



Research Article

Effect of Currency Devaluation in Pakistan: A Prospect of Short Term and Long Term

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ABSTRACT

Currency devaluation is a standout amongst the most emotional even awful proportions of financial strategy that a legislature may attempt. It generally creates cries of shocks and Sustainable economic growth and development is undoubtedly, one of the most challenging development issue, nowadays, in the developing countries. Therefore, this study investigates theoretically and empirically the impact of currency devaluation on economic growth of Pakistan. The study finds evidence of non-linearity in this relationship and capture that through a smooth transition regression model. Using annual data for the period 1975-2018, employing ARDL bounds test. From an evaluation of the overall analysis and results, it is concluded that foreign exchange reserves have positive and significant short run effect for all the countries. Inflation has negative and significant effect on economic growth of all the countries while real exchange rate has also positive and significant effect on economic growth. The government spending on development has positive and significant effect in short run scenario for all the selected countries while the money growth have positive and negative but significant effect on different countries depending on the political situation and economy based on agrarian product or industrial products. The results of this study confirm the finding of most previous study, since the advent of the exogenous growth theory. The study suggests that all the variables e.g. inflation, foreign exchange reserves, real exchange rate, money growth and government spending could be effectual in these augmenting economies.

KEYWORDS

ARDL, STR Model, Economic Growth, Inflation, Foreign Exchange Reserves, Real Exchange Rate, Money Growth, Government Spending

1 | INTRODUCTION

Since the currency value determines in relation to the value of the United States dollar, a devaluation of a currency will result in a reduction in the amount of dollars required to purchase one unit a rise in the value of the foreign currency relative to the dollar, or, equivalently, an increase in the value of one US dollar relative to other currencies (Sahil, 2015). When a currency loses value in relation to the dollar, it also loses value in relation to the global payments system, which means it loses value in relation to every other currency (Odionye, & Chukwu, 2021). Only other currency. Only a bread puncher's dozens of countries did not make any attempt to devalue their currencies at any point between 1947 and 1970. Since the currency value determines in relation to the value of the United States dollar, a devaluation of a currency will result in a reduction in the amount of dollars required to purchase one unit a rise in the value of the foreign currency relative to the dollar, or, equivalently, an increase in the value of one US dollar relative to other currencies (Alobied, 2022).

Both theoretical research and real-world certainties stand in the way of the claim that depreciations are genuinely expansionary, arguing instead that they are contractionary (Bouvet, et. al., 2022). These issues have been caused by the following: In point of fact, adjustment packages that consist of a devaluation component have come under scrutiny from an ever-expanding body of writing that maintains the conversion scale is an unreliable tool of monetary strategy, particularly in emerging countries (Khan, 2021). If downgrades are contractionary, authorities will be at a loss when trying to support yield growth while simultaneously strengthening the parity of payments position since they would be in an impossible situation (Imimole, & Enoma, 2011). A couple of the inventors saw losses in yield as a direct consequence of downgrades, and they brought to shed some light on the fact that debasements' beneficial relative value adjustment may come at a high cost in certain cases (Cheng, 2020). Writing on the subject of currency devaluation has been progressed as a result of an extensive body of information gathered under that topic line. Research based on hypothetical scenarios argues in favor of contractionary devaluation by concentrating on models of total interest and total supply (Krugman & Taylor, 1978).

August 14, 1947, Pakistan was established as a nation. Pakistan is divided into four distinct provinces: Punjab, Khyber Pakhtunkhwa, Sindh, and Baluchistan. Urdu is the native language, and Islam is the predominant religion. Pakistan is officially known by its official name, the Islamic Republic of Pakistan. Its capital is Islamabad. There are 130.58 million people living there, and the local currency is the rupee. The majority of people reside in rural regions, where cotton is the primary export and chemical products are the primary import. Agriculture is the primary occupation of the population and provides sixty percent to the nation's GDP (Gudaro, & Muhammad 2010). Acknowledging the literature non-linear estimation methods are considered on contractionary currency devaluation (Iqbal, et al., 2022). Previously scholarly work opened transitioning economic context. This work based nonlinear Smooth Transition Regression model to investigate the transiting variables meaning that regime gauge to be included in the current study model. The said dimensions are not studied previously in literature in connection of country by employing STR model in time span. This work-based time series annual data from 1975 to 2018 for the study countries by utilizing the semiannual data generated for the described source (Anderson, 2013; Ewan Anderson & Anderson, 2013).

1.1 | OBJECTIVES OF THE STUDY

- To structure the sign and size designated to exchange rate depreciation the central objective of this work having the home currency unit under exchange rate as foreign currency along with negativity exchange rate coefficient sign depicts contractionary
- To insight the volatility affect in condition to short- and long-term durations

1.2 | SIGNIFICANCE OF THE STUDY

This study's significance lies in the fact that the underlying causes of the persistent swings in the exchange rate, as well as the most efficient methods for controlling those elements, will finally be laid bare for scrutiny and evaluation. Importantly, this research would aid the government and the central bank in drawing attention to the benefits and drawbacks of each conversion scale system, which would enable them, create an effective exchange regime conditioned to the unique characteristics under study economies. This will help the economy thrive in a sustainable way. This research will serve as a foundation for future studies on the same topic. This research adds to a less constrained method that use a nonlinear function to account for the fact that the impact of real depreciations on growth varies with the behavior of other key economic variables.

2 | LITERATURE REVIEW

In a poor economy at that time, the hunt for a realistic exchange rate via currency devaluation was inevitable to produce inflationary pressures. This is because the majority of the products that were imported did not have a near local replacement. Soludo (1993), stated unequivocally that even the Chicago and Cambridge Schools of Economics, though they differ over their views on the functioning of economic systems, they nevertheless agreed that deliberate adjustments of exchange rate is not an appropriate method of structural change because such generate inflation (Ojuolape, Agboola, Moshood, & Abdullah, 2020).

Pakistan has the world's fifth-biggest population at over 220 million, making it the world's 22nd-largest economy when measured in terms of PPP purchasing power parity and the world's 45th largest when measured in terms of

nominal GDP. PPP GDP per capita of \$5,839 in 2021, placing it in the top 132 countries worldwide, compared to its nominal GDP per capita of \$ 1,543 in 2020–2021. Pakistan is a country in transition. They have a semi-industrial economy, with the Indus River serving as a growth corridor. Leather, textiles, sportswear, rugs, and chemicals are the main exports (Pakistan growth report, 2021).

The World Bank reported in 2005 "Pakistan was the top reformer in the region and the number 10 reformer globally – making it easier to start a business, reducing the cost to register property, increasing penalties for violating corporate governance rules, and replacing a requirement to license every shipment with two-year duration licenses for traders (SBP report, 2021) Before the managed float system was implemented in 1982 by the administration of General Zia-ul-Haq, the Pakistani currency, the rupee, was fixed in relation to the British pound. The value of the rupee dropped by 38.5% between the fiscal years of 1982–1983 and 1987–1988, and the cost of importing raw materials shot up precipitously as a direct result of this. This strained Pakistan's budget and damaged a sizable section of the country's manufacturing sector. Up until the turn of the century, the Pakistani rupee depreciated against the US dollar. Rupee appreciation against the dollar was a result of Pakistan's large current account surplus (Saleem, Saleem, & Awan, 2022). The SBP then bought dollars and decreased interest rates to maintain the stability of the currency exchange rate, helping to keep the country's exports as competitive as feasible (Mangi, 2018).

After the elections, 2008 was dubbed a bad year for the rupee since its value dropped by 23% between December 2007 and August 2008, reaching a record low of 79.2 versus the US dollar. The enormous current and trade accounts deficits that had been building up ever since the credit boom in Pakistan after 2002 were the primary factors that contributed to this devaluation. As a result of increasing militant activity in the NWFP and FATA regions, foreign direct investment started to decrease, and the structural difficulties of the balance of payment were brought to light; foreign currency reserves sank to as low as \$2 billion, which was a disastrously low level. Nevertheless, by February of 2011. A record sum of \$17 billion is current foreign exchange reserves sitting of a country. More than \$10 billion of that was interest-bearing debt that needed to be repaid (Economic Times, 2019).

In February of 2016, one dollar was worth Rs 104.66 in terms of the Indian rupee. After holding discussions with the IMF, Pakistan agreed in December 2017 to allow the rupee to be devalued. The State Bank of Pakistan (SBP) would henceforth permit the exchange rate to fluctuate in response to market forces. This came after the SBP had resisted market expectations for many months, if not years. The Pakistani rupee reached a new record low against the US dollar of 128.26 on July 18, one day after reaching a new record low of 110.67 against the US dollar. On June 26, 2019, it reached a new record low against the dollar by falling to 161.50. On the 12th of March 2021, 1 USD was equal to 157.15 PKR. Since then, it has been making progress toward recovery (Hyder, 2019).

2.1 | EXOGENOUS GROWTH THEORY

According to the concept of exogenous growth, which is a central tenet of neoclassical economic theory, economic development is driven by technical advancement regardless of the influence of economic factors. For the purpose of forecasting future economic expansion, the exogenous growth model takes into account output levels, rates of savings, declining returns on capital, and technical advancements. Both the exogenous and endogenous growth models place an emphasis on the significance of technical advancement in relation to the achievement of long-term economic development. A key distinction between the endogenous growth model and the exogenous growth model is that the endogenous growth model proposes that forces operating inside an economic system are responsible for producing an environment conducive to technological advancement (Ceyhan, & Gürsoy, 2021; Momodu & Akani, 2016).

According to the exogenous growth hypothesis, the factors that contribute to economic expansion are seen to be exogenous to the economy. The fundamental presumption is that economic well-being is predominantly controlled by variables that are external to the economy and are independent of one another, as opposed to internal elements that are reliant on one another.

The neoclassical paradigm was the foundation for the idea of exogenous growth, which refers to expansion that is not caused by internal factors. The exogenous growth model analyses economic expansion by taking into account variables such as production, the rate of savings, the declining return on capital, and technical advancements (Sims, 1980).

3 | METHODOLOGY

3.1 | MODEL SPECIFICATION

The econometric form of equation takes the following form in general:

$$\Delta GDP = f(\Delta F.R, \Delta G.S, \Delta INF, \Delta M.G, \Delta R.Ex, \mu t) \dots \dots \dots (i)$$

From the above equation (i) economic growth depends on government spending, inflation, money growth or money supply, real exchange rate and foreign exchange reserves

as it relates to this study may be specified in log linear form as follows.

$$\ln RGDP_t = a_0 + a_1 \ln F.R_t + a_2 \ln G.St + a_3 \ln INF_t + a_4 \ln M.G_t + a_5 \ln R.Ext + + \mu t \dots \dots (i)$$

Where:

ΔGDP = economic growth.

$\Delta F.R$ = foreign exchange reserves as a share of GDP.

$\Delta G.S$ = the growth in government demand for goods by govt expenditures.

ΔINF = rate of inflation.

$\Delta M.G$ = rate of money growth.

$\Delta R.EX$ = real exchange rate.

μt = Independent normal distribution with a mean of zero ($x=0$). Since this is a constant parameter, an identical distribution holds at every point in time.

3.2 | HYPOTHESES

It is hypothesized that,

H1: the depreciation has significant effect on GDP/economic growth.

$$\Delta e / \Delta GDP \neq 0$$

H2: the growth in government demand for govt expenditures has effect on GDP/economic growth $\Delta G.S / \Delta GDP \neq 0$

H3: the rate of money growth has impact on GDP/economic growth.

$$\Delta M.G / \Delta GDP \neq 0$$

H4: the inflation has impact on GDP/economic growth.

$$\Delta INF / \Delta GDP \neq 0$$

H5: the foreign exchange reserves have effect on GDP/economic growth.

$$\Delta F.R / \Delta GDP \neq 0$$

H4: the real exchange rate has effect on GDP/economic growth.

$$\Delta R.EX / \Delta GDP \neq 0$$

4 | ANALYSIS AND RESULTS OF PAKISTAN

Table 1

ADF Test for Pakistan

Variables	ADF (Level)		ADF(1 st Difference)		Conclusion (Order of Integration)
	Intercept		Intercept		
	t-Statistic	Prob	t-Statistic	Prob	
LPGDP	-1.441	0.550	-6.134	0.000	I(1)
LPF.R	-0.956	0.760	-6.015	0.000	I(1)
LPG.S	-0.026	0.950	-5.508	0.000	I(1)
LPINF	-3.658	0.008	-7.456	0.000	I(1)
LPM.G	-4.660	0.000	-3.890	0.000	I(0)
LPR.Ex	-0.079	0.945	-4.881	0.000	I(1)

The results of estimated values of ADF (Augmented Dickey Fuller test with intercept for the Bangladesh, Pakistan, India, Nepal, Srilanka, Bhutan and Maldives has been given respectively, which states that the considered variables are stationary at zero level and 1st difference no one series or variable is stationary at 2nd difference which states that the null hypothesis which is presence of unit root was rejected in favor of their alternate hypothesis of no unit

root. Consequently according to the result of stationarity test it is reported that in current study all the under considered variables for all the reported countries are said to be integrated of order one I(1) or order zero I(0).

4.1 | LONG RUN ANALYSIS FOR PAKISTAN

The one of the objectives of study is to find long run relation between the economic development and independent variable through estimated ARDL model with 5 lag of all variables, the result of ARDL model to find out the long run relationship between GDP, inflation, foreign exchange reserves, government spending, money growth and real exchange rate of South Asian Association Regional Cooperation e.g. India, Pakistan, Bangladesh, Nepal, Bhutan, Maldives and Afghanistan. Afghanistan is excluded due to certain reasons for analysis. The study of long run coefficient of econometric model by ARDL Autoregressive Distributive Lag. The long run form of model and results are given in tabular form for India, Pakistan, Nepal, Maldives, Bangladesh, Bhutan and Srilanka respectively.

Table 2

Dept. Variable: LPGDP		Dynamic regressor (5 lags): LPF.R LPINF LPM.G LPG.S LPR.Ex		
Selected Model: ARDL (5,5,5,1,5,5)		Included observations: 39 after adj.		
Sample 1975-2018		Co-efficient		
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LPF.R	0.985907	0.007297	135.1056	0.0000
LPINF	0.004627	0.001984	2.332081	0.0525
LPM.G	0.002879	0.001788	1.610469	0.1513
LPG.S	0.006102	0.004984	1.224381	0.2604
LPR.Ex	0.011534	0.004725	2.441079	0.0447
C	-0.078072	0.038637	-2.020633	0.0831

The finding of result indicates that the coefficient of foreign exchange reserves is 0.985907 which is significant (prob. 0.0000) which is less than 0.5 and have 1% level of significance shows that have +ve and also significant effects on GDP of Pakistan also indicates that 1% increase in foreign exchange reserves will raise the 0.985907% GDP of Pakistan. The coefficient of inflation for Pakistan is 0.004627 and probability is 0.0525 which is less than 0.5 and have 5% level of significance so the effect of INF. on GDP is also significant in long term also indicates that 1% increase in inflation will raise the 0.004627% GDP of Pak. The coefficient of money growth reported as 0.002879 which is found significant at 10% level with probability 0.1513 which is less than 0.5 this indicate that 1% up in money growth may cause an increase of 0.002879 percent in GDP of Pakistan. The coefficient of government spending is 0.006102 that is found significant at 10% of significance level with prob. Of 0.2604 which indicates that 1% up in government spending would cause a rise of 0.006102% in GDP of Pakistan. The coefficient of R.Ex is negative have value of 0.011534 with prob. 0.0447 which is less than 0.5 and have 5% level of significance so the effect of inflation on GDP is also significant in long term also indicates that 1% increase in inflation will raise the 0.011534% GDP of Pakistan . The results illustrated in table 4.8 of current study for long run effect of CD on GDP in line with for inflation same as, Alasha (2020), for money growth exchange rate and government spending are Mohsen Bahmani-Oskooee1 and Ilir Miteza (2006), have significant short run and insignificant long run results.

4.2 | SHORT TERM ANALYSIS RESULTS FOR PAKISTAN

In Table 4.9, the result of the ARDL Error Correction Mechanism (ECM) is presented for selected model to obtain short run effect for SAARC countries. This representation incorporates both the long-run and short-run dynamics. The coefficients of all variables in these ECM models signify the short-term effects of currency devaluation on the economic growth variables included in the ARDL-ECM form of the operational econometric models. It is noteworthy that the coefficient of the ECM term (-1) indicates the speed of adjustment from a short-term deviation back to the long-term equilibrium relationship. The coefficient of the ECM term should have a negative sign and be statistically significant at the specified significance level. Its significance validates the long run effect is present for Pakistan. In the absence of a significant and negative coefficient, a long term relation wouldn't be existing between the GDP and devaluation of currency.

Table 3
ARDL Error Correction Mechanism

Dept. Variable: LPGDP		Dynamic regressor (5 lags): LPF.R LPINF LPM.G LPG.S LPR.Ex		
Selected Model: ARDL (5,5,5,1,5,5)		(6 lags, automatic)		
Sample 1975-2018		Included observations: 39		
Variable	Coefficient	Std. Error	t-Statistic	Prob
LPF.R	0.985907	0.007297	135.1056	0.0000
LPINF	0.004627	0.001984	2.332081	0.0525
LPM.G	0.002879	0.001788	1.610469	0.1513
LPG.S	0.006102	0.004984	1.224381	0.2604
LPR.Ex	0.011534	0.004725	2.441079	0.0447
C	-0.078072	0.038637	-2.020633	0.0831

Variable	Coefficient	Std. Error	t.Statistic	Prob
D(LPGDP(-1))	189.2975	18.07175	10.47477	0.0000
D(LPGDP(-2))	146.4019	18.51265	7.908203	0.0001
D(LPGDP(-3))	85.31387	9.838329	8.671582	0.0001
D(LPGDP(-4))	18.52599	2.330633	7.948910	0.0001
D(LP.F.R)	-80.71209	11.64717	-6.929758	0.0002
D(LP.F.R(-1))	-145.4595	18.42376	-7.895211	0.0001
D(LP.F.R(-2))	-85.33197	9.852325	-8.661100	0.0001
D(LP.F.R(-3))	-18.67096	2.325888	-8.027459	0.0001
D(LP.F.R(-4))	-0.364958	0.063000	-5.792831	0.0007
D(LPINF)	0.246880	0.065772	3.753572	0.0071
D(LPINF(-1))	0.072710	0.056747	1.281304	0.0809
D(LPINF(-2))	0.173971	0.064754	2.686655	0.0312
D(LPINF(-3))	-0.282891	0.078392	-3.608687	0.0086
D(LPINF(-4))	-0.108201	0.059567	-1.816439	0.0792
D(LPM.G)	0.243287	0.051287	4.743676	0.0021
D(LPG.S)	-2.756448	0.333226	-8.272002	0.0001
D(LPG.S(-1))	-3.731633	0.383536	-9.729558	0.0000
D(LPG.S(-2))	-5.258817	0.556733	-9.445852	0.0000
D(LPG.S(-3))	-4.248988	0.475417	-8.937397	0.0000
D(LPG.S(-4))	-1.792593	0.328281	-5.460549	0.0009
D(LPR.Ex)	-7.403863	0.591945	-12.50769	0.0000
D(LPR.Ex(-1))	-7.959112	0.982997	-8.096785	0.0001
D(LPR.Ex(-2))	-1.863796	0.525160	-3.549007	0.0094
D(LPR.Ex(-3))	-1.667945	0.535921	-3.112295	0.0170
D(LPR.Ex(-4))	-2.044226	0.433790	-4.712480	0.0022
CointEq(-1)*	-110.4112	-110.4112	-11.04768	0.0000

R-square	0.973453	Mean dependent var	-0.061686
Adj. R-square	0.922400	S.D dependent var	0.331636
S.E of regression	0.092383	Akaike info criterion	-1.691024
Sum square resid	0.110950	Schwarz criterion	-0.581982
Log likelihood	58.97496	Hnnan-Quinn criterer	-1.293109
Durbin-Watson stat	2.223619		

Result calculated from estimating ARDL Error Correction Mechanism (ECM) form is as follows.

The findings of the results implies the coefficient of foreign exchange reserves of current year is -80.71209 which is significant at 1 percent level and at 1 year, 2 year, 3 year and 4 year earlier the coefficient are -145.4595, -85.33197, -18.67096 and -0.364958 with the result of probability of 0.0001, 0.0001, 0.0001 and 0.0007 which all are significant on 1% level which also indicates that 1% increase in foreign exchange reserves will decline the GDP by 80 percent in current year and 1 year earlier decline 145.4595%, 2 year earlier decline by increasing 1% will be

85.33197, 3 year earlier decline by rise of 1 % increase will 18.67096% and 4 year earlier decline will be 0.364958% by increase 1% forex will cause decline in GDP.

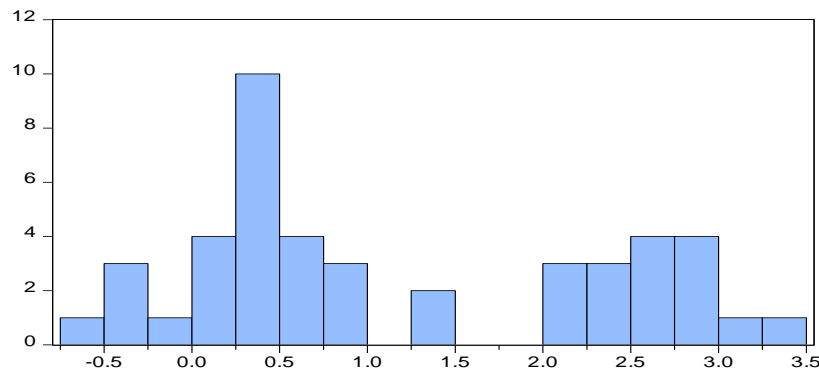
The coefficient of inflation for current year is 0.246880 at 1percent significance level (prob. 0.0071) indicates that 1% increase in inflation may rise the GDP of Pakistan by 0.246880% in current year while for 1 year, 2 year, 3 year and 4 year earlier the coefficient is 0.72710, 0.173971, -0.282891 and -0.108201 at 5%, 1percent, 1%, and 5% level of significant (prob. 0.0809, 0.0312, 0.0086 and 0.0722) respectively. The result shows that 1% coming increase in inflation may result in rise of 0.72710 and 0.173971 percent for 1 year and 2 year earlier while decline of 0.282891 and 0.108201 percent for 3 year earlier and 4 year earlier. The coefficient of money growth in current year is 0.243287 on 1% significance level (prob. 0.0021) shows that 1% rise in money growth will cause rise of 0.243287% in GDP of Pakistan. The coefficient of government spending for current year is -2.756448 at 1% of significant level (prob. 0.0001) shows 1% increase in government spending may cause decline or downfall of 2.756448 percent while for 1-year earlier decline will be 3.73133 and 2 year earlier 5.258817 percent decline, 3 year earlier 4.248988 percent and 4 year earlier 1.792593 percent decline in GDP will occur on 1% increase in government spending. The R.Ex is significant at 1% of level has prob. 0.0000, 0.001, 0.0094 for recurring year, 1 year and 2 year earlier, while on 1% level of significance for 3 year earlier (prob. 0.0175) and for 4 year earlier it is significant at 1% level (prob. 0.0022). The obtained results indicate the downfall of 7.403863, 7.959112, 1.863796, 1.667945 and 2.044226 percent in GDP of Pakistan by raising 1% of real exchange rate. The results of all variables are significant mostly at 1% level while rarely on 5percent, negative sign shows that all the under studied variables of currency devaluation indicators have negative effect on E.G of Pakistan. The results of present study is similar to a few are selected as indicators.

4.3 | DIAGNOSTIC TEST FOR PAKISTAN

The diagnostic test for the selected model provides results by serial correlation LM (ARCH effect and Breusch-Pagan- Godfrey) and also the Normality test (Jarque-Bera), are presented. The corresponding figure also displays these results. These diagnostic tests were conducted on the version of the ARDL operational econometric model, and all the tests passed, indicating that the model meets the necessary assumptions of the test.

Table 4

Breusch-Godfrey Serial Correlation LM Test			
F-statistic	5.986272	Prob. F (5,2)	0.1493
Obs*R-squares	36.55726	Prob. Chi- Square (2)	0.0000
Heteroscedasticity Test: Breusch-Pagan- Godfrey			
F-statistic	1.514054	Prob. F (31,7)	0.2968
Obs*R-squares	33.93842	Prob. Chi- Square (31)	0.3277
Scaled explained SS	1.322340	Prob. Chi- Square (31)	1.0000
Heteroscedasticity Test: ARCH			
F-statistic	0.112931	Prob. F (1,36)	0.0152
Obs*R-squares	0.118832	Prob. Chi- Square (1)	0.0159
Normality Test			



Series: LPGDP	
Sample	1975 2018
Observations	44
Mean	1.194051
Median	0.715156
Maximum	3.408206
Minimum	-0.579818
Std. Dev.	1.178721
Skewness	0.353158
Kurtosis	1.650207
Jarque-Bera	4.254842
Probability	0.119144

In Table 4.10, the results of the diagnostic tests, including the Heteroscedasticity test (Breusch-Pagan Godfrey), Serial Correlation LM test (Breusch-Godfrey), and ARCH effect, are presented. The probability values associated with these tests are found to be statistically significant. This suggests that the various versions of the ARDL operational econometric model for Pakistan do not successfully pass the diagnostic tests for issues such as, ARCH, serial correlation and heteroscedasticity effect. Additionally, the prob. value for the Jarque-Bera, indicates that the residuals from the regression follow a normal distribution. This probability value of 0.119 is greater than 0.05, further supporting the notion of normal distribution of the residuals.

5 | CONCLUSIONS

The findings of study elaborates that all the results of all those selected series e.g. GDP, Forex, Inflation, Real Exchange Rate, Money Growth, and Government Spending are satisfactory and Jourque Berra results shows that data of all series are equally distributed. so for further the ARDL approach is applied to co-integrate the further results in long run and short run aspect. Multicollinearity test i.e. variance inflation factor is employed in order to find the correlation among the independent variables. The results of suggested test were within the limit and maximum series showed the relation limit < 10 so the further analysis was performed and lead to ARDL approach.

While analyzing the result for Pakistan in long run context all the selected independent variable of C.D. (INF, F.R M.G., G.S., R.Ex have +ve effect on economic growth and all the variables have probability less than 0.5 so the effect of C.D. on E.G. is significant in case of Pakistan same as long run, the short run results for Pakistan is also significant and have great impact on economic growth of country with fluctuating sign of +ve and -ve effect in varying situation. Naturally this model may cause difficulty in obtaining the effects when the economy of selected countries goes changes that are structural and also in transition state. So the STR model is said to be quite good at handling changes in regime but not for systemically occurred economic fluctuation

6 | LIMITATION OF THE STUDY

Despite the fact that the study's goals were successfully met, it still had a number of issues that prevented it from being completed successfully. The following is just one of them: The growth model chosen is limited to a particular set of variables and excludes the economy's cyclical or seasonal fluctuations. Present research has its own limitations since it is only applicable to developing nations like Pakistan. The study has included measuring growth with single proxy (GDP) only; other researchers should consider using multiple variables that explain the growth in an economy. Also, the study focused on developed and their comparison so that the future researchers should add the scope to cover the broader measures.

REFERENCES

- Alasha, R. U. (2020). The impact of exchange rate fluctuations on economic growth in Nigeria: A Project submitted in partial fulfilment of the requirements for the award of bachelors of science (B.Sc.) Degree In Economics
- Alobied, A. A. (2022). Currency devaluation policy and its shari 'ah rulings. *Journal of Sharia & Islamic Studies*, 37(128). <https://doi.org/10.34120/0378-037-128-008>
- Anderson, V. (2013). *Research methods in human resource management: investigating a business issue*. Chartered Institute of Personnel and Development.
- Bouvet, F., Bower, R., & Jones, J. C. (2022). Currency devaluation as a source of growth in Africa: A synthetic control approach. *Eastern Economic Journal*, 1-23. <https://doi.org/10.1057/s41302-022-00211-4>
- Ceyhan, T., & Gürsoy, S. (2021). The j-curve hypothesis: an analysis for Turkey. *Gümüşhane Üniversitesi Sosyal Bilimler Dergisi*, 12(3), 1169-1181 Retrieved from <https://dergipark.org.tr/en/pub/gumus/issue/65088/948428>
- Cheng, K. M. (2020). Currency devaluation and trade balance: Evidence from the US services trade. *Journal of Policy Modeling*, 42(1), 20-37. <https://doi.org/10.1016/j.jpolmod.2019.09.005>
- Economic Times. (2019). Pakistan rupee drops in likely devaluation after IMF bailout. Retrieved From: <https://EconomicTimes.Indiatimes.Com/Markets/Forex/Pakistanrupee-Drops-In-Likely-Devaluation-After-Imfbailout/Articleshow/69360517.Cms?From=Mdr>
- Ewan, W., Anderson, L., Anderson, D. (2013). An atlas of Middle Eastern Affairs. *Routledge*. P. 5. ISBN 978-1-136-64862-5.,
- Gudaro, A. M. (2010). Impact of foreign direct investment on economic growth: a case study of Pakistan. *Journal Of Management And Social Sciences*. 6(2), 86.

- Hyder, K. (2019). Pakistan IMF Deal: Rupee To Be Devalued Against Dollar. Retrieved 1 September 2019,
- Imimole, B., & Enoma, A. (2011). Exchange rate depreciation and inflation. *Business and Economics Journal*, Pg.1-12.
- Iqbal, M. A., Nadim, N., & Akbar, Z. (2022). Determinants of recent inflation in pakistan and its relation with economic growth: An econometric analysis. *Pakistan Journal of Humanities and Social Sciences*, 10(1), 345-353. <https://doi.org/10.52131/pjhss.2022.1001.0202>
- Khan, M. F. H. (2021). Impact of exchange rate on economic growth of Bangladesh. *European Journal of Business and Management Research*, 6(3), 173-175. <https://doi.org/10.24018/ejbmr.2021.6.3.891>
- Krugman, P., & Taylor, L. (1978). Contractionary effects of devaluation, *Journal of International Economics*, 8, 445–456.
- Mangi, F. (2018). Pakistan devalues rupee fifth time this year amid IMF Talks. Retrieved 23 September 2019, From <https://www.bloomberg.com/news/articles/2018-11-30/pakistans-rupee-falls-in-apparent-devaluation-amid-imf-talks>.
- Mohsen, B., & Miteza, I (2006). Are devaluations contractionary? Evidence from panel cointegration economic Issues, Vol. 11, Part 1,
- Momodu, A. A., & Akani, F. N. (2016). Impact Of Currency Devaluation On Economic Growth Of Nigeria International Journal Of Arts And Humanities (IJAH) Bahir Dar- Ethiopia Vol. 5(1), S/No 16, Pg. 151-163.
- Odionye, J. C., & Chukwu, J. O. (2021). The asymmetric effects of currency devaluation in selected sub-Saharan Africa. *Economic Annals*, 66(230), 135-155. <https://doi.org/10.2298/EKA2130135O>
- Ojuolape, A., H Agboola, Y., K Moshood, A., & Abdullah, O. (2020). The effects of currency devaluation on output growth in developing economies with currency crises (No. 7). Department of Economics, University of Ilorin.
- Pakistan Growth (2021). To hit decade high". Wionews.Com. 24 May 2021. Archived From The Original On 24 May 2021. Retrieved 24 May 2021.
- Sahil, A. S. A. (2015). Currency crashes in emerging markets: An empirical treatment. *Journal of Financial Management And Economics*, 41, 351– 366.
- Saleem, R., Saleem, R., & Awan, A. G. (2022). A nexus between devaluation and inflation in Pakistan. *Pakistan Business Review*, 23(4). <https://doi.org/10.22555/pbr.v23i4.508>
- Sims,(1980). A comparison of interwar and postwar business cycles: monetarism reconsidered", amsterdam, elsevier science, and *Journal Of Economic Review*, Annual Papers And Proceedings 70, P 250-257,
- Soludo, C.C. (1993). Theoretical basis for the structural adjustment programme in Nigeria: Two Alternative Critiques. *The Nigerian Journal Of Economic And Social Studies*, 35(1), 49 –63