The Impact of Foreign Direct investment on Pakistan Economic Growth

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Abstract
Foreign direct investment (FDI) is often seen as an important catalyst for economic growth in the developing countries. It affects the economic growth by stimulating domestic investment, increasing human capital formation and by facilitating the technology transfer in the host countries. The core object behind this study is to explore the exports as well as compare to imports, for the development of Pakistan by Foreign Direct investment (FDI) & find out the impact of GDP growth. Particularly the main objective is the exports increases against imports & to control the deficit problem of the country. This paper focuses on the FDI-led growth hypothesis in the case of Pakistan economy. This study comprises of annual observations and its data cover period from 1976 to 2010 and evaluate a series of observations. I describe this study with three variables, depended & independend variables & to use the secondary data & put into ARDL (Auto Regressive Distributed Lag) Model are applied to examine long run relationship between depended & independend variables. The results of the study that, there is no long run relationship between depended and independend variables. Policy recommendations are suggested in the light of the results obtained, regarding the FDI in Pakistan.

Keywords: Impact ; Foreign Direct investment ; Pakistan Economic Growth

Introduction
Foreign Direct Investment (FDI) has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries, despite their share in global distribution of FDI continuing to remain small or even declining. The role of the foreign direct investment (FDI) has been widely recognized as a growth-enhancing factor in the developing countries (Khan, 2007). The effects of FDI in the host economy are normally believed to be; increase in the employment, augment in the productivity, boost in exports and amplified pace of transfer of technology. The potential advantages of the FDI on the host economy are; it facilitates the utilization and exploitation of local raw materials, introduces modern techniques of management and marketing, eases the
access to new technologies, foreign inflows can be used for financing current account deficits, finance flows in form of FDI do not generate repayment of principal and interests (as opposed to external debt) and increases the stock of human capital via on the job training.

Many policy makers and academics contend that foreign direct investment (FDI) can have important positive effects on a host country’s development effort. In addition to the direct capital financing it supplies, FDI can be a source of valuable technology and know-how while fostering linkages with local firms, which can help jumpstart an economy. Based on these arguments, industrialized and developing countries have offered incentives to encourage foreign direct investments in their economies.

Recently, however, the special merits of FDI and particularly the kinds of incentives offered to foreign firms in practice have begun to be questioned. Fueling this debate is that empirical evidence for FDI generating positive spillovers for host countries is ambiguous at both the micro and macro levels. In a recent survey of the literature, Hanson (2001) argues that evidence that FDI generates positive spillovers for host countries is weak. In a review of micro data on spillovers from foreign-owned to domestically owned firms, Gorg and Greenwood (2002) conclude that the effects are mostly negative. Lipsey (2002) takes a more favorable view from reviewing the micro literature and argues that there is evidence of positive effects. Surveying the macro empirical research led Lipsey to conclude, however, that there is no consistent relation between the size of inward FDI stocks or flows relative to GDP and growth. He further argues that there is need for more consideration of the different circumstances that obstruct or promote spillovers.

Although the theoretical work on FDI points to advantages, conceivably, spillovers could nevertheless be small. On the other hand it could be that we are looking in the wrong places. For example, the macro empirical work that has analyzed the effects of aggregate FDI inflows-stocks on host economies does not, mostly due to data limitations, control for the sector in which FDI is involved. Although it might seem natural to argue that FDI can convey great advantages to host countries, such gains might differ across primary, manufacturing, and services sectors. UNCTAD World Investment Report (2001:138), for instance, argues, “in the primary sector, the scope for linkages between foreign affiliates and local suppliers is often limited…. The manufacturing sector has a broad variation of linkage intensive activities. [In] the tertiary sector the scope for dividing production into discrete stages and subcontracting out large parts to independent domestic firms is also limited.”
LITERATURE REVIEW

A number of studies have analyzed the relationship between FDI inflows and economic growth, the issue is far from settled in view of the mixed findings reached. Most of these studies have typically adopted standard growth accounting framework for analyzing the effect of FDI inflows on growth of national income along with other factors of production. Within the framework of the neo-classical models (Solow, 1956) the impact of the FDI on the growth rate of output was constrained by the existence of diminishing returns in the physical capital. Therefore, FDI could only exert a level effect on the output per capita, but not a rate effect. In other words, it was unable to alter the growth rate of output in the long run. It is not surprising, thus, that FDI was not considered seriously as a drive engine of growth by mainstream economics. In the contrast, the New Theory of Economic Growth, however, concludes that FDI may affect not only the level of output per capita but also its rate of growth. This literature has developed various arguments that explain why FDI may potentially enhance the growth rate of per capita income in the host country, the identified channels to boost economic growth include increased capital accumulation in the recipient economy, improved efficiency of locally owned host country firms via contract and demonstration effects, and their exposure to fierce competition, technological change, and human capital augmentation and increased exports. However, the extent to which FDI contributes to growth depends on the economic and social condition or in short, the quality of environment of the recipient country (Buckley, et al. 2002). This quality of environment relates to the rate of savings in the host country, the degree of openness and the level of technological development. Host countries with high rate of savings, open trade regime and high technological product would benefit from increased FDI to their economies. FDI increases technical progress in the host country by means of a contagion effect, (Findlay, 1978) which eases the adoption of advanced managerial procedures by the local firms. Similarly (De Gregorio, 1992) analyzed a panel of 12 Latin American countries in the period 150-1985. His results suggest a positive and significant impact of FDI on economic growth. In addition the study shows that the productivity of FDI is higher than the productivity of domestic investment. While, (Fry, 1992) examined the role of FDI in promoting growth by using the framework of a macro-model for a pooled time series cross section data of 16 developing countries for 1966-88 period. The countries included in the sample were Argentina, Brazil, Chile, Egypt, India, Mexico, Nigeria, Pakistan, Sri Lanka, Turkey,
Venezuela, and 5 Pacific basin countries viz. Indonesia, Korea, Malaysia, Philippines and Thailand. For his sample as a whole he did not find FDI to exert a significantly different effect from domestically financed investment on the rate of economic growth, as the coefficient of FDI after controlling for gross investment rate, was not significantly different from zero in statistical terms. FDI had a significant negative effect on domestic investment suggesting that it crowds-out domestic investment. Hence FDI appears to have been immiserizing. However, this effect varies across countries and in the Pacific basin countries FDI seems to have crowded-in domestic investment. FDI inflows had a significant positive effect on the average growth rate of per capita Income for a sample of 78 developing and 23 developed countries as found by (Blomström et.al, 1994). However, when the sample of developing countries was split between two groups based on level of per capita income, the effect of FDI on growth of lower income developing countries was not statistically significant although still with a positive sign. They argue that least developed countries learn very little from MNEs because domestic enterprises are too far behind in their technological levels to be either imitators or suppliers to MNEs. In this regard, another study was conducted by (Borensztein, et al., 1998) he included 69 developing countries in his sample. The study found that the effect of FDI on host country growth is dependent on stock of Human capital. They infer from it that flow of advanced technology brought along by FDI can increase the growth rate only by interacting with country’s absorptive capability. They also find FDI to be stimulating total fixed investment more than proportionately. In other words, FDI crowds-in domestic investment. However, the results are not robust across specifications. Export-oriented strategy and the effect of FDI on average growth rate for the period 1970-85 for the cross-section of 46 countries as well as the sub-sample of countries that are deemed to pursue export-oriented strategy was found to be positive (Balasubramanyam et al. 1996) and significant but not significant and some times negative for the sub-set of countries pursuing inward-oriented strategy. Findings of (Xu, 2000) for US FDI in 40 countries for the period 1966-94 also support the findings of De Mello that technology transfer from FDI contributes to productivity growth in developed countries but not in developing countries, which he attributes to lack of adequate human capital. (Agosin and Mayer, 2000) analyzed the effect of lagged values of FDI inflows on investment rates in host countries to examine whether FDI crowds-in or crowds-out domestic investment over the 1970-95 period. They concluded that FDI crowds-in domestic investment in Asian countries crowds-out in Latin American countries, while in Africa their relationship is
neutral (or one-to-one between FDI and total investment). Therefore, they concluded that effects of FDI have by no means always favorable and simplistic policies are unlikely to be optimal.

These regional patterns tend to corroborate the findings of (Fry, 1992) who also reported East Asian countries to have a complementarily between FDI and total investment. In another study by (Pradhan, 2001) found a significant positive effect of lagged FDI inflows on growth rates only for Latin American countries. He used a panel data estimation covering 1975-95 period for 71 developing countries. The study sheds light that the effect of FDI was not significantly different from zero for the overall sample and for other regions. A number of early studies have generally reported an insignificant effect of FDI on growth in developing host countries. FDI may have negative effect on the growth prospect of the recipient economy if they give rise to a substantial reverse flows in the form of remittances of profits, particularly if resources are remitted through transfer pricing and dividends and/or if the transnational corporations (TNCs) obtain substantial or other concessions from the host country. For instance, Singh, (1988) found FDI penetration variable to have a little or no consequences for economic or industrial growth in a sample of 73 developing countries. In the same way (Hien, 1992) reported an insignificant effect of FDI inflows on medium term economic growth of per capita income for a sample of 41 developing countries. For studies conducted in Pakistan, a study by (Shabir and Mahmood, 1992) analyzed the relationship between foreign private investment FPI and economic growth in Pakistan. The study used the data for 1959-60 to 1987-88; the study concluded that net foreign private investment (FPI) and disbursements of grants and external loans (DISB) had a positive impact on the rate of growth of real GNP. However they did not treat FDI as a separate variable. Similarly (Ahmed, et.al, 2003) examined the causal relationship between FDI, exports and output by employing Granger non-causality procedure over the period 1972 to 2001 in Pakistan. They found significant effect from FDI to domestic output, in contrast to the above mentioned studies. An important study undertaken by (Khan, 2007) examines the link between FDI and economic growth by including the role of domestic financial sector, Khan argues that introduction of financial sector indicator is expected to improve and reinforce the link between FDI and economic performance, as well as reflect the level of absorptive capability of a recipient country in enjoying the benefits embodied in FDI inflows. The study covers the time period from 1972-2005, and to examine the long run relationship between variables i.e. growth rate of real GDP, ratio of FDI to real GDP, financial sector development, labour, and physical capital the study uses the Bound testing approach to co-integration within the framework of Autoregressive
Distributes Lag(ARDL). The findings of the study suggest that Pakistan will effectively transform benefits embodied in FDI inflows, if the evolution of the domestic financial sector has aimed at a certain development level. The interaction term between FDI and financial development indicator is positive, while the coefficient of FDI is negative in the case of Pakistan. This suggests that FDI will have a positive impact on growth performance only if the domestic financial sector is well developed and functioning efficiently, otherwise the effect of FDI on economic growth will be negative. The study also provides the evidence that the link between FDI and growth is causal, where FDI promotes growth through financial sector development.

LITERATURE COMMENTS

To sum up, the prime objective of these studies reviewed here is to explore the exports relationship between external debt and economic growth. Most of the research done in this area used a broader data set defined over a longer time series than others, with only a few studies focused on country-specific analysis. Overall, majority of the studies came up with a conclusion that higher level of external debt is associated with a relatively lower level of economic growth; with only few studies that found no conclusive evidence supporting these hypotheses.

Methodology

For the purpose of study we have obtained data from WDI for the past 35 years i.e., from 1976-2010 and estimated variables are:

GDP = Gross Domestic Products (Dependent Variable)
EXP01 = Exports (Independent Variable)
FDI = Foreign Direct Investment (Independent Variable)

In order to study long-run relationship between the dependent and independent variables we have applied ARDL (Auto Regressive Distributed Lag) Model evaluated for 4 time lag with an Intercept and no trend and our estimated equation is:

\[ D(GDP) = C(1) \times GDP(-1) + C(2) \times FDI(-1) + C(3) \times EXP01(-1) + C(4) \times D(FDI(-1)) + C(5) \times D(FDI(-2)) + C(6) \times D(FDI(-3)) + C(7) \times D(FDI(-4)) + C(8) \times D(EXP01(-1)) + C(9) \times D(EXP01(-2)) + C(10) \times D(EXP01(-3)) + C(11) \times D(EXP01(-4)) + C(12) \times D(GDP(-1)) + C(13) \times D(GDP(-2)) + C(14) \times D(GDP(-3)) + C(15) \times D(GDP(-4)) + C(16) \]
After execution of model as at Table 1 the substituted Coefficients are

\[
D(GDP) = -1.75\times GDP(-1) + 0.11\times FDI(-1) - 0.91\times EXP01(-1) + 0.25\times D(FDI(-1)) + 1.05\times D(FDI(-2)) - 0.09\times D(FDI(-3)) + 0.24\times D(FDI(-4)) + 0.66\times D(EXP01(-1)) + 1.21\times D(EXP01(-2)) + 0.30\times D(EXP01(-3)) + 0.97\times D(EXP01(-4)) + 0.88\times D(GDP(-1)) + 0.39\times D(GDP(-2)) + 0.21\times D(GDP(-3)) + 0.19\times D(GDP(-4)) + 21.33
\]

**Table: 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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</thead>
<tbody>
<tr>
<td>GDP(-1)</td>
<td>-1.755052</td>
<td>0.756596</td>
<td>-2.319668</td>
<td>0.0360</td>
</tr>
<tr>
<td>FDI(-1)</td>
<td>0.107902</td>
<td>1.697012</td>
<td>0.063584</td>
<td>0.9502</td>
</tr>
<tr>
<td>EXP01(-1)</td>
<td>-0.906592</td>
<td>0.523620</td>
<td>-1.731394</td>
<td>0.1053</td>
</tr>
<tr>
<td>D(FDI(-1))</td>
<td>0.247419</td>
<td>1.684620</td>
<td>0.146869</td>
<td>0.8853</td>
</tr>
<tr>
<td>D(FDI(-2))</td>
<td>1.018009</td>
<td>2.265036</td>
<td>0.449445</td>
<td>0.6600</td>
</tr>
<tr>
<td>D(FDI(-3))</td>
<td>-0.087999</td>
<td>2.126670</td>
<td>-0.041379</td>
<td>0.9676</td>
</tr>
<tr>
<td>D(FDI(-4))</td>
<td>0.238445</td>
<td>2.111694</td>
<td>0.112916</td>
<td>0.9117</td>
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<tr>
<td>D(EXP01(-1))</td>
<td>0.661790</td>
<td>0.625516</td>
<td>1.057990</td>
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<tr>
<td>D(EXP01(-2))</td>
<td>1.210038</td>
<td>0.571865</td>
<td>2.115951</td>
<td>0.0528</td>
</tr>
<tr>
<td>D(EXP01(-3))</td>
<td>0.299181</td>
<td>0.635652</td>
<td>0.470668</td>
<td>0.6451</td>
</tr>
<tr>
<td>D(EXP01(-4))</td>
<td>0.971482</td>
<td>0.574892</td>
<td>1.689852</td>
<td>0.1132</td>
</tr>
<tr>
<td>D(GDP(-1))</td>
<td>0.868496</td>
<td>0.623190</td>
<td>1.393630</td>
<td>0.1852</td>
</tr>
<tr>
<td>D(GDP(-2))</td>
<td>0.386596</td>
<td>0.398364</td>
<td>0.970458</td>
<td>0.3483</td>
</tr>
<tr>
<td>D(GDP(-3))</td>
<td>0.211943</td>
<td>0.279218</td>
<td>0.759059</td>
<td>0.4604</td>
</tr>
<tr>
<td>D(GDP(-4))</td>
<td>0.185932</td>
<td>0.226457</td>
<td>0.821050</td>
<td>0.4254</td>
</tr>
<tr>
<td>C</td>
<td>21.33041</td>
<td>10.48552</td>
<td>2.034273</td>
<td>0.0613</td>
</tr>
</tbody>
</table>

In order to check long-run relationship between GDP, Export and FDI Wald Test is applied and its F-statistics value is checked against critical value from Case-II Intercept and no trend at 90% confidence as:

Upper bound value: 3.182 (at K = 2)
Lower bound value: 4.126 (at K = 2)
Our F-Statistic value falls below the lower bound value then accept Null hypothesis, i.e., there is no log-run relationship exists that is no integration between dependent and independent variables.

**Table: 2**

**Wald Test:**
Equation: Untitled

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>df</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>2.002839</td>
<td>(3, 14)</td>
<td>0.1599</td>
</tr>
<tr>
<td>Chi-square</td>
<td>6.008516</td>
<td>3</td>
<td>0.1112</td>
</tr>
</tbody>
</table>

**Null Hypothesis Summary:**

<table>
<thead>
<tr>
<th>Normalized Restriction (= 0)</th>
<th>Value</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(1)</td>
<td>-1.755052</td>
<td>0.756596</td>
</tr>
<tr>
<td>C(2)</td>
<td>0.107902</td>
<td>1.697012</td>
</tr>
<tr>
<td>C(3)</td>
<td>-0.906592</td>
<td>0.523620</td>
</tr>
</tbody>
</table>

Restrictions are linear in coefficients.

**Conclusion**

In this study, impact of FDI and exports on Pakistan economic growth variables has been analyzed through ARDL (Auto Regressive Distributed Lag) Model. The results indicate that there is no long run relationship between depended and independed variables. There is short run relationship between depended and independed variables; it means the model is not good fit. FDI and exports volume less contribute for the economic growth.

**Recommendation**

This studies that have found that, there is no long run relationship between depended and independed variables. Hence, I suggest an export-led growth path, particularly at the initial stage of growth, in the later period, dependence on FDI might be feasible option. This finding can be the exports promotion incentives determine a specialization of the economy accompanied by the scale benefices. The exports may stimulate the country to import high-value inputs, products and technologies. By consequence, these elements may have a positive impact on the productive capacity of the economy.
References


Hussain, Ishrat (2003), Economy of Pakistan: Past, Present and Future Perspective. A paper presented at the Seminar on Pakistan Ideology held by the Pakistan Study Center, University of Karachi.

International Financial Statistics, IMF (International Monetary Fund), various issues.

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