



Volume and Issues Obtainable at Center for Sustainability Research and Consultancy

**Review of Economics and Development Studies**

ISSN:2519-9692 ISSN (E): 2519-9706

Volume 2: Issue 2 December 2016

Journal homepage: [www.publishing.globalsrc.org/reads](http://www.publishing.globalsrc.org/reads)**Foreign influence on Pakistan's exports and imports Evidence from Pakistan**<sup>1</sup>Irfan Hussain Khan, <sup>2</sup>Shumaila Hashim, <sup>3</sup>Muhammad Rizwan Yaseen<sup>1</sup>Ph.D. Scholar, Govt Collage University Faisalabad Pakistan, [Irfansial007@hotmail.com](mailto:Irfansial007@hotmail.com)<sup>2</sup>M Phil Scholar, Applied Economics Research Centre, University of Karachi Pakistan, [kshumaila07@gamil.com](mailto:kshumaila07@gamil.com)<sup>3</sup>Assistant Professor, Govt Collage University Faisalabad Pakistan, [rizwany2001@yahoo.com](mailto:rizwany2001@yahoo.com)**ARTICLEDETAILS****History***Revised format: Nov 2016**Available online: Dec 2016***Keywords***Currency,  
Import and export,  
trade,  
Pakistan***JEL Classification**

I12, I15, I18

**ABSTRACT**

The purpose of this study is to investigate the impact of the Pakistani currency phase action on exports and imports. Two time series data base year and quarterly basic research use. Starting from the 1970 annual data for about 40 years, beginning with the beginning of 2000 to 2012 quarterly data. Johnson estimates quarterly observations using common integration techniques. In the current study results show that Pakistan first began trading volume for the US and developed countries, the UK and Europe. As a combination of export and import time Pakistan has improved. Production and manufacture of semi-finished goods and primary product alternatives, while the import of consumer goods, capital goods and petroleum products expanded. Due to low-cost elasticity of the export and import activity of the exchange of theoretical background reaction support. On the other hand, if the value of the rupees fell against the dollar, the import costs rose more than the export bills. In support of this study, Pakistan should focus on a small number of countries to reduce trade and expand trade. Similarly, on the basis of the goods may add some other goods.

© 2016 The authors, under a Creative Commons Attribution-NonCommercial 4.0

Corresponding author's email address: [Irfansial007@hotmail.com](mailto:Irfansial007@hotmail.com)**Recommended citation:** Khan, I. H., Shumaila, H., and Yaseen, M. R (2016). Foreign influence on Pakistan's exports and imports Evidence from Pakistan. *Review of Economics and Development Studies*, 2 (2) 117-128**DOI:** <https://doi.org/10.26710/reads.v2i2.129>**1. Introduction**

Exchange rate as a measure of the level of use of the global competitiveness of the tool. National currency in the national competitiveness index has played an important role in economic stability. Determine the foreign exchange demand and market forces of money supply, market exchange rate. State and monetary authorities determine that the exchange rate plays a major role in the government. Many economists believe that currency devaluation promotes exports and hinders the importation of a country.

The exchange rate of any country is conducive to business, investment motivation, policy and planning decisions. As the exchange rate for two decades has become an important research area. March 1, 1982.

The introduction of floating exchange rates has been considerable development, especially in the post-Bretton Woods era, after which the exchange rate has fluctuated.

In the economic story of Pakistan, they found two important variables, namely, there was no or weak relationship between exchange rate and trade balance, as described by some researchers such as Greenwood (1984), Rose and Yellon), Rahman Mustafa (Case 1996), Rahman et al. (1997), Saadia Badal (2006). From the appreciation of the last century to the Pakistani rupee devaluation against the dollar, Pakistan's large current account surplus, according to the dollar value as high as the rupee. Then, the Central Bank of Pakistan decided to cut interest rates steadily, and is expected to maintain export competitiveness, from the national economy to buy the dollar level. In 1971, the currency of Pakistan was linked to the disconnection in 1982 from the \$ 100 rupee in July 1994.

## **2. Objectives of the Study**

The objection of the study is as follows:

1. Observe the historical trends in the exchange rate of Pakistan and the import and export.
2. Observe the relationship between Pakistan's imports, exports and exchange rates.

## **3. Literature Review**

It contains relevant materials on developed countries, underdeveloped countries and regional countries. Literature is organized in chronological order, so that the development of major theories, concepts and methods can be emphasized.

Hasanov and Samadora (2009) examined the impact of the real exchange rate on non-oil exports to Azerbaijan. Quarterly data for the third quarter of 2002 to the third quarter of 2009 were used. They estimate that the Johnson assessment is based on a long-term relationship cointegration model, however, the short-term momentum has been estimated using the error correction model. They believe that the Azerbaijani economy's gross domestic product (GDP) real exchange rate and no significant impact - oil wool; both in the short and long term. The empirical results show that short-term volatility does not last forever, but it is moving towards long-term equilibrium

Ahmed nearby (2009) examines the impact of exchange rate fluctuations on Bangladesh's international trade. The cointegration and error correction models have been developed for empirical analysis. Importers must use real (in local currency terms), real bilateral exchange rates (between Bangladesh and the US economy) and industrial production indices as quarterly gross domestic product (GDP) data. From May 2003 to December 2008, empirical results show that the real exchange rate will not only lead to short-term, but also have a significant impact on long-term real exports and the Bangladeshi economy. Although the exchange rate fluctuated significantly, exports were gradually increasing. The overall conclusion is that the devaluation of the local currency against major international currencies through Bangladesh's weak import and export economy does not improve trade balance.

He (2010) developed a theoretical model of the dynamic relationship between exchange rate and productivity growth. He merged into a monopolistic competition, non-tradable goods industry. His conclusion is that the currency appreciation caused by the circulation, rather than the endogenous growth of currency depreciation. This may be due to monopolistic competition to provide non-tradable commodity prices to drop its broad truth facts. Currency devaluation due to non-growth, due to the distribution sector and currency depreciation, so the overall turnover exceeds the currency appreciation

Ijaz (2012) studied the effectiveness of the exchange rate of Pakistan's macroeconomic variables. Data were collected from 1980 to 2009. In the case of annual time series data, fixed unit root test, Johnson applied the long-term equilibrium relationship variable, cointegration test, and causality between variables in each model Granger causality test (GCT). The main finding is that there is no common long-term integration between exchange rate and inflation, trade and foreign direct investment, exchange rate and inflation. Exchange rate and trade consolidation, exchange rate and foreign direct investment, but did not find casualties in each case.

Khan et al. (2014) analyzed the impact of exchange rate fluctuations on Pakistan's business partners. Monthly data from January 1970 to December 2009 collected samples of 29 trading partners in Pakistan. Volatility measurement obtained from the GARCH model family. Panel unit root test data has been used to identify nonstationary problems. Classify volatility as long and short term effects. The main results are summarized as follows: First, when Pakistan uses the dollar as a vehicle currency transaction, the impact of trade fluctuations is significant and extremely negative. Compared with these negative effects, export imports are longer. They also found that emerging markets and low-income countries in their own currencies rather than the use of vehicles can reduce the impact of foreign exchange fluctuations. The domestic currency trade avoids the uncertainty and instability of the exchange rate.

### ***Import, Export and Exchange Rate a Profile of Pakistan***

It also contains information about export to and imports from various international markets.

### ***Profile of Pakistan Trade***

This section contains the history of Pakistan's trade status. Foreign trade trends were extensively analyzed. Table 3.1 shows the balance of the payment (BOP) component, from 1981 to 2012, the average of 10 years has been reported to make the analysis as simple as possible to the percentage of GDP.

**Table 3.1 Components of Trade Deficit (As Percent of GDP)**

Year	Export	Import	Trade deficit
1981-90	10.2	17.91	7.76
1991-00	13.37	17.33	3.95
2000-10	12.04	18.34	6.3
2010-11	11.6	18.9	7.3
2011-12	10.5	20.0	9.5

**Source: Pakistan's Economic Survey (various issues)**

#### 4. Research Methodology

This study examines the short-term and long-term relationships between real effective exchange rates, (million rupees), and Pakistan's real value for import and export. There are many ways to analyze, but present research, Kemal & Kadir (2005) program. This process has several advantages. First, it isolates short-term and long-term relationships, ie it highlights the strength of short- and long-term relationships. Secondly, it emphasizes the behavior of the corrective mechanism (if any), that is, in its case, providing information about the trend of balancing the impact on the system. Third, this process is directly related to the theory. Because of the well-known macroeconomic principles, that is, exports, imports and currency changes are interrelated.

I found that the two methods are the covariance relationships between interest variables Engle - Granger and Johansen techniques. Engel-Granger single technology has some drawbacks. However, Johnson's cointegration technology is based on equations, and more powerful Bean Siegel-Granger technology. Thus, Johansen technology was used in this study. The analysis involves many steps. First, the researchers need to determine whether the data is at rest. If the data is still, you cannot use the cointegration of Johansen technology. However, if the data is not fixed and is an integrated order, it can also be used. Secondly, the optimal lag of the simple vector autoregressive model is the second step. The third step is to use the cointegration test to find long-term cooperative efficiency variables.

Finally, a representative vector error correction mechanism is configured to estimate the short-term relationship. More details of these steps are listed. The first step is to find whether the data is at rest or not. There are several variables that can be used to determine the static test. Enhanced - Dickey Fuller (1981), referred to as ADF, literature is more popular test, due to its simplicity and Dickey and Fuller 1981. Mathematically, ADF can be expressed in equation (1) for a time series variable 'Y' below:

$$\Delta y_t = a_0 + \lambda y_{t-i} + a_1 t + \sum_{i=1}^p \beta_i \Delta y_{t-i} + e_t \quad (1)$$

There are three options in equation (1)

- “ $a_0$ ” is the intercept or drift parameter of the time series.
- “ $t$ ” is the time trend in time series. There may be downward or upward linear trend in the data.
- It is also possible that both drifts and time trend exit in the data.

The Augmented Dickey Fuller (ADF) may be carried out for above three options, namely, constant or intercept or drift, time trend or trend and finally both. Selection of appropriate lag length may be decided using Akiak Information Criterion (AIC).

First, direction of causality among variables would be tested using Granger Causality test (Granger, 1969) which is outlined by Karlsson et al., (2002) as given in equation (2) to equation (4)

$$\ln imp_t = a_{10} + \sum_{i=1}^n a_{1i} \ln imp_{t-i} + \sum_{i=1}^n a_{2i} \ln exp_{t-i} + \sum_{i=1}^n a_{3i} \ln er_{t-i} + \varepsilon_{1t} \quad (2)$$

$$\ln exp_t = a_{10} + \sum_{i=1}^n a_{1i} \ln exp_{t-i} + \sum_{i=1}^n a_{2i} \ln imp_{t-i} + \sum_{i=1}^n a_{3i} \ln er_{t-i} + \varepsilon_{2t} \quad (3)$$

$$\ln er_t = a_{10} + \sum_{i=1}^n a_{1i} \ln imp_{t-i} + \sum_{i=1}^n a_{2i} \ln exp_{t-i} + \sum_{i=1}^n a_{3i} \ln er_{t-i} + \varepsilon_{3t} \quad (4)$$

*Lnimp* Log use as imports of Pakistan (Rs in millions). *Lnexp* Log of exports of Pakistan (Rs in millions) and *Lner* Log of exchange rate of rupees verses dollars

Equation (2) into equation (4) is a system of equations. There are two channels it is very important: the exchange rate and export, import rates and import causality. Based on the theory, the exchange rate decisions the goods Different country relative prices. Exchange of a country is likely to import and export through in some assumptions. For example, if a country's currency devaluation, which means that the lower value of exports abroad, and the higher the value of foreign imports. It just Leads to a conclusion that the other conditions remained unchanged, exports increased external demand and a decline in domestic demand for imports. The degree of exchange rate on export and import depends on many factors such as the nature of the goods, the state of global competition.

## 5. Result and Discussion

Exchange rate is the most important macro variables, a country's most important economic policy in promoting China's foreign trade has played a very important role. This study can extend several variables. The VAR model can be extended to the VAR type - the simultaneus equation model, which requires a larger data set for the purpose of estimation.

### Summary

The statistics are shown in December 2000 for three selected variables (Rs 1 billion) in Table 5.1, ie the export and import ratios (as opposed to rupees), logarithm. The average exchange rate was 66.69 rupees per dollar for \$ 48 after the fourth quarter from 2000-12

**Table 5.1: Summary Statistics of Selected Variables**

	Exchange Rate (ER ) (Rs versus US \$)	Log of Exports - LNEXP (Rs million)	Log of Imports -- LNIMP (Rs million)
Mean	66.69654	12.24233	12.18058
Median	60.435	12.30632	12.23563
Maximum	92	12.56603	12.49833
Minimum	51.65	11.6099	11.76492
Std. Dev.	12.3551	0.234959	0.234366
Skewness	0.781148	-0.853791	-0.338577
Kurtosis	2.010606	2.888114	1.583387
Jarque-Bera	7.409277	6.344769	5.341553
Probability	0.024609	0.041904	0.069198

Sum	3468.22	636.6014	633.39
Sum Sq. Dev.	7785.076	2.815498	2.801299
Observations	52	52	52

**Source: Author's calculation, data from State Bank of Pakistan**

The maximum exchange rate of 92%, the lowest exchange rate of 51.65% of the dollar. The standard deviation is a positive deviation of 12.3551,0.78. The average log exports and imports are given by 12.24 and 12.18. The largest export of logs is Rs. 125.6 crore, with a minimum of Rs 11,609,900. The standard deviation of export and import of logs is 0,234,959 and 0,234,366 rupees respectively. Pakistan's skewness coefficient is negative

Export and import. Pakistan's import quarterly standard deviation is lower than the lowest value for the quarter, and exports increase the theoretical parameter, ie, the relative price elasticity of imports. Least developed countries export to primary products to other parts of the world, which is low prices and income elasticity

## 5.2 Estimation of Results

The first step quantitative analysis examines the existence of each variable unit root time series variable. If the time series data unit root evidence then the ordinary least squares (OLS) application is inconsistent and inefficient. If the OLS estimates the fundamental proof of the unit time series data is a pseudo-regression model. In this context, this chapter specifically tests the root of most data units.

There are various unit root tests in the data technology, but it is important to look at the drawings and the enhanced Dickey Fuller (ADF) test. You can build related graphs and ADF tests and the first level differences in the series. There are three options for the ADF test application, ie whether the intercept in the regression equation is in the regression model with or without the trend and intercept intercept and trend. In this case, all possible options for the ADF are analyzed and the results are as follows.

### Table 5.3: Test of Co-Integration

Date: 11/18/14 Time: 18:48

Sample (adjusted): 2001Q1 2012Q4

Included observations: 48 after adjustments

Trend assumption: Linear deterministic trend (restricted)

Series: ER LNEXP LNIMP

Exogenous series: @SEAS(1) @SEAS(2) @SEAS(3)

Warning: Critical values assume no exogenous series

Lags interval (in first differences): 1 to 3

#### Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.470151	43.73070	42.91525	0.0413
At most 1	0.167848	13.24286	25.87211	0.7191
At most 2	0.088034	4.423314	12.51798	0.6803

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.470151	30.48785	25.82321	0.0112
At most 1	0.167848	8.819544	19.38704	0.7428
At most 2	0.088034	4.423314	12.51798	0.6803

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'\*S11\*b=I):

ER	LNEXP	LNIMP	@TREND(00Q2)
-0.448272	-16.47367	-10.63826	0.710122
-0.005935	8.879199	-4.166453	-0.005617
0.041039	-6.118045	11.20179	-0.046603

Unrestricted Adjustment Coefficients (alpha):

D(ER)	D(LNEXP)	D(LNIMP)	
1.475326	-0.006340	0.010240	0.394958
			-0.012162
			-0.023136

1 Cointegrating Equation(s):                      Log likelihood                      10.95724

Normalized cointegrating coefficients (standard error in parentheses)

ER	LNEXP	LNIMP	@TREND(00Q2)
1.000000	36.74927	23.73171	-1.584133
	(6.11086)	(4.48276)	(0.07769)

Adjustment coefficients (standard error in parentheses)

D(ER)	-0.661347
	(0.17727)
D(LNEXP)	0.002842
	(0.00548)
D(LNIMP)	-0.007992
	(0.00646)

2 Cointegrating Equation(s):		Log likelihood	15.36701
Normalized cointegrating coefficients (standard error in parentheses)			
ER	LNEXP	LNIMP	@TREND(00Q2)
1.000000	0.000000	39.99345 (13.9743)	-1.523464 (0.21522)
0.000000	1.000000	-0.442505 (0.36830)	-0.001651 (0.00567)
Adjustment coefficients (standard error in parentheses)			
D(ER)	-0.658806 (0.17420)	-28.10576 (7.27195)	
D(LNEXP)	0.002983 (0.00517)	-0.106327 (0.21575)	
D(LNIMP)	-0.008053 (0.00641)	-0.202782 (0.26773)	

**Source: Author's calculation using Eviews, data taken from State Bank of Pakistan**

The statistical differences between the two structures are zero and the alternative hypothesis. For example, in the tracking statistics, the null hypothesis does not contain a cointegration vector with a cointegration vector and an alternative hypothesis mark greater than zero. If the alternative hypothesis is accepted in the second round, the replacement of the covariate vector is less tested than the null hypothesis. If the air is accepted, the test ends and if the substitution is accepted, the other test of the third round is performed. In the current case, the covariate vector is not rejected and accepts more than zero. In the second round, for the one end and the alternative test, accept the cointegration vector zero.

In most cases – Eigen value statistics, no cooperation, the integrated vector zero is only for a cointegration vector substitution test. If it is accepted, the null test is over and if the test is accepted, proceed to step 2. In the second step, there is only one public integrated carrier zero replacement test with only two. If the air is accepted, the test concludes that if the alternative is to be tested, it will continue in a similar manner until the null hypothesis is unacceptable. In this case, it can be seen that the maximum - calculated statistic is inherently 8.81, resulting in more than 19.38 we accept only a cointegration vector space is low.

The estimated VAR model, based on the covariance test markings in Table 5.4, includes the acquisition of Pakistani import and export dummy variables affected by seasonal factors.

C (2) is the impact of Pakistan's export lag on current exports. This is negative, which means significant if a year lagged exports have a negative impact on the current exports. In addition, if the current annual export growth, it will reduce exports in the next few years.

One, two, four quarterly exchange rate fluctuations have C (8), C (9) and C (10). Although the important factor is personal, but to a lesser extent. A unit of exchange rate changes is lagging behind, bringing logs to Pakistan exports about 0.001095 units change. Other similar explanations are common and effective and can be done.

**Table 5.4: Vector Error Correction Model for Log of Pakistan's Imports as Dependent Variable Using General to Specific Approach**  
Dependent Variable: D(LNIMP)



Method: Least Squares

Date: 11/24/14 Time: 18:20

Sample (adjusted): 2001Q1 2012Q4

Included observations: 48 after adjustments

$$\begin{aligned} D(\text{LNEXP}) = & C(1) * (\text{LNIMP}(-1) - 0.484236805425 * \text{LNEXP}(-1) - \\ & 0.0010834444502 * \text{ER}(-1) - 6.29387705268) + C(2) * D(\text{LNEXP}(-1)) + \\ & C(3) * D(\text{LNEXP}(-2)) + C(4) * D(\text{LNEXP}(-3)) + C(5) * D(\text{LNIMP}(-1)) + C(6) \\ & * D(\text{LNIMP}(-2)) + C(7) * D(\text{LNIMP}(-3)) + C(8) * D(\text{ER}(-1)) + C(9) * D(\text{ER}(-2)) \\ & + C(10) * D(\text{ER}(-3)) + C(13) * @\text{SEAS}(1) \end{aligned}$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.299486	0.124642	-2.402762	0.0035
C(2)	0.567935	0.204820	2.772846	0.0052
C(3)	0.298374	0.100318	2.974395	0.0096
C(4)	0.187309	0.084478	2.217244	0.0312
C(5)	-0.082536	0.030606	-2.696712	0.0903
C(6)	-0.227149	0.119689	-2.897823	0.0655
C(7)	-0.211526	0.078382	-2.760782	0.0065
C(8)	0.021095	0.009208	2.290817	0.0728
C(9)	0.033555	0.015736	2.132355	0.0048
C(10)	0.073429	0.024928	2.945539	0.0005
C(13)	0.127362	0.031745	4.012007	0.0003
R-squared	0.690836	Mean dependent var		0.010217
Adjusted R-squared	0.543765	S.D. dependent var		0.116096
S.E. of regression	0.078417	Akaike info criterion		-2.055492
Sum squared resid	0.227524	Schwarz criterion		-1.626675
Log likelihood	60.33180	Hannan-Quinn criter.		-1.893441
Durbin-Watson stat	1.878474			

**Source: Author's calculation using Eviews, data taken from State Bank of Pakistan**

Pakistani imports affect exports in one, two, three aspects of backwardness. This means that if the log exports grow in wood imports surge. This may be due to the increase in exports of the country means that due to the logical connection of the popularity of Pakistani foreign exchange imports. The second reason may be the impact of channel imports on export earnings. If the re-exports also increase domestic income, this could lead to more imports.

One, two, affecting the level of imports currently lagging behind imports in the third quarter was negative. This means that if the import growth this quarter, imports will decline in the next quarter. These results are significant. The impact of the exchange rate lag, the secondary and tertiary import levels is positive and significant. Import exchange rate impact is greater than export, summary appendix high - twenty three. This means that if the foreign exchange depreciation rupee, each dollar exchange rate rises, the level of imports also rises, and vice versa.

## 6. Conclusions and Recommendations

Quarterly data for the period from 2000 to 2012 to measure the impact of exchange rate fluctuations on Pakistan's imports and exports. I'm measuring millions of dollars, which is the dollar exchange rate and the use of data to measure the 1970 and 2013 data PKR than Xiaotang trend analysis. In its main research, manufacturing and data alertness is estimated to be half of the manufacturing export and import use. Analyze direct exports and imports. Discussed the concentration of import and export.

- Exports of primary commodities have declined over a period of time. This is a positive point.
- Pakistan's exports are mainly concentrated in developed countries. If the developed countries economy suffered any crisis, Pakistan is a direct blow to this crisis.

The econometric model estimates can be summarized as follows:

All time series variables have unit root problems, so using OLS is invalid.

- All time series variables are first-order integrals and the sample size is quite large, so it is easy to apply Johanson co-integration integration techniques.
- The best lag length standard test shows that the lag length can reach three thirds.
- Co-integration tests show that there is no co-integration vector, so there is a long-term relationship between variables.

## 7. Recommendations

Pakistan's exports of primary products or raw materials can be higher in the country to reach the final product ratio. If these final products are exported, this will lead to more foreign exchange earnings than it is now.

- Pakistan's exports are concentrated in developed countries, not only from the perspective of a viable market for the economy. It usually leads to the instability of the national economy in the international economic recession or through political interference in Pakistan. Pakistan may be seeking diversification of exports, which in many markets, not a few, so if the interference of bilateral relations between countries, then the level of economic activity may not be very strong.
- Pakistan's share of imports from large countries and finished products, including capital goods, petroleum products and consumer goods. A country's economic development must be completed capital goods, but it may also be domestic consumer goods. Import substitution and export-oriented economy are the right policy for Pakistan to get out of the crisis.

## References

- Hasanov Fakhri ( 2009 ) “ The Impact of Real Exchange Rate on Non- Oil Exports” An Asymmetric Adjustment toward The Equilibrium, 6( 54 ).
- He, Q. (2010). Expanding varieties in the nontraded goods sector and the real exchange rate depreciation. *Journal of international and global economic studies* , 19-38.
- Keemal .M.A and Qadir .U (2005) The real exchange rate, export and import movemet: 44;2 pp: 177-195.
- Khan .A. J. Azam . P. Syed . H. S ( 2014) “ The Impact of Exchange Rate Volatility on Trade” The Lahore Journal of Economics 19:1 pp 31-66.
- Koray, F., and Lapstrapes. W. D. (1990), “ Real Exchange Rate Volatility and U.S Bilateral Trade: A VAR approach”, the review of Economics and Statistics, 71, 708-712.
- Mustafa Khalid (2004), “Volatility of Exchange Rate and Export Growth in Pakistan”, Department of Economics, University of Karachi, pp. 7.

- Rana Ijaz Ali Khan (2012) “ Effectiveness of Exchange Rate in Pakistan” , Pak. J. Soc.Sci.2012 6(1), 83-96.
- Rehman and Mustafa, (1996) “ The Determination of Pakistan Trade Balance Relationship” The Lahore Journal of Economic.
- Rehman , (1997) “ The Structure and Behavior of Pakistan imports from selected Asian countries” Pakistan Journal 6(1), 53-66.
- Vergil Hasan (2000), “Exchange Rate Volatility in Turkey and Its Effect on Trade Flows”, Journal of Economic and Social Research 4 (1), 83-99