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Impacts of exchange rate and inflation rate on foreign direct investment in Pakistan

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ABSTRACT

The study identifies the impact of inflation and foreign exchange rate on foreign direct investment in Pakistan. Inflation and exchange rates are used as independent variables and foreign direct investment is taken as dependent variable. Discreet time series data has been used from the period of 1999 to 2009. The results of regression analysis reveal that high inflation has negative impact on foreign direct investment and higher exchange rates has positive impact on foreign direct investment in Pakistan. The inflation and foreign exchange rates both are insignificant in the analysis.

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Introduction

Foreign Direct Investment is investment of foreign assets into domestic structure. There are two types of foreign direct investment. Foreign direct investment inflow and foreign direct investment outflow. It is very important for any country growth because it helps in GDP growth and generates employment in domestic country. In this global world every country wants to attract foreign direct investment to help its development. Trade openness, higher exchange rates and real GDP growth rate attract the foreign direct investment (Zahid et al September 2010). Trade openness indicates there is no barrier against foreign investment in Pakistan. Higher exchange rate and growth in GDP rates show the good health of economy. Highest unit cost and high transportation cost disturb the foreign direct investment in country. Lower interest rates less political risk higher the foreign direct investment in country (Bevan and Estrin December 2002). High unit and production cost decrease the firm profit. So higher production and transportation cost refuse the foreign direct investment in country. Lower interest rates decrease the firm borrowing cost and less political risk minimize the firm future risks. So lower interest rates and less political risk gives positive signal to foreign investor for investing in domestic country Less Geographic distance and lower inflation rates attract the foreign direct investment in domestic economy. Higher labour productivity and higher external trade positively derive the foreign direct investment in country (cuyvers et al April 2009). Less geographical distances minimize the traveling cost and lower inflation rates maximize the firm purchasing power. Higher labour productivity tells the efficiency in operations and higher external trade refers the health of economy of domestic country. Net shell is that higher geographical distance and higher inflation rates have negative impact on foreign direct investment and higher labour productivity and higher external trade have positive impact on

foreign direct investment. Financial development induces the foreign direct investment in host country and higher tax rates reduce the foreign direct investment (Ang June 2007). So financial development has positive impact on foreign direct investment and higher tax rates have negative impact on foreign direct investment. Higher returns on investment and infrastructure development increase the foreign direct investment. Higher political risk decreases the foreign direct investment in host country (Asidu 2001). Exchange rates and inflations are co-related with foreign direct investment. This relationship can be positive or negative. Same problem has been discussed in this study and importance of this relationship for progress of foreign direct investment in Pakistan. Foreign Direct investment is too much important for any country. It plays key role in economic growth of a country. In this world every country wants to attract foreign direct investment to help its economic growth. The objective of study: To check the impact of inflation and exchange rates on foreign direct investment; To understand the factors effect foreign direct investment in Pakistan.

H1: There is an adverse relationship between inflation and foreign direct investment.

H2: Exchange Rates have positive relation with Foreign Direct Investment.

The basic significance of the study is that to find out the factors affect the foreign direct investment in Pakistan. This study will explore that relationship of exchange rate and foreign direct investment in Pakistan, and also check the impact of inflation rate on foreign direct investment in Pakistan. Exchange rates have positive relation with foreign direct investment. An increase in exchange rates can cause for increase in foreign direct investment. If demand for domestic product or currency increase the domestic currency will be appreciated and excess supply of domestic money will depreciate the domestic

currency. Inflation rates have negative relation with foreign direct investment.

Higher inflation decreases the foreign direct investment in domestic country. Inflation can cause by excess demand for domestic product and can be due to high per unit production cost. Higher foreign direct investment in domestic country is good sign for its economic health. Because its shows the economic growth and good business opportunities in domestic country. It brings employment and reduced the unemployment rate in domestic country. Higher foreign direct investment appreciates the currency because it increases the demand for money. This study will help the policy makers how to appreciate the domestic currency or how to minimize the inflation rates and how to increase foreign direct investment.

Methodology

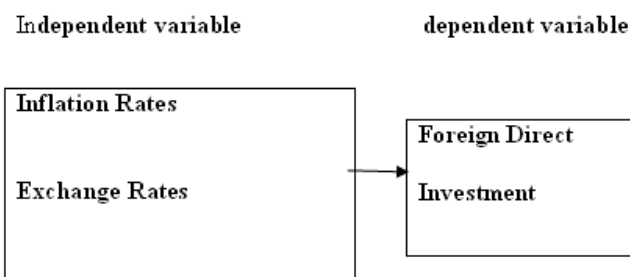
Research Methodology

To conduct this research secondary data has been used. Discreet time series data has been used in this study from the period of 1999 to 2009 in Pakistan. Data has been collected from Federal Bureau Statistical and Board of investment Pakistan through internet. Linear regression analysis is used in this study. In regression we measure the coefficient, correlation, descriptive analysis and T test. Coefficient measure the relationship between dependent and independent variable, descriptive analysis tells the mean and standard deviation of variables and t test tell the significance level.

Foreign Direct Investment

The Purchase of real assets through acquiring land, buying existing business , or constructing buildings or Mines etc within a country by nonresident. Foreign direct investment does not include investment in the stock market. Because equity investment a hot money which cannot carry at the time of trouble. Where FDI is stabile and useful weather things are going good or bad. Foreign Direct investor can be An individual , group of individual , Incorporated entities , Unincorporated entities , Public companies , Private companies , Group of Related enterprises , Government bodies , An Estate , Trust and other societal organizations , And any combination of above.

Conceptual frame work



Investment Policy of Government of Pakistan Government of Pakistan formed an investment policy for foreign direct investment. Investment policy divided into two categories. Policies for manufacturing sector and non manufacturing sector. Policy for manufacturing sector Company must be incorporated under the company's ordinance 1984, 100% of foreign investment is acceptable on the basis of repatriation of capital and profit and Foreign equity amount must be more than US \$0.3billion. Policy for nonmanufacturing sector. Company must be incorporated under the company's ordinance 1984, foreign equity amount must be more than US \$0.15billion and 100% of foreign investment is acceptable on the basis of repatriation of

capital and profit. Pakistan naturally God gifted country. So Pakistan has ability to attract the Foreign Direct Investment. But unfortunately FDI started falling since 2008 and in first 10 month of fiscal 2010/2011 FDI fall by 28%.

Inflation

Inflation is rise in general level of prices in a specific country over a specific period of time. When inflation accrues, each unit of local currency buys fewer goods we can say decline in real value of money or decrease in purchasing power. Inflation can hurt the savers, creditors, and the fixed income receivers and inflation can also help the debtors and flexible income receivers. Inflation is categories into two categories. When inflation is caused by increase in total spending and resources are fully employed is called demand pull inflation. In this situation business sector cannot fulfill this increased in demand by expanding output so the increased demand put up the prices of real output. In this type of inflation large amount of money can purchase only few goods and services. In this scenario demand pulling price level upward. And when inflation is accrues due to increase in per unit production cost at each level of production. A per unit production cost is the average cost of production of specific goods. Increase in per unit production cost minimize the profit and decrease the production which firm willing to sell at the existing level of price. In the situation supply of goods and services of an economies decrease and price level will increase. In this scenario cost pushing price level upward. Supply shocks can be the major source of cost push inflation. For example increase in raw material price or increase in energy price.

Inflation rate calculated as follow:

$$\text{Inflation rate} = \frac{(\text{CPI in current year} - \text{CPI in base year})}{\text{CPI in base year}} \times 100$$

Consumer Price Index (CPI) is a index which is used by government to measure the inflation rate over a period in a country. Consumer price index tells the price of market basket. Market basket consists of some 300 goods and services which is used by atypical urban consumer. Consumer price index is calculated as

$$\text{CPI} = \frac{\text{prices of market basket in current year}}{\text{prices of market basket in previous year}} \times 100$$

Four price indexes are applied in Pakistan (consumer price index "CPI"), (wholesale price index "WPI"), (sensitive price index "SPI") and GDP deflater. The consumer price index is the main measure of inflation in Pakistan. It consists of 374 items in 71 markets of 35 major cities. The wholesale price index is designed for daily life consumable items. It consists of 106 items in 18 major cities of Pakistan. The sensitive price index is designed for daily consumable items by those peoples whose monthly income in the base year 2000-2001 ranged from 3000-12000. It consists of 53 items of 17 major cities of Pakistan. GDP is not only calculated the prices of goods and services but also calculate the prices of capital goods , goods and services purchased by Government and goods and services that enter world traded.

In Pakistan in April 2011 inflation rate was reported 13.04%. From 2003-2010 average inflation rate was 10.15%. Record highest 25.33% in August 2008 and record lowest 1.41% in July 2003.

Exchange Rate

Domestic buyers and sellers (individuals, firms and nation) use domestic currency to buy and sell the goods and services. In an international market sellers want to set their prices in their

domestic currencies but buyer's possess entirely different currencies. A foreign market that is exchanged international currencies with one another. The equilibrium level of prices in these markets is known as exchange rate or we can say a rate at which currency of one country exchanged into the other country. There are two types of exchange rate system. A Flexible exchange Rate system is a system in which exchange rates are determined on bases of supply and demand. And no government is there. It is also known as floating exchange rate system. A Fixed exchange rate system in which Government determine the exchange rates and make adjustments in their economies to maintain those rates.

The generalizations to determine the exchange rate are. If the currency demand increase the currency will appreciate and if demand decrease the currency will depreciate. If currency supply increases the currency will depreciate and if currency supplies decrease the currency will appreciate. If the some relatively foreign currencies depreciated the currency will appreciate. Change in tastes, relative interest's rate, relative income change, speculation and change in relative price level can affect the demand and supply of exchange rate. In Pakistan during the Musharraf Government (1999-2007) Pakistan currency rates stable due to huge investment from foreigner. But after this Pakistan currency rates are going down due to high oil prices and world recession.

Results and discussion

Descriptive statistics

Descriptive statistics on dependent variable (foreign direct investment) and independent variables (exchange rate and inflation rate) is showed in table1. This table defines the summary statics for the variables used in this study. The table highlights the results about dependent variable and independent variables for the period of 1999 to 2009.

The mean value of foreign direct investment 1767.509 shows average amount of foreign direct investment. The standard deviation 1961.6557 shows the chances of variation from its average value. The mean value of inflation 7.42 shows the average inflation rates and standard deviation 5.298 shows chances of deviation from its mean value. The foreign exchange shows a mean value of 62.9437 and standard deviation 9.4824 shows the variation from its average value.

Correlation

The table shows the correlation between dependent variable and independent variables.

This table shows the negative relation between dependent variable (foreign direct investment) and independent variables (inflation rates) and positive relation with foreign direct investment. This means that an increase in inflation rates will decrease the foreign direct investment and an increase in exchange rate will increase the foreign direct investment. Inflation rates and exchange rates also have negative relation.

Regression

The table presents the regression analysis of dependent variables and independent variables.

The table presents the estimated coefficient and t statistics. The value of R square is 11% that shows the 11% variation in the foreign direct investment caused by independent variables. T value for inflation is -.294 which shows that the relationship between inflation and foreign direct investment is insignificant.

T value .20 is a standard for significant level. The coefficient value of inflation is found to be -20.1%. It shows that negative relationship between inflation and foreign direct investment. It shows that 1% change in inflation bring 20.1% negative change in foreign direct investment. T value for exchange rate is .721 which shows the insignificant relationship between exchange rate and foreign direct investment. The coefficient value of exchange rate is found 49.1%. It shows the positive relation between exchange rate and foreign direct investment.

Conclusion

My study concluded that inflation rates and foreign exchange rates have insignificant impact on foreign direct investment. And inflation is negatively correlated with foreign direct investment. Its increase the cost of production and reduces the purchasing power. So our first hypothesis is accepted "There is an adverse relationship between inflation and foreign direct investment". Foreign exchange rates and foreign direct investment are positively correlated. It shows the good economic health of country. So our second hypothesis is also selected "Exchange Rates have positive relation with Foreign Direct Investment". My findings are same as the findings of (Jason Kait November 2008) , (Christain Bellak and Markus Leibrecht October 2005), (Anjum Aqeel and Mohammad Neshat Ph.D January 2005) and (Ludo Cuyvers , Reth Soeng , Joseph PLasmans and Daniel Van Den Bulcke April 2009).

References

- Jason Kait (November 2008) The effect of exchange rate and inflation rate on foreign direct investment and it relationship with economic growth in south Africa. Integrative business research university of Pertoria
- Zedenk Drabek and Wareen Payen (August 1999) The impact of transparency on foreign direct investment. Staff working paper ERAD-99-02.
- Christain Bellak and Markus Leibrecht (October 2005) Do the corporate income tax attract foreign direct investment? Research paper series Globalization Productivity and Technology.
- Anjum Aqeel and Mohammad Nishat Ph.D (January 2005) The determinants of foreign direct investment in Pakistan. 20th annual PSDE conference held on 10-12 January 2005.
- Mohammad H. Akhtar (1998) The foreign direct investment in Pakistan. The Journal of Economics vol 50.
- Kenteth A. Froot and Jemy C. Sten (November 1991) Exchange rates and foreign direct investment in imperfect capital market approach. The quartly journal of economics. www.qje.pxfordjournals.org.
- James B. Ang (June 2007) Determinants of foreign direct investment in Malaysia journal of policy modeling. www.Sciencedirect.com.
- Muhammad Zahid Awan, Bakhtair Khan and Khair Uz Zaman (September 2010) Economic determinants of foreign direct investment in commodity producing sector. Afrisan journal of business management vol. 5(2) pp537-545. www.academicjournals.org/AJBM
- Ludo Cuyers, Reth Soeng, Josph PLasmans and Denial Van Den Bulcke. (April 2009) Determinants of foreign direct investment in Cambodia. Journal of Asia Economic 2011. WWW.ELSEVIER.com/locate/JPM www.FBR.com.pk , www.finance.gov.pk

Table 1 Descriptive Statistics

	Mean	Std. Deviation
FDI	1767.509	1961.6557
Inflation	7.42	5.298
Forex	62.9437	9.4827

Table 2 Correlation

	FDI	INFLATION	FOREX
FDI	1	-.2281	.3165
INFLATION	-.2281	1	-.872
FOREX	.3165	-.872	1

Table 3 Regression

	coefficient	T statistic
Inflation	-20.1%	-.294
Forex	49.1%	.721
R square	11%	