

# Exchange Rate against Dollar- A Challenge for Indian Economic Development

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**ABSTRACT**--This study made an attempt know the role of rupee vs. Dollar impact on Indian economy in the period 2000-01 to 2017-18. The secondary data has been considered and the ADF test has been applied to remove the seasonality effect from the time series data. The bivariate correlation has been applied and found that all the selected economic factors are having a stronger relationship with the currency of rupee with the dollar. The linear regression result stated that the inflation and the exports are positively influenced by the currency. The VAR model predicted that in near future all the selected economic variables are expected to go down if the currency gets depreciated against the dollar. Correlation of rupee vs dollar has been identified to be varying with each of IIP, BOP and Inflation as negatively correlated, moderately correlated and positively correlated respectively. All the above mentioned statistical tests have been used in this study to determine the relationship of the independent variable exchange rate with all other dependent variables considered in the study.

**Key words**-- Currency appreciation; Currency depreciation; Exchange Rate; Indian Economy; Rupee Vs Dollar.

## I. INTRODUCTION

### 1.1 Rupee Vs. Dollar:

The rupee has depreciated by more than 18 percent since May 2011, moreover with the rupee breaching the 53-dollar mark, profit margins of companies that import commodities or components would come under severe pressure, which could result in price increases for the consumer. The rupee depreciation will particularly hit the industrial sector and put stronger pressure on their costs as items like oil, imported coal, metals and minerals, imported industrial intermediate products all are getting affected. Although the prices of most of the imported commodities have fallen, the depreciating rupee has meant that the importer gets no respite as they need to pay more to purchase the same quantity of raw materials. The depreciating rupee would keep the price of imported commodities elevated. Thus the industrial sector is bound to adversely hit the appreciating rupee thus posing a unique set of challenges for the Indian economy. The impact would not be limited to macro economy alone but it will also affect down to the level of firms under various sections of economy.

This study analyzes the relationship between several macro-economic factors & its impact on the rupee exchange rate against dollar. There are many economic factors which are responsible for fluctuations in exchange rate. This study tries to analyse and understand the relationship between several economic variables & their impact on the rupee exchange rate against dollar. The variables considered for the study are, IIP, BOP, GDP, Inflation (WPI), Exports and imports.

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### ***1.2 Need for the study:***

The value of the domestic currency in the foreign exchange market is an important instrument in a central bank's point of view, as well as a key consideration when it sets monetary policy. Directly or indirectly, therefore, currency levels affect a number of key economic variables. So a study on exchange rates helps us to understand and explore currency fluctuations impact on momentum of Indian economy. The present study made an attempt to understand the rupee vs. Dollar fluctuations impact on the selected economic factors.

### ***1.3 Scope of the study:***

The present study has been emphasized on the currency fluctuation impact on the selected economic variables from the period of 2000-01 to 2016-17. This study also enables us to understand whether the relationship exists between the exchange rate and the selected variables. The present analysis is considering the time series data for the following economic variables

- WPI (Wholesale Price Index)
- IIP (Index of Industrial Production)
- GDP (Gross Domestic Product)
- BOP (Balance Of Payments)
- Exports and Imports
- Rupee Vs. Dollar

### ***1.4 Objectives of the study:***

1. To study the relationship between rupee Vs. dollar with selected economic factors
2. To study the impact of exchange rate of rupee against dollar on select economic factors
3. To measure the future growth of exports, GDP, IIP based on rupee Vs. dollar

### ***1.5 Hypothesis of the study:***

**H<sub>0</sub>:** There is no relationship of Rupee Vs. dollar with the select economic factors

**H<sub>0</sub>:** There is no impact of Rupee Vs. dollar on the select economic factors.

## **II. RESEARCH METHODOLOGY**

The present study has been done on the time series data of secondary nature. The study is mainly depending on the historical data of time series nature relating to the econometrics. The E-views of 10 versions statistical tool help has been considered for the study.

### ***Augmented Dicky Fuller Test:***

The historical time series data has been tested for the stationary with the help of ADF test, to remove seasonal effects from the data. The ADF will be applied under the unit root test. The stationary test in level, 1<sup>st</sup> difference and 2<sup>nd</sup> difference level will be computed.

***Bivariate Correlation:***

The bivariate correlation has been applied to know the relationship between the independent and dependent variables. The study has considered the Rupee vs. dollar and economic factors.

***Linear regression:***

The linear regression has been applied between the independent and dependent variables, to identify the impact of the independent variable on the growth movement of dependent variable.

***VAR Model:***

The vector Auto regression model will be applied to know the future direction of the dependent variable with the help of independent variable. In the data tabulation process VAR model has been applied.

### **III. REVIEW OF LITERATURE IN THE CONTEXT OF PRESENT STUDY**

**Edwards (2000)** investigated the dynamic association between exchange rate regimes, capital flows and currency crises in emerging economies. The study draws on lessons learned during the 1990s, and deals with some of the most important policy controversies that emerged after the Mexican, East Asian, Russian and Brazilian crises. He concludes that under the appropriate conditions and policies, floating exchange rates can be effective and efficient.

**Taylor (2001)** discusses the failure of liberalised policies in Argentina. He says that Argentina has failed in maintaining the liberalised policies about capital flows and a firm currency. Argentina had anti-inflation program based on freezing the exchange rate in the early 1990s. This means that the money supply within the country and the supply of credit to firms are tied directly to international reserves. So if the country gets capital inflows, the supply of money and credit increases, leading to a substantial increase in domestic prices.

**Harberger (2003)** studied the impact of economic growth on real exchange rate. He found that there is no systematic connection between economic growth and real exchange rate.

**Husain et al. (2004)** found in their study that little access to international capital is available for the weaker and less developed countries, so low rate of inflation and higher level of durability is associated with fixed exchange rate regime in those countries. However, they found no robust relationship between economic performance and exchange rate regime in the developing economies. They also found that advanced economies may experience durable and slightly higher level of growth rate without higher level of inflation in flexible exchange rate regime

**Simon W LS** in his study found that both exchange rate and current account balance have direct and positive relationships with inflation.

**Due, P, Sen P,** examined the interactions between real exchange rate, level of capital flows volatility of flows, fiscal and monetary policy indicators and the current account surplus for the Indian economy for the period 1993 – 2004. The estimations indicate that variables are cointegrated.

**Steven B Kamin and John H Rogers** in their excellent paper “output and the real exchange rate in developing countries: An application to Mexico” used various VAR models with four main variables (the real exchange rate, output, price index, US interest rate) for 1981-1985 to examine the Mexican quarterly data. Through this they concluded that although the variation of output mostly depends on innovation but at the same time a depreciation shock leads to sustained reduction in the output and an increase in inflation.

#### IV. DATA ANALYSIS AND INTERPRETATION

**Table 1:** To study the relationship between rupee Vs. dollar with selected economic factors

Correlations						
		Exchange rate	IIP	Inflation	Exports	Bop
Exchange rate	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	13				
IIP	Pearson Correlation	-.754**	1			
	Sig. (2-tailed)	0.003				
	N	13	13			
Inflation	Pearson Correlation	0.405	-.800**	1		
	Sig. (2-tailed)	0.17	0.001			
	N	13	13	13		
Exports	Pearson Correlation	.612*	-0.173	-0.368	1	
	Sig. (2-tailed)	0.034	0.592	0.239		
	N	12	12	12	12	
Bop	Pearson Correlation	-0.575	-0.141	0.467	-.741**	1
	Sig. (2-tailed)	0.05	0.662	0.126	0.006	
	N	12	12	12	12	12
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

**Interpretation:**

The bivariate correlation has been applied and the analysis result indicates that the correlation of Rupee vs. dollar with IIP (-0.754) is seemed to be negatively strong correlated, but at same period the rupee vs. dollar with inflation (0.405) is observed to be moderately correlated.

Correlation of rupee vs dollar with exports (0.612) is seemed to be positively strong correlated and with BOP(-0.575) is observed to be moderately negative correlated.

**Table 2:** To study the impact of exchange rate of rupee against dollar on selected economic factors

Sample (adjusted): 4 12	
Series: DGDP DEXCHANGE_RATE	
Lags interval (in first differences): 1 to 1	
Unrestricted Cointegration Rank Test (Trace)	
Hypothesized	
No. of CE(s)	Eigenvalue
None *	0.964671
At most 1	0.13313
Trace test indicates 1 cointegratingeqn(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
None *	0.964671
At most 1	0.13313
Max-eigenvalue test indicates 1 cointegratingeqn(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):	

**Interpretation: -**

The above table indicates the Johansen cointegration test result, which states that the exchange rates data is cointegrated with the Indian GDP historical time series data. The trace test values are observed to be 1 at the 5% significance level. The null hypotheses has been rejected and accepted the alternative hypotheses i.e., data between the Indian exchange rates are having cointegration with the Indian GDP data.

**Table 3:** The exchange rates data is cointegrated with the Indian GDP historical time series data

Sample (adjusted): 4 12	
Included observations: 9 after adjustments	
Trend assumption: Linear deterministic trend	
Series: DBOP DEXCHANGE_RATE	
Lags interval (in first differences): 1 to 1	
Unrestricted Cointegration Rank Test (Trace)	
Hypothesized	
No. of CE(s)	Eigenvalue

None *	0.82862
At most 1	0.236839
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
None *	0.82862
At most 1	0.236839
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):	

**Interpretation: -**

The above table indicates the Johansen cointegration test result, which states that the exchange rates data is cointegrated with the Indian BOP historical time series data. The trace test values are observed to be 1 at the 5% significance level. i.e., data between the Indian exchange rates are having cointegration with the Indian BOP data. The null hypotheses has been rejected and accepted the alternative hypotheses

**Table 4:** The null hypotheses has been rejected and accepted the alternative hypotheses

Sample (adjusted): 4 12	
Included observations: 9 after adjustments	
Trend assumption: Linear deterministic trend	
Series: DEXPORTS DEXCHANGE_RATE	
Lags interval (in first differences): 1 to 1	
Unrestricted Cointegration Rank Test (Trace)	
Hypothesized	
No. of CE(s)	Eigenvalue
None	0.675601
At most 1	0.244934
Trace test indicates 1 cointegration 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
None	0.675601

At most 1	0.244934
Max-eigenvalue test indicates no cointegration 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):	

**Interpretation: -**

The above table indicates the Johansen cointegration test result, which states that the exchange rates data is cointegrated with the Exports historical time series data. The trace test values are observed to be 1 at the 5% significance level. The null hypotheses has been rejected and accepted the alternative hypotheses i.e., data between the Indian exchange rates are having cointegration with the Indian exports data.

**Table 5:** cointegration with the Indian exports data

Sample (adjusted): 4 12	
Included observations: 9 after adjustments	
Trend assumption: Linear deterministic trend	
Series: DIIP DEXCHANGE_RATE	
Lags interval (in first differences): 1 to 1	
Unrestricted Cointegration Rank Test (Trace)	
Hypothesized	
No. of CE(s)	Eigenvalue
None *	0.888004
At most 1	0.048387
Trace test indicates 1 cointegratingeqn(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
None *	0.888004
At most 1	0.048387
Max-eigenvalue test indicates 1 cointegratingeqn(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):	

**Interpretation: -**

The above table indicates the Johansen co-integration test result, which states that the exchange rates data is co-integrated with the IIP historical time series data. The trace test values are observed to be 1 at the 5%

significance level. The null hypotheses has been rejected and accepted the alternative hypotheses i.e., data between the Indian exchange rates are having co-integration with the IIP data.

**Table 6:** The null hypotheses have been rejected and accepted the alternative hypotheses

Pairwise Granger Causality Tests			
Sample: 1 12			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
DEXCHANGE_RATE does not Granger Cause DIIP	9	1.63984	0.3019
DIIP does not Granger Cause DEXCHANGE_RATE		1.56386	0.3149
DEXCHANGE_RATE does not Granger Cause DBOP	9	6.85266	0.051
DBOP does not Granger Cause DEXCHANGE_RATE		2.04421	0.2446
DEXCHANGE_RATE does not Granger Cause DEXPORTS	9	2.20865	0.2258
DEXPORTS does not Granger Cause DEXCHANGE_RATE		2.09211	0.2389
DEXCHANGE_RATE does not Granger Cause DGDP	9	10.2237	0.0268
DGDP does not Granger Cause DEXCHANGE_RATE		2.491	0.1983

**Interpretation:**

Granger causality test has been applied to know the influence direction between the independent variable (Exchange rate) and the dependent variable (IIP). The P value is observed to be non-significant i.e.,  $0.3149 > 0.05$ . Hence, the null hypothesis is rejected the alternative hypothesis is accepted. The Granger causality test indicates that the exchange rate is having the influence on the IIP.

Granger causality test has been applied to know the influence direction between the independent variable (Exchange rate) and the dependent variable (BOP). The P value is observed to be non-significant i.e.,  $0.2446 > 0.05$ . Hence, the null hypothesis is rejected and alternative hypothesis is accepted. The Granger causality test indicates that the exchange rate is having the influence on the BOP

Granger causality test has been applied to know the influence direction between the independent variable (Exchange rate) and the dependent variable Exports. The P value is observed to be non-significant i.e.,  $0.2389 > 0.05$ . Hence, the null hypothesis is rejected and alternative hypothesis is accepted. The Granger causality test indicates that the exchange rate is having the influence on the exports

Granger causality test has been applied to know the influence direction between the independent variable (Exchange rate) and the dependent variable GDP. The P value is observed to be significant i.e.,  $0.1983 > 0.05$ . Hence, the null hypothesis is rejected and alternative hypothesis is accepted. The Granger causality test indicates that the exchange rate is having the influence on the GDP.

**V. REGRESSION ANALYSIS**

**Table 7:** The Granger causality test indicates that the exchange rate is having the influence on the GDP.

Independent Variable: Rupee vs. Dollar				
Dependent variable	Beta	t test	R square	sig.
(Constant)				0.037
IIP	-0.601	-1.627	0.929	0.008
Bop	-0.719	-4.211	0.929	0.004
Inflation	0.213	0.566	0.929	0.009
Exports	0.054	0.189	0.929	0.055

**Interpretation: -**

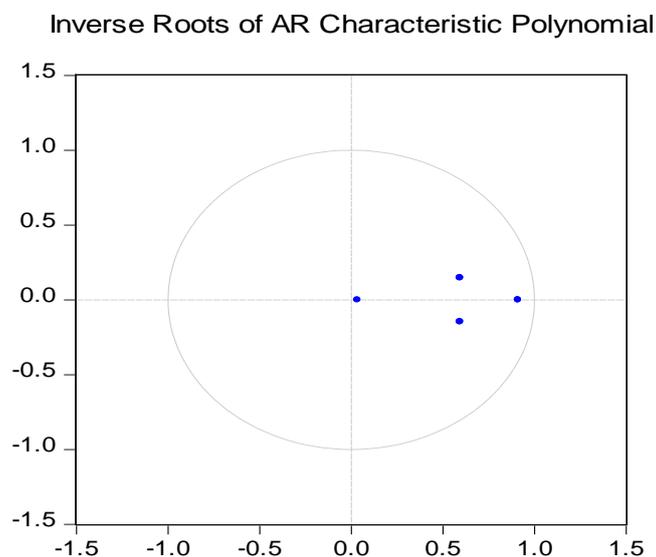
The table illustrates the rupee vs. dollar influence at 5% significant level on the dependent variable IIP, BOP, Inflation, Exports sector during the depreciation of Rupee. The linear regression beta coefficient values are observing to be positive for the sectors namely Inflation and Exports and IIP and BOP seems to be have negative influence with their respective coefficient value as (0.213, 0.054, -0.601, -0.719). Hence concluded that **Null hypothesis has been rejected and Alternative hypothesis has been accepted** i.e., Dependent variable (Inflation and Exports) are having positive influence on rupee vs. dollar (when rupee depreciation) whereas IIP and BOP is having negative influence on Rupee vs. dollar (when rupee depreciation).

**Table 8:** To measure the future growth of exports, GDP, IIP based on rupee Vs. dollar

VAR Lag Order Selection Criteria						
Endogenous variables: RVD IIP GDP EXPORTS						
Exogenous variables: C						
Sample: 1 25						
Included observations: 21						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-133.0445	NA	5.477425	13.05185	13.25081	13.09503
1	-93.18595	60.73680*	0.585889	10.77961	11.77440	10.99551
2	-71.53274	24.74653	0.417403	10.24121	12.03182	10.62982
3	-37.76694	25.72633	0.139878	8.549232	11.13567	9.110555
4	6.734511	16.95293	0.050402*	5.834808*	9.217072*	6.568846*
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

**Interpretation:**

The above table illustrates the VAR lag order selection criterion to know the future growth movement of the economic factors based on the rupee vs. dollar. The analysis result indicated that the all the LR, FPE, AIC, SC and HQ criterions are observed to be indicating the 1 to 4 lag order. Hence it states that the VAR can be applied with the lag of 1, 4 for the optimum model criterion.



**Figure 1:** Inverse roots of ar characteristic polynomial

The above polynomial graph indicates the data distribution among the variables. The AR inverse roots were fallen inside the circle, which states that the data is stated to be normally distributed. Hence it states that the future prediction of the growth movement of the selected economic variables can be predicted based on the Rupee vs. dollar.

**Table 9:** The AR inverse roots were fallen inside the circle

Vector Auto regression Estimates				
Sample (adjusted): 5 25				
Included observations: 21 after adjustments				
Standard errors in ( ) & t-statistics in [ ]				
	RVD	IIP	GDP	EXPORTS
RVD(-1)	0.941622 (0.63521)	0.109193 (0.34972)	0.907995 (1.77520)	0.335609 (0.58518)
	[ 1.48238]	[ 0.31222]	[ 0.51149]	[ 0.57351]
RVD(-2)	-1.474832 (0.98233)	-0.253108 (0.54084)	-0.414908 (2.74530)	-1.398533 (0.90497)

	[-1.50136]	[-0.46799]	[-0.15113]	[-1.54539]
RVD(-3)	1.877936	-0.524384	0.250455	1.404157
	(1.36017)	(0.74886)	(3.80123)	(1.25305)
	[ 1.38067]	[-0.70024]	[ 0.06589]	[ 1.12059]
RVD(-4)	-0.909498	0.865624	-1.048408	-0.850023
	(1.04388)	(0.57473)	(2.91732)	(0.96167)
	[-0.87126]	[ 1.50615]	[-0.35937]	[-0.88390]
IIP(-1)	1.043991	-0.484750	-1.068457	-0.346569
	(0.93785)	(0.51635)	(2.62099)	(0.86399)
	[ 1.11318]	[-0.93881]	[-0.40765]	[-0.40113]
IIP(-2)	0.084664	0.422750	-1.471107	-0.625481
	(0.95056)	(0.52334)	(2.65650)	(0.87570)
	[ 0.08907]	[ 0.80778]	[-0.55378]	[-0.71427]
IIP(-3)	-0.918444	0.374903	0.436860	-0.015151
	(0.60029)	(0.33050)	(1.67763)	(0.55302)
	[-1.52999]	[ 1.13435]	[ 0.26040]	[-0.02740]
IIP(-4)	0.066068	-0.432455	1.456382	0.243093
	(0.73253)	(0.40330)	(2.04718)	(0.67484)
	[ 0.09019]	[-1.07228]	[ 0.71141]	[ 0.36022]
GDP(-1)	0.387418	0.711114	0.511097	1.043474
	(0.16595)	(0.09137)	(0.46378)	(0.15288)
	[ 2.33453]	[ 7.78302]	[ 1.10202]	[ 6.82535]
GDP(-2)	-1.181077	0.274678	0.692886	0.184401
	(0.78083)	(0.42990)	(2.18216)	(0.71933)
	[-1.51260]	[ 0.63894]	[ 0.31752]	[ 0.25635]
GDP(-3)	0.451952	-0.571207	0.944555	0.874578
	(1.00086)	(0.55104)	(2.79707)	(0.92204)
	[ 0.45156]	[-1.03660]	[ 0.33769]	[ 0.94853]
GDP(-4)	0.117239	-0.227782	-0.493324	0.035893

	(0.22648)	(0.12469)	(0.63294)	(0.20865)
	[ 0.51765]	[-1.82674]	[-0.77941]	[ 0.17203]
EXPORTS(-1)	0.211108	0.065731	-0.153964	-0.000246
	(0.43773)	(0.24100)	(1.22332)	(0.40326)
	[ 0.48228]	[ 0.27274]	[-0.12586]	[-0.00061]
EXPORTS(-2)	-0.323488	0.274064	0.256433	-0.024146
	(0.36041)	(0.19843)	(1.00722)	(0.33202)
	[-0.89757]	[ 1.38118]	[ 0.25460]	[-0.07272]
EXPORTS(-3)	0.331920	-0.089195	0.208979	-0.197521
	(0.28679)	(0.15790)	(0.80148)	(0.26420)
	[ 1.15737]	[-0.56490]	[ 0.26074]	[-0.74761]
EXPORTS(-4)	0.040960	0.256222	-0.741190	-0.103323
	(0.40477)	(0.22285)	(1.13119)	(0.37289)
	[ 0.10119]	[ 1.14975]	[-0.65523]	[-0.27709]
C	-0.322364	0.507931	1.497654	0.651584
	(0.38072)	(0.20961)	(1.06399)	(0.35074)
	[-0.84673]	[ 2.42321]	[ 1.40759]	[ 1.85777]
R-squared	0.939736	0.989836	0.881472	0.990587
Adj. R-squared	0.698678	0.949178	0.407362	0.952933
Sum sq. resids	2.093881	0.634704	16.35369	1.777067
S.E. equation	0.723512	0.398342	2.021985	0.666533
F-statistic	3.898389	24.34556	1.859213	26.30773
Log likelihood	-5.589927	6.943032	-27.17199	-3.867346
Akaike AIC	2.151422	0.957806	4.206856	1.987366
Schwarz SC	2.996987	1.803372	5.052422	2.832932
Mean dependent	0.718243	1.558514	1.774958	1.936993
S.D. dependent	1.318047	1.766970	2.626534	3.072291
Determinant resid covariance (dof adj.)		0.004701		
Determinant resid covariance		6.19E-06		
Log likelihood		6.734511		
Akaike information criterion		5.834808		
Schwarz criterion		9.217072		
Number of coefficients		68		

### ***Interpretation***

The above table shows the vector auto regression co-efficient values, where based on the VAR estimation it is evident that the all the selected economic variables future is expected to go down in near future. As the coefficient values are observed to be negative, which states that the Rupee gets depreciates against the Dollar then it will have the negative impact on the growth movement in near future

## **VI. FINDINGS**

1. The study found from bivariate correlation that IIP and Export are having strong relationship with Exchange rate, but IIP observed to be having negative relationship whereas Exports seem to be having positive relationship with Exchange rate.

2. The study also stated from Bivariate correlation that Inflation and Balance of Payment are seem to be have moderate relationship with exchange rate. But Inflation is having negative and BOP is having positive relationship with exchange rate.

3. Granger Causality test stated that selected economic variable such as IIP, Inflation, BOP and GDP are showing causality towards Exchange rate.

4. The study found from OLS method that IIP and BOP are observed to be having Negative influence on Exchange rate which signifies that 1% increase in IIP and BOP, the corresponding value of Exchange rate will decrease by 60.1% and 70.9% respectively.

5. The study also stated form OLS method that Inflation and Exports are seems to be having positive influence on Exchange rate which indicates that 1% increase in Inflation and Exports, corresponding value of exchange rate will increase by 21.3% and 0.5% respectively.

6. The study found from VAR model that the selected variable are normally distributed and state that IIP, exports and GDP are having influence on growth of Exchange rate and play a dominate role in Indian economic growth.

## **VII. SUGGESTIONS**

1. The study observed that the selected economic factors are having the stronger relation with the rupee vs. dollar. Hence the study suggests that the reserve bank should take the proactive steps to strengthen the currency against the dollar, so that it will have the positive impact on the growth of the economic factors.

2. The study found that the BOP is having the negative influence by the currency fluctuations. Hence it is advised to the central government to coordinate with the central bank to stabilize the currency, so that the balance of payment will be strengthened.

3. The currency depreciation is having the negative impact on the growth of the GDP. Hence it advised to focus on the currency fluctuations against the dollar so that the country economy growth indicator GDP will not be affected negatively.

## VIII. CONCLUSION

The study has considered the secondary data from the period of 2000 to 2018. The study has also considered the Indian economic factors which are having the association with the currency fluctuations. The bivariate correlation results stated that the all the selected economic variables are having the stronger correlation with the rupee vs. dollar. The study linear regression has been applied and the result indicated that the Inflation and exports are getting influenced positively. The IIP and BOP are getting affected by the currency fluctuation with the dollar. The vector auto regression model indicated that all the selected economic factors are expected to go down in near future. Hence there is a need to do deeper study in this area by also considering the external economic factors influence on the rupee with the dollar.

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