Evaluating Impact of Exchange Rate Fluctuation and Political Instability on Inflation: A Fresh Insight from Pakistan

Zain-ul-Abideen[1], Abdul Rahman[2], Qasim Raza[3] and Muhammad Babar Khan[4]

https://doi.org/10.62345/jads.2023.12.3.130

Abstract

Empirical research has been done to examine the impact of exchange rate fluctuations and political instability on inflation in Pakistan, using time series data spanning from 1990 to 2022. This study accounts for the contribution of both macroeconomic indicators and political factors towards inflation, taking Pakistan as a case study to depict that relationship. Unit root tests, co-integration, error correction model, and correlational analysis are applied. Findings suggest that there is a long-term relationship between selected macroeconomic and political variables contributing to the increased inflation in the country. The exchange rate is found to be marginally insignificant, and political instability and the presence of violence and terrorism are directly related to the increased inflationary trends in Pakistan. In contrast, the quality of government that includes political factors shows that a higher-quality government is likely to have better economic management policies and practices, which helps to control inflation and maintain price stability. Considering the results, it is suggested that if there is political stability in Pakistan, it will stabilize, which will lead to increased investment business confidence, and economic development.

Keywords: Exchange Rate, Political Instability, Inflation, Quality of Government.

Introduction

In countries that are developing, like Pakistan, where there has been a drastic rise in prices over time, the primary worry of policymakers has always been inflation. It is an even greater catastrophe when prices in the foreign market drive prices in the domestic market (Munir, 2022). Stability in a country's financial situation is an imperative requirement if one wishes to keep a steady grip over the exchange rates of the country's currency. According to Khan and Naushad (2020), in order for a country to achieve financial stability, the political climate within the government needs to be stable.

A politically stable nation has a better chance of attracting more foreign direct investments. This is because it is easier for investors to comprehend the policies of the government and the continuity of their strategies (Bano et al., 2019). The greater the amount of foreign investment, the greater

[1]*MPhil Scholar, Department of Economics, PMAS-Arid Agriculture University, Rawalpindi, Pakistan.*
Email: meetzainmalik@gmail.com
[2]*Lecturer, Department of Economics, PMAS-Arid Agriculture University, Rawalpindi, Pakistan.*
Email: arahman@uaar.edu.pk
[3]*PhD Scholar, Department of Economics, PMAS-Arid Agriculture University, Rawalpindi, Pakistan.*
Email: qreza110@gmail.com
[4]*MPhil Scholar, Department of Economics, PMAS-Arid Agriculture University, Rawalpindi, Pakistan.*
Email: aligbabar617@gmail.com

Compliance with ethical standards: There are no conflicts of interest (financial or non-financial). This study did not receive any funding.

the amount of foreign reserves held by the central bank, which in turn results in less pressure being placed on exchange rates (Ali et al., 2021; Ferreira et al., 2019).

Since 2021, the value of the rupee has declined by 18 percent, and Pakistan is grappling with fast dwindling foreign currency reserves, a dropping rupee, and a mounting budget and current account deficit (CAD). Additionally, since 2021, the value of rupee has decreased by 18 percent. The reserves have fallen to a low of $9.8 billion, which is not even sufficient to pay for the country's imports for two months (Aljazeera, 2022). The lack of stability in political systems is a key impediment to economic growth. It not only narrows the perspective of policymakers, which leads to ineffective short-term macroeconomic plans, but it also leads to irregular policies and the inability to finish ongoing projects, which is a significant problem. This climate, combined with Pakistan's constant dependence on foreign loans and mounting debt, makes the economy of Pakistan weak and directionless (Recorder, 2022).

Alterations in exchange rates have the potential to have opposing effects on an economy; therefore, one could say that these effects are like two sides of the same coin. On the one hand, a weaker currency would enhance exports and encourage competitiveness in the global market, which might potentially boost economic expansion (Chaudhry et al., 2011). On the other hand, a resilient currency might not increase exports or promote competitiveness.

A stronger currency can be unfavorable to exports and lower a country's competitiveness. On the other hand, it could lead to a rise in the price of imported items, which could, in turn, cause domestic inflationary pressures to be exerted as a result of the situation (Arize et al., 2004). A strong currency, on the other hand, can help manage inflation by making imports more affordable. Still, it might damage a country's capacity to compete internationally when it comes to exports. This is because a strong currency makes imports more expensive. In order for policymakers to be able to control fluctuations in exchange rates and inflation effectively, they need to have a strong grasp of the intricate link that exists between these two factors (Saeed et al., 2012).

The state of the political environment profoundly influences currency values and the movements of exchange rates. Uncertainty in the political climate frequently prompts investors to engage in risk-averse behavior, which ultimately results in capital flight and, as a subsequent effect, a depreciation of the national currency (Khan, 2013). In addition, political crises may stimulate speculative threats to the currency, which can further exacerbate fluctuations in the exchange rate. In this section, we will examine how political unrest directly affects exchange rates and how it might lay the environment for potential episodes of inflation (Sulehri & Ali, 2020).

The instability that results from political unrest can also result in shifts in monetary policy as governments seek to maintain economic equilibrium. Central banks would raise interest rates in order to bolster the currency and attract foreign investment (Ramzan, 2021). However, this can also lead to an increase in the rate of inflation, as greater interest rates make financing more expensive, slow down economic growth, and therefore decrease economic activity (Arjona & Eglantina, 2021). Inflation can rise as a result of both of these factors. Furthermore, political instability can lead to a loss of trust in the government's capacity to handle the economy, which can further damage the value of the currency and raise the possibility of inflation (Audi et al., 2022). This can further impair the value of the currency and increase the chances of inflation.

Previous studies on inflation have never concentrated on the combined impact of the exchange rate and political instability, in particular, in determining increased inflationary pressure in Pakistan. The goal of this research study is to examine the effect of the exchange rate and political instability on inflation, using fresh insights and updated data in the context of Pakistan.

Literature Review

The value of the Pakistani Rupee (PKR) has depreciated to a large extent due to the rise in political unrest in Pakistan, the lack of uniformity in economic policies, and the rise in administrative lag, all of which have contributed to an increase in inflation in Pakistan, which is one of the reasons why the prices of essential commodities have seen a tremendous rise in recent times. Pakistan is facing severe inflationary pressure, which has resulted in increased prices of commodities and necessary items (Saleem et al., 2022). Consistent depreciation of the rupee has not only raised the liability of foreign debt on Pakistan but has also led to increased inflation rates and political unrest in the country adding oil to injury (Akhtar et al., 2022).

By exploring available literature, it was found that the foreign exchange market is extremely sensitive to shifts in the supply-side and demand-side dynamic forces of the economy (Abbas et al., 2017), which is one of the many reasons that can cause swings in exchange rates. Interest rates are frequently cited as a key factor in determining the direction of currency exchange rates (Rapetti, 2020). The more interest rates in a country invite overseas depositors who are looking for better returns, which leads to a rise in demand for the country's currency and, as a result, an increase in the value of the currency (Siddiqui & Aumeboonsuke, 2014). On the flip side, when interest rates are lowered, the appeal of keeping that currency is reduced, which leads to a depreciation in its value (Cohen et al., 2021).

Moreover, indicators of the economy's performance and its overall health also play a significant role in the fluctuations of exchange rates (Aman et al., 2017). Countries that have healthy economic indicators, such as low inflation, favorable trade balances, and robust GDP growth, tend to have currencies that are stronger than those with negative economic indicators (Chughtai et al., 2015). Likewise, economic slowdowns, rising inflation, and trade deficits can all have a negative impact on the currency of a country.

Exchange rate fluctuations can be made worse by speculative trading on the market and negative mood among investors. Traders and speculators frequently attempt to predict future economic events or changes in policy, which can result in considerable volatility in the short term (Andreasson et al., 2016). Speculative actions can affect currency exchange rates, and they can be triggered by a variety of factors, including political turmoil, geopolitical tensions, and global economic uncertainty (Chutasripanich & Yetman, 2015).

Instability in a nation's political system can be traced to a confluence of internal and foreign variables that interfere with the nation's ability to maintain order and good administration. Mismanagement and corruption inside the government are two of the key factors that contribute to political instability (Adefeso, 2018). It is possible for widespread public unhappiness and demonstrations. It calls for reform to result when a government fails to serve the needs and ambitions of its citizens and instead participates in corrupt practices. This can be a catalyst for social unrest (Gharaibeh & Kharabsheh, 2022). However, it is essential to keep in mind that not all instances of political instability can be completely linked to the incompetence and corruption of the administration. This is a crucial point to keep in mind. When it comes to the destabilization of a country, external factors like military intervention from other countries and economic penalties can also trigger a greater impact (McKinlay & Cohan, 2017).

It is necessary for the policymakers in developing economies to reorganize organizations and create effective procedures fit to long-term strategies.. In addition, according to (Aisen & Veiga, 2006), the benefits of actions taken to stabilize inflation may only be seen for a limited time if these actions do not also involve substantial political and financial reforms. Higher degrees of political instability and social disintegration, lower levels of the rule of law, and poorer regulatory

effectiveness, such as the lack of central bank independence, lead to more unpredictable inflation rates.

Materials and Methods

Data

The data for the time analysis was collected for Pakistan from 1990 to 2022. It was collected from a variety of secondary sources compiled by well-known watchdogs. The following is an in-depth description of the dataset that was collected for the purpose of conducting this research study.

Inflation Rate

Inflation rate data (INF), data is gathered for consumer price index in annual percentage from World Development Indicators (WDI). It is an economic performance indicator that depicts the percentage change in the general price level in an economy over the abovementioned period. Not only does it give a clear image of price level changes, but it also portrays the purchasing power of money in circulation.

Gross Domestic Product

Gross domestic Product, denoted as GDP, data is accumulated in US dollars. The data was gathered from WDI and IFS, and it demonstrates the health of the economy over the period specified above. It is the monetary value of total output generated inside the geographical borders of a country, which is the gross of all goods and services produced in a fiscal year. For the sake of convenience in analysis, data is collected in USD and scaled down to billions.

Interest Rate

Interest Rate (INT), which is given in percentages and was collected from the WDI website, shows how much is the borrowing cost and how much one can earn from the ventures of savings and investments. From 1990 to 2022, records show how monetary policy worked to stop inflation and to help the economy grow.

Local Currency Unit in USD

Data for local currency units (LCU in USD) acquired from WDI displays the rate of exchange between local currencies over the time mentioned above period. It reflects the value of the Pakistani Rupee (PKR) in terms of the United States Dollar (USD), i.e., how much PKR it costs for one USD.

Quality of Government

The data for Quality of Government (QOG) is gathered online. It uses information collected from the International Country Risk Guide's (ICRG) yearly report as its primary source of information. The value represents the average, on a scale from 0 to 1, of the ICRG variables corruption, law and order, and bureaucracy quality. Values closer to 1 suggest a better overall level of governmental effectiveness. PSR Group releases a new version of this database every year.

Political Stability and Absence of Violence and Terrorism

This estimate measures chances or cognition of instability in the political circles of a country and also accounts for politically backed terrorism and civil unrest. The data for PSAVT is an estimation that was obtained from World Governance Indicators (WGI), and it depicts the Political Stability

in the Absence of Violence and Terrorism with the purpose of comparing how well-governed and secure different nations are. This score, which ranges from a negative 2.5 to a positive 2.5, is used to rate the performance of each country.

Model Specification

The general framework for the interpretation of the results of this research study is presented below:

$$INF_t = \alpha_0 + \beta_1 + \beta_2 INT_t + \beta_3 PS_t + \beta_4 EX_t + \beta_5 QOG_t + \beta_6 GDP_t + \varepsilon_t$$

Dependent variable:
INF = Inflation rate, consumer price index annual percentage
Independent variables:
INT = Interest rate in percentage
PS = Estimate for Political Stability and Absence of Violence and Terrorism
EX = Local currency unit in USD
QOG = Quality of Government
GDP = Gross Domestic Product

Estimation Methods

Unit Root Test

To formally start the time series analysis for this research study, it is compulsory to test the stationarity of variables, and for this purpose, the unit root test is used. As we are handling time series data and macroeconomic variables are generally non-stationary at the level, the OLS results could be misleading, which can lead to biased decisions; this is also called spurious regression.
Several tests can be applied to fulfill this purpose. In this study, the augmented Dickey-Fuller test is used to determine whether all the variables are stationary or not. The econometric representation of ADF is given below.

Engle-Granger Cointegration

The Engle-Granger co-integration test is applied to assess the long-term relationship between variables. This test is useful for determining the association, especially in the long term when the time series data under consideration is non-stationary. Through this test, an expressive and deducible meaning for this test can be indicated.
First, we regress one variable against the other. After regression is done, residuals are generated and checked for their unit roots. Here, the ADF test is used to check the stationarity. If the error term is found stationary, this gives a substantial indication of the presence of cointegration., long-term connections between macroeconomic and political variables under study.
The Engle-Granger test is of great significance; by using it, econometricians can pinpoint the underpinning relationship between variables and their effects of interconnection. The only motive behind using this test is to testify to the long-term impact of variables on each other comprehensively. The dynamic property that this test is that it contributes to the accuracy of interpretations based on empirical analysis.

Error Correction Model

Another important tool is the Error Correction Model (ECM), which is developed to analyze the long-term relationship among the variables, especially when the time series data under study is

non-stationary. ECM is based on the AR models to test the relationships in the short-term deviations from the long-term connection between variables, also termed the error correction term. Firstly, cointegrated variables are denoted in a regression-like equation. Dependent variables are first differenced, non-stationary series, and lagged explanatory variables are added with other variables. Here, the inclusion of lagged values is made to capture the effects of adjustments in the short run; this comes with a recovery mechanism that portrays the speed of adjustment followed by disequilibrium.

ECM is of vital importance as the coefficient of the error correction term explains the direction and speed of the recovery in long-run equilibrium. If there appears to be a negative in the results, this implies that the coefficient is statistically significant and adjustments are being made to bring the short-run imbalances back to their balanced state; similarly, an insignificant coefficient is related to a relatively slower adjustment process, or there is a missing factor of error correction in the system.

Results

The time series data is transformed by taking the natural log of all the variables prior to the estimation process. In order to level out the irregular variations in a dataset, this step is essential. This procedure reduces the range of possible values and makes them more constant over time.

In order to start the time series analysis after the necessary data transformation, it is required to verify the stationarity of the series. This is due to the fact that the time-series dataset is assumed to be non-stationary due to the fact that a range of unequal situations occurred throughout the dataset's timeline. The variables under investigation should be considered stationary when their means remain unchanged and their variances remain the same. In order to accomplish this, stationarity is determined through the use of the Augmented Dickey-Fuller test at the level. It was noted that all the series were found non-stationary at level but stationary at the first difference at 5% significance level; here, the order of stationarity is the same for all variables. The outcomes of each variable are presented below in table 1.

Table 1: ADF test for stationarity of variables

Variable	ADF (test statistics)	Critical value at 5% sig	p-value
Variables at level			
LNPS	-1.181	-2.957	0.6700
LNEX	-0.094	-2.957	0.9418
LNGDP	-0.702	-2.957	0.8322
LNQOG	-0.771	-1.952	0.3736
LNINT	-2.304	-2.986	0.1783
ININF	-1.928	-2.957	0.3155
Variables at first difference			
LNPS	-4.662	-2.960	0.0008
LNEX	-3.782	-2.960	0.0074
LNGDP	-5.199	-2.960	0.0002
LNQOG	-3.601	-1.952	0.0008
LNINT	-4.668	-2.986	0.0011
ININF	-5.616	-2.960	0.0001

Source: Authors' own constructions

It is required to examine the existence of cointegration between the variables in order to determine whether or not there is a relationship that exists between them over a longer period of time. As there is one cointegrating factor found, therefore the best suited Engle-Granger test for cointegration is carried out. It is a two-step procedure that proves the existence of long run associations in variables. In the first phase, it is necessary to run the LS, which is also referred to as the ordinary least square, as shown in table 2.

Table 2: Engle-Granger cointegration testing (LS estimation of general framework)

Variable	Coefficient	Std. Error	t-statistic	p-value
C	-15.809	8.107	-1.950	0.0616
LNGDP	0.571	0.383	1.490	0.1477
LNPS	-0.132	0.144	-0.920	0.3654
LNEX	-0.330	0.426	-0.773	0.4459
LNINT	1.538	0.218	7.054	0.0000
LNQOG	-1.142	0.730	-1.562	0.1297
R-squared	0.6599			
Adj. R-squared	0.5969			

Source: Authors' own constructions

The correlation coefficients of the variables under investigation are presented in the form of a correlation matrix in table 3, which may be found below. A clearer picture of the false relationships between the variables can be drawn. The correlation matrix is also helpful in finding any potential dangers of multicollinearity that may exist within the framework. It was found that LNGDP and LNEX had a strong correlation with one another, which is significant because this could have an impact on the model's interpretability.

Table 3: Correlation matrix of variables

	LNINF	LNEX	LNGDP	LNINT	LNPS	LNQOG
LNINF	1.000	-0.061	-0.018	0.662	-0.095	-0.058
LNEX	-0.061	1.000	0.955	-0.467	-0.560	0.410
LNGDP	-0.018	0.955	1.000	-0.512	-0.678	0.331
LNINT	0.662	-0.467	-0.512	1.000	0.335	-0.007
LNPS	-0.095	-0.560	-0.678	0.335	1.000	-0.334
LNQOG	-0.058	0.410	0.331	-0.007	-0.334	1.000

Source: Authors' own constructions

In order to eradicate the problem of multicollinearity entirely, the framework has been modified to exclude one of the multicollinear variables. Revised model is given below

$$INF_t = \alpha_0 + \beta_1 + \beta_2 INT_t + \beta_3 PS_t + \beta_4 EX_t + \beta_5 QOG_t + +\varepsilon_t$$

LNGDP is omitted from the model, LS estimation is presented in table 4 after omission of LNGDP.

Table 4: Engle-Granger cointegration (LS estimation after omission of LNGDP)

Variable	Coefficient	Std. Error	t-statistics	p-value
C	-3.872	1.282	-3.020	0.0053
LNPS	-0.268	0.114	-2.342	0.0265
LNEX	0.269	0.145	1.855	0.0741
LNINT	1.485	0.219	6.757	0.0000
LNQOG	-1.514	0.701	-2.157	0.0397
R-squared	0.6319			
Adj. R-squared	0.5794			

Source: Authors' own constructions

Moving on to the next step, which is to generate and test residuals from the LS estimation. This is done by employing an Augmented Dickey-Fuller test. Residuals are found stationary as the p-value is less than the significance level. There is long-term relationship between most of the variables except one which is found insignificant in the regression output.
This cointegrating association exhibits that significant variables shift jointly in the long-term and are not unrelated to each other as evident in table 5.

Table 5: Engle-Granger cointegration (stationarity of residuals)

Random Variable	ADF (test statistics)	Critical value at 5% level of significance	p-value
Residual	-3.798	-1.951	0.0004

Source: Authors' own constructions

After cointegration testing, the Error Correction Model (ECM) is applied because it is a specific model aimed at capturing the short run changes and the process of adjustment into the long run equilibrium when cointegration exists between the variables. This is because the ECM was developed to be utilized in situations in which cointegration is evident.
Cointegration suggests that there is a stable link between the variables over the long-term, despite the fact that each of the variables is non-stationary on its own. However, in the short-term, there may be departures from this long run equilibrium. In order to truly comprehend the changes in the system, these fluctuations need to be considered. The framework given below is used to test for error correction pattern with the output given in table 6.

$$\Delta lnINF_t = \alpha_0 + \beta_1 \Delta lnEX_t + \beta_2 \Delta lnINT_t + \beta_3 \Delta lnPS_t + \beta_4 \Delta lnQOG_t + \lambda(ECM)_{t-1} + \varepsilon_t$$

Table 6: ECM test

Variable	Coefficient	Std. Error	t-statistics	p-value
C	0.036	0.082	0.444	0.6607
D(LNPS)	0.081	0.231	0.351	0.7280
D(LNEX)	-0.332	0.896	-0.370	0.7137
D(LNINT)	1.414	0.280	5.039	0.0000
D(LNQOG)	0.746	1.063	0.701	0.4890
E(-1)	-0.631	0.177	-3.564	0.0014
R-squared	0.5622			
Adj. R-squared	0.4780			

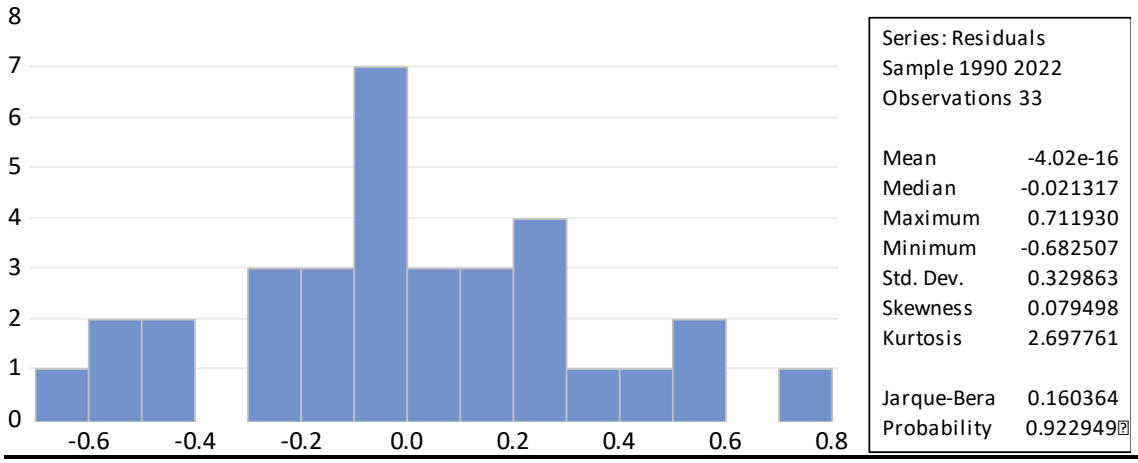
Source: Authors' own constructions

By casting an eye over the Error Correction Model results (table 6), it is evident from the weight lagged Error Correction Term (ECT) is significant the ECT of -0.63 portrays that LNINF is adjusting back to its long-term equilibrium state with the recovery speed of 0.63 units per period whenever there comes a disequilibrium in short run period. Coefficient of ECT is also denoting the direction of adjustment, it describes the changes that occur in the short run as the dependent variable moves closer to its equilibrium in the long run.

Negative value for the ECT indicating that the dependent variable INF will have a tendency to drop (or shift to a lesser value) in the short run if it has changed over the level at which it would be considered to be in long-term equilibrium. If, on the other hand, INF has fallen below the level at which it would be considered to be in the long-term equilibrium, the fact that the coefficient is negative implies that INF will likely rise (or move towards a higher value) in the short run.

To test the normality of residuals is test by using Jarque-Berra test for normality. Null hypothesis (H_0) is formulated that data is normally distributed and alternative hypothesis (H_a) that data is not normally distributed. Looking at output generated (table 7) it is concluded, with the higher value of probability 0.92, that the data is almost normally distributed

Table 7: Jarque-Bera test for normality



Source: Authors' own constructions

To carry out residual testing and testify the validity of framework White's test for heteroskedasticity (table 8) and Serial correlation LM test (table 9) are carried out. There is no substantial evidence of heteroskedasticity in the system's residuals, which indicates that the assumption of constant variance has not been broken. This is because there is no evidence of heteroskedasticity in the residuals. Similarly, it is also observed that there is no evidence of serial correlation in the model's residuals.

Both of these findings are encouraging signs that the validity of the regression model has been established, and they lend credence to the dependability of the coefficient values and hypothesis tests that are based on the model.

Table 8: Heteroskedasticity test

White test for heteroskedasticity		
Null hypothesis	F-statistic	p-value
Homoskedasticity	1.772	0.1261

Source: Authors' own constructions

Table 9: Serial Correlation LM test

Breusch-Godfrey Serial Correlation LM test		
Null hypothesis	F-statistic	p-value
No serial correlation	2.307	0.1196

Source: Authors' own constructions

Conclusion

As a result of the findings presented above, we can draw the following conclusions:

There is a long-term relationship between political instability, the quality of the government, and the interest rate in Pakistan. The highest rate of political instability leads to social and economic unrest in the country, which, in turn, increases the rate of inflation. The costs of the essential things that people need to survive are going to increase in price gradually. In a similar vein, if the quality of the government is high, that is, if there is less corruption, no kickbacks, and a better level of bureaucracy, then this prospers the country, which means that the economic expansions take place, the government becomes favorable for international deals, it exports more and earns more, the exchange rate drops and more foreign exchange comes in, and the prices of goods decrease as the country stabilizes. On the other hand, if there is political turmoil, the government officials are corrupt, the quality of administration is poor, and the administration has no interest in raising the living standards of the residents, this all contributes to the economy becoming derailed and unstable, and as a consequence, all economic indicators become negative. In the case of Pakistan, the quality of the administration is poor, and there is an increasing level of political instability; both of these factors contribute to a greater inflation rate in Pakistan. Furthermore, exchange rate fluctuation was found to be marginally insignificant at the 5% level of significance; however, at the 10% level of significance, it was found to be significant, which translates to the role of fluctuating exchange being related to increased inflation in the country.

Pakistan, like many other developing nations, has an import-based economy that is dependent on oil imports and other necessities; if the exchange rate is higher, this means that there is a shortage of foreign exchange in the country, which causes the import bill of Pakistan to rise. The fact that all these things are intertwined and dependent on one another raises a red flag about the state of affairs as a whole. Suppose all of these studied factors or indicators are maintained in a positive light, for example, by improving the quality of government, ensuring political stability in the country, and working towards the elimination of terrorism, extremism, and violence. In that case, it is possible to conclude that this will make the price level stable and the economy expand at a better pace.

References

- Abbas, F., Masood, A., & Sakhawat, A. (2017). What determine remittances to Pakistan? The role of macroeconomic, political and financial factors. *Journal of policy modeling*, *39*(3), 519-531.
- Adefeso, H. (2018). *Corruption, political instability and development Nexus in Africa: A call for sequential policies reforms*.
- Aisen, A., & Veiga, F. J. (2006). Does political instability lead to higher inflation? A panel data analysis. *Journal of money, Credit and Banking*, 1379-1389.

- Akhtar, S., Ramzan, M., Shah, S., Ahmad, I., Khan, M. I., Ahmad, S., El-Affendi, M. A., & Qureshi, H. (2022). Forecasting exchange rate of Pakistan using time series analysis. *Mathematical Problems in Engineering*, *2022*.
- Ali, H., Lam, B., & Hammood, S. S. (2021). Foreign Reserves of the Central Bank of Iraq and its Influence on Foreign Investment Flows (Applied Research in the Period 2004-2019). *Webology*, *18*(2), 1236-1244.
- Aljazeera. (2022). *As Pakistani rupee drops to record low, FM blames politics*. https://www.aljazeera.com/economy/2022/7/20/as-pakistani-rupee-drops-to-record-low-fm-blames-politics
- Aman, Q., Ullah, I., Khan, M. I., & Khan, S.-u.-D. (2017). Linkages between exchange rate and economic growth in Pakistan (an econometric approach). *European Journal of Law and Economics*, *44*, 157-164.
- Andreasson, P., Bekiros, S., Nguyen, D. K., & Uddin, G. S. (2016). Impact of speculation and economic uncertainty on commodity markets. *International review of financial analysis*, *43*, 115-127.
- Arize, A. C., Malindretos, J., & Grivoyannis, E. C. (2004). Foreign exchange reserves and import demand in a developing economy: the case of Pakistan. *International Economic Journal*, *18*(2), 259-274.
- Arjona, C., & Eglantina, H. (2021). Impact of political instability on economic growth in CEE countries. *Экономика региона*, *17*(2), 582-592.
- Audi, M., Sulehri, F. A., Ali, A., & Al-Masri, R. (2022). A*n Event Based Analysis of Stock Return and Political Uncertainty in Pakistan*: Revisited.
- Bano, S., Zhao, Y., Ahmad, A., Wang, S., & Liu, Y. (2019). Why did FDI inflows of Pakistan decline? From the perspective of terrorism, energy shortage, financial instability, and political instability. *Emerging Markets Finance and Trade*, *55*(1), 90-104.
- Chaudhry, I. S., Akhtar, M. H., Mahmood, K., & Faridi, M. Z. (2011). Foreign exchange reserves and inflation in Pakistan: evidence from ARDL modelling approach. *International Journal of Economics and Finance*, *3*(1), 69-76.
- Chughtai, M. W., Malik, M. W., & Aftab, R. (2015). Impact of Major Economic Variables on Economic Growth of Pakistan. *Acta Universitatis Danubius: Oeconomica*, *11*(2).
- Chutasripanich, N., & Yetman, J. (2015). Foreign exchange intervention: strategies and effectiveness.
- Cohen, J., Hachem, K., & Richardson, G. (2021). Relationship lending and the Great Depression. *Review of Economics and Statistics*, *103*(3), 505-520.
- Ferreira, A. L., Gozluklu, A., & Mainente, J. (2019). Central Bank Reserves and Currency Volatility. *International Finance eJournal*.
- Gharaibeh, O. K., & Kharabsheh, B. (2022). Corruption, political instability and their impact on investment: An FMOLS approach. *Investment Management and Financial Innovations*, *19*(1), 77-90.
- Khan, M. T. (2013). Exchange rate as a determinant of fluctuation in foreign exchange reserves: Evidence from economy of Pakistan. *Academic Research International*, *4*(2), 459.
- Khan, N., & Naushad, M. (2020). Inflation Relationship With the Economic Growth of the World Economy. *Available at SSRN 3542729*.

- McKinlay, R. D., & Cohan, A. S. (2017). A comparative analysis of the political and economic performance of military and civilian regimes: a cross-national aggregate study. In *Analyzing the Third World* (pp. 352-382). Routledge.
- Munir, K. (2022). Linear and nonlinear effect of exchange rate on inflation in Pakistan. *Theoretical and Applied Economics*, *29*(2 (631), Summer), 165-174.
- Ramzan, M. (2021). Symmetric impact of exchange rate volatility on foreign direct investment in Pakistan: do the global financial crises and political regimes matter? *Annals of Financial Economics*, *16*(04), 2250007.
- Rapetti, M. (2020). The Real Exchange Rate and Economic Growth: A Survey. *Journal of Globalization and Development*, *11*.
- Recorder, B. (2022). *Economic growth amid political instability*. https://www.brecorder.com/news/40177247
- Saeed, A., Awan, R. U., Sial, M. H., & Sher, F. (2012). An econometric analysis of determinants of exchange rate in Pakistan. *International Journal of Business and Social Science*, *3*(6), 184-196.
- Saleem, R., Saleem, R., & Awan, A. G. (2022). A nexus between devaluation and inflation in Pakistan. *Pakistan Business Review*, *23*(4), 417-434.
- Siddiqui, H. A. A., & Aumeboonsuke, V. (2014). Role of interest rate in attracting the FDI: Study on ASEAN 5 economy. *International Journal of Technical Research and Applications*, *2*(3), 59-70.
- Sulehri, F. A., & Ali, A. (2020). Impact of political uncertainty on pakistan stock exchange: An event study approach. *Journal of Advanced Studies in Finance*, *11*(2), 194-207.