5.25	6.25	7.75	-	-
Chile	0.50	0.50	0.50	0.50	0.50	0.50	0.75	0.75	1.50	2.75	-	-
Colombia	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2.0	2.5	-	-
Mexico	4.25	4.00	4.00	4.00	4.00	4.25	4.25	4.50	4.75	5.0	5.0	-
Peru	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.50	1.0	1.5	2.0	-

Sources: [Argentina](#) [Brazil](#) [Chile](#) [Colombia](#) [Mexico](#) [Peru](#)

Currency depreciation and devaluation

There's a direct correlation between elevated inflation and deteriorating currency value, as defined by uncovered interest rate parity. So it's no surprise that four of the six worst-performing currencies in the emerging markets asset class in recent months are in Latin America. An exogenous risk factor is the level of front end US rates driving USD higher in H2 2021 and thus negatively impacting Latin American currencies as a result.

Additionally, concerns surrounding the tapering of U.S. Federal Reserve asset purchases have put pressure on several of these currencies, particularly for countries where foreign investor holdings of sovereign bonds are high and thus more sensitive to movements in longer-end U.S. Treasury bond yields.

As a result, central banks in these countries have faced significant challenges in trying to anchor their currencies with relatively aggressive tightening cycles. Note that currency stability is important for containing inflation pass through and higher second order effects. Moreover, many of these economies are still reeling from the impacts of covid-19 and growth was already a problem for some countries prior to the pandemic, due to structural risks like low productivity. Idiosyncratic events also play a factor as the next 12 months contain a heavy political cycle for several countries, like the constitutional reform process in Chile, parliamentary/presidential elections in Colombia and a general election in Brazil.

Latin American currencies have seen variable devaluation against the U.S. dollar since the pandemic hit. When contextualizing crypto price volatility in an emerging markets context, it is essential to take account of the ever-present spectre of the currency depreciation forces at play in local economies. Against such a background, crypto price movements are more likely to be seen as acceptable.

Also, unlike most cases of sovereign currency exchange-rate volatility, crypto price volatility is such that it holds out the prospect of recovery from falls, as has been the case with the bitcoin price over its halving cycles⁷. If a country unexpectedly devalues its currency, it is unlikely that the sovereign will quickly reverse that policy — consumers and investors are locked into a loss of value from which recovery will take time, or indeed the losses may never be recouped. Crypto price volatility, on the other hand, exhibits greater velocity but precisely because of this it therefore has better recovery prospects, especially when viewed across the total digital asset complex.

Among major regional currencies, the Mexican peso is the outperformer, having risen against the dollar since 2020. But measured from the end of 2019, it has lost 11.57% of its value against the USD. The other five currencies (see below) have all slipped in value substantially against the majors. By the standards of the 1980s debt crisis, these devaluations have been manageable, but that ultimately depends on keeping inflation in check. Argentina is the underperforming outlier. In 2019 the Argentine peso was worth 48.15 to the dollar. By September 13, 2021 that had deteriorated to 98.24, equating to a relative drop in value against the dollar over that period of 102%.

Devaluation is not necessarily bad in moderation. However, when a country is forced to drastically reset its currency against its main trading partners, it can of course trigger inflation by making imports more expensive. This leads to a growing balance of payments deficit that must be financed by debt (see interest payments on debt chart below), which is made more expensive by the currency debasement. Currency depreciation alongside inflation is perhaps the strongest driver of crypto adoption.

Latin American major economies currency devaluation/depreciationⁱ end 2019 to 13 September 2021

National Currency	Devaluation v USD
Argentine peso	102%
Brazilian real	32.30%
Chilean peso	11.70%
Colombia peso	17.04%
Mexican peso	11.57%
Peruvian sol	22.75%

Source: [OECD](#) Note: ⁱ Devaluation is defined as a planned adjustment in a fixed/semi-fixed exchange rate implemented by a central bank. Depreciation refers to the loss of value of a floating exchange rate

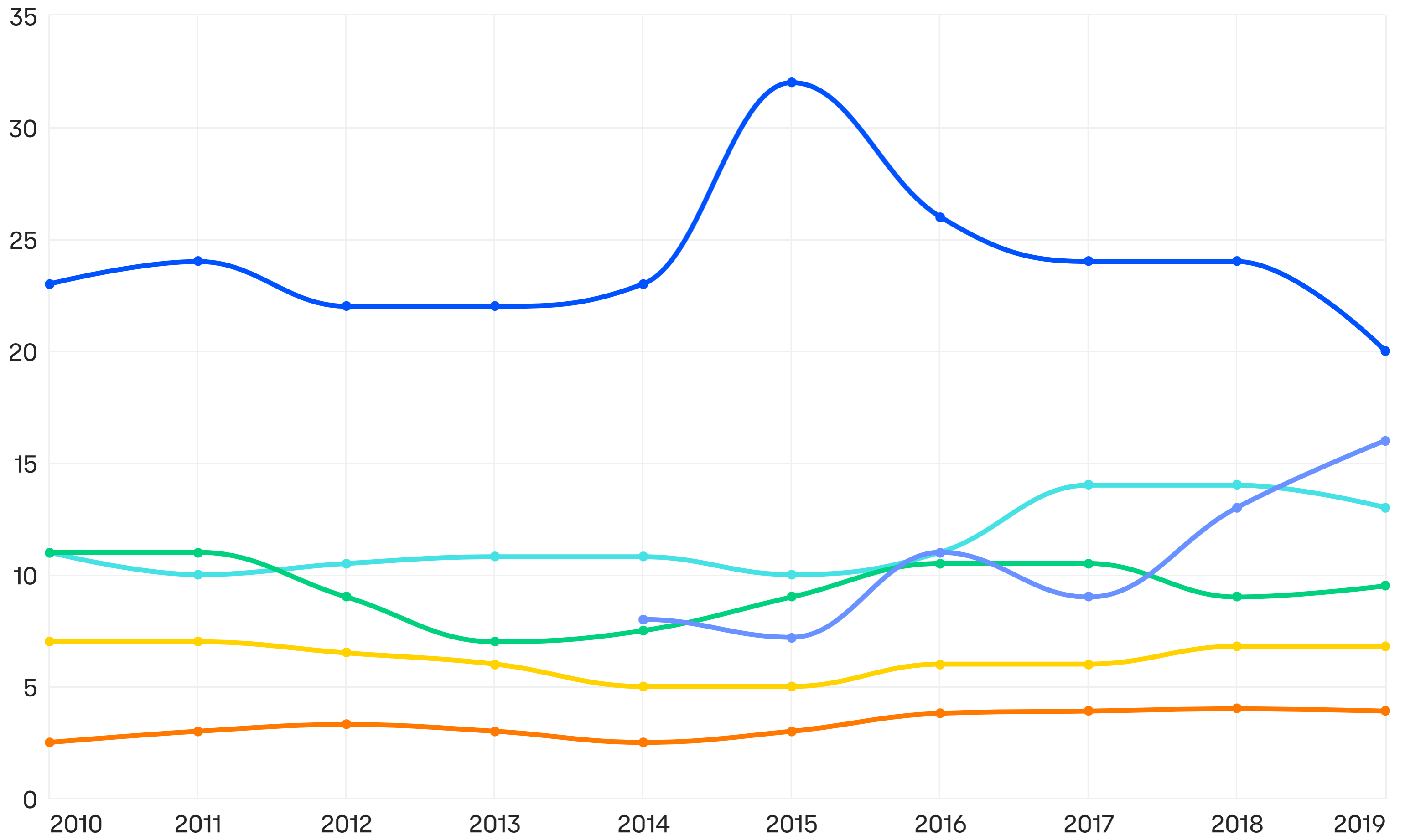
⁵ Bloomberg September 5, 2021

⁶ Bloomberg August 31, 2021

⁷ [Natixis](#) Investment Managers, May 19, 2021

Interest payments on debt as % of government expenses 2010-2019

■ Brazil ■ Mexico ■ Argentina ■ Colombia ■ Peru ■ Chile



Source: [World Bank](#)

Crypto's strengthening proposition as a store of value

Lack of access to dollars makes crypto and stablecoins such as USDC particularly attractive. Capital controls and other foreign currency restrictions have pushed consumers toward dividing purchases between the local currency for smaller everyday items and the dollar for large items, as we shall see in more detail in our survey of countries. Crypto has been increasingly able to present itself as a flexible solution.

Latin American countries — population, inflation, and informal employment

Country	Population	Inflation ⁱ	Inflation ref. date	Previous month's inflation rate	Informal employment as % of total employment ⁱⁱ
Brazil	204,519,000	9.68	August 2021	8.99	45
Mexico	127,500,000	5.59	August 2021	5.81	65
Colombia	48,218,000	4.44	August 2021	3.97	62.4
Argentina	43,132,000	51.8	July 2021	50.2	48.1
Peru	33,050,325	4.95	August 2021	3.81	69.4
Venezuela	30,620,000	2720	May 2021	2941	No estimate available
Chile	18,006,000	4.8	August 2021	4.5	29.3
Ecuador	16,279,000	0.89	August 2021	0.45	72.7
Guatemala	16,176,000	3.62	August 2021	3.82	80.1
Bolivia	10,520,000	0.2	July 2021	0.19	-
Cuba	11,252,000	4.2	December 2020	5.6	No estimate available
Haiti	10,994,000	12.2	July 2021	12.7	91.5
Dominican Republic	9,980,000	7.88	July 2021	9.32	56.8
Honduras	8,950,000	4.48	August 2021	4.26	82.6
Paraguay	7,003,000	5.6	August 2021	5.2	70.3
Nicaragua	6,514,000	4.12	July 2021	3.94	81.8
El Salvador	6,460,000	4.3	August 2021	3.43	37.9
Costa Rica	4,851,000	1.72	August 2021	1.44	37.9
Panama	3,764,000	2.4	July 2021	1.58	51.4
Uruguay	3,310,000	7.59	August 2021	7.3	24
Puerto Rico (U.S.)	3,508,000	2.9	July 2021	2.7	No estimate available

ⁱ Inflation data source: [Trading Economics](#)

ⁱⁱ [The World Bank](#) Source: Elgin, C., M. A. Kose, F. Ohnsorge, and S. Yu. 2021. "Understanding Informality", C.E.P.R. Discussion Paper 16497, Centre for Economic Policy Research, London



Argentina

Inflation was running at 52.1% in October 2021. The “Nuevo” peso introduced in 1992 was initially pegged to the U.S. dollar, but that is no longer the case. Instead, the central bank has attempted to hold the exchange rate at 3 pesos to 1 USD. But it has been regularly devalued against the dollar and since 2019 has fallen in relative value by 102%. In 2019, it stood at 48.15 to the dollar; today, you need 98.24 to buy 1 USD.

Although it is hard to see the current government making bitcoin legal tender, adoption by individuals is increasing and could reach a tipping point — one that forces the government to try to regulate crypto in a way that helps the central bank acquire dollars or other foreign currency.

Argentina’s monetary authorities are wedded to sovereign money and its financial flexibility to adjust monetary policy in response to economic challenges. It is a practice that has time and again led to the printing of money, inflation, balance of payments deficits, and debt defaults.

The country is in its fourth year of recession. Among drastic economic measures brought in as a result are capital controls. It is illegal to send foreign currency worth more than \$10,000

out of the country. Argentines can also buy only a maximum of \$200 per month.

The dollar tax stands at 35% — on top of an existing “solidarity tax” of 30%. The government is fighting to keep dollars in the country.

Not surprisingly against this austere backdrop, cryptocurrency is an attractive repository for storing wealth and navigating the country’s capital controls, notwithstanding its high price volatility.

Add the costs and other difficulties that ordinary citizens face when attempting to use the existing financial system and crypto’s potential is further magnified.

Trading volume on exchanges and peer-to-peer venues such as LocalBitcoins and Paxful accelerated as the debt crisis worsened, after the country defaulted on its debt for the ninth time in its history on 22 May 2020, bringing a sharp uptick in crypto usage. Argentina's largest exchange, Ripio, had one million customers by the end of 2020, beginning the year with 400,000; 70% of its customer base resides in Argentina and trading volumes for the year increased tenfold⁸.

LocalBitcoins clocked a steady rise in trading volume from Argentina during 2020, peaking at \$126 million in the week ending 8 August. Admittedly, activity has trended lower to \$54.7 million in the week ending 11 September, 2021⁹.

The semi-permanent economic crisis has drummed into the population the need to seek ways to protect non-discretionary spending power and savings value. As a result of this unenviable legacy, Argentina is arguably home to the most sophisticated crypto users in the region. These well-educated crypto users have noticed that stablecoins — crypto pegged to a fiat currency — are the next best thing to dollars. Stablecoins have come into their own because Argentina does not yet have any controls on holding them or using them in cross-border transactions. DAI and USDC are increasingly popular dollarization strategies.



Although the peso is not technically pegged to the dollar, in practice it is for purchasing big ticket items such as cars and residential property, because these goods are paid for in dollars.

⁸ [CoinDesk](#) December 14, 2020

⁹ [Coin Dance](#)

¹⁰ [Cryptonews](#) April 28, 2010

Even if merchants don't accept stablecoins in lieu of dollars, DAI and USDC can be traded for dollars at the unofficial "caves" that act as mini exchanges. These are found tucked away at the back of retailers such as jewelers¹⁰.

Argentines have become ever-more adept at traversing capital and foreign exchange rules over the years, and crypto has added another tool to the box. In tandem with that development, alongside the proliferation of digital payment options we are seeing innovative services coming to market that formalise previously more informal arrangements, stitched together in a number of ad hoc steps. Let's take the example of using dollars deposited offshore to purchase (or sell) crypto.

Mercury Bank, a U.S.-based digital bank popular with Argentines, will open a U.S. bank account for Argentine citizens, although this cannot be done remotely. However, individuals can use a consultancy to remotely open a U.S. bank account for a company, provided that company is registered in the U.S.

U.S. dollars held offshore in this fashion can then be transferred using wire services and SWIFT from the Mercury bank account, which offers both checking and savings facilities. If the account holder wished to buy crypto, they could make use of a payment service such as Payoneer to move currency to a crypto-supporting digital wallet — Airtm is a popular choice. Crypto can then be purchased directly and moved to an exchange to trade, assuming the exchange doesn't accept fiat currency.

If funds are converted into crypto and then moved across borders, the rates enjoyed on crypto exchanges are particularly advantageous at around 0.5% or less depending on asset and/or exchange, as compared to circa 5% for a wire service, for amounts of around \$1,000 or less. Peer-to-peer crypto transfers are even cheaper, but the exact level of the fee will depend on the real-time onchain activity of the chosen crypto network.

The global average remittance cost is 6.38% of the amount being sent¹¹. Using a money transfer service such as Western Union is expensive. For example, sending \$100 or less from the U.S. would cost \$9.

In commerce, too, crypto is gaining a foothold, with stablecoins such as USDC preferred to the algorithmically collateralized DAI, which depends on smooth functioning of the MakerDAO network. This potentially exposes transactions to greater risk should the protocol fall prey to bad actors through software vulnerabilities. By contrast, USDC is physically backed 1:1 by U.S. dollars.

As far as e-commerce goes, Argentina is a regional leader, being home to Mercado Libre.

Mercado Libre is the Amazon of Latin America. The combination of high smartphone penetration and the pandemic boosted revenues by 90% as buyers using its marketplace jumped 40%, marking a step-change in Latin American shopping habits.

Merchants and e-commerce platforms in advanced economies are operating in markets where the vast majority of consumers have bank accounts and access to credit — this is far from the case in Latin America. Crypto presents a compelling way of solving this problem, for consumers and merchants.

Mercado Pago, the company's fintech subsidiary, saw transaction volumes swell 75% to \$50 billion in 2020. At the center of this success was tech allowing merchants to integrate purchases via smartphones and QR codes¹².

Mercado Libre's digital wallet now offers credit and even the option of investing in mutual funds. Its investment service has helped to boost the number of retail investment accounts in the region. The service is currently available in Argentina, Brazil, and Mexico, where there are 15.7 million funded accounts.

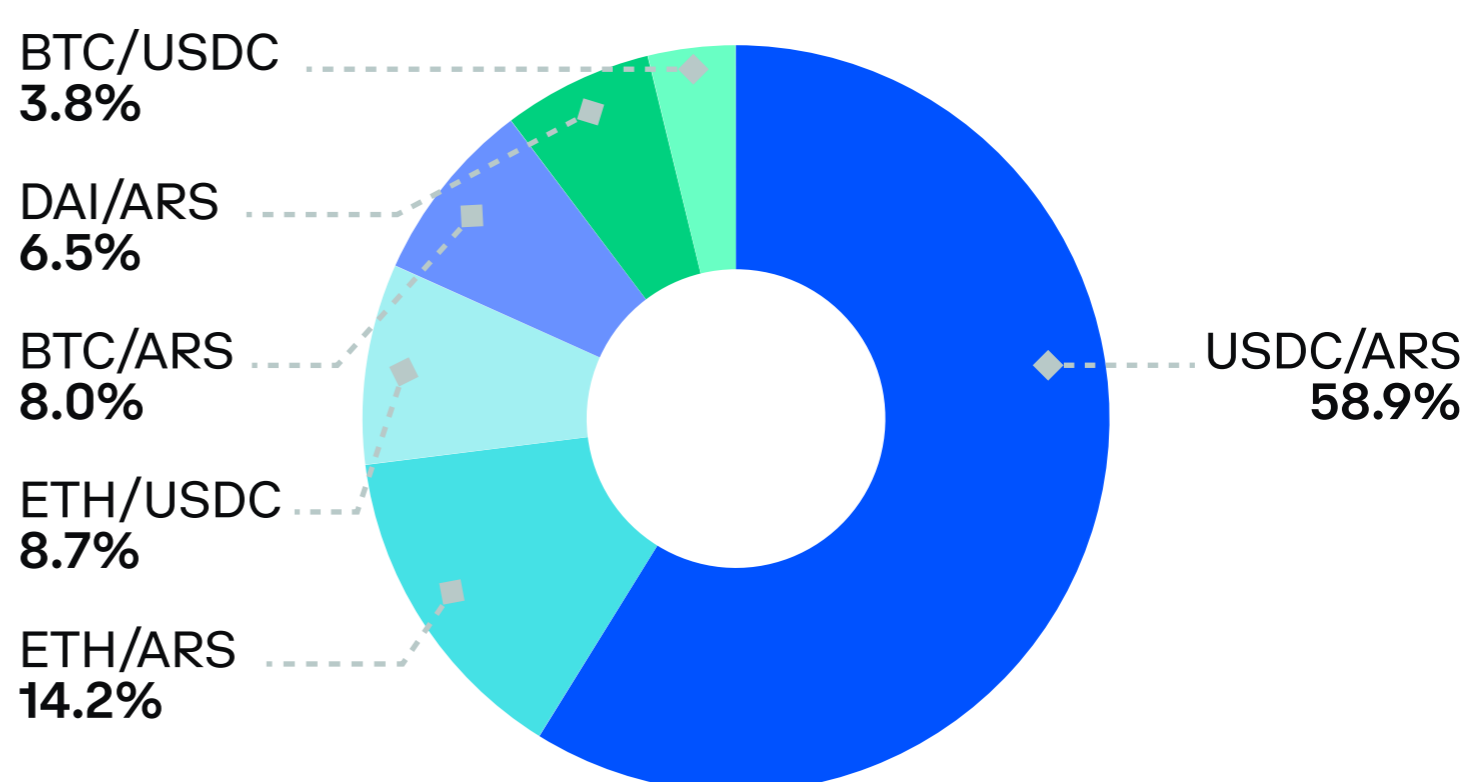
So where does crypto fit into this success?

On 5 May, an SEC filing revealed that Mercado Libre had bought bitcoin in the first quarter of 2021, in transaction(s) valued at \$7.8 million. This is a relatively modest amount compared with treasury purchases seen by public companies, such as Tesla and MicroStrategy, but has nevertheless been interpreted as a strong crypto-friendly move.

Supporting that was the launch in April of a crypto section on its site, where bitcoin can be used to buy real estate, beginning with Argentina and Uruguay¹³.

It is possible that the company will allow its digital wallet users to buy products on its marketplace with a selection of cryptocurrency, perhaps attempting to replicate on a greater scale PayPal's success in the U.S. after it allowed customers to purchase goods and services with crypto¹⁴.

Ripio exchange — USDC is the most popular stablecoin in a trading pair on Argentina's number-one ranked centralized exchange by trading volume, as at 17 September 2021



Source: CoinGecko

¹¹ [World Bank](#)

¹² Bloomberg June 22, 2021

¹³ Mercado Libre

¹⁴ Fool May 3, 2021

Sushiswap (Arbitrum One) — USDC is the most popular stablecoin in a trading pair on Argentina's number-one ranked DEX by trading volume

#	Pair	Price	Spread	plus 2% Depth ⁱ	minus 2% Depth	24h Volume	Volume %
4	WETH/USDC	\$3,522.27	0.60%	\$95,014	\$95,726	\$928,466	0.09%

Uniswap (v3) — USDC is the most popular stablecoin in a trading pair, taking first and second place on Argentina's number-two ranked DEX by trading volume

#	Pair	Price	Spread	plus 2% Depth ⁱ	minus 2% Depth	24h Volume	Volume %
1	USDC/ETH	\$1.00	0.60%	\$2,159,082	\$2,152,594	\$441,077,243	42.02%
2	USDC/ETH	\$1.00	0.60%	\$6,143,450	\$6,124,991	\$97,354,340	9.28%

Data based on 24-hour trading volume 17 September 2021. Source: CoinGecko.

Note: ⁱ +2% depth is order book depth for asks at 2% level from mid-price. -2% depth is order book depth for bids at 2% level from mid-price.



Brazil & Mexico

Brazil and Mexico have their own currencies so are highly unlikely to follow El Salvador in adopting bitcoin at this point¹⁵.

Brazil

Brazilian lawmakers and financial authorities are moving forward with a regulatory framework for cryptocurrencies. A special commission of the Chamber of Deputies of the country's Congress has approved a bill to regulate cryptocurrencies and the activities of virtual asset service providers¹⁶. According to reports, the bill also includes proposals to make bitcoin legal tender¹⁷.

There are estimated to be some 10.4 million crypto-currency users in Brazil, which has a population of 212 million, according to the World Bank¹⁸.

Inflation was high at 9.68% in August, the second-highest rate among Latin America's larger economies. In response to this, Brazil's central bank raised interest rates aggressively to 5.25% in August 2021, followed by a further 1% in September to 6.25%, and 1.50% to 7.75% in October. From August 2020 to February 2021, they held at 2% in the face of the economic shock from the pandemic. However, the climb in borrowing costs has not stopped the decline in the value of the Brazilian real.

Unlike Argentina, Brazil's economic history is not scarred by crises and this helps to explain why crypto adoption is at present concentrated in trading and investment.

As a reflection of interest in crypto as an investment vehicle, Brazil is in the vanguard of crypto exchange-traded fund issuance. Crypto has penetrated mainstream finance more deeply here than in any other Latin American economy.

For example, Hashdex Asset Management has launched three crypto Exchange Traded Funds (ETFs), including the Hashdex Nasdaq Crypto Index ETF (HASH11), which tracks the Nasdaq Crypto Index. Coinbase Custody is a custodian of the fund. It debuted on the Brazil Bourse on 26 April in the top five most popular ETFs with investors and has stayed in the top five ever since¹⁹. On 30 August, it had a net asset value of R\$2,094 million (\$400.3 million)²⁰.



Beyond activity on the Brazil Bourse, direct crypto trading is growing rapidly. Locally based crypto exchange Mercado Bitcoin has seen transaction volumes increase seven-fold year-on-year to August. However, peer-to-peer (P2P) activity on LocalBitcoins is much less than in Argentina at \$1.3 million for the week ending 11 September²¹. We would expect P2P to be lower, given the greater weight of crypto activity devoted to trading and investing. P2P is more closely aligned with transactions to settle monies owed for services supplied and small-scale commerce.

In many respects the risk appetite of investors in Brazil is greater than that which is typical in many developed countries and regions. A good example is investment platform XP²². It provides clients with access to 400 investment funds.

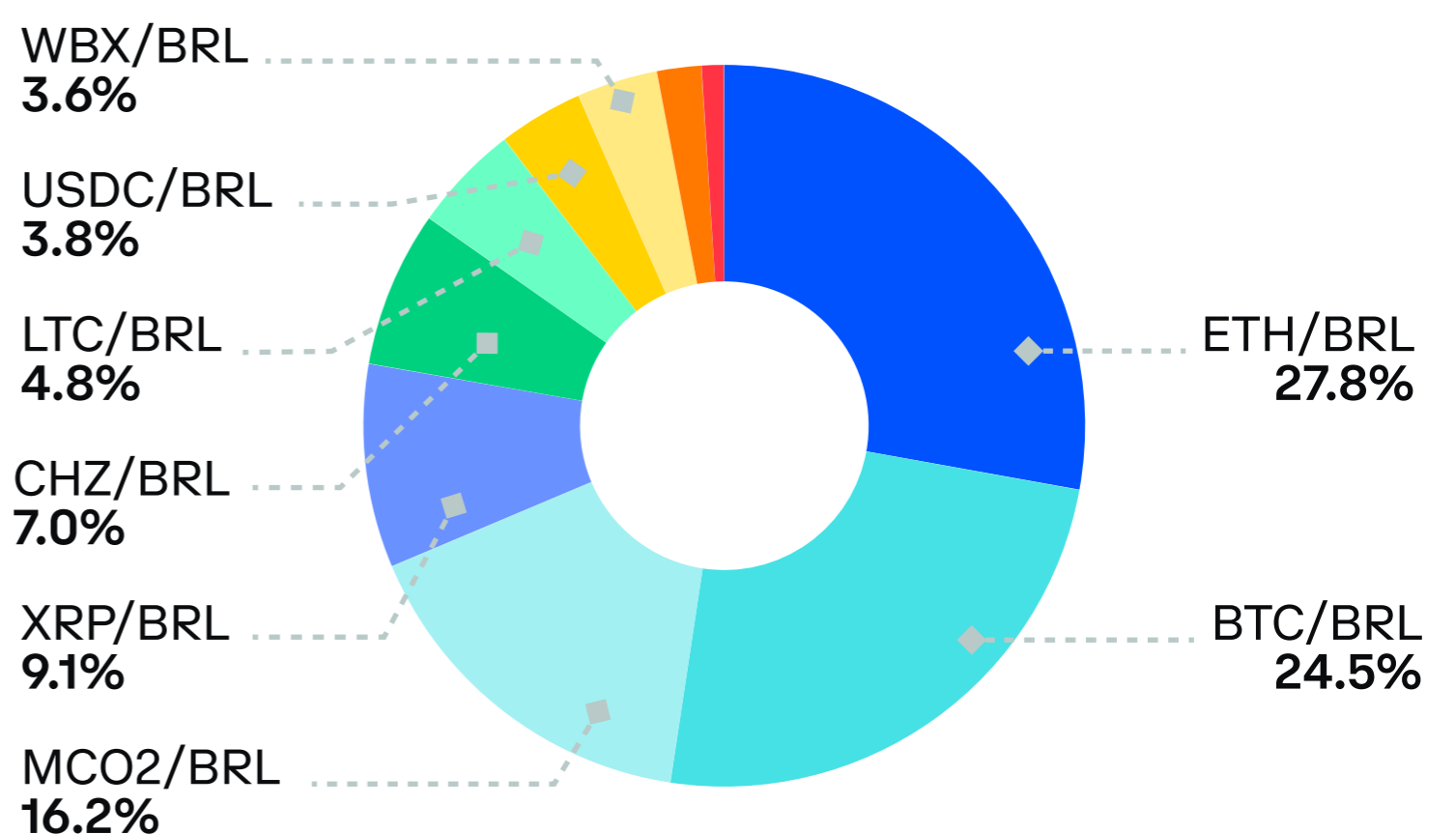
That in itself is not particularly ground-breaking, but the ability to invest small amounts in hedge funds certainly is. Less risk-averse profiles mean that for Brazilian investors the crypto asset class is generally not considered such a huge leap.

Indicative of its regional status as Latin America's premier economic and financial centre, with a substantial cohort of sophisticated consumers, Brazil is home to one of the largest, fastest-growing neobanks anywhere in the world: Nubank.

Nubank has 40 million customers and, judged by its recent corporate actions, can be described as a crypto-friendly institution. It intends to allow customers to buy bitcoin and recently acquired stockbroker Easynvest, giving customers direct access to trading the QBTC11 ETF from QR Asset Management, a listed instrument of the broker.

Nubank recently completed its Series G funding round, with investors including Warren Buffett's Berkshire Hathaway taking stakes. Coinbase is also an investor in Nubank. After the round was completed, Nubank was valued at \$30 billion. The digital bank plans to use its newly acquired funds to expand aggressively into other parts of Latin America. Crypto could play a strategic role in helping it address the needs of the unbanked.

Mercado Bitcoin — USDC is the most popular stablecoin in a trading pair on Brazil's number-one ranked centralized exchange by trading volume, as at 17 September 2021



Source: CoinGecko

Sushiswap (Arbitrum One) — USDC is the most popular stablecoin in a trading pair on Brazil's number-one ranked DEX by trading volume

#	Pair	Price	Spread	plus 2% Depth ⁱ	minus 2% Depth	24h Volume	Volume %
4	WETH/USDC	\$3,532.70	0.60%	\$96,204	\$95,914	\$1,440,734	0.09%

Uniswap (v3) — USDC is the most popular stablecoin in a trading pair on Brazil's number-two ranked DEX by trading volume

#	Pair	Price	Spread	plus 2% Depth ⁱ	minus 2% Depth	24h Volume	Volume %
1	USDC/ETH	\$1.00	0.60%	\$2,193,077	\$2,186,487	\$434,158,489	40.76%
2	USDC/ETH	\$1.00	0.60%	\$6,148,518	\$6,130,044	\$96,589,834	9.07%

Data based on 24-hour trading volume 17 September 2021. Source: CoinGecko.

Note: ⁱ +2% depth is order book depth for asks at 2% level from mid-price. -2% depth is order book depth for bids at 2% level from mid-price.

Institutional adoption in Latin America — Crypto ETFs listed in Brazil

Bitcoin ETFs approved by Brazil's Securities and Exchange Commission (CVM)

ETF	Ticker	Start of trading	Issuer	Replication	Exchange	Assets under management	Price (BRL - Sept 16 2021)	Fee (%)
QR CME CF Bitcoin Reference Rate ETF	QBTC11	23 Jun 2021	QR Asset Management	Direct purchase of bitcoin	B3 (Brazil Bovespa Exchange)	R\$ 154.58	16.05	0.75
Hashdex Nasdaq Crypto Index ETF	HASH11	26 Apr 2021	Hashdex Asset Management	Replicates Nasdaq Crypto Index (NCI) by directly buying underlying index constituents	B3	R\$2150	47.18	1.3
Hashdex Nasdaq Bitcoin Reference Price Index Fund	BITH11	5 Aug 2021	Hashdex Asset Management	Direct purchase of bitcoin	B3	R\$73.00	60.78	0.7
QR CME CF Ether Reference Rate	QETH11	4 Aug 2021	QR Asset Management	Direct purchase of ethereum	B3	R\$138.00	13.8	0.75
Nasdaq Ethereum Reference Price Index Fund	ETHE11	19 August 2021	Hashdex Asset Management	Direct purchase of ethereum	B3	R\$118.85	56.27	0.7Hashdex

15 Chile, the world's largest producer of copper, is another major Latin American economy where the government will want to protect its sovereign currency due to its strong connection to the global economy, courtesy of its copper exports.

16 [Brazil Chamber of Deputies](#) September 29, 2021

17 [PYMNTS.com](#) October 5, 2021

18 [FT](#) September 5, 2021 and [World Bank](#)

19 [PR Newswire](#)

20 [Bloomberg](#)

21 [Coin Dance](#)

22 [XPI](#)

Mexico

Mexico is an example of the remittance use case for crypto, but it too is firmly in the “No” camp on adopting bitcoin as an official currency. The Mexican economy is the world’s 11th largest in purchasing-power parity terms and the government will continue to guard its monopoly on money issuance and all that implies for policy-making autonomy.

Although Mexico has sought to position itself as a blockchain and fintech hub, in August 2019 the National Banking and Securities Commission (CNBV) introduced new laws forcing all tech companies holding client deposits to register with the authorities.

This cost \$35,000 each, but even worse (according to smaller companies), firms wishing to register had to have profits of at least \$100,000. Many fintechs failed to meet this and could no longer offer financial services. Fortunately for crypto traders, Bitso — the country’s leading exchange by user numbers — was able to register.

The size of Mexico’s informal economy and the remittance flows (4% of GDP) into the country, particularly from the U.S., make an enticing business opportunity for crypto firms. The immediate benefits for those shut out of the formal economy or paying high fees to transfer money into the country would also be significant.

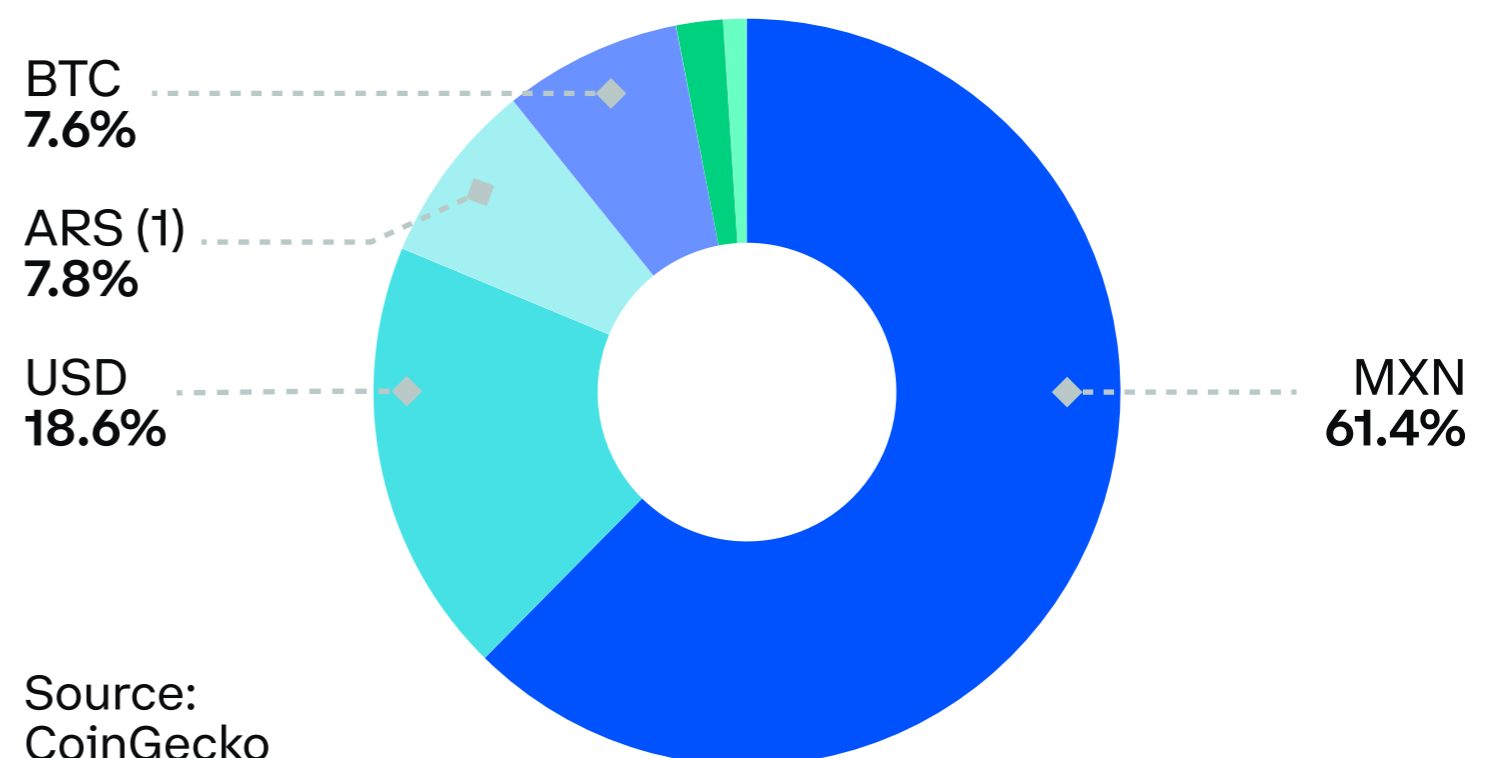
In June 2020, Mexican workers abroad transferred \$3.56 billion back to family members in the country. By July this year that had risen to \$4.54 billion²³, most of it from the U.S. The cost of money transfer networks is excessive compared with using crypto. PayPal’s Xoom service charges 4%. Crypto exchange fees are much lower than money transfer fees or bank account charges.



Another advantage of adopting crypto for financial transactions and storing wealth derives from the grey area surrounding taxation.

Crypto companies have to report transmissions involving amounts of about \$2,500 or more (over a period of up to six months) as part of a clampdown on money laundering. Beyond that, there are currently no specific rules on how crypto gains are taxed.

Bitso, Mexico’s number-one exchange by trading volume. Data shows volume by currency (stablecoin usage is less prominent because USD pairs are available), as at 17 September 2021. Note the prominence of the Argentine peso (ARS)



²³ [Banco de México](#)

Sushiswap (Arbitrum One) — USDC is the most popular stablecoin in a trading pair on Mexico's number-one ranked DEX by trading volume

#	Pair	Price	Spread	plus 2% Depth ⁱ	minus 2% Depth	24h Volume	Volume %
4	WETH/USDC	\$3,526.03	0.60%	\$95,867	\$95,579	\$976,980	0.08%

Uniswap (v3) — USDC is the most popular stablecoin in a trading pair on Mexico's number-two ranked DEX by trading volume

#	Pair	Price	Spread	plus 2% Depth ⁱ	minus 2% Depth	24h Volume	Volume %
1	USDC/ETH	\$1.00	0.60%	\$2,191,897	\$2,185,311	\$439,674,367	41.835
2	USDC/ETH	\$1.00	0.60%	\$6,143,848	\$6,125,388	\$97,773,728	9.30%

Data based on 24-hour trading volume 17 September 2021. Source: CoinGecko.

Note: ⁱ +2% depth is order book depth for asks at 2% level from mid-price. -2% depth is order book depth for bids at 2% level from mid-price.



El Salvador, Cuba, and Venezuela

On 7 September, El Salvador became the first country in the world to make bitcoin legal tender. Let's examine the pros and cons of this historic moment.

El Salvador

Remittances contribute 24.1% to GDP, the main source of foreign currency. Most of that comes from the U.S. President Nayib Bukele reckons adopting bitcoin will save Salvadorans millions of dollars in fees paid to money transfer firms. He puts possible savings at \$400 million annually. The World Bank estimates that only 30% of Salvadorans have bank accounts. Potentially, the launch of the Chivo wallet and the airdrop of \$30 worth of bitcoin to each wallet holder (registration with national insurance number is required), should help bring many more Salvadorans into the formal economy.

Another pro arises because El Salvador is a dollarized country, having stopped issuing its



own currency (the colon) in 2001. This puts it in a small group of Latin American countries using the U.S. dollar as their currency, along with Panama and Ecuador. Dollarization removes sovereign control over monetary policy, so adopting bitcoin as legal tender provides more options in the monetary realm.

Lastly, El Salvador may be followed by other sovereigns. Cuba has passed a law recognizing and regulating crypto. Panama has also introduced a bill to recognize bitcoin as a payment method. This goes further than El Salvador by setting out how blockchain technology could be used for government purposes such as identity verification and for solving transparency issues in governance. However, a number of cons must also be considered. Concerns about the energy consumption of bitcoin have not gone away and plans being developed by state-owned LaGeo to use geothermal energy from volcanic activity have yet to be published. Furthermore, internet access in the country is patchy.

In November, El Salvador announced plans to issue \$1 billion in bonds backed by bitcoin. The 10-year bonds, which carry a 6.5% coupon, will be used to buy bitcoin and fund other crypto-related projects, including constructing the world's first "Bitcoin City."

There are also fears about the robustness of safeguards to prevent the country from becoming a haven for money launderers and those seeking to raise funds to finance terrorist activities.

The International Monetary Fund (IMF) also warned of dangers to financial stability. The rating of the country's debt (bonds) has already fallen and negotiations with the IMF to restructure debt financing have stalled²⁴.

Bitcoin in El Salvador is now convertible on demand into U.S. dollars, which theoretically at least could drain the country's foreign reserves. The government has set aside \$150 million to allow bitcoin to be instantly convertible into U.S. dollars, but that may be too little.

Bitcoin's price volatility is another major concern as sharp gyrations in its value could immediately affect the income and savings of ordinary Salvadorans. Although causality cannot be definitively ascribed, on the day

bitcoin became legal tender in El Salvador its price fell by as much as 25%, highlighting the volatility risk.

Bitcoin has become a hot political issue, with citizens protesting against adoption. Lack of educational outreach and suspicions about government motives may have impaired the rollout.

Cuba

In the week before El Salvador adopted bitcoin, it emerged that Cuba was exploring effectively doing the same thing by legalizing and regulating cryptocurrency "for reasons of socioeconomic interest." Cuba's central bank hasn't yet said it will make bitcoin legal tender.

Remittance payments also come into play. Transmission costs are as much as 10% when using AisRemesasCuba.com. Sending \$500 to Cuba with this money transfer company for same-day delivery costs 10.4% (\$50.20) of the total transferred. If you wait two days to receive your money the cost falls to about 4% via money transfer service Duales²⁶.



Ending the dual currency system is also hastening Cuba's policy shift toward adopting crypto. The national peso (CUP) and convertible peso (CUC) have now been unified. Historically, Cuba has tried to ban the dollar as legal tender, but that only created a thriving black market, leading it to introduce the CUC in 1994.

24 [Reuters](#) August 12, 2021

25 [Bloomberg](#) August 2, 2021

26 [The World Bank](#)

However, this “de-dollarization” attempt was no such thing because the CUC was convertible 1:1 for the dollar, while 1 CUC was set at an exchange rate of 24 CUP for consumers but 1:1 for state enterprises. This further distorted the economy, dividing it into those with access to dollars and those without. Those who derived their incomes from the state sector abandoned their jobs for ones with access to CUC, such as in tourism. This led to the oft-remarked phenomenon of doctors becoming taxi drivers.

Currency unification to some extent exposes ordinary Cubans to market mechanisms and the positive shift on crypto should be seen in this context, as well as being a way of circumventing U.S. sanctions.

Venezuela

Like El Salvador, Venezuela is also in the “Yes” division, but for different reasons. Its population has become more dependent on remittance payments from abroad to survive.



The World Bank doesn’t provide recent data on remittance costs or the percentage of Venezuela GDP that these inflows account for. The last records, for 2014, put the figure at only 0.027% of GDP. The highest before that was 0.249% in 2003²⁷, but it is likely to be much higher today as migrants flood out of the country. A report by the Inter-American Dialogue claims remittance payments are the second-largest source of foreign currency after oil exports²⁸, putting the figure at 5% of GDP in 2020. This was set to continue rising, with migrants using “informal” methods to effect transfers.

²⁷ [The World Bank](#)

²⁸ [The Dialogue](#)

The report does not break down “informal” in a way that separates out crypto. Informal routes typically include using a trusted third-party account or a friend’s account in their country of residence, but may well also include crypto transfers.

We do know crypto transfers are involved as they show up on LocalBitcoins.

In Colombia, for example, Venezuelan migrants use an app called Valiu to get money to relatives back home. They deposit Colombian pesos earned locally on the app, which exchanges it into the Venezuelan bolivar, but not directly. In the final step the bolivar is deposited in the intended recipient’s Venezuelan bank account.

To execute the transfer in the most efficient way and get round the lack of bolivar liquidity outside Venezuela, Valiu buys crypto with the peso deposit on LocalBitcoins and uses the acquired crypto to buy bolivars.

The bolivar is the most traded currency measured in USD equivalent of any Latin American country on LocalBitcoins, according to analytics site [usefultulips.org](#). The most recent data (to 14 September, 2021) for the latest two seven-day periods shows volumes of \$1,907,637 and \$2,305,855. The Colombian peso is second (\$1,201,635 and \$1,403,691).

Hyperinflation makes using the bolivar difficult because of the high denominations required to buy goods and services, and this has led to the latest initiative from the government to tame the runaway inflation impacting the bolivar.

On 1 October, the Venezuelan government adjusted the monetary scale of the bolivar, the units of which have now been divided by a million²⁹. New notes have come into circulation to represent the change, with the latest iteration of the currency to be known as the “digital Bolivar.”

The largest denomination of the old monetary system was the 1 million bolivar. Six zeroes have been removed so that the equivalent of the 1 million bolivar in digital bolivars is 1 digital bolivar, which takes the form of a coin in the new system³⁰. One million bolivars is worth approximately \$0.23, according to Bloomberg³¹.

Confusingly, perhaps, the new coin and notes will circulate alongside the old bolivar notes.

The central bank describes the effective demonetization of the currency as an adjustment to make the sovereign currency more practical to use. The IMF estimates the inflation rate at 5,500%³².

But with 60% of transactions conducted in U.S. dollars, the official payments system is effectively inoperable, although bolivars are still required for smaller payments such as bus fares.

Digital bolivar transactions will take place over the SMS text messaging system, which may turn out to be more akin to an M-Pesa-type digital payments system, rather than a blockchain-based cryptocurrency.³³

In 2018, the government launched the Petro crypto, a stablecoin backed by the country's oil reserves, as a way of circumventing U.S. sanctions.³⁴

Finally, we round off this country review with a mention of crypto mining. In Venezuela, which was once the region's energy powerhouse, crypto mining has become a cottage industry thanks to the availability of cheap electricity. However, supply has become intermittent, creating difficulties for miners at residential and larger scale.

29 [AP](#) October 1, 2021

30 [Central Bank of Venezuela](#) (Google Translates)

31 [Bloomberg](#) October 1, 2021

32 [IMF](#)

33 <https://www.safaricom.co.ke/personal/m-pesa/m-pesa-home>

34 [New York Times](#) January 3, 2021



Conclusion: Harnessing the power of decentralized networks

The crypto narrative in Latin America is about much more than remittance payments, important as they are. Other deeper-seated propellants, especially in the higher middle-income countries, are real and perceived threats to incomes and savings from inflation and currency debasement.

Political uncertainty adds to the impulse to diversify away from holding assets in the local currency. In the absence of dollars, for some countries stablecoins are the next best thing.

Global trends also apply to Latin America, so the opportunities to bring the unbanked into the formal economy through crypto-empowered fintechs should not be overlooked. Direct connection between buyers and sellers in decentralized peer-to-peer networks accessed by smartphones is set to transform e-commerce.

The unequal nature of many societies means there is often a mixture of relatively wealthy financial sophisticates at one end of the scale alongside millions of others getting by on remittance payments sent from abroad

Both groups can benefit from the heightened appeal of digital assets as commerce and society are revolutionized by decentralized networks expanding the boundaries of economic activity, wealth creation and wealth preservation.

Excitement over the adoption of bitcoin has contributed to its price appreciation in recent months. As more countries do due diligence, that interest is likely to grow.

But investors should tread carefully — there are still substantial obstacles that the market may not have priced in.

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