

Impact of FDI and Trade Balance on Economic Growth during 1990-2014, a Case Study of Pakistan

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Abstract

Purpose: The purpose of this study is to investigate the impact of macroeconomic variables, Foreign Direct Investment and Trade Balance on the Economic Growth (GDP) on Pakistan economy by using the 25 years data from the time period 1990-2014. **Methodology:** For the empirical finding time series annually data are used to monitor by examination the stationarity of all dependent and independent variables. Unit root (ADF) test are used to check the stationarity of all the variables. Additionally The Johansen co-integrated test to check the long run relationship in the middle of the variables and to see the short run relationship VECM are used. All the variables are significant, and goodness of fit use regression the econometric model is analyses. **Findings:** The study found that there is significant impact of independent variables Foreign Direct Investment and Trade Balance on dependent variable GDP. And the signs of co-efficient shows, Trade Balance have negative relation with GDP while Foreign Direct Investment has positive relation with GDP.

Keywords: Unit Root , Co-integrated , ECM , Regression , FDI , Trade Balance

Introduction

Foreign direct investment has been the most attention-grabbing topics among researchers. Consuming foreign direct investment in development countries supports the employment and exploitation of nature and human capitals, to implement advanced businesses practices, in relations of management and marketing and facilitates in decrease of budget deficit. We can say that foreign direct investment can function as resources of transfer of technology and knowledge. Pakistan above the last scarce years has developed the situation as a prospective market for foreign investors with its abundant investment policy, inexpensive labor, tax inducements and good homecoming on investments. The strongest positives effect of implementing FDI is the intensification in collective output, greater than before prospects of employment, bigger leakage of exports and exchange of high-tech improvement amongst the investor of foreign and country. FDI influence on nationwide welfare of the country is dissimilar, permitting to the important determinants and the category of investment.

The gross domestic product (GDP) stands one of the most important indicators used to quantify the healthiness of a country's economy. It characterizes the total dollar importance of all goods and services produced over a particular time period. Here we use GDP at Factor Cost means that is the sum of the gross value add of this factor which are $C+I+G+(X-M)$ and here minus the Indirect taxes and +Subsides. GDP at factor cost means that total factor cost producing all the goods and services in the years.

Trade Profit making operation encompassing the sale and purchase of a good, services, or information. Trade balance is the difference between the exports and imports. Country facing the trade deficit in their trade balance which Pakistan is also included. Trade balance deficit is occurring due to increase the imports than exports. Like Pakistan is a developing country they imports major of their which they needs from foreign country. Trade balance is the main component of the balance of payments. Pakistan government should make some affective policy and restrictions' on the imports and promote exports.

Study by Aurangzeb et al in (2012) examined the influence of foreign capital arrivals proceeding economic growth of the Pakistan. Outcomes specified that altogether three variables which was FDI, remittance other was external debt are consuming optimistic and significant association through economic growth.

Pakistan is traditionally an imaginary investment region where British corporations controlled two hundred existences. In Past 70s, exclusively in prime minister Zulfikar Ali Bhutto Administration, Pakistan underway to have nationalization progression. Nevertheless, next few periods, it has been appreciated to display the attitude concerning privatization to nearer to globalization procedure. The Pakistan economy which is not advanced enough to performance a portion in globalization procedure to become benefits to a great level, and accordingly Pakistan economy is incrustation problems. Investigative the contributions of foreign capital to the prosperity or poverty of LDCs. Studies which in the literature highlighting the positive influence of FDI on

Economic growth advocate that FDI is not only grows the domestic capital development but also improves economic growth by familiarizing new machineries, such as fresh production procedures and practices, managerial abilities, ideas and new multiplicities of capital things.

Objectives of the study:

The foremost objectives of the learning are as follows:

1. To empirically examine the impact of FDI, Trade preceding the economic growth over the period 1990-2014.
2. To measure the long and short run association amongst dependent and independent variables.
3. To suggest policy measures to acquire upper and sustainable FDI and Trade level.

REVIEW OF LITERATURE:

In this chapter evaluation of literature surveys numerous studies accompanied by numerous researchers. After read this trainings discovery obtainable the relationship among the foreign direct investment (FDI), Trade Balance and economic growth (GDP) of the countries. With growing importance of FDI in majority of the economics the collected works on the topic is also comprehensive.

Here numerous regions although which FDI effects improvement:

1. Increase incomes and Employment level
2. Increase in Capital formation,
3. Change in Structure of markets, foreign market access
4. Improvement in Technology and skills,
5. Increase Fiscal revenues.

Sheikh and Rahpoto in (2009) both investigated what achievements of Pak-India after trade and potential economic expenses in exporting the multiplicity of consumable supplies like garments which made by leather and cotton in two consequences. Both investigate and found that an appraisal of the suggestions of SAFTA which permit the contributing of the countries to achieve the greater economies of scale after production, and escalation of competitiveness, to achieve specialization to increase their exports. The recommended collective strategy reform by the SAFTA Pakistan would be experience of the concentrated welfare achievement.

Iqbal Mahmood, Major Ehsanullah and Habib Ahmed in (2011) they used FDI, GDP, growth rate as dependent variable. They used trade openness exchange rate volatility as independent variable. Data ranged they used to analysis 1975 to 2005. Econometric models ADF, other are OLS procedure and GARCH are to use find out the result. Dependent variable (GDP, FDI) and independent variable (Trade openness and Exchange rate) are used to find the result after find outcomes designated that exchange rate required a positive association with GDP, growth rate in addition to with trade openness.

Atique, Hashain, & Azhar (2004) conducted study on impact of economic growth below foreign trade commands: a case study of Pakistan during 1970-2001. Variables FDI, GDP, Labour, Capital, Education, and ratio of Exports and Imports are used. This study establish that the growth impact of FDI trends to be greater under an exports advancement trade compared to an imports substitution administration by using data of Pakistan this finding support by the "Bhawati" hypothesis. Similarly study was conduct in Sri Lanka Foreign Direct Investment and Economic growth in Sri Lanka.

Balamurali, C Bogawatte (2004) data ranged from 1977-2003. Variables which are used GDP, FDI, Labour, Capital testing Co integration Granger Causality and Error Correction model. Data collected from Central Bank of Sri Lanka, World Bank, IMF and etc. Conclusion recommends that batter trade policy reorganizations implementation intended at promoting GDI and domestic investment to develop and diversify the country's exports the prospective of accelerating economic growth in the yet to come.

Another study by Khan & Hossain in, (2010) was examined the association among republic and trade balance the reference with Bangladesh economy. The figures apply is yearly covering from the passé of 1973-2006. For estimating democracy in which political moralities and civil independences are recycled. Methodology apply is Granger causality presented one way, connection from social equality the variables on the mutual trade balance from the economy of Bangladesh. They in 2010 investigated a Granger causality process of mutual trade balance and his contributing factor in Bangladesh. This study secondhand documents of 50 trading associates from the time range of 1980-2005. the variables which was verified encompassed GDP, trading associates GDP, domestic per head income, associates per person income, detachment between trading nation state and their real exchange rate. After that the outcomes displayed significant conclusion of entirely the variables on the mutual trade balance of the Bangladesh.

In (2011) Enrico Marelli and Marcello Signorelli, Trade Openness and Belongings on Economic Growth of China and India. They analyzed between Economic Growth, trade, unrefined domestic product per head, openness trade, foreign direct investment (FDI) and uncultivated capital formation Protected. They used technique OLS, two stage least square (2SLS) to get the result. Data ranged from 1980 to 2007. Dependent variable is economic growth and independent variable are, trade, unpolished domestic product per head, trade

openness, foreign direct investment and gross capital formation Protected. Empirical results showed that the encouragement of all exogenous variables of the economic growth were optimistic and important in all circumstances in belongings of China and India.

Another study by Yousaf& et al (2008) deliberate the impact of foreign direct investment in the economy Pakistan. They considered the influence of FDI on exports and imports of the Pakistan. Passé year's range in this study remained from 1973–2002. Econometric model Co-integration and other error correction procedure was applied and it was accomplished that FDI has optimistic effect on the actual request for imports is not only short but also in long run. This study not also established that FDI negatively distress exports in short run nevertheless has an optimistic relationship for exports in the long run.

DATA AND METHODOLOGY:

Data Sources and Estimation Technique

The study will rely for the most part on the use of secondary data obtained from different source. This study also intends to judgment the association to be establish among foreign direct investment and economic growth (GDP) of Pakistan for the time period range of around 25 years i.e; 1990-2014. The data set used in the study is derived from a number of source which include PBS (Pakistan Bureau of Statistics) and Statistics & DWH Department developed by State Bank of Pakistan. The Data for all variables (dependent and independent) which is include to interpret the result is measured in Millions of PKR for particular years like 1990-2014 under this study.

Table 1.1 which show variables and there symbol here below:

Variables	Symbol
GDP as PKR Million	GDP
LFDI as PKR Million	LFDI
Trade Balance as PKR Million	Trade

Step1 Unit root (ADF) Test

Towards check the stationarity among the variables we use unit root test. In unit root test most commonly test which ADF is proposed by Dickey and Fuller (1981). The test has been includes the test equation which we use here is (intercept). The test has been apply by maximum lag 5 are use and in this test the automatic selection we select Schwarz Info Criteria are use.

Step2 Johnson Co-integrated Test

This test provide the empirical results of the co-integrated relationship of the variables which is GDP FDI and Trade. Such is the variables are stationary at , I(1) , I(2) and then variables are interpret in Johnson co-integrated test to see the long run equilibrium. In this test two likelihood ratio test which is Trace test and Maximum Eigen value test.

Step3 Error Correction Model (ECM)

The use of the Johansen Co-integrated model to see the long run relationship between the variables and the variables exist co-integrated in long run than to see the relationship in short run use Error Correction model.

Step4 Regression Model

It is the instantaneous arrangement of multiple factors to measure how and to what magnitude they affect a convinced outcome .Multiple regression processes will estimate a linear equation of the method:

$$Y = a + b_1 * X_1 + b_2 * X_2 + \dots + b_p * X_p$$

DATA ANALYSIS

Table1.2 Results of Augmented Dickey fuller (ADF) Test (with intercept):

Variables	On level	Prob	1 st Difference	Prob	2 nd Difference	Prob	Conclusion
GDP in PKR Million	- 3.737853	1.0000*	-3.769597	0.8538	-3.769597	0.0000*	I(2)
LFDI in PKR Million	-1.823630	0.3607	-3.579791	0.0147**	–	–	I(1)
Trade in PKR Million	-3.737853	0.9696	-3.752946	0.0003*	–	–	I(1)

*, indicates at 1%,5% 10% level of significance ,** 5% 10% level of significance .

The table show that variable LFDI and Trade Balance are stationary at first difference and variable GDP stationary at second difference. Variables are not stationary at level.

Table1.3 Results of Johansen co-integrated Test relations

Hypothesis of CE(s)	Trace Statistic	Critical value at 5%	Prob*	Max Eigen statistic	Critical value at 5%	Prob*
None*	34.19212	29.79707	0.0146	26.40638	21.13162	0.0082
At most 1	7.785745	15.49471	0.4886	7.292156	14.26460	0.4552
At most 2	0.493589	3.841466	0.4823	0.493589	3.841466	0.4823

*donates that null hypothesis is reject at level of 5%

After the outcome of this test is that there is 1 co-integrated equation in this model because both statistic show that there 1 co-integrated equation in this model. Here in this model null hypothesis is reject because P value of Trace statistic are less than 5%. There are long run relationship between the variables but no short run relationship in the variables. Because the P-value is greater than 5% level and accept the null hypothesis which means no short run relationship among the variables. In short we can say that FDI has positive and significance relationship with GDP in long and not in short run. Trade Balance is significance relationship with GDP in long and not in short run and (GDP).

Regression model

$$GDP = \alpha + \beta_1 LFDI + \beta_2 Trade + \dots \dots \dots (1)$$

Where,

LFDI = Nature log of Foreign Direct Investment

GDP = Gross Domestic Product

Trade = Trade Balance

Level of Significant: 5 percent

After run the regression model with OLS method and out the results on equation 1

$$GDP = 523063.2 + 156070.2LFDI + (-12.06144)Trade \dots \dots \dots (2)$$

(0.095127) (0.289042) (-10.99269)

R square = 0.91 F Statistic =118 Durbin Watson statistic = 1.2

The results are interpret from the regression by use OLS method here in below brackets T-statistic value and F-statistic value also given which is 118 and our R² value is 91 and Durbin Watson value is 1.2. Now we can say that our regression model is good fitted. The coefficient of LFDI is positive and the coefficient of Trade is negative.

Conclusion:

At the end we conclude that FDI has a positive impact on GDP and Trade has a negative impact on GDP. As past study researcher also find that there are positive impact of FDI on GDP. Trade Balance is negative impact on GDP because of deficit on Trade balance.

Trade Balance is deficit is due to imports are greater than exports. Johansen Co-integrated test to see the long run relationship between the variables and ECM is use to see the short run relationship between variables. FDI is the most important indicator in developing countries like Pakistan because to improve the growth , technology skills , managerial skills , etc. Pakistan should make more affective policy to attract the foreign investor to give the improvement their GDP growth and include in the list of the developed countries. He regression model is use which results are show that FDI has significance relationship with GDP and Trade Balance is not show the significance relationship with GDP.

Recommendation

- Trade balance deficit remove to make some policy government should focuses on Exports-oriented policy to improve the exports.
- Government should increase the exports standard as in the worldwide thing standard which increase the exports earring.
- As can see that FDI is the paly main role to improve the economies. Government should make the more batter policy to attract the foreign investors.
- Pakistan should also make the encourages to improve domestic investments.
- Political leadership must be the great policy making ability and their actions.
- Political stability is also the major elements to attract the FDI and government should pay intention to stability in political.

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