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ANALYSIS OF FACTORS AFFECTING FOREIGN DIRECT INVESTMENT IN DEVELOPING COUNTRIES

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Abstract. This study has analyzed the volume and determinants of Foreign Direct Investment (FDI) in developing countries of the world. The analysis was based on a sample of 15 developing countries with 5 each from upper middle, lower middle and lower income countries. In general, the flow of FDI to developing countries has followed an uneven path and its volume was modest in the beginning of 1980s but has tended to rise in subsequent years. Following panel data model, we applied three approaches, namely common intercept model, random effects and fixed effects model, to clearly identify the factors affecting FDI in developing countries with different levels of income. The analysis showed that urbanization, GDP per capita, standard of living, inflation, current account and wages are affecting FDI significantly in low income, urbanization, labour force, domestic investment, trade openness, standard of living, current account, external debt and wages in lower middle income and urbanization, labour force, GDP per capita, domestic investment, trade openness and external debt in the sample upper middle income countries. Similarly, country specific dummies have attributed large variations in FDI to institutional and structural differences among the countries analyzed.

I. INTRODUCTION

Foreign Direct Investment (FDI) has historically contributed to the development of many host countries by way of improving their infrastructure, technical skills, entrepreneur abilities and financial resources in terms of government revenue and foreign exchange. Since FDI is expected

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as such to expand opportunities of development, its demand has increased rapidly, especially over the last two decades. The growing shortage of official loans from the international financial institutions and aid from the developing countries has further increased the demand for FDI in Less Developed Countries (LDCs) of the world. Although the volume of FDI in developing countries has increased significantly over time, its distribution has been characterized by large variations between and within different regions of the world. Until mid-1980s, Latin America and the Caribbean were the largest recipients of FDI. However, the situation since late 1980s has reversed and the Asian and Pacific countries have became its recipients. These two developing regions are jointly receiving approximately 85% of FDI flows to developing countries. Individually, in 1998 Africa received 4.5%, Asia 2%, Pacific 46.3%, Latin America and Caribbean 39% and Central and Eastern Europe 10.2% of FDI (UNCTAD, 1999).¹ Although the diversity in the magnitude and density of FDI in developing countries has variously been examined, there is still need of systematically analyzing factors affecting it in countries by level of income, which has a direct bearing on the prerequisites of FDI. As such this study has empirically analyzed factors likely to have affected historically the flow of FDI in countries with different levels of income.

Many different factors have affected the volume and distribution of FDI in developing countries of the world. The main beneficiaries of the major FDI inflows have been the countries with political stability (Ghurra and Goodwin, 2000; Root and Ahmed, 1979; De Mello, 1995; Cheng and Kwan, 1999; Schneider and Frey, 1985; Wang and Swain, 1995), favourable policies of tax and subsidies (De Mello, 1999), existence of good business environment, better administrative policies and low level of corruption (Loot, 2000; Ghurra and Goodwin, 2000). Moreover, macro variables such as size of market, physical infrastructure, skilled labour force, trade openness, inflation, labour cost, productivity and interest rate are also reported as other important factors affecting FDI in developing countries of the world (Kravis and Lipsey, 1982; Wheeler and Moody, 1992; De Mello, 1997; Lucas, 1993; Wang and Swain, 1995).

Historically, the flow of FDI to developing countries has followed an uneven path being modest at the beginning of 1980s and tending to rise in subsequent periods. Specifically, the flow has increased considerably from

¹*Cf.* Loots (2000).

US \$ 10,100 millions in 1986 to 87,124 in 1994 (UNCTAD, 1985-95). Further, the density of FDI has varied significantly across countries. Specifically it ranged from a maximum of 31% of total FDI received by China to 13% by Brazil and to just close to 3% by India and Venezuela. The peak flow of FDI in Pakistan was at US \$ 1101.9 millions in 1995-96.

II. MODEL SPECIFICATIONS AND ESTIMATION PROCEDURES

Since the major objective of foreign investors, especially the multinational companies, is the maximization of profit from their investment, they usually do not show keen interest in investing in countries with no promise of bright prospects of large profits. In general, foreign investors prefer countries with stable governments, sound economic programmes, reasonably good overhead infrastructure, low foreign debt obligations, etc. By the same token, the countries with corruption, political instability, tax evasion, trade restrictions, inadequate skilled manpower, low income, etc. do not constitute favourable sites for investment. Both domestic endowments and deficiencies are expected to exercise highly differentiated effect on FDI. For the purpose of analyzing specific effects of different factors on FDI in countries with different levels of income, this study has specified the following model:

$$FDI = \alpha + \beta_1 CGDP + \beta_2 DI + \beta_3 CA + \beta_4 EXD + \beta_5 OPEN + \beta_6 GDPD + \beta_7 EXT + \beta_8 STLIV + \beta_9 URB + \beta_{10} SCH + \beta_{11} LF + \beta_{12} TR + \beta_{13} ID + \beta_{14} W$$

where.

FDI Foreign direct investment per capita includes equity capital, reinvested earnings and other capital associated with various inter company transactions between affiliated enterprises.

CGDP Real gross domestic product per capita.

DI Real gross domestic investment both private and public as percentage of CGDP.

CA Current account including credit minus debit of goods, income and current transfers, given as percentage of *GDP*.

EXD External debt that consists of total long-term and short-term stocks expressed by type of borrower.

OPEN Trade openness constructed as imports plus exports as percentage of CGDP.

GDPD Inflation represented by GDP deflator obtained by dividing GDP at current prices by GDP at constant prices with 1990 as the base.

- *EXT* Expenditures of central governments on the transport and communications, given as percentage of *GDP*.
- *STLIV* Standard of living variable defined as public consumption plus government consumption minus military expenditures as percentage of *GDP*.

URB Extent of urbanization measured by urban population as percentage of total population.

SCH Secondary school enrolment ratio given as the gross enrolment of all ages at secondary level in vocational and secondary school age group. It is a proxy measure used for skilled labour force.

LF Labour force is the economically active population excluding the unpaid workers and is measured in thousands.

- *TR* Total tax revenue of the central government as percentage of *GDP* including all non-repayable government receipts other than grants such as income, profits and capital gains.
 - *ID* Import duties imposed by different governments as percentage of *GDP*.
 - W Monthly wages measured as average of all workers in manufacturing sector.²

The model is estimated by using panel data approach separately for three groups of countries: lower-income, middle-income group and upper middleincome group. Since the FDI is a long-term phenomenon, its long-term fluctuations caused by structural and political characteristics of different countries being analyzed can be effectively captured by this approach because it allows uniform shifts across cross-sectional units while assuming the slope coefficients as common. Further, the panel data approach has the advantage of providing a large number of degrees of freedom leading to efficiency gains of parameters. The above model can be applied in three forms, namely common intercept model, fixed effects model and random effects model. However, relevance of these models depends on their power

²The definitions of all variables are taken from the original data sources.

of explanation and accuracy of specification. Since the common intercept model does not include country specific and time specific factors, it does not provide much information about the effects of differences in structural factors of different countries. Hence, we have estimated this model only for the purpose of comparing results. Similarly, the application of the Hausman Specification Test verify the existence of no correlation between cross-sectional characteristics and explanatory variables, rendering the Random Effects Model as the valid model for this analysis.³ Thus, we applied the Random Effects Model. It views the observations included as randomly sampled from a larger population such that inferences can be applied to the entire population. In this model, the random variations are decomposed into a common and cross-sectional components. The specific form of the random effects model is as follows:

$$Y_{it} = \alpha + \delta t + \beta_1 X_{1t} + \ldots + \beta_k X_{1t} + \mu_i + \varepsilon_{it}$$

Where, Y_{1t} stands for FDI as the dependent variables and X's for the independent variables whereas α accounts for common intercept, δt for time specific effects and μ_i shows the general effects that are randomly distributed across sectional units. Similarly, t refers to the time period and ε_{it} is error term. The country and time specific terms, *i.e.* α_1 and δt , have been specified using relevant dummy variables.

III. DATA DESCRIPTION AND CONSTRUCTION OF VARIABLES

The required time-series data for the sample countries extend from 1970 to 1997. As mentioned before, 5 countries from each income group, *i.e.* lower income, lower middle and upper middle-income countries are selected to examine the difference in concentration of FDI in them.⁴ How sample countries were chosen and divided into these income categories is explained below.

³The hypothesis tested is: $H_0: E(X\mu^2) = 0$ $H_1: E(X\mu^2) \neq 0$

⁴Three income levels are selected on the basis of the definition of the countries given in World Development Report (1998). These are the countries that have remained in the group of developing countries throughout the selected time period.

The countries with per capita *GNP* greater than US \$ 2,895 but less than US \$ 8,956 in 1998 were classified as the upper middle-income countries. The countries of Argentina, Brazil, Korea, Malaysia and Mexico are included in this group.

The lower-middle income countries are those with a *GNP* per capita of more than US \$ 725 but less than US \$ 2,895 in the same period of time. The countries chosen for analysis are Columbia, Indonesia, Papua New Guinea, Peru and Thailand.

The low-income category comprises of those countries that had a *GNP* per capita of US \$ 725 or less in 1998. The sample countries included Pakistan, Sri Lanka, Kenya, Zambia and India. The countries of India, Thailand and Mexico are taken as the base countries for the lower, lower-middle and upper-middle income countries chosen for the analysis.

SOURCES OF DATA

All the variables included are measured in millions US dollars in current international prices. The main sources of data used are PENWORLD Table (PWT 5.6), International Financial Statistics Yearbook (2000), World Tables (1995), Government Finance Statistics Yearbook (1998), World Debt Tables (1999), Yearbook of Labour Statistics (2000) and United Nations Statistical Yearbook (1995). The relevant data on such economic variables as real gross domestic product (*CGDP*), real gross domestic investment (*DI*) and trade openness are taken from PENWORLD Tables (Summers and Heston, 1991).⁵ These data are expressed in real terms at current international prices and were available up to 1992. These series were extended up to 1997 by using the same procedure as given in PWT 5.6.

The data on FDI, *CA* and *GDP* deflator are obtained from International Financial Statistics Yearbook for 2000 (International Monetary Fund, 2000). The data on external debt (*EXD*) is obtained from the World Debt Tables (World Bank, 1999).

The required data on three social variables, urbanization (URB), secondary school enrolment (SCH) and labour force (LB) were obtained from the World Tables (World Bank, 1995). The data missing from the World

⁵The data of PWT 5.6 is derived from International Comparison Programme (ICP) Benchmark studies by Heston and Summers (1991).

65

Tables from 1995 to 1997 were obtained from the World Development Report, 1999.

The data on three incentive variables, namely tax revenue (TR), import duties (ID) and expenditure on transport and communication (EXT) were obtained from the Government Finance Statistics Yearbook for 1998 (International Monetary Fund, 1998), whereas those on wages (W) are obtained from Yearbook of Labour Statistics for 2000 (International Labour Organization, 2000). Some missing information on wages was supplemented from the United Nations Statistical Yearbook for 1995 (United Nations, 1995).

IV. EMPIRICAL RESULTS AND INTERPRETATION

Regression analysis was performed using the chosen variables with and without lag of one year as FDI is assumed to be attracted with a certain time lag. As the regression function using lagged variables gave relatively more robust results, we have confined our attention to the description of the results yielded by this function.

The initial results of Random Effects Model showed *EXT*, *TR* and *ID* as statistically insignificant and they were excluded from the finally estimated function. Like some variables, the countries of Colombia and Indonesia from lower middle income and Brazil from the upper middle income also appeared as statistically insignificant. They were also omitted from the model estimated finally for this analysis. Further still, we also tested for the existence of autocorrelation and removed, where found by applying the first-order auto regressive transformation before the final estimation. Table 1 gives the results based on random effects model for all the three income groups.

The variables, which turned out as the significant determinants of FDI in lower-income countries, are URB, CGDP, STLIV, GDPD, CA and W. The extent of urbanization is associated with the expected positive sign and is statistically significant in determining the flow of FDI. The reason is that in urban areas the products used as inputs are easily available to the investors. Similarly, infrastructure facilities and markets are concentrated in urban areas, which further facilitated the FDI projects. It means that the extent of urbanization explains, *inter alia*, the difference in volume and distribution of FDI in developing countries.

The other variable found significant and associated with the expected positive sign is *CGDP*. A larger market seems to points to the efficient utilization of resources thereby to the greater absorptive capacity, increased demand for goods and services and economies of scale. As such, lower-

TABLE 1

Estimates of Random Effects Model

Variables	Random Effects Model (with one year lag)			
	Lower income countries	Lower middle income countries	Upper middle income countries	
CGDP	0.950	-0.153	-0.740	
	(2.272)**	(-1.047)	(-1.645)***	
(United NationId	-0.011	0.658	0.285	
	(-0.171)	(2.916)*	(2.268)**	
CA	-5.675	53.705	26.760	
	(-2.641)*	(1.830)***	(0.554)	
EXD	1.103	30.005	-12.010	
	(1.424)	(2.027)**	(-2.298)**	
OPEN .	-0.410	0.243	0.149	
	(-0.870)	(1.690)***	(3.435)*	
GDPD	0.024	-0.100	0.100	
	(2.013)**	(0.689)	(0.057)	
STLIV	0.070	-0.185	0.176	
	(2.270)**	(-2.047)***	(0.032)	
URB	0.368	2.133	-15.64	
	(2.235)**	(2.924)*	(-3.614)*	
SCH	-0.433	0.089	-0.340	
	(-0.055)	(0.503)	(1.841)***	
LF	-0.214	-0.787	-0.923	
	(-0.903)	(-2.438)**	(-2.890)*	
W	0.0560	0.430	-0.2514	
	(1.758)***	(2.201)**	(-0.279)	
Zambia	-6.606 (-2.450)**	a in determining T	stically signification	
Papua New Guinea	markets are conc	-19.726 (-2.430)**	larly intrastruct	
Peru		-122.81 (-3.589)*	ning explaint	
Argentina	nt and associated	le found significa	27.475 (2.590)*	
Korea	ne den all den astern	a shi of vieto ine a	-29.511 (-2.960)*	

Malaysia	ink and 1688214 and 1997	or reasons for its	-66.161 (-5.490)*
Year 70	107 514 535 vie hi	evel of wages to	-81.137 (-7.007)*
Year 71	200 <mark>-</mark> 042	ided, b-lower i	-82.081 (-7.029)*
Year 72		and a stors.	-82.521 (-6.111)*
Year 73	1-1-1	16 <u>4</u> (56) ***(660)=)	-82.521 (-7.326)*
Year 74		1997 - 1992 - 1993 (1989 - 1997)	-80.567 (-7.395)*
Year 75	b ai d=1± 500 (−2.074)**		-81.358 (-7.550)*
Year 76	803.200 - 01 1700.400	10000000000000000000000000000000000000	-81.558 (-7.703)*
Year 77		100 <u>-</u> 00-1015 *(703.0-1)*	-82.70 (-7.859)*
Year 78	40000 9-278 - 12 - 12	100 (2012) 100 (2012)	-82.315 (-7.965)*
Year 79		lingua smac o	-82.231 (-7.193)*
Year 80	1997 - 1997 - 1997 - 1997 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	elizabili parente	-80.943 (-7.370)*
Year 81	(1) 200 ber⊆,6 % abs 98 Datasta, 200 Datast	o stu oo <u>≃</u> oM bae ool isti-sthbirthoo	-79.606 (-7.495)*
Year 82	the providencie and	_ 2027,24 ### 1600, 5# (#)/	-78.084 (-7.569)*
Year 83	> List show domest	A tawa _ Taweshi in	-77.299 (-7.682)*
Year 84	itraeuwe_mant.a) oe lower legiel of <i>G1</i> ?	aave be <u>e</u> nc jess u nimps dee <mark>to thein</mark>	-80.131 (-7.980)*
Year 85	ាយ នារាច មាចរាជា ខេត្តប្រទេស និងខ្លាប់ខេត្ត ខេត្តប្រទេស និងខ្លាប់ខេត្ត	aig to chibrando chidis a no can	-77.690 (-7.003)*
Year 86	s (A posnivel curr	lor foreign inte	-77.425 (-7.151)*
Year 87	-	-15.015 (-1.698)***	-80.047 (-7.488)*

Year 88	-	-16.595 (-1.933)**	-76.909 (-7.424)*
Year 89		-16.535 (-2.040)**	-76.985 (-7.634)*
Year 90	a to increme FDI	-17.648	-74.986
	anly seed grouter f	(-2.237)**	(-7.809)*
Year 91	nt hef. Lo <u>-Mis end.</u>	-18.457	-63.526
	A requirements of fe	(-2.375)**	(-7.606)*
Year 92	-2.514	-12.244	-46.791
	(-1.688)***	(-1.684)***	(-6.254)*
Year 93	-1.625	-19.399	-50.996
	(-1.189)	(-3.013)*	(-4.178)*
Year 94	-2.148	-11.500	-37.502
	(-1.811)**	(-2.074)**	(-3.494)*
Year 95	-2.694	-7.378	-38.723
	(-2.635)*	(-1.420)	(-5.149)*
Year 96	-2.001	. –2.159	24.051
	(-2.597)*	(–0.417)	(-3.553)*
R^2	0.692	0.774	0.903
F statistics	4.701	8.524	14.21
χ ²	0.2674 E-27	0.11180 E-25	0.655 E-25
	p-value (1.000)	p-value (1.000)	p-value (1.000)

1. The *t* values are given in parentheses.

- India, Thailand and Mexico are taken as a base country for lower, lower middle and upper middle-income countries, respectively, whereas 1997 is taken as a base year.
- The values with *, ** and *** are significant at 1%, 5% and 10%, respectively.

income countries have been less attractive than upper middle-income countries for FDI perhaps due to their lower level of *GDP*. Similarly, *STLIV* has also turned out to be a significant and theoretically valid variable. Foreign investors in pursuance of higher profits appear to be attracted more towards countries with higher incomes leading to higher standard of living and greater demand for foreign goods. A positive current account balance has also shown a significant impact on FDI. The deficit has generally acted

as deterrent to foreign direct investment for reasons for its creating internal imbalances in lower income countries.

Wages have positively affected FDI. Level of wages tends to depend on production technique applied by foreign investors. Workers getting low wages might not be highly trained and skilled. In lower income countries, which are mostly labour-abundant, low wages may not always, as hold by Hitam (1994), be a key consideration for foreign investors.

"Changes in the industry structure and production technologies are always taking place and developing countries must be cognizant of the implication of these changes. Among these changes in the declining importance of labour content in the production process in many industries has increased."

The coefficient of *GDPD*, which is an indicator of inflation, is expected *a priori* to be associated with positive sign. Ordinarily, high rates of inflation in a country connote high prices in it. If these high prices are of consumer goods, profits of producers of those goods are expected to be high. Thus, rising prices serve as a strong attraction of foreign investors.

The country dummies are used to account for the effect of country specific characteristics on FDI. Although even low-income countries vary greatly in their characteristics from country to country, only in Zambia structural differences have been to be significant in determining FDI despite the fact that Pakistan, Sri Lanka and Kenya also portray nearly similar structural differences. Like country dummies, year dummies have also been included to account for the trend of FDI over time. After 1991, the FDI has tended to increase during the 1990s and the values of its coefficient have accordingly been found as statistically significant after 1991.

The variables, which turned out to be affecting FDI significantly in the lower middle-income group, are URB, CI, OPEN, CA, STLIV, EXD, LF and W. However, the variables of STLIV and LF have shown ambiguous results. The regression coefficients show domestic investment as the other variable important in attracting FDI. The reason for its positive effect on FDI seems to stem from the fact that foreign investors are expected to be in need of certain products as inputs, which they can get easily from domestic producers. As such those lower middle-income countries, which produce goods expected to meet the input requirements of foreign investors, have served as favourable sites for FDI. The variable of OPEN like domestic investment has been found as positively related to FDI in the countries

considered for analysis. Since OPEN gives rise to opportunities of importing goods needed, foreign investors get encouraged for investment.

Level of both wages and external debt has been found as affecting FDI significantly in lower middle-income countries. Specifically 1% increase in *EXD* was found to increase FDI by 2.027%. In general, highly indebted countries do not only need greater flow of FDI but are also attracting it more than other countries. To this end, these countries need to adopt policies responsive to the requirements of foreign investors.

The year dummies for years from 1998 onward were associated with significant values, indicating over time positive effect on FDI flows. By comparison, the country dummies yielded insignificant coefficient for Indonesia whereas significant ones for Papua New Guinea, Colombia and Peru. Thus, Papua New Guinea, Colombia and Peru have significant structural differences with respect to Thailand as the base country. Although Indonesia is not much differentiated from Thailand, yet its dummy is attached with an insignificant coefficient.

As to the results for the upper middle-income countries, the variables of *OPEN*, *EXD* and *CI* were found as significant determinants of FDI and were associated with the theoretically expected signs, showing the role of investments and openness in the flows of FDI in these countries. Unlike the lower middle-income countries where internal debt had a positive effect on FDI, it has adversely affected FDI in the middle-income countries.

As expected, domestic investment has shown a positive and a statistically significant effect on FDI in countries included in the category, as foreign investors have greater incentive in investing in open economy as compared to countries with restricted trade policies. Since FDI in developing countries is mainly export-oriented, investment promotion schemes such as export processing zones established in many developing countries, especially in Asia and Latin America have attracted considerable attention of MNCs for investment.

Why external debt has caused a negative impact on FDI in the upper middle-income countries is because it creates external imbalances in them and, therefore, foreign investors are attracted more towards countries with stable internal and external economic conditions.

A glance over Table 2 will reveal that FDI in Argentina, Korea and Malaysia has been affected significantly by structural differences but not in Brazil. It means that Brazil does not have structural differences as compared with Mexico whereas the other three countries have.

TABLE 2

Estimates of Common Intercept Model

Variables	Common Int	Common Intercept Model (with one year lag)		
	Lower income countries	Lower middle income countries	Upper middle income countries	
URB	0.326 (0.126)	0.142 (1.205)	0.983 (4.929)*	
SCH	0.018 (0.866)	-0.178 (-1.434)	-0.366 (-1.968)**	
LF	0.204 (0.833)	-0.102 (-1.290)	-0.280 (-1.555)	
CGDP	0.144 (0.258)	0.210 (0.237)	0.227	
DI	-0.031 (0.688)	0.458 (2.246)**	(0.227) -0.182 (0.555)	
OPEN	0.755 (-1.864)***	0.219 (2.793)*	0.468 (8.218)*	
STLIV	0.068 (4.136)*	0.012 (0.200)	0.190 (3.753)*	
GDPD	0.025 (2.948)*	-15.15 (-1.057)	-0.283 (-1.329)	
EXT	-72.695 (-2.414)**	-687.24 (-3.082)*	<u>(-1.329)</u> 1.161 (0.844)	
СА	-0.884 (-0.380)	34.563 (1.209)	8.932 (-1.768)***	
EXD	0.687 (1.456)	19.208 (1.823)***	7.412 (0.539)	
TR	12.733 (2.139)**	154.12 (4.284)*	-0.797 (-0.065)	
ID	-17.233 (-1.719)***	-580.29 (-2.264)**	-1.739 (-1.156)	
W	0.014 (0.924)	-0.711 (-0.389)	-0.810 (0.758)	
Constant	-15.886 (4.115)*	-46.159 (-2.722)*	-65.300 (-6.068)*	
R ²	0.562	1.509	0.869	
F Test	11.459	13.283	20.030	
DW Test	1.623	1.502	1.787	

1. The t values are given in parentheses.

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2. The values with *, ** and *** are significant at 1%, 5% and 10% respectively.

The year dummies in Table 2 carry significant values indicating that FDI has tended to increase over time in the upper middle-income countries under consideration. All the values for the year prior to 1997 as the base year, means that FDI in these countries was less in those years. For example, FDI flows for Argentina during the year 1997 was US \$88.673 millions compared to 62.834 in 1996 and even less in the previous years. Similarly, Brazil received FDI of US \$61.41 millions in 1997, whereas it amounted to 30.43 in 1996. Similar is the case for all the other countries of this group.

V. COMPARING THE ESTIMATES OF INCOME GROUPS

A comparison of results shows that the lower income countries in general received comparatively less FDI than the higher income groups because of their low levels of *GDP* and domestic investment and internal imbalances. In contrast, the upper middle income countries received higher amounts of FDI due to their better economic conditions and also because the intensity of their external debt and current account deficit are not as severe as in the lower income countries.

The year dummies for the lower income countries have not shown significant results during the 1970s and 1980s, although the flows increased after that. Although the flows for upper middle income were low in years from 1970 to 1996 but still the concentration was far higher there than in lower income countries. During 1997, the upper middle-income countries have received huge amounts of FDI. For example, like Brazil received almost double the amounts of FDI during the year.

The country dummies for the lower income group show that Pakistan, Sri Lanka and Kenya do not have structural differences as compared to India, whereas Zambia has such structural changes. Due to these structural differences, Zambia has received comparatively higher FDI than other countries. The annual average FDI inflows for Zambia over the year 1990 to 1997 is US \$ 246.36 millions compared to 161.53, 43.04 and 34 for Pakistan, Sri Lanka and Kenya, respectively. Thus, we can see that even within the same groups, countries have received different volumes of FDI mainly because of differences in structural and institutional factors. Similarly, the countries belonging to the other two groups considered for analysis have different volumes of FDI, again due principally to their structural differences.

Finally, it may be argued that FDI is affected more by structural differences of the countries than their other factors. The flow has also been

affected over time. Although FDI has increased in all the three groups over time, the flow was higher in upper middle-income countries than in the other two groups included in the analysis.

VI. SUMMARY AND CONCLUSION

The main objective of this paper was to find the volume and determinants of FDI in developing countries. The analysis showed domestic investment, labour force, external debt and trade openness as the significant determinants of the flow of FDI among the upper and lower middle-income countries and urbanization, market size, standard of living, inflation, current account balance and wages for the lower income countries. In fact, the upper middle-income group of the sample countries has received higher flow of FDI than other groups by virtue of its comparatively better internal and external balances, high level of *CGDP*, *DI*, trade openness and large market size. In contrast, the countries belonging to the lower income group received the lower FDI inflows than other groups during the selected period mainly because of large deficit in current account, lower wages, low level of GDP and standard of living.

The message of the analysis is that the countries interested in attracting increasing flow of FDI on a sustained basis must adopt suitable policies. The government in these countries should provide incentives and undertake efforts for greater trade openness, higher domestic investment and low debt. Further, effective steps should also be taken to reduce the internal as well as external imbalances. Last but not the least, there seems to be no substitute for improved political environment to attract FDI.

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