

The Impact of Foreign Direct Investment (FDI) on Pakistan Exports: An Empirical Analysis

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Abstract: Over the last three decades, there have been high inflows of FDI at unprecedented accelerated rates; but the growth of exports has been increasing, however, not at satisfactory level. FDI can affect, directly and indirectly, the exports of hosting country. Using the time series data from 1977 to 2005, a double log model has been used to estimate impact of FDI on exports and results show that the two years lagged FDI has statistical significant positive impact on the current exports of Pakistan. FDI in textile sector, which is backbone of exports, had been very low in this period. The same was the case with other exporting sectors. As a matter of fact, exports do have a significant place in Pakistan, so Government of Pakistan should formulate such economic policies, as relaxation on foreign exchange control, abolishment of technical fee and introduction of the suitable tax relief policy for the foreign investors that attract FDI, especially resource-oriented, in Pakistan.

Keywords: FDI, exports, investment, economic policies

1. INTRODUCTION

Foreign Direct Investment (FDI) has been counted as one of the source of higher economic growth of the developing countries. FDI has fastened the technological growth, enhanced human capital, and promoted the international trade in the developing countries. In order to attract the FDI, developing countries have created investment-friendly macroeconomic policies to be benefited most from FDI.

Pakistan, like many other developing countries, lacks capital formation; there is huge gap between saving and investment in the country. Pakistan has initiated several reforms from time to time in various sectors of the economy to boost up the real growth, to sustain macroeconomic stability and attract FDI inflows in the country.

This paper aims to seek the statistical impact of FDI on the exports of Pakistan during the period of 1977-2005.

First part of the paper is about introduction and the literature review on the subject matter. Second part highlights the trends of FDI inflows in Pakistan, sector wise and country wise. This part also pours the light on the progress of exports for the last two decades in Pakistan. Third part describes about the range and sources of data and model specification. Fourth part ends the paper with findings and policy recommendations.

2. LITERATURE REVIEW

The research on this topic can be divided into two categories of studies:

- (1) Finding the overall macroeconomic impact and indirect impact of FDI on exports of the host countries
- (2) Determining the impact of export-oriented FDI on the exports

The latter are the most common, but mostly do not capture the exports of foreign owned companies.

Barry and Bradley [1] concentrated on determining the nature of FDI in Ireland, analyzed the effects of FDI on Irish exports in a more descriptive way, and concluded that there had been a significant direct contribution of foreign producers to the increase in Irish exports because the FDI in Ireland had mostly been export-oriented. The authors believed that a reduction in the almost total dependence on the United Kingdom as a trading partner that occurred as a consequence of FDI was especially important. They also mentioned the possibility of additional indirect influence through spillovers, but no attempt had been taken to show it empirically.

The papers from Goldberg and Klein [2], Zhang and Song [3], and Sun [4] attempted to analyze both the direct and the indirect effects of FDI on trade at the macroeconomic level, using econometric tools. Goldberg and Klein (1999) analyzed the impact of FDI from the United States in the manufacturing sectors of individual

Latin American countries on the net exports of those and other sectors [2]. They, basically, tested if the capital movements and trade in goods were substitutes or complements. Due to detailed data on bilateral capital and trade flows between the U.S and host countries in Latin America, they were able to address the inter-sectoral spillovers in a more explicit way. The results varied across the sectors and the host countries, reflecting the importance of the specific conditions in individual countries and industries. The fact that the results were mixed made it impossible for the authors to draw a strong and clear conclusion on the substitutability or complementarity of the FDI flows and trade. Zhang and Song (2000) addressed different impact of foreign investment on exports in China at the provincial level in the period from 1986 to 1997 with a somewhat different empirical specification [3]. Using the panel data model, they also found that higher levels of FDI were consistent with higher provincial exports. It is worth noting that the positive effect of FDI on exports in China has mostly been a direct one. Sun (2001) investigated the same question but in three regions of China in a period from 1984 to 1997, and he implicitly took the specific initial conditions of the individual regions into account. He used a panel data econometric model and found that the effects of FDI on export performance vary across the three regions [4].

In addition, there are many papers on various types of spillovers of and different channels for FDI to have impact on the exports. In a presentation of the results of a recent literature review on FDI spillovers by Gorg and Greenaway [5], out of 40 studies concerned with intra-industry productivity, spillover effects from FDI on domestic firms in developed, developing and transition economies. 19 reports were statistically significant and had positive spillovers, 15 studies did not find any significant effects, while 6 papers found some evidence of negative effects. Interestingly, many studies on FDI spillovers in transition countries found some evidence of negative spillovers.

2.1 Foreign Direct Investment Trends in Pakistan

Economic theory recognizes Foreign Direct Investment (FDI) as a factor of major importance for economic growth. This proposition is considered to have global application for all countries experiencing foreign investment inflows, but is especially relevant for the developing ones. In general, it has been observed that Foreign Direct Investment is related with economic environment of country, which is investing; therefore, economic environment is influenced by the development strategies and macro organizational policies of that country's government [6], [7].

In many country case studies, the empirical evidence varies from country to country, due to variations in their national policies, the response of domestic enterprises, and the type of FDI flow [8], [9], [10]. A fact has been established that the nature and volume of FDI in developing countries are very different and certainly, its impact in developing countries and less developed countries would be different [11].

While looking at the pattern of Foreign Direct Investment in Pakistan, which has been very impressive in recent years, FDI has increased from \$246 million in 1990-91 to \$2.89 billion in 2005-06. FDI has increased slowly during 1990-91 to 1994-95 but in 1995-96, it suddenly increased to \$1.1 billion. By 1996, its share raised to almost 50 percent of net resource flows. After the mid of 90s and beginning of the millennium decade, FDI has shown a volatile trend, decreased in the beginning and improved in the first three years of millennium decade. Considering the openness of the investment regime, foreign investment activity to date has registered an extensive increase in FDI flows.

Pakistan was among the first few countries in the region to open up the market in early nineties. Pakistan does not only have a desirable record of accomplishment of economic growth in sixties but still it has the potential to repeat the past. It still enjoys some economic fundamentals. The country has repeatedly come out with pro-investment policies. The government of Pakistan undertook program of liberal economic reforms including liberalization, privatization, and deregulation to bring the economy into a fully market-oriented system. Foreign investment is generally subject to the same rules as domestic investment, with the exception of certain sensitive areas such as defense production, banking, and broadcasting. However, the new Investment Policy provides equal investment opportunities for both domestic and foreign investors [12], [13], [14], [15], [16].

Almost 78 percent of FDI has come from five countries, namely, the UAE, US, China, UK and Netherlands. Netherlands with 18.1 percent (\$753.4 million) has topped the list of foreign investors followed by the UK (17.4% or \$724.4 million), China (17.0% or \$708.9 million), US (16.3% or \$676.7 million), and UAE (8.8% or \$364.2 million) [17].

The communication sector (including Telecom) spearheaded the FDI inflows by accounting for 34.2 percent stake during July-April 2006-07 followed by financial business (20.9%), energy including oil & gas and power (14.1%), and food, beverages and tobacco (11.8%). These four groups accounted for almost 80% of FDI inflows in the country. The pace of FDI clearly indicates

that foreign investors are positive on Pakistan's current and future economic prospects. The challenge for the government is therefore, to maintain consistency and continuity in economic policies, continue to maintain macroeconomic stability and continue to pursue structural reforms in different sectors of the economy [17].

2.2 Exports Progress in Pakistan

Against the East Asian countries, Pakistan's export performance is less than satisfactory. But fortunately, during the last 5 years, Pakistan's export performance is unique as it took 19 years (1980-99) to add \$3.5 billion but it took only 5 years (1999-2004) to add \$4.5 billion [19]. Pakistan's shares in world exports have also risen over the last 5 years from 0.14% to 0.164% [18]. In 1990s, growth slowed down especially of large-scale manufacturing for variety of reasons including worse macroeconomic environment, adverse law and order situation, and inconsistent policies of poor governance. As against an average growth of 8.2% in 1980, large-scale manufacturing slowed down to 4.7% in first half of 1990 and further to 3% during 3 years [18].

In 1990-91 and 1991-92, exports showed growth rate of 29.88% and 24.19% respectively, but in 1992-93 it decreased to 3.09% because of floods and political uncertainty that made economy miserable and Pakistan's textile exports was adversely effected. In order to overcome trade deficit, government devalued rupee in 1993-94, but unexpectedly it resulted in declining value of exports in year 1993. In 1998-99, export growth rate again suffered badly from 14.71% in 1997-98 to 4.60% in 1998-99 as a result of sanctions imposed on Pakistan against nuclear test that depressed economy. But as Musharraf Government came in power in 1999, new policies were institutionalized to stabilize Pakistan's macroeconomic situation, and Pakistan still continues to struggle to balance its trade deficits. Therefore, in 1999-00, exports showed growth of 13.60% against 4.60% in 1998-99. Pakistan's exports have been almost stagnated at around Rs. 2-3 million during 1994-95 to 1998-99 [17].

Pakistan's export is focused in few items i.e. cotton, leather, rice, synthetic textiles and sports goods. They account 79.3% of total exports during 2003-04 in which cotton takes the huge share of 62.3%. The reason why Pakistan is lagging behind is that it highly depends on few items of which poor crop in any year affects whole exports adversely. Fortunately, in 2001 and onwards, many sanctions were lifted and thus Pakistan's economy improved, due to foreign inflows observed at the end of 2001. Now, after the Musharraf government, the export of non-traditional items like machinery, transport, equipments, chemical and pharmaceuticals was also

improved through diversification. Although this is a very small contribution, but no doubt has helped in diverting Pakistan's heavy dependence on textile sector [18].

Cotton export declined to 62.3% in 2003-04, 63.3% in 2002-03 and 61% in 1990-91 but still enjoys highest share of 57.3% in Pakistan's exports. Leather's share has declined considerably due to less value added products, as it was 9.1% in 1990-91 stood at 5.4% in 2004-05. Currently, rice share in export is on second after cotton with 5.9% in 2004-05. Highly dependence on cotton creates instability in overall exports of Pakistan. Now, textile manufactures are focusing on high value addition. In textile, cotton yarn's and cotton cloth's share declined from 19% to 12.2% and 22.4/5 to 22.3% respectively, during the last 7 years. Whereas, knitwear showed increase from 14.9% to 21.2%, bed wear increased from 12.3% to 15.2% and towel share also increased from 3.6% to 5.8%, because of value addition in these items [17].

Similarly, Pakistan's exports are concentrated in some countries. But in 2003-04, new markets were accessed which resulted in export supply to 24 countries. Moreover, subsidy was also allowed by Pakistan's Export Promotion Bureau to encourage further exports [17].

Over the years, Pakistan's export focus has been towards USA that covers around one fourth of Pakistan's exports. From 1998-99 this share increased and is still increasing with 25.6% export share in 2004-05, the highest ever. Moreover, Pakistan captured good market in Japan and Germany in 1990s but its share declined from 8.9% (Germany) and 8.3% (Japan) in 1990-91 to 4.9% (Germany) and 1.5% (Japan). The share of exports to Germany, UK, Hong Kong and Saudi Arabia remained almost stagnant whereas Dubai's share decreased mainly due to textile manufactures. UK's share is also almost stagnant over the years with average export of 7% and now stands at second after USA in Pakistan's export market [17].

3. DATA

The data used in this study is for the period from 1977 to 2005. The reasons for selection of this period are continuous inflows of Foreign Direct Investment, less degree of political or other structural breakdowns and flexible policies for foreign investors.

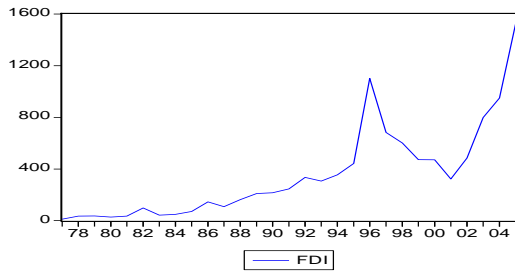


Figure 1: FDI Inflows in Pakistan (\$ Millions)
Source: State Bank of Pakistan (Various Years)

The annual data of FDI and exports are obtained from statistical database of SBP; both variables are in million of US dollars.

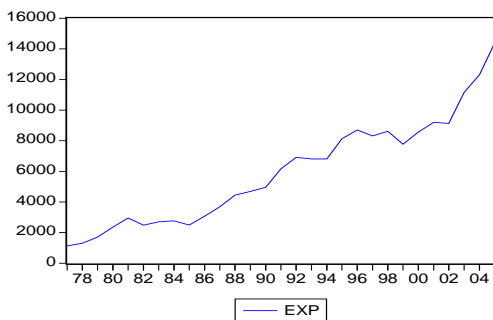


Figure 2: Exports of Pakistan (\$ Millions)
Source: State Bank of Pakistan (Various Years)

As shown in Figure 2, it shows that the FDI has increased slowly and gradually up to 1995 then has shown a volatile trend; whereas, exports has shown gradual upward trend from 1976 to 2004.

4. MODEL SPECIFICATION

First, the data series are tested whether they are stationary or not by using Augmented Dickey-Fuller test. The test shows that the series both in absolute amount (Dollars) and in growth rate (log) of both exports and FDI are found to be non-stationary with and without trend. But in both series, at first, their differences of growth rates are stationary. The first difference of log of exports data is stationary at 5% level of significance with and without trend; whereas, the first difference of log of FDI is stationary at 1% level of significance. The results are given in Table 1 and Table 2 respectively.

To investigate the statistical relationship between FDI and exports of Pakistan, various models were tested but simple double-log regression model was found to be the most fittest and robust. It is expected that the coefficient of

FDI would be positive, means there would be positive, impact of FDI on the exports of Pakistan.

The model is:

$$\Delta \ln \exp_t = \alpha_0 + \alpha_1 \Delta \ln fdi_t + \mu_t$$

where, $\ln \exp$ stands for log of exports and $\ln fdi$ for log of foreign direct investment, t for time, α_0 for intercept, and α_1 for slope co-efficient and μ for error term.

Table 1: ADF Test for exports

Null Hypothesis: DLNEXP has a unit root			
Exogenous: Constant, Linear Trend			
Lag Length: 0 (Automatic based on SIC, MAXLAG=6)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.2299	0.0128
Test critical values:	1% level	-4.3393	
	5% level	-3.5875	
	10% level	-3.2292	
*MacKinnon (1996) one-sided p-values			

Table 2: ADF Test for FDI

Null Hypothesis: DLNFDI has a unit root			
Exogenous: Constant, Linear Trend			
Lag Length: 0 (Automatic based on SIC, MAXLAG=6)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.706553	0.0000
Test critical values:	1% level	-4.339330	
	5% level	-3.587527	
	10% level	-3.229230	
*MacKinnon (1996) one-sided p-values			

Table 3: Model Results

Dependent Variable: DLNEXP				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.064308	0.022593	2.846391	0.0089
DLNFDI (-2)	0.106609	0.046205	2.307300	0.0300
R-squared	0.181548	Mean dependent var		0.081988
Adjusted R-squared	0.147445	S.D. dependent var.		0.117371
S.E. of regression	0.108373	Akaike info criterion		-1.5327
Sum squared resid	0.281872	Schwarz criterion		-1.4359
Log likelihood	21.92477	F-statistic		5.3236
Durbin-Watson stat	1.882835	Prob. (F-statistic)		0.02997

5. FINDINGS AND RESULT DISCUSSION

The model is significant at 3% level, and F and t-statistics are found significant. The low value of R-square is due to not including many variables in the model, which have impact on exports of Pakistan such as foreign exchange rates, labor cost and productivity, exports duties, interest rate, and international image of Pakistan. Here, these factors are kept exogenous to analyze FDI impact on the exports. The results are given in Table 3. So, it is only two years lagged FDI which is significant. FDI took, on average, two years to have positive impact on the exports of Pakistan. More concretely, the coefficient of FDI is defined as “One unit positive (negative) change in growth of FDI lagged by two years led to 0.1066 unit positive (negative) changes in growth of the current year exports of Pakistan over the period”. The response, 0.1066 units, of the exports to the FDI is not high, which can attribute to lesser inflow of the FDI to export-oriented sectors and small spillover impact of the FDI on the exports of Pakistan.

Textile sector had been robustly contributing almost one-third of total exports in Pakistan, but inflow of FDI in this sector had been very low. The same had been the case with other exporting sectors. Despite much insignificant inflow of FDI in the exporting sectors, FDI tended to have positive impact through their spillover effect generated by FDI in other sectors that help boost exports in Pakistan.

Since approach of this research is to assess the overall impact, which incorporates both direct and indirect, these findings are consistent with 19 out of 40 reports presented by Gorg and Greenaway (2003) [5].

6. RECOMMENDATIONS

This research has found statistically significant impact of FDI on the exports of Pakistan. Exports play key role in earning foreign exchange in Pakistan, reducing the deficit of trade and decreasing the foreign debt. The Government of Pakistan should formulate such economic policies that attract FDI in Pakistan, especially resource-oriented. The Government of Pakistan should give the relaxations on foreign exchange controls to the foreign investors, abolish the technical fee and introduce the new appropriate tax relief policy for the foreign investors. Above all, recent studies on FDI determination have suggested that political and social factors play more important role than economic factors.

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