

# Mexico: A strong inflation and positive cryptocurrency sentiment

EuroMoney Research Team  
www.Europe.Money  
suppot@europe.money

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## Abstract

Mexico is a large population that has continuously explored alternative asset classes that has the potential to be favorable over traditional financial services and find safe heaven to protect self-interest from the effects of inflation. This research work intends to find out the evidence of how Mexicans have proven to break barriers to trust and create massive adoption of cryptocurrencies.

## 1 Introduction

Series of events that tells a story, a story of intertwined causation and reasoning, a decade long of currency value drop, the evident inflation, panic buying of cryptocurrencies, hedging against the currency, will this change the way we see Mexican citizens' massive adaption to cryptocurrencies? Is the Mexican Peso on the path towards hyperinflation which might result in compromising the definition of money and lose out as a unit of value and unit of store? We are here to find out the possibilities.

Mexican Peso has been floating freely for more than 20 years, for this reason, since 1995, foreign exchange interventions have not been used to set the exchange rate. However, the interventions have aimed at other objectives, such as managing the stock of international reserves or reducing the exchange rate volatility during the unusual financial market situation [12].

"A much weaker peso is bad for the economy," Goldman Sachs economist Alberto Ramos said. "The sharp drop of the peso adds to already elevated macro uncertainty." Some of Lopez Obrador's policies, Mexico's trade relationship with the United States, and the U.S.-China trade dispute have helped drag down the economy[1].

Economies learn from each other, replicate actions in times of crisis, one such example is the skyrocketing inflation impact in Venezuela, ranked 1 for the inflation rate, a solid 19,906% in 2019, the impact was devastating, citizens lost trust in the government and there were reports of Bolivar hard cash being thrown out on the streets by its angry citizens, a remorseful situation. However, Venezuela also had its strong digital adoption plan in financial services and launched its digital currency "Petro" and the citizens were seen to adopt to this currency

and likewise welcomed “Bitcoin and other cryptocurrencies” to protect oneself from inflation. The data from LocalBitcoins, a peer-to-peer bitcoin marketplace, shows that the trading volume of Bitcoin in Venezuela reached an all-time high in July 2020. Presently, cryptocurrency adoption in Venezuela is booming, there are more than 20,000 businesses in Venezuela accepting cryptocurrencies as a mode of payment, including a Burger King branch in the capital city of Caracas. Even amid persistent blackouts, Venezuela is today one of the top markets for peer-to-peer cryptocurrency transactions. Cryptocurrency is a common payment method on the country’s top e-commerce platform, freelancers often price their services in Bitcoin and even brick-and-mortar retailers list their prices in digital money[2].

Bitcoin, the “Digital Gold” gained quick popularity in financial markets and is seen as the promising asset to lead the alternative asset class and as well the capability to compete with Gold and hedge against few currencies that are inflating at a fast and high rate. Although unlike Venezuela, Mexico is yet to reach a high inflationary level, it is yet worrisome that Mexico happens to have consecutive negative numbers. Bitcoin could be the light at the end of this tunnel.

## **2 Mexico Foreign Reserve data**

Mexico’s international reserves accumulation, as shown in Figure.1 the movement in international reserves and clearly the reserves have been declining. There is no single uniquely accepted metric to assess the sufficiency of international reserves. The central bank uses several metrics to assess reserve adequacy, but because results can vary, it relies on the FX Commission’s judgment. The metrics used to assess sufficiency include (1) the ratio of reserves to GDP, compared with the ratio in other emerging markets; (2) the reserve adequacy metric [9] (3) cost-benefit approaches [10]; and (4) utility-maximizing approaches [11][3][4].

## **3 Peso in 2020 and Peso in 1961 evidence of sharp inflation**

The World Bank Consumer index for Mexico data shows, as of early September 2020, the price of the Peso is 1,118,625.30% higher than average prices since 1961. The peso experienced 17.12% per year during the period of 1961 - 2020, causing the value of Pesos to decrease in store of value. Figure.2 and Figure.3 shows the increase in inflation of the Mexican Peso since 1961 and the effect of the declining purchasing power of the Mexican Peso

## **4 COVID-19 Pandemic might boost the Peso inflation**

Inflation that comes with unemployment is part of the misery index which measures the combined sum of the unemployment rate and inflation rate. To quote

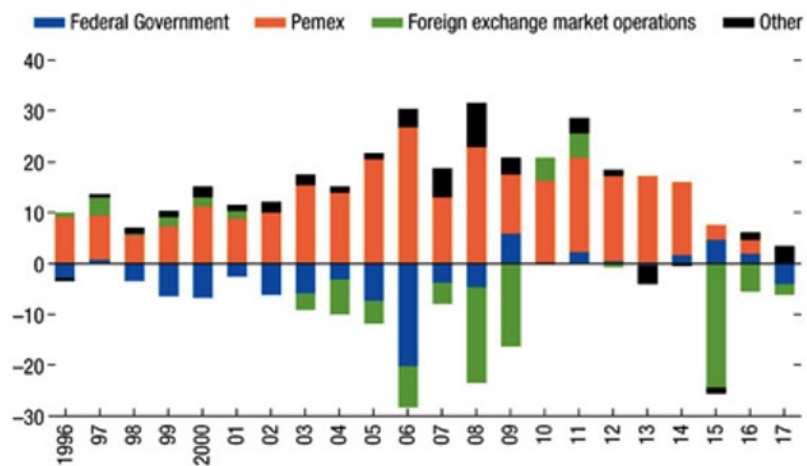


Figure 1: Bank of Mexico International Reserves - Source of Accumulation, 1996 - 2017

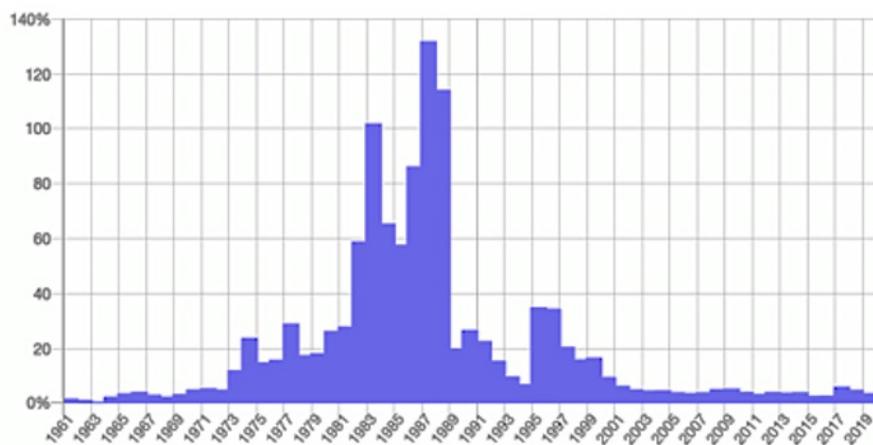


Figure 2: Mexican Peso Inflation Since 1961: Annual Rate as per the World Bank CPI

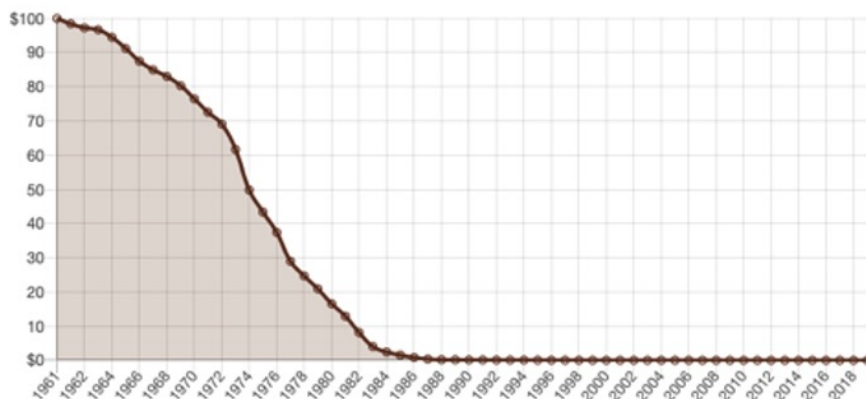


Figure 3: Buying power of 100USD worth of Mexican Peso over time, 1961-2020

an instance from history, in the 1970s in the United States gold boomed as a hedge for sliding USD value in an economy of mass unemployment[5][6].

Novel coronavirus caused COVID-19 has resulted in vast destruction to social life and has resulted in the Mexican government to shake off its comforts to take action to respond to the increasing unemployment rate and further has resulted in an increase in the inflation rate of the Peso. In Mexico, the situation due to COVID-19 is putting a strain on the country’s labor market, which is at a critical moment and has lost more than 90,000 jobs. That number could multiply before the end of 2020. Today, with the COVID-19 pandemic spreading through the region, Mexico’s central bank reported that in June 2020, Mexican workers in the U.S. sent home a whopping \$3.56 billion in remittances, up to 11% from the previous year.

The resultant obscure increase in inflationary monetary policy and aggressive expansion of money supply, and increase in prices of certain food staples due to supply shocks caused by lockdown impact, gives more reasons to reconsider investment options[6][7].

## 5 Gold will boom, but supply constraints causing concerns for hedging

The concept of an investment safe haven is motivated by investor loss aversion[18], where investors are more concerned with avoiding losses than any associated prospective gains[19]. This loss aversion motivates investors to seek out safe-haven assets, i.e. assets that are uncorrelated or negatively correlated with traditional assets during periods of market turmoil[20]. Various safe-haven assets have been established at short to medium horizons, including gold [22], currencies[21], long-dated Treasury bonds[23], and, most recently, cryptocurrencies.

The gold market is concentrated with financial institutions, governments,

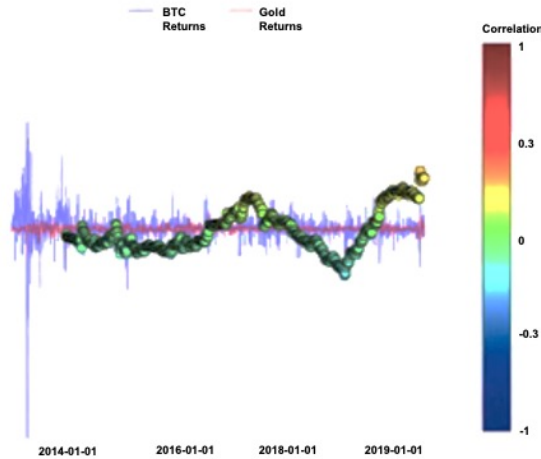


Figure 4: Correlation between BTC and Gold returns as shared by Coin Metrics

and established small firms that leave individuals or retail traders with less possibility of getting the best deal to build a position of interest from natural value deterioration, but cryptocurrency is changing the game.

Pandemic has affected the gold miners as well, to top it off, prices cannot be easily affected by any government policy. As a result, financial institutes have started to pour a significant, increased, amount of capital into Bitcoin(BTC).

Notably, in a report published by Coin Metrics, as shown in Figure.4, since March 12, 2020, there is the observation of a correlation of around 0.5 between sell-off for bitcoin and gold.

## 6 Cryptocurrency more than a hedge against Peso Inflation

The inflation of the Peso has resulted in a silent decrease in the purchasing power of fiat money. Analysts predict that Mexico’s economy, the second-largest in Latin America, could fall as much as 10% in 2020 due to the decline in GDP under the current circumstances.

The growing popularity of cryptocurrencies has inspired numerous studies of their investment benefits, including their safe haven properties. Urquhart and Zhang (2019) look at the hedging and safe haven properties of Bitcoin at the hourly frequency and find that it acts as a hedge, diversifier, and safe haven, respectively, for a range of international currencies[26].

A Cross-quantilogram approach used to define safe haven characteristics [24] and found some evidence that Bitcoin, gold, and the commodity index are weak safe havens but that this behavior is time-varying. Guesmi et al. (2019) find that portfolio risk is considerably reduced through the inclusion of Bitcoin in a portfolio comprising of gold, oil, and emerging market stocks[25].

Cryptocurrencies such as Bitcoin or Ethereum have attracted much attention, because of both meteoric price swings and their advocates’ claim of a new

model of decentralized trust[15].

Mazikana (2019) argues that most of the modern world's money supply is in digital form; as such, they can be considered to be in the form of cryptocurrencies[13]. Cryptocurrencies present the potential for greater socio-economic inclusiveness through enhanced financial security. Stancel (2015) asserts that the rise of Bitcoin in recent times has caused cryptocurrencies to be increasingly more relevant across the universe [14].

Cryptocurrencies are fundamentally structured to technologically build environments to encourage a deflationary scenario and a relatively stable store of value that has joined Gold as another potential safe heaven. With the value of the Mexican Peso currency dropping rapidly and the possibility of worst hitting any time soon, investors are looking at Bitcoin (BTC) as a hedging opportunity. The 21 Million Bitcoin supply limit and the independence from government surveillance networks, especially for the citizens from countries facing high inflation have attracted investment in this cryptocurrency. Promisingly, modern financial markets have facilitated Mexican citizens to own cryptocurrencies as alternative assets proactively and quickly, with the possibility to trade with anyone across the globe that supplies liquidity.

Meanwhile, the barrier to entry for cryptocurrency in Mexico is lower than traditional forms of financial management. About half of the Latin American population has no access to basic banking services. Just 113 million people out of a population of about 650 million have credit cards, while the cryptocurrencies ecosystem turns out to be a much friendly avenue for any from anywhere to bank on. Thanks to the adoption of mobile phones, as per the World Bank 55% of adults in Latin America own a mobile phone and have access to the internet[2].

## **7 What we see now: Acceleration in the adoption rate of cryptocurrency as a solution to the recent crisis**

According to a study published last year by Statista, one of the world's leading statistics portals, the Latin American region holds the largest number of cryptocurrency users in the world. Despite the risk and volatility of cryptocurrency, digital assets have become a viable alternative to shaky national currencies.

Crypto trading platforms can facilitate faster money transfers at a lower cost than banks. According to Cadenas, who is also pursuing a Ph.D. in financial engineering, the combination of Mexico's stringent new banking laws, expensive financial services, and the large unbanked population is driving public interest in cryptocurrencies[2].

Cryptocurrency has proven adaption in major applications, to state a few examples: 1. A Universally accepted mode of exchange that allows consumers to trade, shop, and send currency internationally. International businesses that might not accept local payment options can use bitcoin to continue to purchase from online shoppers. 2. Reduced foreign exchange cost, makes it an obvious choice for travelers and tourists. 3. Easy and quick international payroll processing and payments of franchise fees businesses located globally.

Bitcoins are used as a medium of exchange for goods and services purchased online [16]. It is true that currently bitcoins are not used in everyday transac-

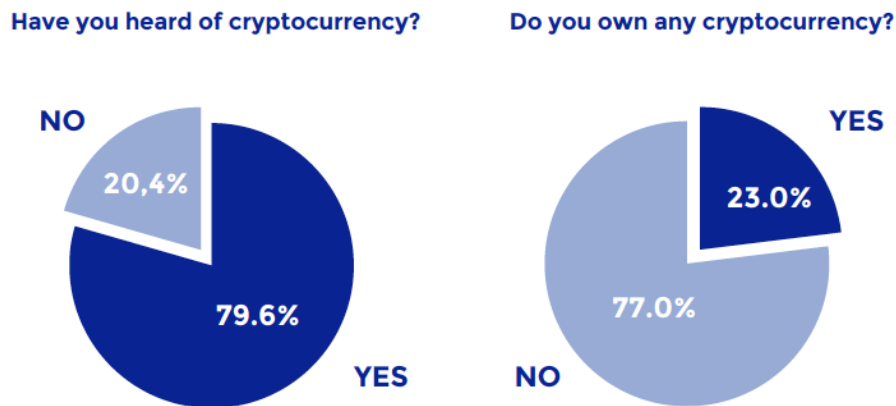


Figure 5: Cryptocurrency Awareness among Mexicans, insights derived from IE-CGC survey

tions or accepted by everyone like paper money; however, the count of merchants and nations accepting bitcoins as a currency is increasing rather fast. Bitcoins serve as a store of value[17]; unlike fiat currencies, bitcoin is a decentralized crypto (or digital) currency, therefore its value is not set by a central bank like Fed. Bitcoin's value comes from trust and acceptance; just like gold, its value appreciates or depreciates based on what people are willing to pay for it.

In the local setup, Mexicans use BTC to pay for various services starting from fast food centers to paying for real estate purchases. To learn more, have a quick read of this article.

According to the findings of a 2020 IE-CGC survey, When asked if the respondents have heard of cryptocurrency, 79.6 % of Mexicans in the sample responded positively. Regarding ownership, 23 % of Mexicans said they own some cryptocurrency[28]. Figure.5 shows the pie-chart representation of the same data.

In terms of how ownership of cryptocurrency is distributed across different levels of income, age, education, and gender, the results follow a similar pattern of other countries. We can see from Figure.6 that there appears to be a slightly higher level of ownership amongst those with higher income and education levels. These ownership levels across income and education, however, are much more evenly distributed in Latin American countries than ownership levels in Europe and the US. Age also seems to be an important dimension with respect to the ownership of cryptocurrency, with younger generations (especially those between the ages of 25-34) being more likely to own these currencies than the older ones. Finally, as it generally is the case for assets and currencies that involve more risk, the ownership of cryptocurrency is significantly higher amongst males than females[28].

In the eight months between September 2019 and May 2020, the trading volume of Mexico's leading crypto exchange, Bitso, grew by 342%, according to the exchange. Earlier this year, Bitso announced it had surpassed 1 million users on its platform, of which 92% are Mexican. For comparison, there are 35 traditional brokerages in the country with under 400,000 active trading accounts

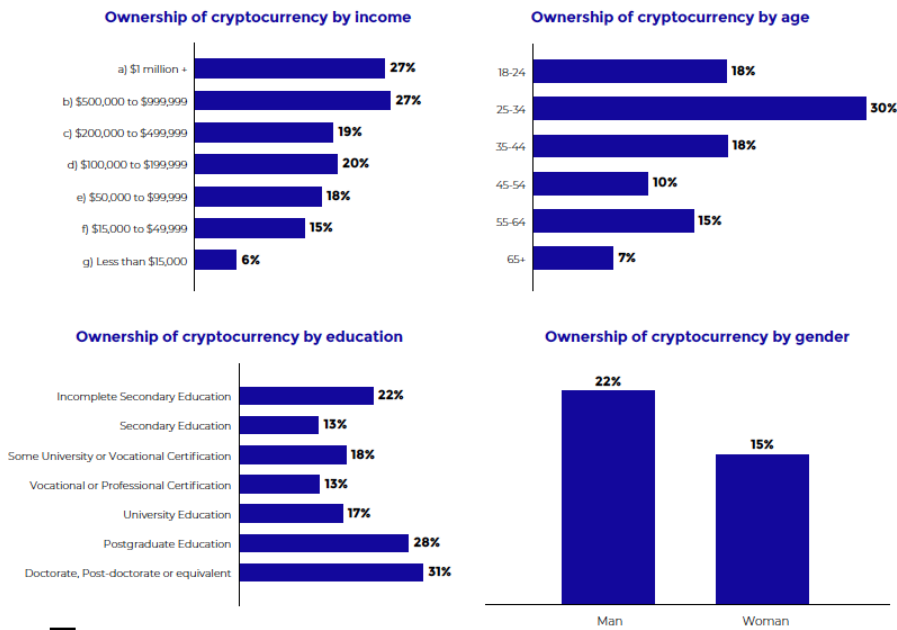


Figure 6: Ownership of cryptocurrency in Mexico based on income, age, education and gender, insights derived from IE-CGC survey

in total, according to Mexico’s financial authority, CNBV[7].

Figure.7 shows the cryptocurrencies and altcurrencies trade performance for the Mexican Peso. It can be noticed that BTC is attracting more volume and positive trends.

Notably, according to CoinATMRadar, the number of Bitcoin ATMs in Mexico is one of the highest numbered countries in the region. To date, there is already 11 ATMs, mainly in Mexico City and Culiacan. As well as the use of non-traditional transfers in the USA-Mexico border corridor, where Ripple’s XRP tokens via the Mexican platform Bitso set important milestones this year.

It must be emphasized that the Mexican national currency, the Mexican Peso (MXN), is currently valued at an approximate value of 0.00000401 BTC per peso. One dollar is equal to 21.93 MXN, and at the time of this writing, the price of Bitcoin is over \$ 11,000. Taking these numbers into account, we would have that 1 BTC is roughly equivalent to MXN 249,520 [8].

As per the coindance report of LocalBitcoins volume, with reference to Figure.8 around \$13Million volume in Mexican Peso has been in investment into BTC assets, compared to around \$1Million Peso volume at the end of 2013. Which is around 13 times growth in 6 years duration.

As of today, Bitpay exchange rate of 1 BTC = 228,504.71 MXN

As per a recent report by coinmarketcap, countries that saw more than 80% quarter-on-quarter growth in users aged 18-24 in the Q1 of 2020, is Mexico with 97.33%.

According to Cadenas, Bitso processed 3.5% of incoming remittances in January this year, which increased to 5.3% in a matter of weeks[7].



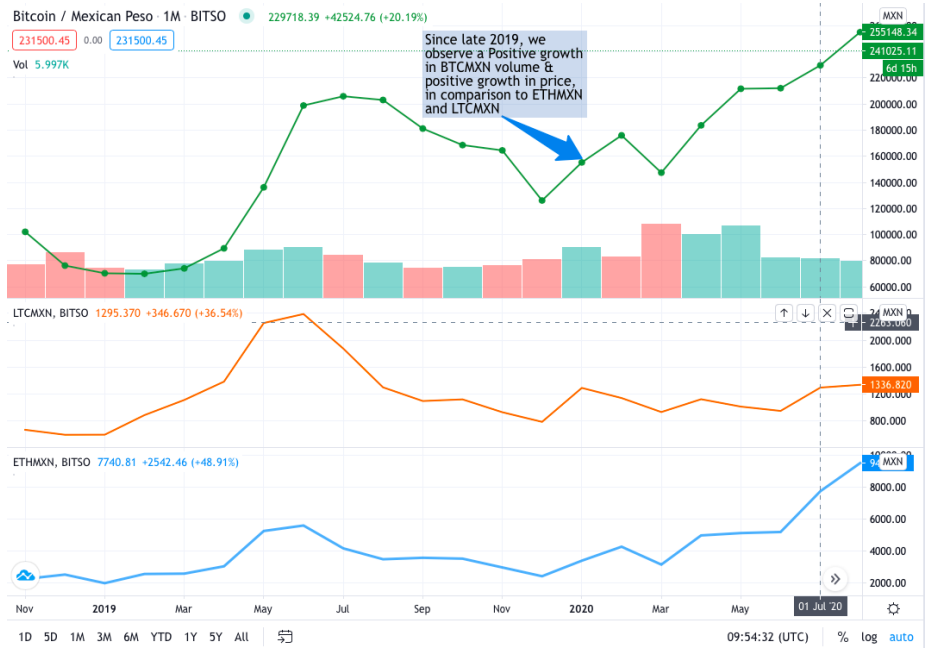


Figure 7: Performance comparison of BTC trade in Mexican Peso and LTC and ETH

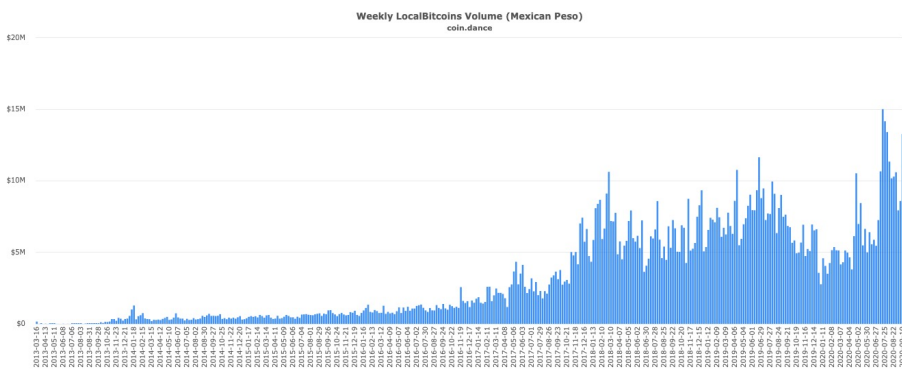


Figure 8: Weekly Localbitcoins volume of Mexican Peso

## 8 Summary and Future Work

Mexico is a large population that's constantly exploring alternative asset classes that has the potential to be favorable over traditional financial services.

On a positive note, the Government of Mexico has also allowed cryptocurrency services offered by licensed entities, thereby allowing relaxations on its customers and the entrepreneur community. Also, the government is constantly exploring opportunities to partner with other countries to encourage digital-first movement, to state an example, the New Mexico-Canada trade pact holds opportunity for distributed tech.

Cryptocurrency movement and adoption would be seen more evident in near future by both institutional investors and citizens of Mexico as the alternative asset with the capability to safeguard the interests of common people from inflation.

Socio-political affairs might be an influential factor deciding the trade ties and policies which would eventually impact the inflation rate, however, we would be covering this aspect in the upcoming blog in the same subject of interest. EuroMoney is on a constant watch on the cryptocurrency market, join our newsletter for intelligence served in newsletter form.

## References

- [1] Esposito, A. 2020. Mexico central bank props up battered peso, rates outlook uncertain [Blog Post]. Retrieved from: <https://www.reuters.com/article/us-mexico-peso-idUSKBN20W32Q>
- [2] Schechter, P. 2020. Latin America's Cryptocurrency Market Is Soaring [Blog Post]. Retrieved from: <https://www.brinknews.com/latin-americas-cryptocurrency-market-is-soaring/>
- [3] Chamon, M., Hofman, D., Magud, D., and Werner, A. 2019. Chapter 11 Mexico: Free-Floating Exchange Regime. Retrieved from: <https://www.elibrary.imf.org/view/IMF071/25455-9781484375686/25455-9781484375686/ch11.xml?language=en&redirect=true>
- [4] Jexpress Marketign Team. 2019. Cara Packing yang Tepat Jaga Barang Aman dan Antirusak Saat Diterima Pembeli [Blog Post]. Retrieved from: <https://www.j-express.id/cara-packing-yang-tepat-jaga-barang-aman-dan-antirusak-saat-diterima-pembeli/60>
- [5] Huang, R. 2020. Bitcoin vs. Inflation [Blog Post]. Retrieved from: <https://www.forbes.com/sites/rogerhuang/2020/05/18/bitcoin-vs-inflation/>
- [6] Baxter, A. 2020. Inflation In Mexico Reached 3.99% Is Bitcoin A Solution? [Blog Post]. Retrieved from: <https://www.europeworldnews.com/inflation-in-mexico-reached-3-99-is-bitcoin-a-solution/>
- [7] Coindesk. 2020. Why It's Time to Pay Attention to Mexico's Booming Crypto Market [Blog Post]. Retrieved from: <https://finance.yahoo.com/news/why-time-pay-attention-mexico-132038280.html>

- [8] Cointelegraph. 2020. La inflación en México llegó a 3.99% ¿Es bitcoin una solución? [Blog Post]. Retrieved from: <https://es.cointelegraph.com/news/inflation-in-mexico-reached-399-is-bitcoin-a-solution>
- [9] Approved by Moghadam,R. Ostry,J,D. and Sheehy,R. 2011.”Assessing Reserve Adequacy”
- [10] Calvo,A., Izquierdo,A. and Loo-Kung,R. 2012. ”Optimal Holdings of International Reserves: Self-Insurance against Sudden Stop,” NBER Working Papers 18219, National Bureau of Economic Research, Inc.
- [11] Jeannne,O. and Ranciere,R. 2006.”The Optimal Level of International Reserves for Emerging Market Countries: Formulas and Applications”
- [12] Chamon,M., Hofman,D., Magud.N., Werner,A. 2019. “Chapter 11 Mexico: Free-Floating Exchange Regime”
- [13] Mazikana,A,T. 2019. “The impact of cryptocurrencies in Zimbabwe:An analysis of Bitcoins”
- [14] Stancel,D. 2015. “Economic Consequences of Cryptocurrencies and Associated Decentralized Systems” Ph.D Thesis. Department of Economics. Faculty of Economics and Administration Masaryk University
- [15] Auer, Raphael, and Stijn, C. 2018. ”Regulating Cryptocurrencies: Assessing Market Reactions”. Basel: Bank for International Settlements Quarterly Review, September.
- [16] Dwyer, G.P. 2014. ”The economics of Bitcoin and Similar Private Digital Currencies”. *Journal of Financial Stability*, 333, pp. 1-11
- [17] Kristoufek, L. 2015. ”What Are the Main Drivers of the Bitcoin Price? Evidence from Wavelet Coherence Analysis”. *PLOS ONE*, 10(4).
- [18] versky, A., Kahneman, D. 1991. ”Loss aversion in riskless choice: A reference-dependent model”. *The Quarterly Journal of Economics*, 106(4), 1039–1061.
- [19] Hwang, S., Satchell, S.E. 2010. ”How loss averse are investors in financial markets? *Journal of Banking Finance*”, 34(10), 2425–2438
- [20] Baur, D.G., Lucey, B.M. 2010. ”Is gold a hedge or a safe haven? An analysis of stocks, bonds and gold”. *Financial Review*, 45(2), 217–229
- [21] Ranaldo, A., Söderlind, P. 2010.”Safe haven currencies. *Review of Finance*”, 14(3), 385–407
- [22] Bredin, D., Conlon, T., Pot’ı, V. 2015. ”Does gold glitter in the long-run? Gold as a hedge and safe haven across time and investment horizon”. *International Review of Financial Analysis*, 41, 320–328.
- [23] Flavin, T.J., Morley, C.E., Panopoulou, E. 2014. ”Identifying safe haven assets for equity investors through an analysis of the stability of shock transmission”. *Journal of International Financial Markets, Institutions and Money*, 33, 137–154.

- [24] Shahzad, S.J.H., Bouri, E., Roubaud, D., Kristoufek, L., Lucey, B. 2019. "Is Bitcoin a better safe-haven investment than gold and commodities?". *International Review of Financial Analysis*, 63, 322–330
- [25] Guesmi, K., Saadi, S., Abid, I., Ftiti, Z. 2019. "Portfolio diversification with virtual currency: Evidence from bitcoin". *International Review of Financial Analysis*, 63, 431–437.
- [26] Urquhart, A., Zhang, H. 2019. Is Bitcoin a hedge or safe haven for currencies? An intraday analysis. *International Review of Financial Analysis*, 63, 49–57.
- [27] <https://www.statista.com/chart/18345/crypto-currency-adoption/>
- [28] IE - CGC. 2020. "Cryptocurrencies and the future of money - Money and Trust in Mexico".