

Impact of Macro-Economic Factors on Trade Balance in South Asian Region

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Abstract—In business world economic reforms are taking place at an increasing rate throughout the world. The rapid increase in economic growth has many factors behind but globalization is one the most important. Trade is the most important factor of globalization which is associated with broader economic, technological and political forces. The major objective in this study is to investigate the key elements that effect the balance of trade and to see whether they affect the south Asian countries positively or negatively. As most of the south Asian countries facing trade deficit in last several years due to identical goods production and same export market so there is a need to search out the way for trade reforms which affects the trade balance positively. Furthermore, this study aims to suggest some possible measures to bring prosperity in south Asia region. Independent variables used for this study are real effective exchange rate, fiscal balance, real effective exchange rate, foreign direct investment, Foreign exchange reserves, remittances, foreign direct investment and Final consumption expenditures. While trade balance is dependent variable. Group of Researchers aim to collect annual time series data of 7 SAARC countries during the period of 1985 to 2015. Different resources are used to collect data like US International Macro-Economic data set and Bruegel Resources. Econometric Models are used for this Study. So group of Researchers used Pooled OLS regression analysis in order to check the impact of Macro-Economic factors on Trade Balance, it investigates the overall impact on balance of trade.

Keywords- Macro Economic Factors, Balance of Trade

I. INTRODUCTION

A. Trade and Economic Development

In today's business world economic reforms are taking place at an increasing rate throughout the world. The rapid increase in economic growth has many factors behind but globalization is one the most important. It has brought many opportunities for the citizens of different countries but some of them facing decrease in development because of several reasons. However trade is the most important factor

of globalization which is associated with broader economic, technological and political forces.

International trade is playing a vital role in the economic development of various countries and due to its increased importance they have opened their doors for trade through joint trading systems and different regional collaborations. Because of these collaborations and advanced technological systems people of different countries enjoying heavy volume of trade balance. Easy flow of technology due to increased international trade have increased the specialization of labor, which has increased production level and industrialists are getting benefits through economies of scale though increased access to other markets and customer base. In the same way it has made available variety of products and services to the consumer and now they are more satisfied then ever while having satisfied their needs and wants with more customized market offerings and product range.

There are many questions arises about trade such as what is a role of trade in growing of World Economy, what are its challenges and what are the pros and cons. Almost every country in trying to involve in international trade just with the conception that it is always helpful in economic development and welfare of the country. Hence it is common believe that growth and trade depends on each other however it is not proved that whether the exports decrease the trade balance.

“Trade can be a powerful force for growth and poverty reduction. Countries that have increased the share of trade in their GDP have grown faster and reduced poverty more rapidly”.

Increased efficiency of imports provided the domestic firms with easy and cheap raw material which results in low prices and high profits and also in availability of imported good for local consumers (McCulloch, Winters, & Cirera, 2001; Oxfam, 2002). However, Domestic policy setting is the key element in the

progress of domestic markets. In many developing countries private sectors facing many challenges to survive due to inefficient policies. Compound forced system restricting the entry of new firms. In countries with low rivalry, indistinct funds and labor markets

trade liberalizations can't be very effective. The enhancement of trade is linked with income in all participating countries and normal life style of living in those economies that force high costs on reforms or highly control new entrance. (Bolaky & Freud, 2004).

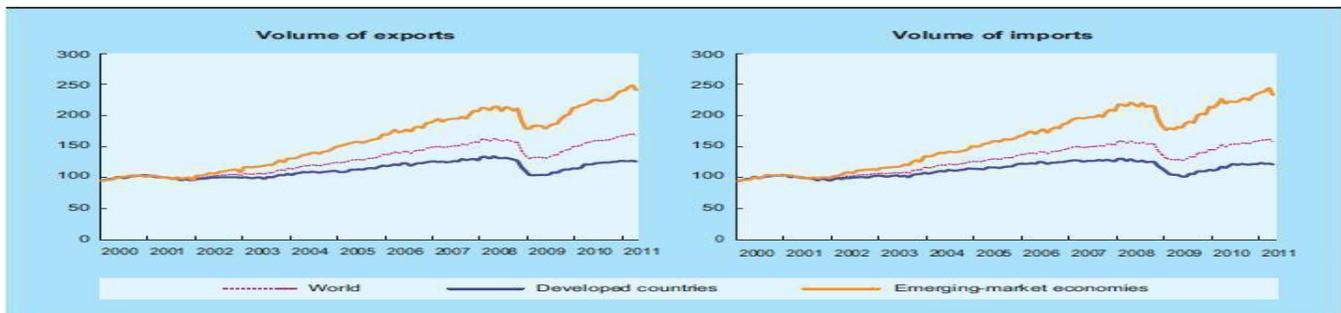
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Furthermore, capability of a country to enjoy high profits depends upon the trade partners of that country as they help in trade gain. The entry limits in foreign country markets can decrease or increase the price of exports and imports hence have encouraging or discouraging effects on international trade, the incentives to investment and the growth possibilities of the developing countries. In a nut shell while pursuing the international trade worldwide strategy settings should be kept under consideration. Small work costs and resource endowments increase the trade of developing countries. On the other hand limitations and barriers to their exports of goods and services must be considered as well.

B. Trade Balance in Developed and Emerging Economies

The data from the last 50 years show that GDP of the world grows with the growth in World trade. Exports contributed 20% in the world GDP in last 20 years and similarly played a vital role in development of the world (Oxfam, 2002). The exports of the developing countries are emerging faster than the rate of GDP. The contribution of GDP in trade was 6 % in the under developed countries and 10 percent countries with low income in 1992 and 2002. Over the years exports rose in the developing countries to one quarter of GDP and in last decade exports increased the world trade and contributed one-fifth in it. Due to this incremental effect of exports the exports of manufactured goods rose up to 12 % between 1980 & 2000. Similarly the exports of high technology products rose up to 20 percent during the same period (Oxfam, 2002).

WORLD TRADE VOLUME, JANUARY 2000–APRIL 2011
(Index numbers, 2000 = 100)



Source: UNCTAD secretariat calculations, based on the CPB Netherlands Bureau of Economic Policy Analysis, *World Trade database*.

Table 1.1: Trade Rankings of SAARC Countries in 2012

Country	Country's Rank	Index Score
Pakistan	116	3.38
Bangladesh	109	3.45
Srilanka	73	3.94
India	100	3.56
Nepal	124	3.06

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The above graph shows the world trade volume from the year 2000- 2010. The history shows that world trade went into recession after 2nd World War however in the year 2010 it is increased. There is an increase of 14% in World Commodities increase per year which is decline in the year 2009. Improvement in the world trade started increasing again in the second half of 2009. In the first half of 2010 world trade was very strong while firms increase their stock. After this many firms lost control on record cycles and in developed countries Economic order is deteriorated. This results in decrease of international trade by 7-8 % in 2011.

According to the report of world trade organization (WTO) 2011, it is observed that new limitations on imports conducted by 20 countries stay self-affecting and it is observed that effect is only 0.6 % of 20 imports. Till now these are not affected by trade barriers but there are some uncertainties present such as at the due to high unemployment rate the fiscal belt compression in developed countries and there are complaints of currency wars arises by under developed countries or government may tighten the control of import.

On the export side frequent changes take place due to composition of countries exports. The countries which produce capital goods such china and japan have increased their export level by 30 percent due to early recovery from the crisis. On the contrary the export level of developing countries is comparatively low as they produce primary goods. In case of food products the elasticity of demand is less while for other goods a countercyclical pattern has been observed in inventories due to the fact that importers took benefit of low prices of merchandise in 2009. The imports volume usually change in a similar pattern in those countries where the export goods are produced with imported raw material or other components and where the industries are highly interconnected with international markets. On the contrary, sometimes exports and imports go in different rates. The countries increase their imports when they receive international support for purchasing of final goods or acquire reserves from

other countries. Purchasing power of exports is influenced by losses and gains from trade. A good example is Latin America where terms of trade losses and gains resulted in import contraction in 2009 and expansion in 2010. On the other hand African countries, china and japan imports fell much lower rate than their exports in 2009. As a result they recover their slow pace in 2010.

C. SAARC Region

South Asian region consist of 8 countries Pakistan, Afghanistan, Maldives, India, Srilanka, Bangladesh, Bhutan and Nepal. It is comparatively small region but densely populated (appr 1.5 billion citizens); Pakistan (appr 180 million people), India (appr 1.20 billion people), Srilanka (Appr 20 million) and Bangladesh (appr 160 million). Two small specialized countries Maldives (appr 0.3 million) and Bhutan (appr 0.7 million) are also situated in the same region. However the Nepal (appr 28 million) and Afghanistan (appr 28 million) are comparatively less specialized.

- **Trade Index of SAARC Countries**

Table 1.1 shows the trade rankings of five SAARC countries on the basis of index score by Enabling Trade Index in 2012. Almost all the SAARC countries are developing so they are not categorized in the top 50 positions. Pakistan index score is 3.38 and ranks on 116th position,

India fall on 100th with an index score of 3.56 however Srilanka stand at 73rd position out of 125 countries with a score of 3.94 and the best in trade ranking of SAARC countries The position of

Bangladesh is 109th with a 3.45 score and Nepal has 3.06 index score and placed on 124th rank.

- **SAARC Countries Trade:**

The average per capita gross national income (GNI) is \$963(2008) which is constantly low (in south Asian region and is forcing to become a middle

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income region from the last decade. India is the fastest growing economy of the region and produce about 80 percent of the total region's GDP. Pakistan produces 10 percent and Bangladesh 7 percent of GDP.

The south Asian region has 33 percent of world's population but only represents about 1 percent of total world trade and 2.3 percent of world's gross domestic product. Afghanistan, Bhutan and

Bangladesh are categorized as least developed countries by United Nations as a huge number of people victim of miserable poverty. Import substitution industrialization (ISI) could have been used by the governments of these countries for the wellbeing of their citizens after World War II. For this they have to increase the Production of goods and services and also improve distribution channels. In last few years some of the south Asian countries developed very expensive and difficult procedure to monitor prices and control quantitative limitations.

On April 1993, all seven countries of south Asia which are also the members of (SAARC) agreed upon SAARC Preferential Trading Agreement (SAPTA) which came into operation in December 1995. Initially it was the perception that SAPTA is going to change the landscape of south Asia into a larger regional amalgamation but this concept become weaker when even after four rounds of trade reconciliations as it did not increase the capacity of trade and investment schemes between these countries. The basic rules of SAAPTA become more moderate with the passage of time. The main reasons behind SAAPTA failure are less control over tariff cuts, more non-tariff barriers and minimal tariff preference implemented to country trade.

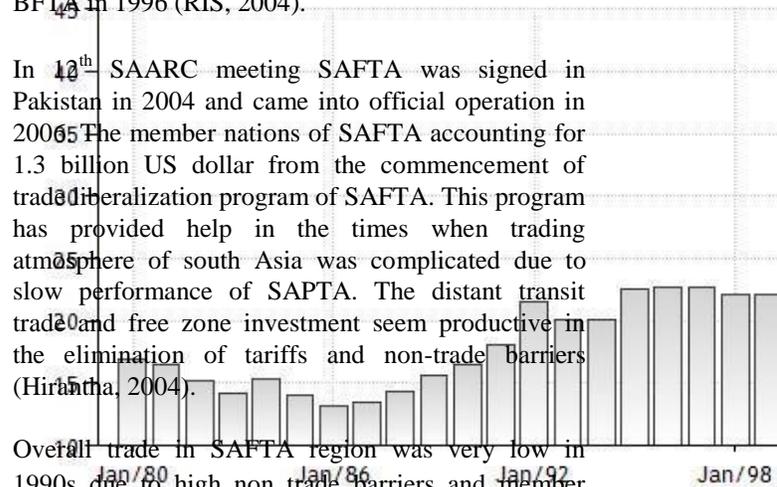
Earlier to SAPTA Similar kind of problems were also observed in the first superior trading contract of Asia "Bangkok Agreement (BA)". Free trade agreements made many improvements by removing existing complications such as transportation for land lock countries, improved import financing, eliminated the problems to investments, fair rule of opposition, increase of capital, improved transport infrastructure,

good communication systems, reduced the complications of business visa and simplified the foreign exchange controls etc.

Intra-industry trade provides numerous opportunities for poverty reduction and to maintain a high growth in economic development. Since most of the south Asian countries producing the similar kind of products so the intra-regional trade opportunities are high in the region. Currently the interregional trade is going down and is 4 percent in overall region of south Asia. Furthermore, the political instability in Pakistan and India has greatly demoralized the regional economic collaborations (Weerakoon, 2010). Most SAARC members planning for joint collaboration on (BFTAs). India and Srilanka join BFTA in 1998 which starts their operations in 2000. Moreover India and Nepal made an agreement on BFTA in 1996 (RIS, 2004).

In 12th SAARC meeting SAFTA was signed in Pakistan in 2004 and came into official operation in 2006. The member nations of SAFTA accounting for 1.3 billion US dollar from the commencement of trade liberalization program of SAFTA. This program has provided help in the times when trading atmosphere of south Asia was complicated due to slow performance of SAPTA. The distant transit trade and free zone investment seem productive in the elimination of tariffs and non-trade barriers (Hirath, 2004).

Overall trade in SAFTA region was very low in 1990s due to high non trade barriers and member countries have low interest towards trade to GDP percentage however adopted trade barriers removal strategy (Benik, 2006). Other researchers like (Santos-Paulino & Thirlwall, 2004; McCombie & Thirlwall, 1997) argued that the initiatives towards dynamic economic development encourages comfortable environment for free trade in the country. They further examined that fewer trade barriers increase the exports between trading countries. Almost all SAFTA's members have similar kind of export profiles and also face same kind of



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export barriers; that's why they are negotiating for the reduction of these trade barriers.

Geographical closeness and similarity in export profile in south Asian countries resulted in identical economic activities and long run production activities are likely to be identical. Identical need and demands of consumers due to physical closeness of the

countries, regional demand expands. Due to this expansion SAARC countries share trade with other markets such as American, Middle Eastern and Some European countries. As a result when exports increase trade balance performance also increase bringing prosperity in countries. Graph 1.4 shows the Balanc of trade aggregate as a percentage of GDP in different SAARC countries.

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D. Trade Balance in SAARC Countries:

As per report published in 2011 by world Trade Balance in south Asian Region was 32.88 in 2010. In 2008, balance of trade was 42.61 and in 2009 it decreased to 31.57 as examined by World Bank report. This decrease was mainly due to shrinking exports and increasing imports in south Asian countries. As a result of this expansion in imports countries in this region face large trade deficits.

From the above discussion it is clear that all the south Asian countries facing trade balance deficit and it can only be minimized by expanding exports or by reducing the imports. Trade deficit is a major stone in the way of economic development of any county. Hence this matter needs to be carefully handled to manage the economic growth of the region. Different researchers have been examining various aspects of trade balance however none of them attempted to examine the major determinants of trade balance of south Asian countries collectively. As a result there is dire need to study the macroeconomic factors

influencing the trade balance of whole region. For this purpose time series data of seven south Asian countries is collected on trade balance. Furthermore to analyze the data techniques like pooled OLS regression and Panel regression is used.

E. Problem Statement

The major objective in this study is to investigate the key elements that effect the balance of trade and to see whether they affect the south Asian countries positively or negatively. Trade surplus as a result of expansion in exports helps the country to develop while trade deficit as a result of expansion of imports due to high cost of production of domestic goods deteriorates the country's development badly. As most of the south Asian countries facing trade deficit in last several years due to identical goods production and same export market so there is a need to search out the way for trade reforms which affects the trade balance positively. Furthermore, this study aims to suggest some possible measures to bring prosperity in south Asia region.

II. LITERATURE REVIEW

A. Approaches of Trade Balance

It has been observed by different economists in number of studies that trade is the key element in overall growth of the economy. In many countries international trade always be a crucial factor in Economic development and to raise wealth. While doing theoretical review it is seen that several

studies are conducted to differentiate the factors of balance of trade by including experience of Keynesi, Elasticity and different monetary approaches. (Dornbusch, 1976; Frenkel, Gylfason, & Helliwell,

1980; Frenkel & Johnson, 1976).

The conventional view of elasticity is an addition to the famous Marshalli

an's demand and monitoring of supply and single

AIN	Negative TB	Positive TB
	Positive TB	Negative TB
DC		

Economic Development Level

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product price. Supply and Demands trends are good sources to identify the factors that indicates the production of single commodity and its price, however when their effect is measured on the whole imports and exports the result become more uncertain. On the other hand Marshallian partial equilibrium research has an imperfect use while analyzing the full employment and production.

In 1950, another monetary approach examined that monetary imbalance in the money market results in more fluctuations in global reserves like balance of payments (Hahn, 1959; Pearce, 1961; Polak, 1957; Prais, 1961). The money demand will increase the trade surplus as to maximize the real money balances country imports more money from other countries. In the case, impact of devaluation decreases real money balance by increasing the price level and ultimately increase in demand for money. Due to this decrease in expenditure behavior interpreted as trade surplus and reserve accretion (Magee, 1976; Whitman, ranson, Fand, Krause, & Salant, 1975; Kreinin, Officer, & Section, 1978;).

B. Trade Balance & Real Effective Exchange rate

There are only few studies related to micro level analysis of trade balance, most of the studies are on macro level variables. According to Himarios, 1989 devaluation is an effective tool for improving he balance of trade in long run as examined in 27 developing countries. (Falk, 2008) studied the 32 developed and developing economies for determinants of balance of trade through panel analysis for the period 1990 to 2007. In his study he used random effect model and linear mixed model. The study revealed that researcher found that there is negative relationship present between balance of trade and real effective exchange rate.

(MZ S & Hossain Khan, 2010) use panel data techniques to search the bilateral trade balance and economy of Bangladesh factors. The study includes 50 major trading partners of the economy of Bangladesh during 1980-2005. The variables included family per capita income, GDP, GDP of trading partners, the per capita income of trading

partners, the real exchange rate and the distance between trading countries. If Pakistan is a positive relationship between the depreciation of the real exchange rate and balance of trade was found also examined the money supply and income plays an important role in estimating the trend of the trade balance (W. Khan, 2010). (Duasa, 2007) examined the relationship between long-term and short-term trade balance, money supply, income and real exchange rate Malaysian economy. Data annual rate during the period 1974-2003 is used to adapt Co-integration and error correction model. It seems that there is no relationship between real exchange rate and the trade balance. a model of the form of reduced equation is applied to Indian economy and a negative relation between the trade balance and the exchange rate (Singh, 2002) was found. The empirical results show that the real effective exchange rate has a significant impact on the trade balance (Wen, 2011).

C. FDI and Trade Balance

Foreign direct investment in developing countries is the key element for economic growth. In particular, under developed countries use foreign direct investment to take competitive advantage in the local country that finally enhance the exports and similarly trade surplus. Furthermore, (Brouters, Werner, & Wilkinson, 1996) examined the factors under which foreign direct investment helps to improve the national balance of trade of industrial countries and under developed countries. The study was conducted on annual data set of period between 1988 to 1991.

Figure 2.1 shows the 2 way possibility frame work for both FDI inflow level (low or high) and country categories like Developing countries and advanced industrial nations. As a result 4 different findings emerge; firstly, under developed countries with low level of FDI results in trade deficit position. Secondly, the under developed with high level of coming FDI will improve the trade balance. Thirdly, a high level of inward FDI in advanced nations leads to result in deficit in trade balance. And finally, AIN with low level of FDI inflows shows high surplus of trade flows.

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Secondly, the under developed with high level of coming FDI will improve the trade balance. Thirdly, a high level of inward FDI in advanced nations leads to result in deficit in trade balance. And finally, AIN with low level of FDI inflows shows high surplus of trade flows. African countries. However, some studies shows that a justified bidirectional relationship is present in FDI and trade especially in manufacturing industries (Aizenman & Noy, 2005; Culem, 1988).

(Zhang & Song, 2001) analyzed the positive impact FDI on increased performance of exports in China economy. Similarly (Muhammad, 2010) studied

short run and long run factors of trade imbalance of Pakistan economy. The study was conducted by using the co-integration and vector error correction model. The results showed that FDI and trade balance are positively related and FDI significantly affects the trade balance.

D. Trade Surplus/Deficit & Remittances

International Migrants of any country can help to lessen the poverty of their origin countries and to construct extensive prosperity. Extensive flow of remittances is a key resource of external financing. As the foreign money supply increases, country of origin can improve the unfavorable balance of payments. (Das & Serieux, 2010) conducted research on 36 countries from years 1980 to 2006. (Hemphill, 1974) argued that inward flow of foreign money is

very helpful and increase in imports are monitored by receiving remittances which are surplus in the country of origin.

(Biller, 2007) argued that surplus remittances flow negatively associated with trade balance as it results in more expansion of imports as compared to exports. One more negative effect is that the greater demand for remittances by country's capability to generate from host economy. As a result foreign money appreciates the real exchange rate because of more pressure on tradable goods. On the other hand (Kireyev, 2006) examined that many researchers criticized the judgement that trade deficit problems comes due to more spending of remittances on imports. He further argued that a positive relationship present between remittances and trade surplus/deficit.

E. Final Consumption Expenditure

Total private consumption expenditure and government expenditure together adds up to make final consumption expenditure of an economy. These two types of expenditures are the main instruments in macroeconomic stabilization. (Monacelli & Perotti, 2006) examined the general government expenditure on the trade balance of 4 OECD countries i.e.

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Canada, Australia, United States and United Kingdom. The researchers used VAR structural technique to estimate the findings, however no clear results found on extension of spending by the government to trade surplus or deficit depending in relation with drop of private consumption in the economy. Furthermore (Beetsma, Giuliadori, & Klaassen, 2008) analyzed the expenditure effect on balance of trade in 14 European countries. (Muhammad, 2010) studied the long & short run determinants of balance of trade in Pakistan. Johnsen co-integration is applied for long run factors and he used vector error correction model for short run assessment from the period 1975-2008 by using times series annual data. There is a significant impact of house hold spending on balance of trade. This is because of the reason that when people consumes less goods then the surplus domestic goods are exported to the other countries and trade surplus is improved.

F. Trade Balance & Fiscal Balance

Fiscal and Monetary policies are two main sources used by the policy makers to change the progress, Money and service demand of the country. The position of the government budget results in surplus when a country shrinks its expenditures and increases taxes. As a result this surplus cuts foreign debts of the country. Fiscal policy of the country is improved by reducing the borrowings and improving budgetary policy.

(Guan & Khalid, 1999) analyzed a model of major developing and developed countries to see the relationship trade deficit and public fiscal deficit. It is found that no strong relationship is present between two variables for developed countries however for developing countries a significant relationship is found in consequences. According to (Falk, 2008), mixed results found about the impact of public fiscal balance on the trade surplus deficit. Falk used panel data of thirty two industrial and fastest growing economies. Fixed effect model specifies significant positive relationship while there is no significance

showed by linear mixed model. Another study was conducted by (Gruber & Kamin, 2007) to identify the impact of fiscal deficits on the balance of trade of 61 countries by using panel regression techniques for the period of 1982 to 2003. The results show a insignificant and small impact of budget deficits on trade exports to imports ratio.

G. Foreign Exchange Reserves

Central banks used to control and manage the foreign exchange reserves in past. The foreign exchange reserves are not only dependent on central bank of country but also depend on the currency rate of other countries. The accumulation of foreign exchange reserves highly depends on current and capital accounts surplus, and economy's performance and increased foreign borrowings. (Williams, 2006) argued that surplus reserves give the country to take advantage through marvelous expansion of exports in trade market as compared to other developed countries. On the other hand some countries used control foreign exchange reserves approach i.e. Chile and Mexico. In some of the Latin American countries the additional surplus reserves expenditures may be harmful for the economy (William, 2006). To discourage the speculation against any specific currency and to increase international trade foreign exchange reserves are very important (Morrison & Labonte, 2008). Furthermore, (Das & Serieux, 2010) used pooled mean group method to analyze the data of 36 developing countries for the period of 1980 to 2006. The results found that a significant negative relationship exists between foreign reserves and balance of trade.

Having discussed different studies on the trade balance and its factors through various methodological techniques it is clear there are numerous variables which affect the trade significantly either directly or indirectly. Some macroeconomic determinants also affect the aggregate trade surplus/deficit which needs to be carefully observed. On the basis of different theoretical studies and views, group of researchers develop different models in this research to examine the major factors affecting the balance of trade of

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SAARC countries.

III. Methodology

A. Overview:

In the methodology part group of researchers elaborates the different data collection resources, nature and classification of data to find the possible factors that influence balance of trade. Suitable methods of analysis and selection of sample and techniques used to order to investigate the study are also discussed in this part.

B. Data and Source:

Group of Researchers aim to collect annual time series data of 7 SAARC countries during the period of 1985 to 2015. Different resources are used to collect data like US International Macro-Economic data set and Bruegel Resources.

C. Methodology:

The aim of this study to investigate the possible relationship between independent variables and dependent variable trade balance. Different Econometric Models are used for this purpose. So group of Researchers used Pooled OLS regression analysis in order to check the impact of Macro-Economic factors on Trade Balance. Pooled OLS regression is normally employed on the data which contains time series observations of different countries. Pooled OLS regression Analysis does not investigate each country impact individually, but it investigates the overall impact on balance of trade. Another reason of using Pooled OLS regression analysis is that it is more effective when the units about which the data is collected are homogeneous.

As this study includes panel time series data of seven SAARC countries, so group of researcher use one more model to measure panel data analysis. There are different models used to measure panel but Random and Fixed effective models are most significant and many researchers are using this technique now a days.

Here group of Researchers develop 3 Econometric

Models in order to investigate the balance of trade and the impact of macro-economic factors on trade balance. Independent variables used for this study are Real effective exchange rate, fiscal balance, Real effective exchange rate, Foreign direct investment, Foreign exchange reserves, remittances , Foreign direct investment and Final consumption expenditures. While trade balance is dependent variable.

After the selection of dependent and independent variables, group of researcher develops following econometric models of study:

$$TB_t = \beta_0 + \beta_1 FXR_t + \beta_2 FDI_t + \beta_3 FCE_t + \beta_4 FB_t + \beta_5 REM_t + \beta_6 REER_t + \mu_t$$

$$TB_{it} = \beta_0 i + \beta_1 FXR_{it} + \beta_2 FDI_{it} + \beta_3 FCE_{it} + \beta_4 FB_{it} + \beta_5 REM_{it} + \beta_6 REER_{it} + \mu_{it}$$

$$TB_{it} = \beta_0 i + \beta_1 FXR_{it} + \beta_2 FDI_{it} + \beta_3 FCE_{it} + \beta_4 FB_{it} + \beta_5 REM_{it} + \beta_6 REER_{it} + \epsilon_i + \mu_{it}$$

In the above stated models, TB is known as Trade Balance and is measured in means of difference of trade deficit and trade surplus. REER represents Real effective exchange rate and is measured in terms of foreign and domestic price movements of exchange rate. REM indicates Remittances and compensation, FDI specifies Foreign direct investment and measure in terms of inflows of economy, FCE represents the fiscal balance and FXR indicates the Foreign exchange reserves and measures in terms of total foreign reserves of economic. In above stated econometric equations (i) indicates the number of countries, while t represents the time in which data is collected, μ_t indicates error time, B indicates the coefficient beta and ϵ_i specifies error within country.

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Var	Trade Balance	REER	RM	FDI	FC	FB	FXR
Trade Balance	1						
REER	-0.332**	1					
RM	-0.091	0.025	1				
Variable FDI	0.630**	Mean -0.215**	Standard Deviation -0.302**	1	Minimum	Maximum	
FC	-0.322**	-0.219**	-0.399**	-0.371**	1		
TB.it		46.068	24.911		10.075	121.042	
FB.it	0.090	-0.050	0.241**	3.758	0.280**	-0.120	1
REER.it		3.127	3.839		0.188		13.150
FXR.it	-0.162*	0.106	0.050	0.1127	-0.279**	0.125	1
FCE.it		81.911	9.743		50.846		107.928
FDL.it		1.105	1.464		-.0983		8.579
REER.it		119.422	24.279		78.960		226.721
FXR.it		10540.88	40038.35		0.950		275277.5

IV. Empirical Results

A. Overview

In this part group of Researchers describes the descriptive statistics and correlation matrix of the variables of study and also investigate the impact of macroeconomics factors on balance of trade of 7 south Asian Countries.

B. Results

**Table # 4.1:
Descriptive
Statistics**

Table # 4.2: Correlation Analysis

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Descriptive statistics of all dependent and independent variables of study, Descriptive Statistics include mean, standard deviation and range from minimum to maximum. The overall average of Trade Balance in years 1985 to 2015 is 46.066 and standard deviation of 24.910 with minimum range 10.074 and maximum 121.042. Real Effective Exchange rates mean value is 109.423 with the standard deviation of 24.281. While the mean value of remittances fall on 4.120 with the standard deviation value of 3.840. Foreign Direct Investment average is 1.104 and maximum & minimum value is -0.0983 and 8.583 respectively.

FCE mean value falls on 81.905 and Fiscal balance mean falls in negative value -5.450 and Foreign exchange rate average is 10540.8. Table 4.4 Elaborate the fixed effects model of all dependent and independent variables. Trade balance which is dependent variable is regress with panel data variables of SAARC countries. In this analysis group of researchers found that three independent variables have significant impact on trade balance, REM has positive effect and FDI & FCE are jointly significant at 1% level. While other independent variables are insignificant. The value of R2 is 38.90 percent.

Independent Variables	Co-efficient	Standard Error	T-Stats	Prob.
FXR	-0.0002	0.000027	-6.93	0.000
FB	-0.6200	0.49929	-1.23	0.216
FDI	12.0252	1.1107	10.79	0.000
REER	-0.0342	0.04696	-0.74	0.465
FCE	-1.1425	0.1688	-6.72	0.000
REM	1.8541	0.3383	5.50	0.000
Constant	114.5723	12.98320	8.79	0.000

R2 = 0.6482

F-Stat = 37.05 (0.000)



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Table 4.5 shows the random effect of panel data analysis of the study. Group of researchers observed that 2 independent variables REM and FDI have positive significant impact on balance of trade and on the other hand FCE and FXR have negative impact on trade balance with significant level at 1%, While REEM and FB are insignificant. R2 of the whole model is 0.6582.

Table 4.4 and Table 4.5 shows the analysis of fixed and random effects techniques, after these 2 analyses, Group of Researchers apply Hausman Test in order to check that whether fixed model is more appropriate or Random Effect model. Researchers observed that Chi Square value is significant which means that Fixed effect model is more appropriate than Random effect model.

Table # 4.6: Hausman Test: Random or Fix
V. Discussion and Conclusion

Variable	Fixed Coefficients (b)	Random Coefficients (B)	Diff.
REER	-0.0992	-0.0243	-0.0147
FB	-0.6709	-0.5902	-0.0706
REM	0.8917	1.8440	-0.9712

A. Discussion:

In this study Researchers examine the impact of different independent variables on dependent variable balance of trade of s7 South Asian countries. Researchers used 3 different Econometrics equations in order to find the relationship among different variables. Researchers observed that REM has positive significant impact on trade balance in SAARC countries. Results also demonstrate that the increase in REM results in increase in exports. Researchers argued that if rather than in business then it has less effect the spending will increase on consumption expenditures on balance of trade.

In SAARC countries, FDI also have positive & significant impact on balance of trade. This study shows that developing countries which concentrate more on FDI have much improved balance of trade. With the help of FDI countries produce more goods on very low cost this is also a competitive advantage for that country in a market and also enhance the development of country.

On the other hand findings of the study show that

FCE and FB has negative impact on trade balance. FCE is a combination of Government and Domestic consumption and increase in FCE results in decline in trade surplus. So to increase trade surplus Govt. must decrease their final consumption expenditure. In case of FB, the reason of High Fiscal deficit is that, from last few years SAARC countries face huge budget deficit, other factors that increase the FB are increase in borrowings, rise of interest rate, which ultimately cause the trade balance of country.

Although FXR of SAARC countries have positive impact on TB but the relationship between 2 variables is insignificant. If developing countries FXR increases than it will increase the trade exports of the country because poor performance of trade balance put balance of payment in stress condition resulting in downfall of FXR. (Morrison & Labonte, 2008) argued that foreign reserves are necessary to develop marvelous expansion in trade of country.

Results of the study shows that REER have negative impact on balance of trade of SAARC countries and the result shows that relationship is insignificant. Result shows that the depreciation of REER results in improvement of balance of trade but this effect is insignificant, this is due to the fact that SARC

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countries with weaker markets produce their domestic goods on very high cost which decrease their trade balance.

B. Conclusion

In this study researcher investigates the balance of trade of 7 SAARC countries during the period of 1985-2015. In this study group of Researchers take independent variables like Remittances, Real effective exchange rate, Final consumption Expenditure, Foreign direct investment, fiscal balance and Foreign Exchange reserves and check their impact on balance of trade. This study provides in depth view of different macro-economic factors, and previously no study is conducted in detail in these SAARC countries. Results of this study concludes that Foreign direct investment and Final

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consumption expenditures have positive and significant effect on balance of trade, while on the other hand, FB and REEM have no significant relationship with trade balance. Study also concludes that Remittances show positive and significant result in fixed and random effect model and in Pooled OLS as well. The results elaborates that the results of random effect model and Pooled OLS shows significant relationship between FXR and TB but fixed effect model demonstrated insignificant relationship.

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