



**Exchange Rate Fluctuations & Economy of Pakistan, Time series Analysis (1989-2013)**

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**Abstract:**

*Economic stability is remained on topmost priority of every country, and different measures were suggested by the researchers worldwide, by moving on the same track study was carried out to predict the currency valuation factors, data were collected from export promotion bureau, state bank of Pakistan, and ministry of finance for 25 years (1989-2013), by using linear regression; currency valuation as dependent variable, exports, changes in external debt, and total reserves as independent variables and concluded that only the exports of Pakistan is a right predictor of currency valuation of the country which policy makers must have incorporate in formation of economic policies and setting the targets before fiscal policy.*

**Key Terms:** Exports, Currency valuation, changes in external debt, total reserves, embargo.

**Introduction:**

Exports serve as an essential role in Economic wellbeing of any country. Efficiency and wellbeing of economy can be cause of increase in exports and playing mainly in GDP of developing and small countries. Though devaluation of exchange rate would impact the exports, where-as the probability of this trend emerged since 1973 and floating in global trade existed all over the industrial countries. (Cushman, 1983), (Hooper & Kohlhagen, 1978) (Bailey et al (1987) repoted incredible animation and instability of exchange rate movements during 1973 got alert the regulators and researchers to highlights the effec of such movements about trade volume.

Floating exchange rate methods exercised in 1982 in Pakistan. Mean while the period of Instability and stability of exchange rate was trouble free and formal. Import trend of Pakistan across the globe having no large alterations from decades, representing increase in imports through stability in exchange rate. However movements in exchange rate, fluctuates the trend in exports, different exprimental studies justified the inverse relationship between foreign trade and exchange rate fluctuations (Kenen & Rodrik, 1986) (Pritchett, 1991) ,while psitive (Asseery & Peel, 1991) or According (Bailey et al (1987) , (Gotur, 1985) no relationship is determined.

Devaluations of currency indicates to weaken the worth of native currency in associations to foreign coin or gold. This trends mainly seems when countries minimize the space of external balance shortfall, however most economist belives currecnry devaluations would



truly be helpful for economy because the depreciated currency would improve exports and possibility of more jobs by the way would get better economic growth, where same policies being followed by International Monetary Fund (IMF) and the Central Bank of Pakistan to enhance exterior strength encouraging through exports, minimize imports in turn will make better trade and current account Balances. Devaluations primarily debated not as good but finally make better balance of payments.

The rising level of instability and ambiguity about instability of exchange rate from the time of start of the emergence floating during 1973 have directed regulators and researchers to pay the attention of the circumstance and level of the effect of these fluctuations to the size of trade. Though such researches relate with the rate of exchange instability impact about trade streams have given diverse outcome. Beside, Number of researches has concluded that the devaluation of exchange rate would inflict charges on hazard adverse market contributors would normally react through behalf of home to international trade for the profit. The studies reveals trader facing unexpended exchange hazard; if forecasting is unfeasible or expensive and dealer are hazard reluctant, risk familiar anticipated of margin trade will decline if exchange hazard raises.

Elastic structure of exchange rate is pursued in Pakistan since 1982. Volatility of exchange rate was very small at the beginning. Though large emergence of export as comparison to overall global imports rose. Percentage of imports was steady during past 24 years of 1980, lying between lowest of 0.12% and highest of 0.18 % during 1992. Proportion during 2002-2003 was 0.17%. This demonstrates the export size depend upon the exchange rate up and down. According to the empirical research of Kumar & Dhawan, (1991) predicted that the fluctuations of exchange rate of Pakistan's exports having impact on the development of countries since 1974-1985. Fluctuations of exchange rate was investigated by them that negatively effect on demand of export and also examined the influence of 3rd country impact and recommended the other options of Pakistan exports are "Japan and West Germany to the United States and united kingdom".

### **Statement of Problem:**

As everyone from Pakistan and other than Pakistan is aware about the economic conditions prevailing in our country, the exports are increased in documents but the currency is devaluation in comparison with US \$, reserves are too much in record but again facing the same issue of devaluation, position of external debt is going to be worse day by day, keeping in view all above situations study was designed to carryout for the purpose of policy making grounds.

### **Objectives of the Study:**

Objective is single one that is strengthening of the Economic system of the country keeping in view the currency crisis, export, total reserves, and changes in external debt.



### **Justification of Study:**

No doubt that after completion of this study researchers can provide a ground to policy makers for how to tackle the issue of currency crisis/currency devaluation, than after implementation, our holly mother land Pakistan will be on the way to success of achieving the economic goals.

### **Literature review:**

Khan, (2014) Stated that exports of a country is contributing large in the GDP of developing countries as compare to developed countries. Though exports influence in different ways due to fluctuations of exchange rates, further reported that exchange rate directly effect on the actual price of exported products, where the impact of exchange rate instability change across the sectors and have considerably negative effects on trade of a country.

Ahmed et al (2014) expressed that export of country, is one of the main factor representing the economic health of a country. While fluctuating the exchange rates and relative price can affect the level of exports and it is a shocking situation to a country, when exports are influenced by the exchange rates fluctuation (Haseeb & Rubanly, 2014)

Bashir et al, (2013) Concluded that the exchange rate fluctuations of Pakistan, destabilizes the exports with main trade partners and consequently affected the economy and growth of country. So for the purpose of economic development, it's needed either control or forecasts the exchange rates in order to minimize uncertainty having effects on exports of Pakistan and adopted valid strategy to control the ambiguity and uncertainty of exchange rates. Specifically in Pakistan monitory policy must be control to avoid the instability in exchange rate to protect the exporters from risk of loss of their equity.

According Shah et al (2010), more fluctuations of exchange rate, causes the reductions in the trade, further concluded that the positive relationship of exchange rate with export trade, depreciation in the value of a currency impact on export increases of a country. Hasan, (2013) reported that uncertainty of exchange rate impact heavily on trade and economic growth. For economic growth there must be control or forecast for future period uncertainty thus assists the foreign investors to save the reduction in foreign trade.

According to Dincer & Kandil,(2008), positive upset to the exchange rate, is un-anticipated increasing the domestic currency value, which decreases the exports of a country, random fluctuations approximately expected trend produce a symmetric trend on sartorial export in turkey. Humayon, Ramzan, & Ahmed, (2007) Stated that uncertainty in exchange rate increase the costs of production rapidly and reduce the profit hence decline in export of the country. They concluded that, in economic growth exports play a vital role along with development of country, where exchange rate fluctuation affects the



exports. (Yousaf & Sabit, 2015) analyze the of exchange rate fluctuations effect on Asia, further they argued on china's bilateral trade, in which they concluded that the fluctuations of exchange rate effect on export was in elastic, exchange rate elevated by when 1 percent beside export fall by 0.21 percent.

The exchange rate determines the price of domestic as well as foreign goods so its affects the worth and volume of exports sold and in return import bought, and its impact on trade balance (Elwell, 2012). The devaluation of exchange rate protects essentially to guide and enhance the balance of payment (Ahmed, Ahmed, Khoso, Palvishah, & Raza, 2014).

According to Dognalar, (2002) the effect of exchange rate fluctuations on export of five developing countries along with Pakistan in which he concluded that broad relationship exist between the exchange rate and export, further as concluded that exporters are the risk avoider because the exchange rate instability would be reason to exporter to reduce the export in that conditions. Ragoobur & Emamdy, (2011) concluded that positive impact examined for short run while fluctuations in exchange rate expected in long run.

Khan U.( 2013) reported that G.D.P (grass domestic production) and exchange rate showing insignificant impact on Pakistan's export, exchange rate instability impact on price level and trade, either positively or negatively, in his study further he examined that the appreciation of currency may also affect export, and an decrease in currency may increase export temporarily if the demand of export is high in traded country.

Shah et al, (2010) Argued that fluctuations of exchange rate either depreciation or appreciation have different effect on trade, it effects on the price level of the supplies to be exported and also the goods to be imported. The overall balance of export proceeds and that of import payments verify the trade balance of a country and payment it determines the position of current account .Fluctuations of exchange rate creates the uncertainty in the shape of reduce in the trade volume. According to Sandu & Ghiba, (2011) exchange rate instability discourages the international trade. They examined the relation between exchange rate and exports of Romania and further. In which he found there is inverse relation between exchange rate and exports in Romania.

Khan et al, (2014) concluded that devaluation of currency restricted the total supply because of expensive import production units, wages, working capital cost is high and the potential for trade has been decreased. Whereas (Shahzad & Afzal, 2013) examined in their research that devaluation of currency discourage imports of a country as it encourage the export of a country and increases the foreign receipts and saving also assist to improve trade balance and I has expansionary effect on the economy.

Fag, Lai, & Miller, (2009) examined the influence of instability about exchange rate of eight developing countries in comparison to the export of United States and concluded that instability of exchange rate tend to have positive influence on exports those either



negative or positive impact. It has been examined by the different researchers that instability of exchange rate influences the international trade negatively.

The outcomes were considerably vary in term of South Africa like Todani & Munyama, (2005) discovered either the positive impact of instability of exchange rate on exports or in-significant relationship. This gap in outcome was owing to the use of unlike assessment of volatility. The co relationship too assessed of Mauritius export and experimental examination suggested that the effects can be positive provided that for a short run, where fluctuations in exchange rate anticipated depressing effects when analyzed for long run (Ragoobur & Emamdy, 2011) .

Hall et al, (2010) examined that countries financial and monetary development impact the availed outcomes by applying econometric methods in relation to better advanced economies, rising states respond quickly for that instability of exchange rate affects the real economy within short period. While rising economy alike of the one in Romania beside developed alone is further delicate to distress owing to sub-standard effectiveness mechanism and redressed financial assets existing.

At the period of disaster, instability of exchange rate raised due to sever macro-economic disparity. “The contagion effect” considers the “Romanian leu”, becomes insightful fluctuations of the different currencies as of the Eastern Europe .During the similar period, exports relationship is reducing the overseas demand. At this situation the exchange rate have effect on the exports development. Domestic currency is determined by few researchers where reduction might be an essentially (Hall et al, (2010). The idea contradict with vary elements and maintain the reduction of exchange rate might have further negative beside positive influence (Ripoll-i-Alcon, 2010).

Exchange rate instability affected by financial market growth. In such conditions instability having tough insinuation on foreign trade provided growth of market is declined (Aghion, et al, 2009). This thought was given by Rehman & Serletis, (2009) who gave particular consideration to the condition of the association engaged in foreign trade relating hazard of currency. Some important elements highlighted at the time of carrying out an examination of their co-relationship in exchange rate and exports while the emergence of international corporations participated in foreign trade and partners perspectives about the fluctuations of exchange rate.

Bashir et al (2012) analyzed that the strong relationship between unstable exchange rate and the exports of Pakistan in long run. Shaheen, (2013) concluded that the direct impact of exchange rate fluctuations on the Pakistan’s exports. Kandil, (2009) Argued that the currency appreciation effects in improving the trade balance and balance of trade, which has directly effect on increase in the dollar value of exports that dominates the increase in the dollar value of imports and improvement, indicates the stability of balance of trade.

Mohammed, Yusoff, & Sabit, (2015) analyzed that fluctuations of exchange rate have negative impact on trade. According to their findings they recommend that the Asian



nations should maintain the constancy of their two-sided exchange rates with Chinese Yuan as a means to push their exports to China due to the strong economy of china. Yukseli, et al (2013) Analyzed that the fluctuations of exchange rate reduced the international trade, further they argued that depreciation of domestic currency encourages the export, while it was found to adversely effect on imports. In this study they concluded that an increase in exchange rate instability, affected the demands for both exports and imports. (Kandila, Berumentb, & Nergiz Dincerc, 2007) Argued that currency devaluation promote the trade balances largely, which depends on switching the demand in the proper direction and sometime its effect on export increase and export surplus.

Barkhomay,(2011) Stated that exchange rate affected the country's foreign trade and balance of trade. Exchange rate fluctuations have impact on exports and imports of the country and they concluded that exchange rate fluctuations have a major effect on bilateral trade between countries. (NYEADI, ATIGA, & ATOGENZOYA, 2014) Stated that valuation of local currency against, the trading partner countries will lead to exports expensive while import becomes cheaper and depreciation of local currency leads the cheaper export while imports become expensive and depreciation of domestic currency leads higher the domestic production.

Glein.erdal, H, & K,( 2012) concluded that exchange rate variations have a positive and long run impact on export earnings of the production of industrial sector while the depreciation of the currency have expected long run effect on the import of the production of industrial sector and have positive impact on export earnings of the agricultural sector of the country. Thorbecke (2011) surveyed on the relationship between exchange rate and trade between Asian countries. In this they concluded that exports of Asian countries depend on the exchange rate throughout the East and central Asia. Export varies along with exchange rate variations.

Devaluation of currency, lowering the prices of export and raising the import prices, In case of trade is in balance then trade terms and conditions are not changed according the price variations, when imports increase then the exports, it will cause to reduce real income inside the country. Currency devaluation increases the exports and decreases the imports of the country (KANDIL, 2004).

According to Anca GHERMAN, STEFAN, & FILIP, (2013), the relationship of exchange rate and fuels export, capital goods and chemicals as compare is weaker than the relation of exchange rate and food exports. Bristy, (2013) argued that instability of exchange rate movement increased extremely and this lead policy maker to examine the effects of the exchange rate variations on balance of trade. Fluctuations of exchange rate create uncertainty of trade, which reduces the benefits and earnings of international trade. KN & TC, (2011) stated that strong relationship exists among quantities of export, as relative to the price, foreign income and exchange rate variability for long time. Further they stated that exchange rate fluctuations have effect on long and short run exports.



For the Romanian case, Sandu & Ghiba, (2011) analyze the exchange rate relation with the international trade and they concluded that the devaluation of Romanian currency have no or a small effect on exports and its relation with imports is weak as compare to export. (Shah, Mehboob, & Raza, 2010) Analyzed that variations in exchange rate devaluation or valuation of currency, both kinds of fluctuations have impact on the trade; it affects the price level of exported products and also the imported products. The export receipts and the payments of import determine the balance of trade of the country. (Bashir, Hassan, Naseer, & afzal, 2012) Concluded that the uncertainty of exchange rate in Pakistan resulting destabilizing the exports and hence, it may injure the economy.

**Data Collection Methods:**

Data was collected through secondary source information from State Bank of Pakistan, Export Promotion Bureau, and ministry of finance government of Pakistan from year (1989-2013) 25 years data.

**Data Analysis:**

25 years data of currency value in comparison with US \$, export amount in US \$, changes in external debt in US \$, and total reserves of Pakistan in US \$, were collected from above mentioned sources and entered in SPSS-18 for analysis purpose and following statistical tests were made:

Linear Regression and Pearson Correlation

**Hypothesis:**

- H<sub>1</sub> Increasing in the export will surely be the reason of increase in the value of Currency
- H<sub>2</sub> Burden of external debt will have no link with value of currency
- H<sub>3</sub> As the value of reserves increases currency will definitely be valued

**Diagnostic Test:**

$$CV = \beta_0 + E \beta_1 + \Delta ED \beta_2 + TR \beta_3 + \mu$$

**Results and Discussions:**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.929 <sup>a</sup>	.862	.843	9.35004



Keeping in view the diagnostic test and the results the R square shows that the model fit or perfectly fit and good at 86.20% and the variable (s) are rightly predicting the dependent variable, currency valuation.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11499.839	3	3833.280	43.847	.000 <sup>a</sup>
	Residual	1835.890	21	87.423		
	Total	13335.729	24			

And the results of the above table (Analysis of Variance) shows the level of confidence interval: that research results for good ness of model R square (86.20%) are at 99.9999% confidence interval which is very much clear from the significance value of “F” is **0.000**,

Model		Beta	T	Sig.
1	(Constant)		2.842	.010
	<b>Exports</b>	<b>.805</b>	<b>5.092</b>	<b>.000</b>
	Change in External Debt	-.087	-.937	.359
	Total Reserves	.143	.877	.390

Before discussing about the table we are looking at the previous results that our model currency valuation (DV), exports, change in external debt, and total reserves (IVs) are rightly predicting the currency valuation (DV) but from this table it is clear that only the exports are predicting the currency valuation in this model which is positively and significantly related with currency valuation, furthermore looking at the value of beta which shows the strength of relationship i.e. .805 that shows strong effect, and value of t for exports are also significant, but rest of the variables in model shows insignificance means no effect/relation.

### Conclusion:

Currency valuation and devaluation is the core issue of economies which are addressed by policy makers in different ways, looking at the model only the exports are the predictor of currency valuation, which policy makers must have to tackle up in a way that to curtail the imports, create investment opportunities locally funded or foreign direct investment like CPEC now a days, which surely boost the productivity and in the results everything will be managed in a way that; embargo must be launched and due to heavy production exports will surely shoot up and currency will be valued in comparison of other international countries.





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