



Research Article

© 2023 Grijalva-Salazar et al.

This is an open access article licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (<https://creativecommons.org/licenses/by-nc/4.0/>)

Received: 21 February 2023 / Accepted: 23 July 2023 / Published: 5 September 2023

Analysis of the Exchange Rate in Peru Between January 2020 and December 2021

Rosario Violeta Grijalva-Salazar¹

Víctor Hugo Fernández-Bedoya¹

Josefina Amanda Suyo-Vega¹

Monica Elisa Meneses-La-Riva¹

*Division of Research, Universidad César Vallejo,
Av. Alfredo Mendiola 6232, Los Olivos 15314,
Lima, Peru*

DOI: <https://doi.org/10.36941/ajis-2023-0144>

Abstract

Various events can affect a country's exchange rate. In the period between 2020 and 2021, Peru experienced the severe effects of the COVID-19 pandemic, as well as political instability. This article has two objectives: first, to explore what was the average monthly exchange rate (sale) in Peru between January 2020 and December 2021; second, to determine if there is any significant trend in the data shown for that period. The research presented a quantitative approach, descriptive level, non-experimental design and retrospective cross-sectional cut. The technique was documentary review and the instrument was the registration form. The data provided by the Central Reserve Bank of Peru (Monthly average bank exchange rate -sale-) were explored. As a result, it was found that the lowest value was recorded in January 2020 (S/3,329), while the highest value was recorded in September 2021 (S/4,111). In addition, the result of the Mann-Kendall trend statistical test resulted in a p. value of < 0.0001, thus there is a significant trend in the average monthly exchange rate (sale) in Peru between January 2020 and December 2021.

Keywords: exchange rate; political instability; Central Bank; dollar; Peru

1. Introduction

In the last weeks of December 2020, the price of the US dollar (USD) in soles (PEN) surpassed its historical maximum since the creation of this currency in 1991 in Peru. After the appointment of the ministerial cabinet of the newly elected president's government, the barrier of S/4.00 per US dollar was broken. It is well known that there is a high volatility impact of the dollar exchange rate on the currencies of Latin American countries (Loo Gil, 2021; Roca Garay, 2014).

In the last 30 years, Peru has enjoyed macroeconomic stability that has resulted in low inflation rates and high growth on average (Castellares & Toma, 2020; Chung Alva, 2021; Romero-Flores, 2020). As a result, there has been a clear trend of de-dollarization, with decreasing percentages of credits and deposits in dollars (Arrieta Vidal et al., 2022; Garcia, 2011; Valle Díaz & Huamán Romaní, 2022).

This favourable environment for business growth has allowed many companies to move from informality to formality (Fernández Bedoya et al., 2021), while at the same time contributing to the country's economic growth (Grijalva Salazar et al., 2020).

In the month of June 2021, after an electoral imbalance originated in Peru caused by declarations of fraud by voters, accompanied by marches throughout Peru demanding the National Jury of Elections the televised review of contested and observed results, political and economic instability was generated (Andina, 2021). At first, it seemed that the recount of tallied tally sheets would take weeks because the National Jury of Elections (JNE), the only authority with the capacity to name the winner of the electoral contest, had to resolve a request for the annulment of 802 tally sheets in polling stations claimed by the losing candidate -the equivalent of 500,000 votes- in areas where her opponent (and later winner) had been the favorite (Ortiz, 2021).

The Observation Mission of the Organization of American States (OAS) said it does not support allegations of fraud, claiming that the elections in Peru followed a "positive electoral process", without detecting "serious irregularities". The mission of the Inter-American Union of Electoral Organizations (UNIORE) has also highlighted the correct application of the voting and counting processes in the country, ruling out the possibility of any fraud (OAS, 2021).

In addition, another aggravating factor in the volatility of the dollar was the appointment of the Ministerial Cabinet of the newly elected president, and especially his new prime minister, which generated discontent among the population and businessmen (Gestión, 2021). Since the first days of April 2021, the exchange rate would have shown a highly volatile variation with an upward trend. The approval or disapproval of a president can affect the country's economic performance (Boca Saravia & Rodríguez, 2022; Cerda & Vergara, 2022).

The week prior to the first round of presidential elections in Peru, the price of the US dollar went from an average of S/ 3.63 to surpassing the S/ 4.00 soles barrier, reaching peaks of up to S/4.10 after the declaration of the presidential winner.

In Peru, the exchange rate is determined taking into account a regime called managed floating. This means that the exchange rate moves according to the supply and demand of dollars. In addition, at certain times, the Peruvian Central Reserve Bank (BCRP) acts in order to avoid constant variations so that our economy is not affected. In recent months, the intervention of the Peruvian Central Reserve Bank has prevented a further increase in the exchange rate. However, in recent months, the BCRP has not been able to intervene indefinitely in the exchange market, which may cause our international reserves to decrease those held by the monetary entity.

It is important to emphasize that the word volatile derives from the Latin *volatilis*, which is translated as 'to fly' in Spanish.

The main advantages of having a stable dollar are:

- a) Facilitates international business transactions: A stable dollar allows businesses to plan and execute transactions with better precision, lowering the risk of losses due to exchange rate volatility.
- b) Improves investor confidence: A stable dollar creates a more predictable economic climate, increasing foreign investors' confidence in the US economy and attracting greater investment to the country (Mari del Cristo & Gómez-Puig, 2017; Piqueira & Mortoza, 2012).
- c) Helps control inflation: A stable and predictable currency aids in price management by allowing international trade and encouraging foreign investment, which in turn aids in the stabilization of the country's pricing for products and services (Carranza et al., 2009; Sui et al., 2021).
- d) Contributes to global economic stability: A stable dollar helps to maintain global economic stability by decreasing financial market volatility and providing a steady reference currency for countries that use the dollar in trade and financial transactions (Choi, 2022).

According to (Rodríguez, 2015), in the managed floating scheme, the dollar price is fixed by supply and demand forces, without the existence of any quotation limit as it usually happens in the exchange band model. In order to control violent fluctuations, the Central Bank usually sets some

rules that mark its intervention in the market.

This same phenomenon consists of seeking autonomy to monetary and exchange rate policy changes, consisting of a greater flow of capital in the private sector and the increase of a moderate inflation rate (Asaleye et al., 2021; Rosende, 2002).

In Colombia it represented 24%, which forced the Colombian authorities to consolidate in January 1994 the exchange band system allowing constant capital inflows and providing greater discretion in economic policy to stabilize the economic equilibrium, allowing stabilization of the exchange rate. Since 1994 in Colombia it has been defined as consisting of a fixed exchange rate regime and a free floating one, so that on September 25, 1999 the exchange band system was eliminated and a free floating nominal exchange rate system was introduced.

In Argentina, the Central Bank has used the managed float of the dollar to try to stabilize the economy and reduce inflation. However, this has generated problems due to a shortage of international reserves and exchange rate volatility. In 2018 Argentina suffered an economic and financial crisis with a rising dollar that generated a devaluation of the peso and high inflation (Cachanosky et al., 2022; Cachanosky & Ferrelli Mazza, 2021; Castillo-Ponce & Kon, 2018).

In Chile, the Central Bank has used the managed float of the dollar as a tool to try to stabilize the economy and reduce exchange rate volatility (Ginn & Pourroy, 2020). The exchange rate policy of the Central Bank of Chile consists of a system of exchange rate bands and a system of intervention in the foreign exchange market (Rai et al., 2021).

The exchange band system establishes a range within which the exchange rate is allowed to fluctuate freely, and the Central Bank intervenes in the foreign exchange market only when the exchange rate approaches the limits of the established range. The Central Bank buys or sells dollars in order to stabilize the exchange rate in case it moves away from the established range.

The Central Bank of Chile's intervention system consists of buying and selling dollars in the foreign exchange market, in order to reduce exchange rate volatility and avoid sharp fluctuations in the exchange rate. The Central Bank may also intervene in the foreign exchange market through the use of financial instruments such as futures contracts and foreign exchange swaps.

In Mexico, the Bank of Mexico (Banxico) applies managed floating of the dollar by intervening by buying or selling dollars in the foreign exchange market. If the Bank of Mexico buys dollars, this increases the supply of dollars in the market and, therefore, reduces the price of the dollar against the Mexican peso. On the other hand, if the Bank of Mexico sells dollars, this reduces the supply of dollars in the market and, therefore, increases the price of the dollar against the Mexican peso (Cabral et al., 2019). The managed float of the dollar is used to avoid extreme fluctuations in the exchange rate, as extreme fluctuations can have negative effects on the economy. For example, a very high exchange rate can increase the prices of imported goods and therefore increase inflation. On the other hand, a very low exchange rate can increase the costs of exports and, therefore, reduce the competitiveness of Mexican companies (Areli Bermudez Delgado et al., 2018). In addition to stabilizing the exchange rate, managed floating of the dollar also aims to reduce volatility in the foreign exchange market. Volatility in the exchange market can have negative effects on companies and investors, as it can generate uncertainty and make decision making more difficult (Alvarez-Ramirez, 2002).

A concept used in this subject is the "maximum rate" (or ceiling rate), which consists of the Central Reserve Bank being able to sell as many dollars as necessary to maintain the exchange rate at that value, which means that every day the rate varies depending on the slope of the exchange band (Bahaj & Reis, 2022; Moessner & Allen, 2013).

On the other hand, the minimum rate (or floor rate) consists of the Central Reserve Bank buying dollars to maintain the exchange rate at that value. This rate varies every day, which will depend on the slope of the exchange rate band (Lukongo & Miller, 2018; Nippani & Parnes, 2017).

The slope of the exchange rate band consists of the application of the annual percentage of devaluation that are applied to the floor rate and the ceiling rate (see Figure 1).

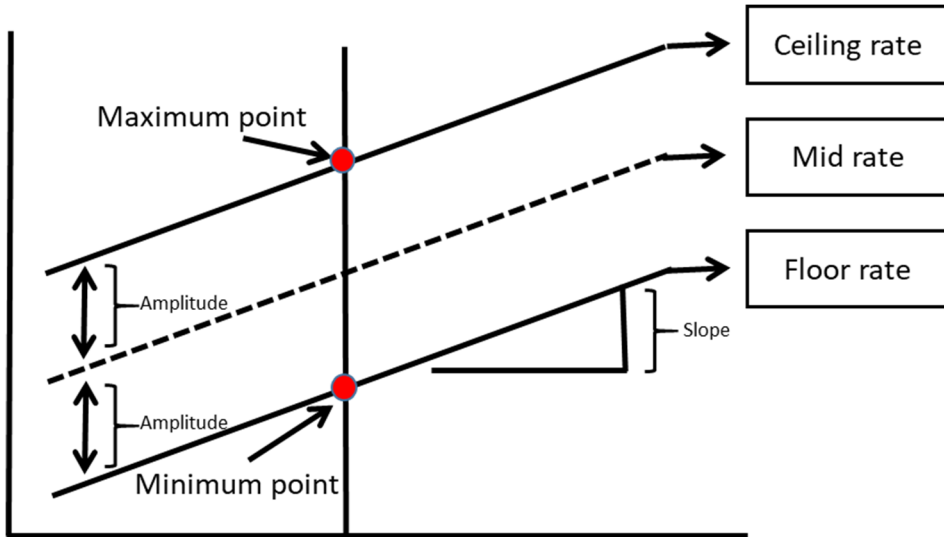


Figure 1: Exchange rate band

(Burotto Ravanal, 2016) mentions that inflationary stabilizations are one of the first characteristics of anti-inflationary programs applied in Argentina, Brazil and Bolivia. This seeks to examine at the macroeconomic level, taking into account monetary and fiscal policies that consist of gradual corrections that are being applied in the programs that the authorities are focusing on, so that these variables will be decisive when evaluating the success or failure.

In Latin America in recent years there has been a very strong inflation crisis after many decades in which orthodox programs have been applied, consisting in the application of a moderate fiscal plan without taking into account price setting (Moreno Brid et al., 2022). On the other hand, the Heterodox Program consists in the application of revenue according to its policy which is the core of the problem of fiscal austerity (Petrovich Frolov, 2022).

In the world is applying regimes where the exchange rate plays a very important role in the economy and the lack of control where the currency is floating due to variation of the exchange rate, since the 2000s in Latin America and the Caribbean has experienced certain variations, originated by fear have been affected various adverse factors to the economy.

In addition, with the increase in capital mobility where the exchange rate plays a very important role, endogenous growth has developed in the various business sectors and in turn in households where there are credit restrictions (Bsoul et al., 2022; Fernández-Bedoya et al., 2021; Omodero, 2020). Even stock market reacts to monetary policy modifications (Omodero et al., 2021)

According to the analysis carried out, the following questions were proposed:

- Objective 1: What was the average monthly exchange rate (sale) in Peru, between January 2020 and December 2021?
- Objective 2: Is there any significant trend in the data shown for that period?

In addition, the objectives of this research were:

- Objective 1: To explore what was the average monthly exchange rate (sale) in Peru between January 2020 and December 2021.
- Objective 2: To determine if there is any significant trend in the data shown for the period between January 2020 and December 2021.

Finally, the hypothesis of this research was: There is a significant trend in the average monthly exchange rate (sale) in Peru between January 2020 and December 2021.

2. Materials and Methods

This study presents a quantitative approach. This is due to the fact that it measured the variable (monthly exchange rate). Based on this information, time line figures were constructed and presented in tables. In addition, the Mann-Kendall trend (Kendall, 1975; Mann, 1945) statistical test was used to subject the hypothesis to validity or rejection.

The level of the study was descriptive. There was a single variable that was extensively detailed. Descriptive level research seeks to provide a good perception of the phenomenon and the ways in which the variable, factors or elements that compose it behave.

The design was non-experimental, since the data was collected without any manipulation, directly extracted from a reliable source, such as the Central Reserve Bank of Peru. The study cut was longitudinal and retrospective because the data collected was generated in periods prior to this study, and included a particular period (January 2020 to December 2021).

The technique was documentary review, since the database of the Central Reserve Bank of Peru, corresponding to the average monthly exchange rate (sale) in Peru, between January 2020 and December 2021, was explored (Central Reserve Bank of Peru, 2022). The instrument consisted of a registration form, in which the desired data was written to answer the research questions.

3. Results

Objective 1: To explore what was the average monthly exchange rate (sale) in Peru between January 2020 and December 2021

According to the Central Reserve Bank of Peru (2021), in recent months the variation of the exchange rate has responded to a certain degree of speculation to which the exchange markets are exposed, as shown in Table 1 and Figure 2.

Table 1: Monthly average bank exchange rate (sale), January 2019 - December 2020

Month	Exchange rate
January 2020	S/.3.329
February 2020	S/.3.392
March 2020	S/.3.494
April 2020	S/.3.400
May 2020	S/.3.424
June 2020	S/.3.472
July 2020	S/.3.519
August 2020	S/.3.566
September 2020	S/.3.557
October 2020	S/.3.598
November 2020	S/.3.611
December 2020	S/.3.606
January 2021	S/.3.627
February 2021	S/.3.648
March 2021	S/.3.710
April 2021	S/.3.704
May 2021	S/.3.776
June 2021	S/.3.916
July 2021	S/.3.945
August 2021	S/.4.090
September 2021	S/.4.111
October 2021	S/.4.019
November 2021	S/.4.023
December 2021	S/.4.042

It can be identified that in the 2-year period analysed, the lowest value was recorded in January 2020

(S/3,329), while the highest value was recorded in September 2021 (S/4,111).

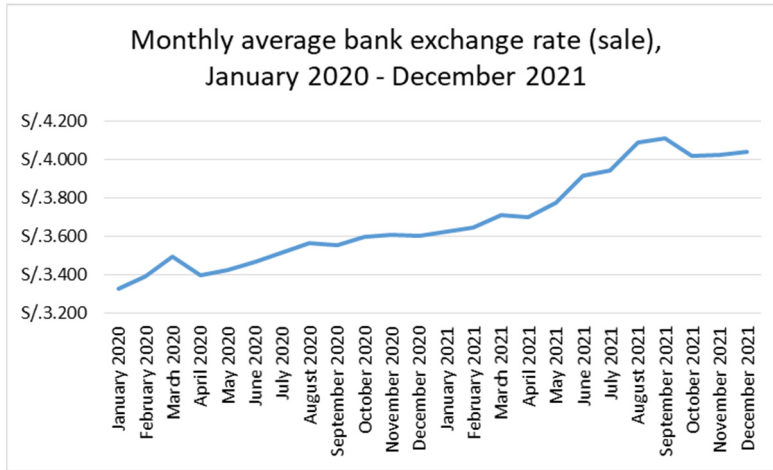


Figure 2: Monthly average bank exchange rate (sale), January 2020 - December 2021.

Objective 2: To determine if there is any significant trend in the data shown for the period between January 2020 and December 2021.

Table 1: Mann-Kendall trend test

Sample Estimates	Result
Kendall's tau	0.9130435
p. value (two tailed)	< 0.0001
S	252.00
n	24

Table 2 shows the result of the Mann-Kendall trend test. The analysis of the average exchange rate over the 24 months was subjected to this statistical test (n = 24). The p. value (two tailed) calculated was < 0.0001, this allows the researchers to consider the hypothesis valid, and therefore there is a significant trend in the average monthly exchange rate (sale) in Peru between January 2020 and December 2021.

4. Conclusions

Managed floating of the dollar is an exchange rate system in which a country uses a combination of market intervention and exchange rate policies to control the exchange rate of its currency against the U.S. dollar. In Latin America, several countries have used this system in an effort to stabilize their economies and promote growth. However, it can also have negative effects, such as exchange rate volatility and dependence on U.S. policies.

Managed floating is based on the idea that a country's central bank can intervene in the foreign exchange market to buy or sell its own currency relative to the U.S. dollar. This can help stabilize exchange rates and reduce volatility. However, it can also create problems if the Central Bank does not have sufficient international reserves or if the interventions are not effective.

In Latin America, several countries have adopted managed floating of the dollar in an effort to stabilize their economies and reduce exchange rate volatility.

The Central Reserve Bank of Peru is the agency in charge of regulating monetary and exchange rate policy in Peru. This institution has contributed to some extent to alleviate the high volatility of the dollar, however, despite its efforts, it is visible that the dollar has increased significantly between 2019 and 2020.

After reviewing the data provided by the Central Reserve Bank of Peru, it was possible to explore what was the average monthly exchange rate (sale) in Peru between January 2020 and December 2021. The lowest value was recorded in January 2020 (S/3,329), while the highest value was recorded in September 2021 (S/4,111).

In order to identify whether these data represent a statistically significant trend, it was necessary to use the Mann-Kendall test, the results of which were less than 0.0001, thus confirming the hypotheses proposed by the authors.

We conclude that there is a significant growing trend in the average monthly exchange rate (sale) in Peru between January 2020 and December 2021.

5. Implications and Future Research

The following are some implications and future research on managed floating of the dollar and the exchange rate policies:

Implications:

- a) Exchange rate stability: Managed dollar floating is more stable than free floating because the central bank can intervene in the market to reduce volatility.
- b) Monetary policy: Managed dollar floating can assist the central bank in more effectively implementing its monetary policy, as the exchange rate can be an important channel for transmitting monetary policy.
- c) Impact on the economy: Because the exchange rate affects inflation, economic growth, and foreign trade, managed dollar floating can have a significant impact on the economy.

Future research:

- a) Impact on inflation: It would be interesting to look into how managed floating of the dollar affects inflation, as the exchange rate may play a role in determining prices.
- b) Monetary policy effectiveness: It may be worthwhile to investigate the effectiveness of monetary policy in an economy with a managed dollar float, because the central bank may have more control over the exchange rate than in a free-floating economy.
- c) Impact on foreign trade: Another intriguing research topic could be how managed dollar floating affects foreign trade, as the exchange rate can affect a country's exports and imports.

References

- Alvarez-Ramirez, J. (2002). Characteristic time scales in the American dollar–Mexican peso exchange currency market. *Physica A: Statistical Mechanics and Its Applications*, 309(1–2), 157–170. [https://doi.org/10.1016/S0378-4371\(02\)00600-3](https://doi.org/10.1016/S0378-4371(02)00600-3)
- Andina. (2021). *JNE revisa apelación de actas observadas en audiencia pública*. <https://andina.pe/agencia/noticia-jne-revisara-manana-apelacion-actas-observadas-audiencia-publica-849079.aspx>
- Areli Bermudez Delgado, N., Bermudez Delgado, E., & Saucedo, E. (2018). The relationship between oil prices, the stock market and the exchange rate: Evidence from Mexico. *The North American Journal of Economics and Finance*, 45, 266–275. <https://doi.org/10.1016/j.najef.2018.03.006>
- Arrieta Vidal, J., Florián Hoyle, D., López Vargas, K., & Morales Vásquez, V. (2022). Policies for transactional de-dollarization: A laboratory study. *Journal of Economic Behavior & Organization*, 200, 31–54. <https://doi.org/10.1016/j.jebo.2022.05.012>
- Asaley, A. J., Maimako, R. F., Inegbedion, H., Lawal, A. I., & Ogundipe, A. A. (2021). Real Exchange Rate and Manufacturing Performance in Nigeria. *Academic Journal of Interdisciplinary Studies*, 10(2), 279. <https://doi.org/10.36941/ajis-2021-0058>

- Bahaj, S., & Reis, R. (2022). Central Bank Swap Lines: Evidence on the Effects of the Lender of Last Resort. *The Review of Economic Studies*, 89(4), 1654–1693. <https://doi.org/10.1093/restud/rdab074>
- Boca Saravia, A., & Rodríguez, G. (2022). Presidential approval in Peru: an empirical analysis using a fractionally cointegrated VAR. *Economic Change and Restructuring*, 55(3), 1973–2010. <https://doi.org/10.1007/s10644-021-09374-0>
- Bsoul, R., Milhem, M., & Odat, M. (2022). Determinants of Banks' Credit Risk: Evidence from Jordanian Banks Listed on Amman Stock Exchange. *Academic Journal of Interdisciplinary Studies*, 11(5), 197. <https://doi.org/10.36941/ajis-2022-0135>
- Burotto Ravanal, N. (2016). Estabilizaciones inflacionarias en el contexto latinoamericano: una revisión de los casos de Argentina, Brasil y Bolivia. *Ensayos de Política Económica*, 2(4), 73–104. <https://revistas.uca.edu.ar/index.php/ENSAYOS/article/view/2332>
- Cabral, R., Mollick, A. V., & Saucedo, E. (2019). Northbound border crossings from Mexico to the U.S. and the peso/dollar exchange rate. *Research in Transportation Business & Management*, 33, 100423. <https://doi.org/10.1016/j.rtbm.2019.100423>
- Cachanosky, N., & Ferrelli Mazza, F. J. (2021). Why did inflation targeting fail in Argentina? *The Quarterly Review of Economics and Finance*, 80, 102–116. <https://doi.org/10.1016/j.qref.2021.01.014>
- Cachanosky, N., Salter, A. W., & Savanti, I. (2022). Can dollarization constrain a populist leader? The case of Rafael Correa in Ecuador. *Journal of Economic Behavior & Organization*, 200, 430–442. <https://doi.org/10.1016/j.jebo.2022.06.006>
- Carranza, L., Galdon-Sanchez, J. E., & Gomez-Biscarri, J. (2009). Exchange rate and inflation dynamics in dollarized economies. *Journal of Development Economics*, 89(1), 98–108. <https://doi.org/10.1016/j.jdevec.0.2008.06.007>
- Castellares, R., & Toma, H. (2020). Effects of a mandatory local currency pricing law on the exchange rate pass-through. *Journal of International Money and Finance*, 106, 102186. <https://doi.org/10.1016/j.jimonfin.2020.102186>
- Castillo-Ponce, R. A., & Kon, L. (2018). On Argentina's Currency Crisis of 2018. *Lecturas de Economía*, 92(1), 223–233. <https://doi.org/https://doi.org/10.17533/udea.le.n9208>
- Central Reserve Bank of Peru. (2022). *Tipo de cambio promedio del periodo*. <https://estadisticas.bcrp.gob.pe/estadisticas/series/mensuales/tipo-de-cambio-promedio-del-periodo>
- Cerda, R., & Vergara, R. (2022). Economic Growth and Political Approval Ratings: Evidence from Latin America. *Political Behavior*. <https://doi.org/10.1007/s11099-022-09798-y>
- Choi, M. S. (2022). Dominant Currency and Value-Added Exports. *Academic Journal of Interdisciplinary Studies*, 11(5), 1. <https://doi.org/10.36941/ajis-2022-0120>
- Chung Alva, V. (2021). Modelación de la Volatilidad del Tipo de Cambio del Dólar en el Perú: Aplicación de los Modelos GARCH y EGARCH. *Revista de Análisis Económico y Financiero*, 4(2), 7–12. <https://doi.org/10.24265/raef.2021.v4n2.40>
- Fernández-Bedoya, V. H., Meneses-La-Riva, M. E., & Suyo-Vega, J. A. (2021). Ecotourism in Times of Covid-19: A Systematic Review from the Five Continents on How This Activity is Being Carried Out and What Proposals They Have for the Near Future. *Academic Journal of Interdisciplinary Studies*, 10(6), 1. <https://doi.org/10.36941/ajis-2021-0148>
- Fernández Bedoya, V. H., Meneses La Riva, M. E., Suyo Vega, J. A., & Gago Chávez, J. de J. S. (2021). Determination Of The Breakeven Point For Motivation Towards The Formalization Of Micro And Small Commercial Companies In Lima, Perú. *International Journal of Entrepreneurship*, 25(3), 1–8. <https://www.abacademies.org/abstract/determination-of-the-breakeven-point-for-motivation-towards-the-formalization-of-micro-and-small-commercial-companies-in-12277.html>
- García, M. (2011). Factores que impulsan la desdolarización en el Perú. *Revista Estudios Económicos*, 21(1), 23–40. <https://www.bcrp.gob.pe/docs/Publicaciones/Revista-Estudios-Economicos/21/ree-21-garcia-escribano.pdf>
- Gestión. (2021). *Dólar abre a S/ 4.093 en medio de expectativas por presentación del Gabinete Bellido*. <https://gestion.pe/economia/mercados/tipo-de-cambio-dolar-abre-a-s-4093-en-medio-de-expectativas-por-presentacion-del-gabinete-bellido-nndc-noticia/>
- Ginn, W., & Pourroy, M. (2020). Should a central bank react to food inflation? Evidence from an estimated model for Chile. *Economic Modelling*, 90, 221–234. <https://doi.org/10.1016/j.econmod.2020.05.011>
- Grijalva Salazar, R. V., Fernández Bedoya, V. H., Esteves Pairazamán, A. T., & Ibarra Fretell, W. G. I. (2020). System of payment of tax obligations (SPOT) related to the payment capacity of construction companies in Peru. *International Journal of Scientific and Technology Research*, 9(1), 235–237. <http://www.ijstr.org/final-print/jan2020/-System-Of-Payment-Of-Tax-Obligations-spot-Related-To-The-Payment-Capacity-Of-Construction-Companies-In-Peru.pdf>

- Kendall, M. G. (1975). *Rank Correlation Methods* (C. Griffin (ed.); 4th ed.).
- Loo Gil, C. (2021). Impacto de volatilidad del tipo de cambio del dólar en las monedas de países latinoamericanos. *Dataismo*, 1(8), 58–75. <https://doi.org/10.53673/data.vi1i8.35>
- Lukongo, O. E., & Miller, T. (2018). Evaluating the Spatial Consequence of Interest Rate Ceiling Using a Spatial Regime Change Approach. *The American Economist*, 63(2), 166–186. <https://doi.org/10.1177/0569434517745490>
- Mann, H. B. (1945). Nonparametric Tests Against Trend. *Econometrica*, 13(3), 245. <https://doi.org/10.2307/1907187>
- Mari del Cristo, M. L., & Gómez-Puig, M. (2017). Dollarization and the relationship between EMBI and fundamentals in Latin American Countries. *Cuadernos de Economía*, 40(112), 14–30. <https://doi.org/10.1016/j.cesjef.2016.10.002>
- Moessner, R., & Allen, W. A. (2013). Central bank swap line effectiveness during the euro area sovereign debt crisis. *Journal of International Money and Finance*, 35, 167–178. <https://doi.org/10.1016/j.jimonfin.2013.03.003>
- Moreno Brid, J. C., Caldentey, E. P., & Rodríguez, S. C. (2022). Latin America's macroeconomic policies and growth: An uncoordinated dance. In *Classical Economics, Keynes and Money* (pp. 214–237). Routledge. <https://doi.org/10.4324/9781003105558-17>
- Nippani, S., & Parnes, D. (2017). Recent evidence on political brinkmanship and Treasury yields. *Journal of Financial Economic Policy*, 9(3), 324–337. <https://doi.org/10.1108/JFEP-01-2017-0001>
- OAS. (2021). *Misión de Observación Electoral de la OEA en Perú presenta informe preliminar*. https://www.oas.org/es/centro_noticias/comunicado_prensa.aspx?Codigo=C-065/21
- Omodero, C. O. (2020). Analysis of Factors Influencing Public Capital Investment in Nigeria. *Journal of Educational and Social Research*, 10(1), 62. <https://doi.org/10.36941/jesr-2020-0007>
- Omodero, C. O., Adetula, D. T., & Adeyemo, K. (2021). Stock Market Reaction to Monetary Policy Modifications: Evidence from an Emergent Market. *Academic Journal of Interdisciplinary Studies*, 10(3), 59. <https://doi.org/10.36941/ajis-2021-0064>
- Ortiz, S. (2021). *Fuerza Popular busca anular votación en 802 mesas de sufragio*. <https://elcomercio.pe/elecciones-2021/fuerza-popular-busca-anular-votacion-en-802-mesas-de-sufragio-noticia/>
- Petrovich Frolov, D. (2022). Shrinking Old Industrial Cities: A Research Agenda for Heterodox Economics. *Montenegrin Journal of Economics*, 18(2). <https://doi.org/10.14254/1800-5845/2022.18-2.10>
- Piqueira, J. R. C., & Mortoza, L. P. D. (2012). Brazilian exchange rate complexity: Financial crisis effects. *Communications in Nonlinear Science and Numerical Simulation*, 17(4), 1690–1695. <https://doi.org/10.1016/j.cnsns.2011.08.031>
- Rai, A., Rojer, G., & Susanna, E. (2021). Central bank transparency and market reaction in Brazil, Chile, and Colombia. *Journal of Behavioral and Experimental Finance*, 30, 100475. <https://doi.org/10.1016/j.jbef.2021.100475>
- Roca Garay, R. (2014). El Mercado de Divisas y las Fluctuaciones del Dólar en el Perú. *Pensamiento Crítico*, 4, 115. <https://doi.org/10.15381/pc.v4i0.9263>
- Rodriguez, A. (2015). *Lo que usted debe saber sobre la flotación administrada del dólar*. <https://www.elfinancierocr.com/finanzas/lo-que-usted-debe-saber-sobre-la-flotacion-administrada-del-dolar/?LSOTOZ7FCSP00YBGFOIGV3KI/story/>
- Romero-Flores, R. A. (2020). An Economic Theory Perspective for the Fight Against Poverty in the Peruvian Andes. *Advances in Science, Technology and Engineering Systems Journal*, 5(6), 497–506. <https://doi.org/10.25046/aj050659>
- Rosende, F. (2002). La nueva síntesis Keynesiana: Análisis e implicancias de política monetaria. *Cuadernos de Economía*, 39(117). <https://doi.org/10.4067/S0717-68212002011700003>
- Sui, M., Rengifo, E. W., & Court, E. (2021). Gold, inflation and exchange rate in dollarized economies – A comparative study of Turkey, Peru and the United States. *International Review of Economics & Finance*, 71, 82–99. <https://doi.org/10.1016/j.iref.2020.08.014>
- Valle Díaz, F. R., & Huamán Romani, Y. L. (2022). Análisis predictivo de los indicadores macroeconómicos del sector turístico post-Covid-19, Perú 2019–2023. *Revista Venezolana de Gerencia*, 27(28), 580–596. <https://doi.org/10.52080/rvgluz.27.98.13>